# 2013 REFERENCE DOCUMENT

INCLUDING ANNUAL FINANCIAL REPORT



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# 2013 REFERENCE DOCUMENT

INCLUDING ANNUAL FINANCIAL REPORT





This document is a free translation of the French language reference document that was filed with the *Autorité des marchés financiers* (the "AMF") on 27 March 2014. It has not been approved by the AMF. This translation has been prepared solely for the information and convenience of English-speaking readers. No assurances are given as to the accuracy or completeness of this translation, and ARKEMA assumes no responsibility with respect to this translation or any misstatement or omission that may be contained therein. In the event of any ambiguity or discrepancy between this translation and the French reference document, the French reference document shall prevail.

In accordance with the General Regulation of the Autorité des marchés financiers, notably article 212–13, the French language version of this document was filed with the Autorité des marchés financiers on 27 March 2014 with number D.14-0221. This document may only be used in connection with a financial operation if it is completed by a prospectus which has received the visa of the Autorité des marchés financiers. This document has been prepared by the issuer under the responsibility of its signatories.

Pursuant to article 28 of European Commission (EC) rule n°809/2004, this reference document incorporates by reference the following information:

- the consolidated financial statements for the year ended 31 December 2012 included in chapter 4 of the reference document granted visa n° D.13-0229 by the *Autorité des marchés financiers* on 27 March 2013, as well as the statutory auditors' reports related thereto;
- the consolidated financial statements for the year ended 31 December 2011 included in chapter 20 of the reference document granted visa n° D.12-0280 by the *Autorité des marchés financiers* on 4 April 2012, as well as the statutory auditors' reports related thereto; and
- a comparative analysis of the 2012 consolidated financial statements and the 2011 consolidated financial statements included in chapter 4 of the reference document granted visa n° D.13-0229 by the *Autorité des marchés financiers* on 27 March 2013.

Parts not included in these documents are either not relevant for investors, or covered elsewhere in this reference document.



# POWERING PERFORMANCE

 Arkema innovates to support its customers, accelerate their performance and address key global challenges such as growing urbanisation, energy savings or development of lightweight and renewable materials. 99

> Thierry Le Hénaff Chairman and CEO

€**6.1 bn** Sales

> **13,908** Employees

€902 m EBITDA

**90** Production sites

ARKEMA

M50

**14.8%** EBITDA margin

Presence in **40** countries Capital expenditure

€481 m

ARKEMA II



# **KEY** FIGURES

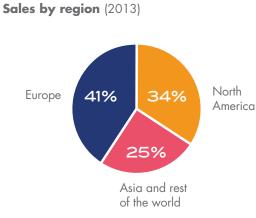
In millions of euros except otherwise mentioned	2013	2012	2011
Sales	6,098	6,395	5,900
EBITDA	902	996	1,034
EBITDA margin <i>(in %)</i>	14.8	15.6	17.5
Depreciation and amortisation	(314)	(318)	(272)
Recurring operating income	588	678	762
Operating income	383	651	717
Net income – Group share	168	220	(19)
Net income per share (1) <i>(euros)</i>	2.68	6.75	9.22
Adjusted net income per share (1) (euros)	5.87	7.09	9.31
Dividend per share (e <i>uros</i> )	1.85	1.80	1.30
Shareholders' equity	2,349	2,311	2,217
Net debt	923	900	603
Gearing (in %)	39	39	27
Capital employed	4,070	4,039	3,653
Working capital on sales <sup>(2)</sup> (in %)	14.9	15.2	15.0
Net provisions <sup>(3)</sup>	698	774	686
Cash flow from operating activities	467	499	543
Cash flow from investing activities	(389)	(754)	(942)
Cash flow from financing activities	(60)	355	131
Capital expenditure	481	438	365
Employees (as at 31 December)	13,908	13,925	15,776

The figures have been restated in line with standard IFRS 5. For 2011 and 2012, income statement items and balance sheet items exclude the vinyl activities divested in July 2012.

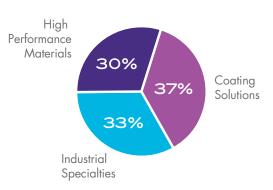
(1) In 2011 and 2012, net income of continuing operations.

(2) In 2011, working capital / pro forma sales.

(3) Provisions net of non-current assets as defined in section 4.1.6 of this reference document.



# Sales by segment (2013)



# 2013 HIGHLIGHTS

# APRIL

# Strategic raw materials

Acquisition of a 24.9 % stake in Ihsedu Agrochem (India), specialising in the production of castor oil, a raw material used in the production of bio-sourced specialty polyamides 10 and 11

# Innovation

Acquisition of a majority stake in AEC Polymers, French manufacturer of high performance structural adhesives

# JUNE

# Investment

Start-up of the acrylic acid capacity expansion at Clear Lake site (United States)

# Investment

15% increase of the worldwide production capacities of bis-peroxide to respond to the strong demand in the synthetic rubber crosslinking industry, in particular in Asia





#### \* Global Warming Potential

## SEPTEMBER

# Investment

Announcement of a project to build 1234yf production capacities, a new low-GWP\* refrigerant gas

# **Geographical expansion**

Partnership for the construction of the very first organic peroxide plant in the Middle-East at Al Jubail (Saudi Arabia)

# OCTOBER

# Innovation

Inauguration of the first R&D centre in Changshu (China)

# NOVEMBER

# **Geographical expansion**

Start-up of a new coating resins facility in Changshu (China)

# DECEMBER

# **Divestment**

Project to divest the coating resins business in South Africa





# 66 Become a world leader in specialty chemicals and advanced materials. 99

# INNOVATION

Leverage a unique R&D and applicative know-how focused on megatrends





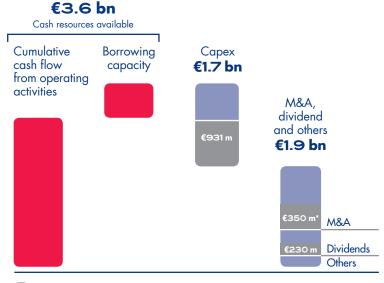
Towards completely balanced presence

2016 AND 2020 TARGETS

# 2016 Targets Sales EBITDA margin 16% Gearing < 40%</td>

	2020 Targets
Sales	€10 bn
EBITDA margin	Close to 17%
Gearing	< 40%

# CASH ALLOCATION FOR THE PERIOD FROM 2013 TO 2016



Cumulative cash out over 2013 and 2014 (e). \* JV in Acrylics with Jurong Chemical.

# BUSINESS SEGMENTS



# HIGH PERFORMANCE MATERIALS

# High value and innovative solutions

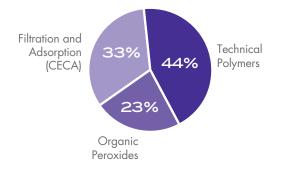
- Products with exceptional properties and performance
- Leadership positions in high-growth niche markets
- Strong innovation capacity
- Close proximity with customers

2016 TARGET EBITDA MARGIN (18%

# MAIN ONGOING PROJECTS

- x3 capacity expansion of bio-sourced polyamide 10 at Hipro (China)
- Construction of a new organic peroxide plant (Saudi Arabia) and production capacity to be doubled in China
- Innovation platforms focused on megatrends
- Next priority of acquisition plan

# Sales breakdown by BU (2013)



In €m	2013	2012
Sales	1,842	2,101
EBITDA	316	361
EBITDA margin	17.2 %	17.2%
Recurring operating income	212	252



# INDUSTRIAL SPECIALTIES

# Global and integrated industrial niches

- Leadership positions and world-scale industrial sites
- Unique know-how in complex industrial processes
- Global markets with strong growth outlook

2016 TARGET EBITDA MARGIN

# [ (17%

# MAIN ONGOING PROJECTS

- Construction of a thiochemicals platform at Kerteh (Malaysia)
- Project to build production capacities of low-GWP\* 1234yf fluorinated gas
- Developments in lightweight materials (Altuglas<sup>®</sup> ShieldUp, thermoplastic composites Elium<sup>®</sup>)

# COATING SOLUTIONS

# Solutions for decorative paints, industrial coatings and high-growth acrylic applications

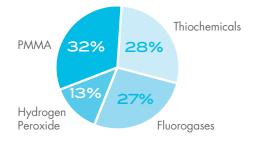
- Strong positions, world-scale sites and recognized technology in acrylics
- Comprehensive offer of solutions for paints and industrial coatings
- Strong integration downstream of acrylics



# MAIN ONGOING PROJECTS

- Finalisation of the US\$ 110 m investment plant in acrylics (United States)
- Joint venture with Jurong in acrylics (China)\*\*
- New coating resins unit (China)
- Development of low-VOC coatings
- Productivity improvements in Coating Resins

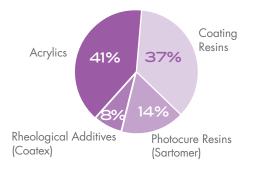
# Sales breakdown by BU (2013)



In €m	2013	2012
Sales	1,993	2,096
EBITDA	340	399
EBITDA margin	17.1%	19.0%
Recurring operating income	225	285

\* Global Warming Potential.

# Sales breakdown by BU (2013)



In €m	2013	2012
Sales	2,224	2,175
EBITDA	292	279
EBITDA margin	13.1%	12.8%
Recurring operating income	199	192

\*\* Project subject to authorisation by the relevant authorities in China and a number of administrative formalities.



# ESTIMATED SALES BY END-MARKETS (2013)



# OIL & GAS



- Rilsan<sup>®</sup> (PA11) and Kynar<sup>®</sup> (PVDF) for flexible pipes in deep offshore – Technical Polymers BU
- Norust<sup>®</sup> (anti-corrosion additives) and Prochinor<sup>®</sup> (demulsifiers) for oil and gas installations – Filtration and Adsorption BU
- Siliporite<sup>®</sup> (molecular sieves) for natural gas treatment, petrochemicals and refining – Filtration and Adsorption BU
- Carelflex<sup>®</sup> (DMDS) used in the desulfurisation units of refineries – Thiochemicals BU

# AUTOMOTIVE



- Hiprolon® (PA10) for fuel lines, Rilsan® (PA11) for air brake systems for trucks, Rilsamid® (PA12) for the coating of metal pipes, Rilsan® HT for the replacement of metal in high-temperature under-the-hood applications – Technical Polymers BU
- Forane<sup>®</sup> (fluorogas) for automotive air conditioning – Fluorogases BU
- Altuglas<sup>®</sup> for automotive rear lights and Altuglas<sup>®</sup> ShieldUp for panoramic roofs – PMMA BU
- Luperox<sup>®</sup> for hoses, belts and gaskets fabrication – Organic Peroxides BU

# PAINTS & COATINGS



- ENCOR<sup>®</sup> (acrylic emulsions) and Synaqua<sup>®</sup> (alkyd emulsions), waterborne formulations for wood and metal coatings – Coating Resins BU
- Norsocryl<sup>®</sup> for resins used in paints and coatings – Acrylics BU
- Celocor<sup>®</sup> (opaque acrylic polymers) used to partially replace titanium dioxide (TiO<sub>2</sub>) – Coating Resins BU
- Coapur<sup>™</sup> and Ecodis<sup>™</sup> used to adjust the viscosity and dispersion of acrylic paints – Rheological Additives BU (Coatex)
- Kynar Aquatec<sup>®</sup> (PVDF) used to reduce the use of air conditioning of buildings thanks to its reflective properties – Technical Polymers BU

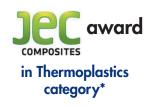
# INNOVATION



10 R&D centres

1,200 researchers 2013 THOMSON REUTERS **TOP 100 GLOBAL INNOVATORS** for the 3<sup>rd</sup> consecutive year

Arkema in





# Pebax® MV 1074 SA 01 MED

New hydrophilic polymer of the Pebax® range used in surgical tubing



# Luperox<sup>®</sup> FreeO

Crosslinking agent used to eliminate the persistent foul odours in sports shoe soles



# **Rilsan® HT**

Polymer used to replace metal and rubber in high-temperature under-the-hood applications





# SUSTAINABLE GROWTH

COMMITMENTS

 Be a top quartile performer in safety in the chemical

Reduce significantly the environmental footprint of the

Innovate for sustainable

Encourage dialogue with

Promote the development

of Group's employees

Group's activities

development

stakeholders

industry

# AMBITION 2020

To achieve its commitments to sustainable development, ARKEMA sets ambitious 2020 targets in safety and environment. The environmental targets refer to intensive indicators defined in chapter 2 of this reference document.

	2013	2012	2020 TARGETS
Safety			
Total recordable injury rate (TRIR)	2.8	3.4	2.0
% of sites implementing peer observation	62	47	100
% of AIMS* audited sites	58	42	100**
Environment		_	Versus 2012
Emissions of greenhouse gases (kt eq CO <sub>2</sub> )	4,710	5,120	- 30%
Emissions of Volatile Organic Compounds*** (t)	4,460	4,420	- 20%
Chemical Oxygen Demand**** (t of O <sub>2</sub> )	3,800	3,430	<b>- 20</b> %
Net purchases of energy (TWh)	8.5	8.5	- 1.5% per year on average

 Arkema Integrated Management System which encompasses ISO 9001, ISO 14001 and OHSAS 18001 requirements.

\*\* In the last three years.

- \*\*\* 2012 data revised as indicated in section 2.2.1.2 of this reference document.
- \*\*\*\* The chemical oxygen demand (COD) is a parameter for measuring water pollution by organic compounds, whose decomposition consumes oxygen.



# Occupational accident frequency rate (per million man-hours) 5.3 5.3 2.8 Total recordable injury rate (TRIR) 1.6 Lost-time injury rate (LTIR) 2005 2013

# 10

# **CORPORATE GOVERNANCE**

# **BOARD OF DIRECTORS**

Chaired by **Thierry Le Hénaff**, Chairman and Chief Executive Officer **2** women

1 director representing shareholder employees

**3** specialised committees, with a large majority of independent directors (currently 100%)

- Audit and Accounts Committee
   5 meetings in 2013 100% attendance rate
- Nominating, Compensation and Corporate Governance Committee
   3 meetings in 2013 100% attendance rate
- Strategy Committee
   1 meeting in 2013 100% attendance rate



From left to right: 1. Thierry Le Hénaff 2. Claire Pedini 3. Laurent Mignon 4. Bernard Kasriel 5. Victoire de Margerie 6. François Enaud 7. Thierry Morin 8. Marc Pandraud 9. Patrice Bréant 10. Jean-Pierre Seeuws 11. Philippe Vassor



# **EXECUTIVE COMMITTEE**

# Chaired by Thierry Le Hénaff, Chairman and CEO

4 EXECUTIVE VICE-PRESIDENTS WITH FUNCTIONAL RESPONSIBILITIES Luc Benoit-Cattin, Executive VP Industry Bernard Boyer, Executive VP Strategy Michel Delaborde, Executive VP HR and Communication Thierry Lemonnier, Chief Financial Officer 2 EXECUTIVE VICE-PRESIDENTS IN CHARGE OF GROUP'S ACTIVITIES

**Pierre Chanoine,** in charge of High Performance Materials segment and Fluorogases and Hydrogen Peroxide BUs

11

members

90%

independence rate\*

meetings in 2013

92% attendance rate

**Marc Schuller,** in charge of Coating Solutions segment and Thiochemicals and PMMA BUs

\* In accordance with the criteria of AFEP-MEDEF Code revised in June 2013.

# **GENERAL COMMENTS**

In this reference document:

- "Arkema" or "Company" means the company named Arkema, whose shares are listed on Euronext<sup>™</sup> Paris; and
- "Group" or "ARKEMA" means the group composed of the Company and all the subsidiaries and shareholdings it holds directly or indirectly.

This reference document contains forward-looking statements about the Group's targets and outlook, in particular in chapter 4.2. Such statements may in certain cases be identified by the use of the future or conditional tense, or by forward-looking words including but not limited to "believes", "targets", "expects", "intends", "should", "aims", "estimates", "considers", "wishes", "may", etc. These statements are based on data, assumptions and estimates that the Group considers to be reasonable. They may change or be amended due to uncertainties linked to the economic, financial, competitive, regulatory and climatic environment. In addition, the Group's business activities and its ability to meet its targets may be affected if certain of the risk factors described in chapter 1.7 of this reference document were to materialise. Furthermore, achievement of the targets implies the success of the strategy presented in section 1.1.2 of this reference document.

The Group does not undertake to meet and does not give any guarantee that it will meet the targets described in this reference document.

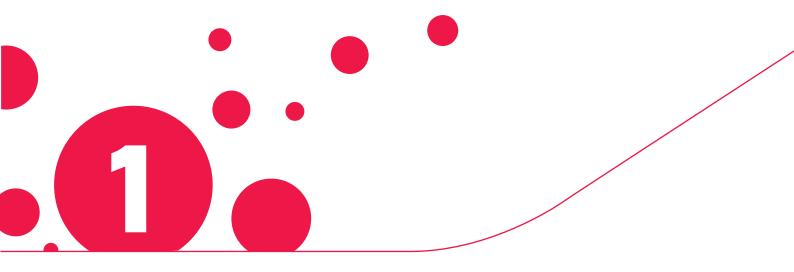
Forward-looking statements and targets described in this reference document may be affected by risks, either known or unknown, uncertainties and other factors that may lead to the Group's future results, performance and achievements differing significantly from the stated or implied targets. These factors may include changes in economic or trading conditions and regulations, as well as the factors set out in chapter 1.7 of this reference document. Investors are urged to pay careful attention to the risk factors described in chapter 1.7 of this reference document. One or more of these risks could have an adverse effect on the Group's activities, condition, financial results or targets. Furthermore, other risks not yet identified or considered as not material by the Group could have the same adverse effect.

This reference document also contains details of the markets in which the Group operates. This information is derived in particular from research produced by external organisations. Given the very rapid pace of change in the chemicals sector in France and the rest of the world, this information may prove to be erroneous or out of date. Accordingly, trends in the Group's business activities may differ from those set out in this reference document.

For the 2013 financial year, the Company has prepared annual financial statements and consolidated financial statements for the period from 1 January to 31 December. These annual financial statements and consolidated financial statements are given in chapter 4 of this reference document. For 2012, the accounts have been restated in line with IFRS 5 standard. As a consequence, figures mentioned in the 2012 income statement and balance sheet exclude the items relating to the vinyl businesses divested beginning of July 2012 (for further information, please see the 2012 reference document).

Chapter 4 of this reference document provides a comparative analysis between the 2013 consolidated financial statements and the 2012 consolidated financial statements.

A glossary defining the technical terms used in this reference document can be found on page 313 of this reference document.



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The different parts constituting the Annual Financial Report are identified in this content by the pictogram  $\ensuremath{\texttt{AFR}}$ 

A global player in specialty chemicals and advanced materials

# 1.1 A GLOBAL PLAYER IN SPECIALTY CHEMICALS AND ADVANCED MATERIALS

All the figures contained in this chapter are provided on a consolidated basis and in accordance with ARKEMA's organisation into 3 segments (High Performance Materials, Industrial Specialties, Coating Solutions). For 2011 and 2012, the accounts have been restated in line with standard IFRS 5 (see 2012 reference document). Hence income statement items for 2011 and 2012 and balance sheet items for 2012 exclude the vinyl activities divested early July 2012.

# 1.1.1 GENERAL PRESENTATION

#### 1.1.1.1 PRESENTATION OF THE GROUP'S INDUSTRY SECTOR

The Group is an important player in the global chemical industry.

The industry sector to which the Group belongs, commonly called the "industry for industries", manufactures a wide range of products for other major industries: construction, packaging, chemicals, automotive, electronics, food manufacturing, pharmaceuticals, etc.

The chemical industry is a processing industry that is based on the transformation in one or several stages of raw materials (oil derivatives, gas, minerals, natural products, etc.) into more or less complex chemical products, or into plastics obtained by polymerisation.

At the two extremes of this wide spectrum, there are, on the one hand, commodities (characterised by few transformation stages, large volumes, and cyclical prices and unit margins), such as olefins and polyolefins, ammonia, methanol and caustic soda, and, on the other hand, sophisticated products like pharmaceuticals and agrochemical derivatives. Between these two extremes are a large number of chemical intermediates, polymers, fine chemical products, and chemical specialties. These include products such as adhesives, paints, inks, varnishes, cosmetics and detergents, developed in response to the need for application products.

With estimated worldwide sales of some 3,127 billion euros in 2012, the chemical sector is a worldwide industry located in three main geographical regions, namely Europe (about 22% of world production in value), North America (about 17% of world production in value), and Asia Pacific (about 55% of world production in value) <sup>(1)</sup>. Trade in chemicals between these three main production regions is growing, though still limited at present.

The chemical industry is a very fragmented sector, both in terms of products (several tens of thousands), end-markets (most industrial sectors are consumers), and industry players (the worldwide market share of the top ten companies does not exceed 20%).

#### 1.1.2 GENERAL PRESENTATION OF THE GROUP

As a specialty chemicals player, the Group operates in the chemical industrial context with a business portfolio focused on three segments: High Performance Materials, Industrial Specialties, and Coating Solutions. With 6.1 billion euros sales in 2013, the Group is one of the world's leading players in chemicals.

The Group, which is present in 40 countries with 13,908 employees, conducts its businesses on a global scale with production sites in Europe, North America and Asia (90 production sites), as well as subsidiaries and sales offices in a large number of countries.

The Group ranks among the leading world producers in its main product lines, which account for some 90% of its sales and which are positioned in niche markets (small-size markets, limited number of major players, and complex technologies).

In 2013, the Group had ten research and development (R&D) centres, of which six are in France, two in the United States and one in Japan. A new R&D centre was brought into service in Changshu, China, in 2013. Over 1,200 researchers work for the Group. The Group's R&D expenses amounted to around 2.4% of its sales in 2013. The Group focuses on five main innovation areas centred on ultra high performance materials and sustainable development: solutions for energy, renewable raw materials, lightweight materials, water treatment, and solutions for electronics. In order to facilitate their implementation, the Group has set up a dedicated structure called "incubator", described in section 1.4 of this reference document.

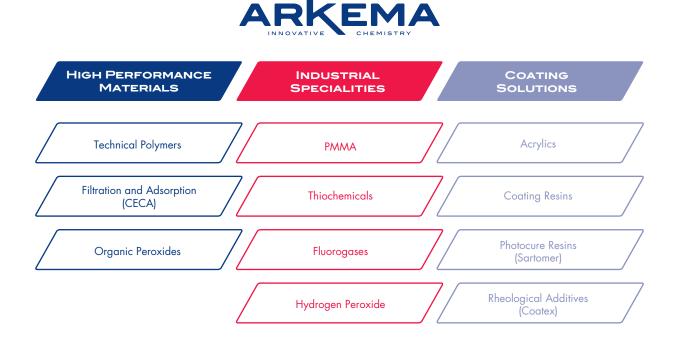
The Group has 11 profit centres or Business Units (BUs) grouped into three segments based on the coherence of the activities: the High Performance Materials segment includes activities focusing mainly on applications, the Industrial Specialties segment covers several integrated chemical activities based on major intermediates, while the Coating Solutions segment comprises coating-related activities (decorative paints, industrial coatings, adhesives, etc.) with upstream integration in acrylic monomers.

(1) Source: Cefic Facts and figures 2013, the rest of the world accounts for some 6% of world production.

A global player in specialty chemicals and advanced materials

The BUs are responsible for their results, cash flow (working capital, capital expenditure, etc.), production management, research, sales, marketing, and customer relationships. The BUs managing directors report to an Executive Vice-President in charge of operations and member of the Executive Committee (see paragraph 3.2.2.2. of this reference document).

The simplified organisation chart below, effective at 31 December 2013, shows the BUs making up each business segment.



The functional divisions provide continuous support to the Group's business segments, mainly in the fields of accounting, taxation, legal services, information systems, human resources and communication.

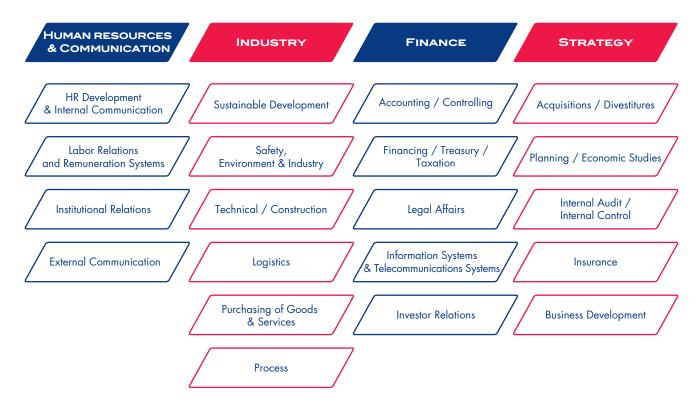
These functional divisions are generally responsible, under the authority of the Executive Committee particularly Executive Vice-Presidents in charge of support functions (see paragraph 3.2.2.2

of this reference document), for the coherence and control of the Group and, in particular, the coordination of purchasing and logistics, as well as the maintenance of expertise in important areas such as safety, environment, R&D and process engineering. Some of these functional divisions, notably Internal Audit/ Internal Control, External Communication, Investor Relations, Consolidation/Reporting and Legal functions, operate for the entire Group.



The simplified organisation chart below shows the Group's functional divisions at 31 December 2013.





Exceptions to the general organisational principles of the functional divisions is the Raw Material and Energy Purchasing division, which reports to one of the two Executive Vice-Presidents in charge of operations, and the R&D division, which reports to the Chairman and Chief Executive Officer.

## Sales by business segment

(In billions of euros)		2013		2012		2011
High Performance Materials	1.8	30%	2.1	33%	2.0	33%
Industrial Specialties	2.0	33%	2.1	33%	2.1	36%
Coating Solutions	2.2	37%	2.2	34%	1.8	31%
TOTAL	6.1	100%	6.4	100%	5.9	100%

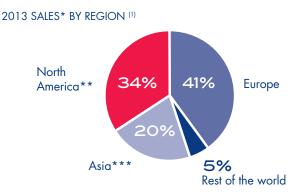
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# Summary of the Group's main products in 2013 and their application areas

Technical Polymers	<ul> <li>Technical Polymers, including two subdivisions:</li> <li>specialty polyamides used in the automotive industry, the aerospace and aeronautics industry, the oil industry, the electronics industry, consumer goods (sports, cosmetics) and in the manufacture of</li> </ul>
	<ul> <li>hotmelts;</li> <li>polyvinylidene fluoride (PVDF) used in chemical engineering, the manufacture of paints and anti-corrosive coatings, oil and gas extraction, photovoltaic panels, lithium-ion batteries, and membranes for water treatment.</li> </ul>
Filtration and Adsorption (CECA)	Separation of gases and liquids, adsorption/filtration, specialty surfactants, functional polyolefins used in adhesives, the electrical and electronics industries, packaging, automotive, photovoltaics, and oil and gas.
Organic Peroxides	Impact modifiers and process aids for PVC, polymerisation initiators for polyethylene, PVC, polystyrene, and crosslinking agents.
Industrial Specialties	
PMMA	Acrylic glass used in construction, the automotive industry, for advertising boards, decoration, the manufacture of sanitaryware, and LED TVs.
Thiochemicals	Chemical intermediates for animal feed, petrochemicals and refining, natural gas odorisers, polymerisation agents, agrochemicals and pharmaceuticals.
Fluorogases	Gases used in refrigeration, air-conditioning, foams, solvents, and as raw materials for fluorinated polymers.
Hydrogen Peroxide	Hydrogen peroxide (pulp and paper bleaching, water treatment, disinfection, electronics and textiles) and sodium chlorate.
Coating Solutions	
Acrylics	Resins, emulsions for adhesives, paints and coatings, superabsorbents, water treatment, and enhanced oil and gas recovery.
Rheological Additives (Coatex)	Specialty acrylic polymers used as rheology modifiers (dispersants, thickeners, etc.) in paper, paints and industrial coatings.
Coating Resins	Waterborne, solventborne and powder resins used for architectural and industrial coatings, as well a inks, sealants, varnishes and dyes for wood, road paints, adhesives, construction materials, etc.
Photocure Resins (Sartomer)	UV-cured acrylic resins used in metal, plastic and wood coatings, in optics, graphic arts, printing, and electronics.

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#### Information by geographical region





In Europe, sales in France account for 11% of total sales, and sales in Southern Europe (Spain, Greece, Italy, Portugal) account for 9% of the Group's total sales.

- Based on the geographical location of customers.
- \*\* United States, Canada, Mexico.
- \*\*\* Asia and Middle East.

The breakdown of Group employees by geographical region is given in section 2.5 of this reference document.

# 1.1.2 STRATEGY AND COMPETITIVE ADVANTAGES

#### 1.1.2.1 COMPETITIVE ADVANTAGES

The Group has solid competitive advantages, including:

- first-class commercial and manufacturing positions: the Group is one of the world's leading players in a large number of its businesses. This is particularly true of acrylics, coating resins, photocure resins, polymethyl methacrylate (PMMA), fluorogases, PVDF, hydrogen peroxide, thiochemicals, specialty polyamides (polyamides 10, 11 and 12), impact modifiers and PVC processing aids, additives for glass coatings, and organic peroxides;
- strong manufacturing positions in Europe, North America and Asia to better respond to demand from its customers. Its technical knowledge of products and manufacturing processes enables the Group to leverage its current production facilities, and gives it a key advantage in the conquest of new markets. In addition, this expertise enables it to complete complex investment projects with great efficiency concerning time, costs and technical achievement. The Group also has important R&D skills on which it can rely to launch new innovative products on the market, provide its customers with the technical support they need, or further improve the performance of its manufacturing processes;
- a very solid balance sheet: at 31 December 2013, the Group's net debt was 923 million euros (*i.e.* 1.0 time the EBITDA for the year), compared to the shareholders' equity of 2,349 million euros (representing a net debt to equity ratio of 39%);
- high quality teams who have proved their ability to manage complex industrial projects and address the challenges of the economic environment. Finally, the Group can count on personnel whose loyalty, professionalism and experience are widely recognised.

## 1.1.2.2 STRATEGY

With the sale of its vinyl activities at the beginning of July 2012, the Group entered a new phase in its development, aiming to become a world leader in specialty chemicals and advanced materials. For 2016, the Group aims to achieve sales of 8 billion euros and a 16% EBITDA margin while maintaining gearing below 40%.

In 2012, Group sales by region were split as follows: 40% in Europe, 34% in North America, 21% in Asia and 5% for the rest of the world. In 2011, Group sales by region were split as follows: 41% in Europe, 33% in North America, 22% in Asia and 4% for the rest of the world.

<sup>(2)</sup> In 2012, Group capital employed by region was split as follows: 55% in Europe, 26% in North America, 18% in Asia, and 1% in the rest of the world. In 2011, Group capital employed by region was split as follows: 57% in Europe, 31% in North America, 12% in Asia, and was not material for the rest of the world.

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To achieve its objectives, the Group implements a growth strategy focused on market segments and on countries that offer strong development potential.

Sales growth should in particular be supported by innovation, geographical expansion, and bolt-on acquisitions.

In particular the Group intends to speed up the development of its High Performance Materials through innovation in sustainable development (lightweight materials for transportation, new energies, water treatment) and boost its presence in higher-growth countries.

The Group also targets bolt-on acquisitions mostly in its High Performance Materials segment and in downstream acrylics, representing additional sales of around 1 billion euros. This acquisition policy is complemented by the divestment of small activities that are non-core for the Group, representing sales of some 400 million euros. At the date of this reference document, the Group had announced:

- the project for the acquisition of acrylic assets in China as detailed below, corresponding to estimated sales in a full year of around 600 million US dollars;
- the disposal, or proposed disposal, of activities representing total sales of 225 million euros (divestment of tin stabilizer business completed on 1<sup>st</sup> October 2012 representing annual sales of around 180 million euros, and a project for the divestment of the coating resins activities in South Africa representing sales of around 45 million euros).

High Performance Materials should account for 38% of the Group's sales by 2016, Coating Solutions 32%, and Industrial Specialties 30%.

The share of higher-growth countries (Asia and the rest of the world) should rise to 30% of the Group's sales by 2016 (against 25% currently), with North America and Europe each accounting for 35%. In 2005, just before the spin-off, sales by region were less evenly balanced: 57% in Europe, 25% in North America and 18% in Asia and rest of the world. On the long-term, the Group aims to have evenly balanced sales by region with one third of Group's sales achieved respectively in Europe, North America and Asia/rest of the world.

Meanwhile ARKEMA will also pursue its efforts to further boost its existing high level of operational excellence (see section 1.6 of this reference document).

The Group has confirmed its intention to maintain the pace of its development beyond 2016, in particular in High Performance Materials. Hence by 2020, the Group aims to achieve sales of 10 billion euros and an EBITDA margin close to 17% while maintaining its gearing below 40%.

In 2013 and early 2014, the Group announced the following operations:

 a project for the creation of Sunke, a joint venture in which ARKEMA will have a majority interest comprising the assets of Jurong Chemical's acrylic acid production site in Taixing opened in 2012. This acquisition, in the wake of ARKEMA's recent start-ups of its coating resins and Coatex production plants on the Changshu site, will enable the Group to accelerate the development of its Coating Solutions segment in China and in Asia and to assist its customers in particular in fastgrowing markets such as superabsorbents, paints, adhesives and water treatment. It also strengthens the Group's position in high growth countries, while providing the Group with a highly competitive acrylic monomer industrial footprint in Asia. The Taixing site currently has a 320,000 tonnes/year installed capacity, with two world-scale production lines. The competitiveness of this site will be further strengthened by the commissioning of a third line with a 160,000 tonnes/year capacity, due to start up in first guarter 2015. The Taixing facility will thus become one of the world's largest acrylic acid sites. At the closing of the deal which is expected in summer 2014, ARKEMA will have access to half of the site's installed production, namely 160,000 tonnes/year, for a 240 million US dollars investment. When the third line comes on stream, ARKEMA will have the option to access two thirds of the site's acrylic acid installed capacity, namely 320,000 tonnes/year, for an additional 235 million US dollars investment. In a full year, sales corresponding to both these lines are estimated at around 600 million US dollars. Finally, ARKEMA has a further option in the next five years to potentially acquire the remaining third of the acrylic acid production capacities, at a cost of 165 million US dollars. The deal is subject to authorisation by the relevant authorities in China as well as a number of administrative formalities;

- the start-up in June 2013, of acrylic acid capacity expansion on the Clear Lake site (United States). This project brings the site's capacity to some 270,000 tonnes/year, and represents a major portion of a 110 million US dollars investment plan. This significant investment program enables ARKEMA to consolidate its position in the North American market. On completion of the acquisition of acrylic monomer production capacities on the Taixing site, ARKEMA will have three balanced production platforms: in Europe (Carling, France), in the United States (Clear Lake and Bayport), and in China (Taixing);
- a project for the construction of production capacities for the new generation fluorinated refrigerant gas 1234yf, in China then in Europe. This low GWP (Global Warming Potential) refrigerant gas will help phase in the substitution of the current R134a gas and hence meet the requirements of future regulations in the global automotive air-conditioning industry. Production in the first plant is scheduled to start up in 2016;
- the construction of an organic peroxide plant in Saudi Arabia in partnership with Watan Industrial Investment, for an investment of some 30 million US dollars. With this world-scale plant, ARKEMA will be able to supply petrochemical companies in the Middle East and support their strong growth by offering locally security and flexibility of supply. The unit is due to start up early 2015;
- the construction of a new organic peroxide plant on its Changshu site in China, designed to double the site's production capacity. This investment will enable ARKEMA to continue to support its customers' strong growth in Asia, particularly in the plastics markets for the construction, packaging and automotive sectors. The new line is due to come on stream in early 2016;

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- the acquisition of a 24.9% stake by ARKEMA in Ihsedu Agrochem, a subsidiary of Jayant Agro, specialising in the production of castor oil. This joint venture aims to develop castor oil production and provide ARKEMA with long-term secure and competitive access to this raw material which is strategic for the manufacture of its bio-sourced polyamides;
- in terms of innovation, the Group has acquired a majority stake in AEC Polymers, a French manufacturer of structural adhesives, and on 17 October 2013 inaugurated its first

R&D centre in China. This centre offers geographical complementarities with the Group's nine other research and development centres, and helps speed up the development of products and customised solutions for ARKEMA's customers in the region in fast-growing markets (batteries, photovoltaic, electronics, packaging, automotive, cable, sports and paint).

These broad strategic guidelines are detailed below by business segment.

# BUSINESS OVERVIEW AND RISK FACTORS Overview of the Group's business segments

# 1.2 OVERVIEW OF THE GROUP'S BUSINESS SEGMENTS

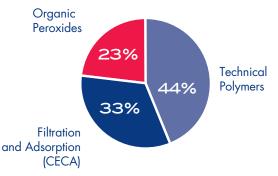
The Group is organised into three business segments: the High Performance Materials segment (comprising Technical Polymers (specialty polyamides and fluoropolymers), Filtration and Adsorption, and Organic Peroxides), the Industrial Specialties segment (comprising PMMA, Thiochemicals, Fluorogases, and Hydrogen Peroxide), and the Coating Solutions segment (comprising Acrylics, Coating Resins, Photocure Resins and Rheological Additives).

# 1.2.1 HIGH PERFORMANCE MATERIALS

# 1.2.1.1 KEY FIGURES

(In millions of euros)	2013	2012	2011
Sales	1,842	2,101	1,952
EBITDA	316	361	337
Recurring operating income	212	252	238
Capital expenditure	101	122	100

# 1.2.1.2 BREAKDOWN OF THE SEGMENT'S SALES BY BU (2013) (1)



## 1.2.1.3 GENERAL DESCRIPTION OF THE SEGMENT'S BUSINESS

The High Performance Materials segment comprises three BUs: Technical Polymers, Filtration and Adsorption (CECA), and Organic Peroxides.

These BUs have a common objective: to provide the various niche markets concerned with innovative and high added value technical solutions adapted to the needs of their customers.

The Group holds leading positions in most of the niche markets in which the BUs of the High Performance Materials segment are present. These include in particular polyamides 10 (acquired on 1<sup>st</sup> February 2012), 11 and 12, PVDF, molecular sieves, additives for PVC (acrylic impact modifiers and process aids), and organic peroxides. The Group has internationally recognised brands for the major part of its products.

With its industrial presence on three continents, the Group operates globally in these markets.

The BUs within the High Performance Materials segment feature some level of integration with the Group's other activities. Examples include the PVDF precursor manufactured by Fluorogases, hydrogen peroxide used as a raw material for organic peroxides, and certain acrylic derivatives used to manufacture PVC additives.

The key success factors for the High Performance Materials segment lie in the quality of the customer relationship, the ability to put forward innovative solutions driven by R&D, develop new high added value products, and capitalise on the potential offered by growing local markets, in particular Asian markets.

The Group maintains its objective to speed up the development of its High Performance Materials segment. The Group is targeting to increase the sales of its High Performance Materials segment between 2012 and 2016 by some 40%, High Performance Materials representing around 38% of the Group's sales in 2016. Growth will be supported by organic growth projects (development of organic peroxides in the Middle East and in China, threefold increase in Hipro capacity) and by bolt-on acquisitions. Development projects will draw on innovation focused on sustainable development solutions and ongoing expansion in fast-growing countries. Over the next few years, ultra high performance polymers (specialty polyamides, PVDF and PEKK) will represent a priority development.

<sup>(1)</sup> In 2012, the segment's sales split by BU was the following: 54% for the Technical Polymers BU, 19% for the Filtration and Adsorption BU (CECA), and 27% for the Organic Peroxides BU.

Overview of the Group's business segments

#### Technical Polymers BU (13% of Group sales in 2013)

The Technical Polymers BU includes two main product lines (specialty polyamides and PVDF) sold under well-known brand names such as Rilsan<sup>®</sup>, Rilsamid<sup>®</sup>, Orgasol<sup>®</sup>, Pebax<sup>®</sup> and Kynar<sup>®</sup>.

#### Products and markets for specialty polyamides

Specialty polyamides include polyamides 10, 11 and 12 in which the Group holds leading positions. It is the only producer of biosourced polyamides 10 and 11 derived from castor oil. Its main competitors for polyamide 12 are Evonik, EMS and Ube.

Specialty polyamides are used mainly in the transport, oil and gas, new energies, textile and electronics industries. In the automotive sector, growth is driven by the replacement of metal to help reduce the weight of vehicles. In the oil and gas market, growth is sustained by deep offshore extraction. Finally, polyamides 10 and 11 benefit from growing demand for biosourced polymers.

Other products include Orgasol<sup>®</sup> ultrafine powders used in cosmetics and paints, and Pebax<sup>®</sup> (polyether block amide) used in particular in sports equipment, and copolyamides (textile industry).

In the coming years, growth rate in specialty polyamides end markets could average 5% a year <sup>(1)</sup>.

#### Highlights for specialty polyamides

ARKEMA strengthened its position in specialty polyamides with the acquisition on 1<sup>st</sup> February 2012 of Chinese companies Suzhou Hipro Polymers Co. Ltd., a producer of biosourced specialty polyamides 10, and Hebei Casda Biomaterials Co. Ltd., the world leader in sebacic acid processed from castor oil and used in particular for the production of these polyamides 10. In anticipation of the development expected over the next few years, ARKEMA has launched a number of investment projects, including a threefold capacity increase at the Hipro Polymers biosourced polyamides production site, which should begin to ramp-up from 2014, and the construction of a sebacic ester plant at Casda Biomaterials started end 2013.

In order to ensure long-term secure and competitive access to castor oil, a strategic raw material for the production of its biosourced polyamides, ARKEMA has announced in 2013 that it took a 24.9% stake in Ihsedu Agrochem, a subsidiary of Jayant Agro specialising in castor oil production. In September 2013, ARKEMA was awarded the Pierre Potier prize for its Rilsan® HT. This new thermoplastic from the polyphthalamide (PPA) family can withstand high temperatures and aggressive fluids, while being flexible and extrudable. All three characteristics combined for the first time represent a ground-breaking innovation for carmakers, making Rilsan® HT suitable as a metal substitute in engine-compartment tubing applications. Additionally, this performance polymer contains up to 70% renewable raw materials, and so fulfils the requirements of manufacturers seeking sustainable environmental solutions.

#### Products and markets for fluorinated polymers

PVDF is used in architectural and anticorrosion coatings, the chemical industry, oil and gas, electric cables, photovoltaic panels, lithium-ion batteries, and membranes for water treatment.

Demand is driven in particular by growth in Asia in the architectural coatings sector, the development of deep offshore oil extraction and of new energies (photovoltaics, lithium-ion batteries), and a growing need for drinking water and solutions for water treatment.

The Group is the world leader in the PVDF polymer range <sup>[2]</sup> with Solvay as its main competitor. In the coming years, growth rate in end markets could average 7% a year <sup>[3]</sup>.

#### Highlights for fluorinated polymers

The Group has announced or carried out a number of targeted development projects that fit in perfectly with its strategy, which consists in bringing innovative products to market, expanding the product range, and carrying out targeted capacity increases. Hence, in March 2011 the Group started a new VF2/PVDF production plant at Changshu (China), and subsequently increased the plant's production capacity in order to help meet the fast growing demand for PVDF resins in emerging technologies, in particular for applications in new energies and water filtration.

#### Filtration and Adsorption BU (CECA) (10% of Group sales in 2013)

#### Products and markets

The activities of the Filtration and Adsorption BU, run as a subsidiary (CECA), cover three main areas: surfactants and interface agents, adsorption and filtration, and functional polyolefins, the latter having joined the BU on 1<sup>st</sup> January 2013.

The first area of business consists mainly of a number of specialty chemicals produced downstream from fatty acids. The wide variety of products are used as additives in very diversified areas such as oil and gas production, bitumens, fertilizers, corrosion inhibitors, anti-statics and emulsifiers.

(1) Source: ARKEMA internal estimates.

- (2) Source: IHS Chemical Economic Handbook Fluoropolymers, December 2012.
- (3) Source: ARKEMA internal estimates.

Overview of the Group's business segments

The second area of business encompasses a number of mineral products, including molecular sieves (for which CECA is the world's number two <sup>(1)</sup>) diatomite, activated carbon, and perlite. These products all share adsorption or filtration properties. They are mainly used in industrial gas separation, health (medical oxygen), agro-food, chemicals, construction, pharmaceuticals, and environmental protection.

The third area of business comprises functional polyolefins used primarily in adhesives, the electrical and electronics industries, packaging, automotive and photovoltaics.

CECA's strategy consists in developing higher value-added product lines by drawing on its R&D efforts and its in-depth knowledge of customer needs.

#### Highlights

In January 2012, CECA successfully integrated the specialty alkoxylates business acquired from Seppic at the end of 2011. This includes in particular the Antwerp industrial site (Belgium), which complements CECA's Feuchy and Châteauroux sites (France). This acquisition has enabled CECA to expand its specialty surfactant range and to sustain the growth of Sartomer for its monomers for photocure resins and of Coatex for its rheology additives. Since July 2013, CECA has increased capacity at its Antwerp site by almost 15% in order to support growth in the coatings, road construction, industrial detergence, and oil and gas markets.

## Organic Peroxides BU (7% of Group sales in 2013)

## Products and markets

The Organic Peroxides BU comprises several product lines (organic peroxides, PVC additives, and glass coating additives).

Organic peroxides are initiators used in a number of fields: commodity polymers (reaction initiators for low density polyethylene, PVC and polystyrene), acrylic polymers, unsaturated polyesters, and the crosslinking of rubber. The Group estimates to be number two in the world in this sector <sup>(1)</sup>. Its main competitors are AkzoNobel and United Initiators.

PVC additives include impact modifiers and process aids. These additives are produced from acrylic acid, hence positioned downstream from the acrylic business. In the coatings sector, the Group markets products for flat glass and glass bottle. The Group ranks among the world's leading players in its main applications. Additives are produced in Europe and North America.

### Highlights

ARKEMA finalised the divestment of its tin stabiliser business on 1<sup>st</sup> October 2012. Based on the specific chemistry of tin, these products are used mostly in the production of PVC used extensively in the construction market. This activity concerned 234 employees and 4 production sites around the world, with sales of around 180 million euros.

In a global market with annual growth of some 6%, ARKEMA, the bis-peroxide world leader, has increased production capacity by 15% at both its Spinetta (Italy) and its Franklin (United States) factories. Bis-peroxide is used in the crosslinking of rubber in various sectors such as electric wire and cable, automotive and footwear. This investment will help respond to strong demand for crosslinking agents in the synthetic rubber industry, in particular in Asia, and support the growth of newly-developed Luperox<sup>®</sup> FreeO. These new capacities are the first stage of a comprehensive program which intends to increase the Group's global bis-peroxide capacity by 30% by end 2014.

In September 2013, ARKEMA announced the construction of an organic peroxide plant in Saudi Arabia on the Al Jubail platform, for an investment of approximately 30 million US dollars, in partnership with Saudi company Watan Industrial Investment. Organic peroxides are widely used as polymerisation initiators in the commodity thermoplastics industry. This world-scale plant will be able to supply all petrochemical players in the Middle East and respond to their strong growth anticipated by 2020 by offering them a secure and flexible local supply service. The ARKEMA – Watan Industrial Investment joint venture will be majority held by ARKEMA, with the latter overseeing the operational and commercial management of the site. The plant's start-up is scheduled for early 2015.

Finally, in January 2014, ARKEMA announced the doubling of its production capacity on its Changshu site in China. This investment will enable ARKEMA to support the strong growth of its customers in Asia, in particular in the plastics markets for the construction, packaging and automotive industries. This new line is due to start up early 2016.

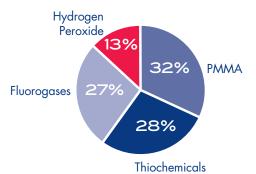
Overview of the Group's business segments

# **1.2.2 INDUSTRIAL SPECIALTIES**

## 1.2.2.1 KEY FIGURES

(In millions of euros)	2013	2012	2011
Sales	1,993	2,096	2,114
EBITDA	340	399	441
Recurring operating income	225	285	332
Capital expenditure	255	159	126





#### 1.2.2.3 GENERAL DESCRIPTION OF THE SEGMENT'S BUSINESS

The Industrial Specialties segment comprises four BUs: PMMA, Thiochemicals, Fluorogases, and Hydrogen Peroxide.

These businesses have a number of common characteristics, among which are the use of complex manufacturing processes for major intermediates, and the existence of world markets that offer the prospects of strong growth, particularly in Asia.

The Group ranks among the world's leading companies and has production units in Europe, North America and Asia for PMMA, Fluorogases and Hydrogen Peroxide. For Thiochemicals in which the Group already operates plants in Europe and North America, the Group began work on 6 October 2012 on the construction in Malaysia of its first platform in Asia and the first world-scale bio-methionine plant in partnership with South Korean company CJ CheilJedang.

The Industrial Specialties segment intends to continue expanding its business, and to strengthen its global positions by relying on new facilities in Asia, carrying out targeted debottleneckings in Europe and North America, and developing cooperation projects with its major partners.

## PMMA BU (11% of Group sales in 2013)

## Products

The PMMA BU (Altuglas International) is an integrated production chain, from methyl methacrylate to the production of PMMA. It operates on three continents with plants in the United States, Mexico, Europe and South Korea.

Its main brand names, Plexiglas<sup>®</sup> in America only and Altuglas<sup>®</sup> in the rest of the world, enjoy a strong reputation.

The BU's main products include resin granules for moulding, cast sheet and extruded sheet for forming.

#### Markets

The global size of the PMMA market is estimated at 1.6 million tonnes  $^{(2)}$ .

The BU sells its products into a wide range of markets, of which the most important are construction, automotive, sanitaryware, commercial display, electronics, and household goods. In the automotive market, over and above the traditional applications of PMMA such as rear lights, new applications are developing, in particular panoramic roofs with Altuglas<sup>®</sup> ShieldUp PMMA which helps reduce the weight of vehicles. The signs and display market is sustained by increasing advertising expenditure and by an improvement in the standard of living in emerging countries. In the coming years, annual world growth in PMMA end-markets could come close to 3.5% a year <sup>(3)</sup>.

The Group is one of the leading producers of PMMA in the world <sup>[4]</sup>. Its main competitors are Evonik, Mitsubishi Rayon, and Sumitomo Chemical.

#### Highlights

In 2012, ARKEMA was awarded the Pierre Potier prize for Altuglas<sup>®</sup> ShieldUp, its new lightweight and ultra-tough acrylic glass used as glass substitute in cars. This ultra high performance acrylic glass is used to manufacture, for example, the panoramic roof and side windows of Renault's small electric car Twizy. This

- In 2012, the breakdown of the segment's sales by BU was as follows: 31% for PMMA, 28% for Thiochemicals, 29% for Fluorogases, and 12% for Hydrogen Peroxide.
- (2) Source: IHS Chemical Economic Handbook Acrylic Resins and Plastics, August 2013.
- (3) Source: IHS Chemical Economic Handbook Acrylic Resins and Plastics, August 2013 and ARKEMA internal estimates.
- (4) Source: IHS Chemical Economic Handbook Acrylic Resins and Plastics, August 2013.

(1) Source: ARKEMA internal estimates

Overview of the Group's business segments

innovative polymer is also an integral part of the Peugeot Onyx car design, a hybrid and futuristic sports car with a roof made of Altuglas® ShieldUp.

In March 2013 ARKEMA launched the first thermoplastic resin for the manufacture of composite parts using the same equipment and processes as thermoset composites. The resulting parts exhibit mechanical properties similar to those of thermoset parts, but their thermoplastic nature brings the added advantages of thermoformability and recyclability, and new assembly possibilities. This resin can be used for semi-structural external composite parts such as formed parts for trucks, bodywork panels for buses, hoods and cowls for farming machinery, etc.

# Thiochemicals BU (9% of Group sales in 2013)

# Products

The Thiochemicals BU comprises mainly sulfur-chemistry activities. The BU's other product lines are amines, oxygenated solvents, hydrazine hydrate, and rubber additives, the latter being produced by the French subsidiary MLPC International.

The Thiochemicals BU has a global presence, with production facilities in the United States and Europe, and a thiochemicals platform under construction in Malaysia.

## Markets

The global size of the thiochemicals market is estimated at 0.7 million tonnes  $^{(1)}$ .

The main markets are animal feed, refining and petrochemicals, natural gas odorisers, solvents, pharmaceuticals and cosmetics. In the animal feed market, ARKEMA offers a sulfur-based intermediate used in the synthesis of methionine, an amino acid used as a nutritional supplement for poultry feed. Demand in this sector is sustained by growing poultry consumption, in particular in emerging countries. In the oil and gas sector, demand is supported by the development of new projects in Asia and the Middle East, by the growing use of natural gas, and by the tightening-up of standards on the sulfur content of automotive fuel, petrol and diesel. New applications have also been developed in soil fumigation, with Paladin<sup>®</sup>, a product that replaces methyl bromide, due to be gradually phased out. In the coming years, annual world growth in Thiochemicals end-markets could average some 4.5% <sup>(1)</sup>.

Today, the Group is the world number one in this sector <sup>(1)</sup>. Its main competitor is Chevron Phillips Chemical. The Group also faces competition from local players in some products.

## Highlights

In October 2012, ARKEMA and South Korean company CJ CheilJedang began the construction of a thiochemicals platform and the first world-scale plant for bio-methionine in Kerteh, Malaysia. To carry through this project, ARKEMA has established two joint ventures in partnership with CJ CheilJedang. The first, held 86% by ARKEMA and 14% by CJ CheilJedang, is designed to produce thiochemicals (methyl mercaptan, DMDS and heavy mercaptans) primarily for the animal feed, refining, petrochemicals, soil fumigation, and polymers markets. The second, held 86% by CJ CheilJedang and 14% by ARKEMA, is designed to produce bio-methionine for animal feed, in particular from the methyl mercaptan produced by ARKEMA on this very platform. The project therefore pools together two complementary sets of expertise, that of CJ CheilJedang, which has developed a new innovative and highly competitive industrial bio-fermentation process to produce L-methionine from plantbased raw materials (which is assimilated more easily by animals than DL-methionine currently on the market), and that of ARKEMA, which has extensive know-how and experience in the production process of methyl mercaptan, a sulfur-based intermediate that is key to the manufacture of methionine. Commercial production is expected in the second half of 2014. The project enables the Group to consolidate its world rankings with production plants in Europe, the United States, and soon Asia. This project should contribute some 120 million US dollars to ARKEMA's sales by 2016.

ARKEMA has developed Paladin®, a new solution for pre-plant soil fumigation that is particularly effective against nematode parasites, weeds, and soil-borne plant pathogens. It has nil impact on the ozone layer, a low Global Warming Potential (GWP), and very fast decomposition in the atmosphere. This agent has been developed as a substitute to methyl bromide, a fumigation agent due to be phased out under the terms of the Montreal Protocol. ARKEMA has been granted marketing authorisation for Paladin® from the relevant authorities in the United States (EPA), Israel, Morocco, Turkey and Lebanon. For Europe, in December 2012 ARKEMA filed an approval dossier for Paladin® with the French authorities, in its capacity as rapporteur Member State for the European approval procedure. The French Ministry for Agriculture, Agri-food and Forestry has confirmed the admissibility of the application, prior to the European assessment of the dossier by the relevant authorities before its approval.

ARKEMA, Total and SOBEGI (a subsidiary of Total and GDF Suez) brought on stream the "Lacq Cluster Chimie 2030" facilities at the end of 2013. The project helps extend over the next thirty years gas extraction in Lacq, at a lower flow rate, in order to supply sulfur raw material to ARKEMA's thiochemicals activities under competitive economic conditions.

Overview of the Group's business segments

## Fluorogases BU (9% of Group sales in 2013)

#### Products and markets

The Fluorogases BU manufactures and markets a range of HCFCs (hydrochlorofluorocarbons) and HFCs (hydrofluorocarbons) under the brand name Forane<sup>®</sup>. For the Group, Fluorogases are a worldwide business with production sites in Europe (France and Spain), the United States, and China.

These products are mainly used in two sectors:

- the refrigeration and air-conditioning markets (notably in construction, automotive and retailing) and foams (blowing agents for polyurethane foam, for example). These so-called emissive applications are subject to regulatory change;
- fluorinated polymers, like polytetrafluoroethylene (PTFE) and polyvinylidene fluoride (PVDF), the latter being produced by the Group as part of the Technical Polymers BU.

Growth in sales of fluorogases is linked in particular to (i) growth in refrigeration markets supported by the development of airconditioning equipment in emerging countries, and (ii) increasing sales of fluorinated polymers thanks in particular to the development of new energies, certain fluorinated polymers like PVDF being used in photovoltaic panels and in lithiumion batteries. In the coming years, annual world growth for fluorogases end-markets could average 3.5% <sup>(1)</sup>.

The global size of the fluorochemicals market is estimated at 1.6 million tonnes <sup>(2)</sup>.

In Fluorogases, the Group ranks second in the world <sup>(2)</sup>. Its main competitors are DuPont (whose Performance Chemicals segment, which includes fluorochemicals activities, is the subject of a spinoff project), Honeywell, Mexichem Fluor, Solvay, and a number of Chinese companies.

Changes in regulations concerning HCFCs such as 22 in developed countries will lead to a reduction in their use in emissive applications, permitted uses being limited to maintenance. The regulatory framework for the use of HCFCs in maintenance varies from one region to another: total ban in Europe, a permitted use with quotas in certain cases in developing countries, and regulated sale by marketing rights in North America with a system of quotas which sharply tightens the supply and demand balance. Within this quotas framework, which is expected to continue for several years, the BU achieves a significant part of its results in this region by selling HCFC 22. For new equipment and foam expansion, HCFCs are being replaced by HFCs.

To take these regulations into account, the Fluorogases BU develops new HFC blends (32, 125, 134a, 143a, etc.) and new substitute products for foam. Together with HFC-32, HFC-125 is an essential component of new generation refrigerant blends, which include the R-410A blend poised to replace HCFC-22 in air-conditioning. Similarly, HFOs, developed by the Fluorogases BU, are fourth generation blowing agents with nil Ozone Depletion Potential (ODP) and low Global Warming Potential (GWP) which feature outstanding properties, in particular in terms of insulation and dimensional stability. Accordingly, the Group has converted a plant in Calvert City (United States) to produce HFC-32, and has brought on stream an HFC-125 production plant in Changshu (China).

#### Highlights

The MAC (Mobile Air Conditioning) European Directive bans the use of refrigerants with a global warming potential in excess of 150 in new vehicle platforms manufactured after 1<sup>st</sup> January 2013 and in every new vehicle sold in Europe after 1st January 2017. In 2011, proceedings for restrictive practices and abuse of a dominant position were opened by the European Commission against DuPont Co and Honeywell International Inc. regarding the marketing of a new fluorinated refrigerant gas (1234yf) for automotive air-conditioning. ARKEMA is paying great attention to the outcome of this investigation because, as a major fluorochemicals player, it has been engaged in research work in this area for several years. The Group is confident in a positive outcome of these proceedings and so announced on 4 September 2013 a project for the construction of production capacities for the 1234yf refrigerant gas. The first phase entails the construction of a production plant in Changshu, China, that will help meet initial demand for 1234yf. This plant is due to come on stream in 2016. A second investment phase would then follow in Europe so that R134a can be entirely replaced after 2017.

In October 2013, ARKEMA announced the marketing of Forane® 1233zd, a new low-GWP blowing agent used in the manufacture of polyurethane foam. Forane® 1233zd is a high performance liquid blowing agent that is non ozone-depleting and non flammable, and has a global warming potential of 7. It is found in polyurethane foam used in the manufacture of domestic refrigerators and freezers, commercial refrigeration, spray foam, polyurethane insulating boards for buildings, and other construction applications.

In order to diversify the source of its fluorspar feedstock, ARKEMA and Canada Fluorspar Inc. (CFI) signed a memorandum of understanding in 2011, and are currently examining the joint development of a fluorspar mine in Canada.

#### Hydrogen Peroxide BU (4% of Group sales in 2013)

#### Products

The Hydrogen Peroxide BU includes hydrogen peroxide, sodium chlorate and sodium perchlorate.

Hydrogen peroxide is a worldwide business for the Group, based on production units in Europe (France and Germany), North America (Canada and the United States), and Asia (China). Sodium chlorate, mostly used in the paper pulp market, is produced at only one site in France (Jarrie). The Group is a regional player in the market for this product.

(1) Source: ARKEMA internal estimates.

(2) Source: IHS Chemical Economic Handbook Fluorocarbons, September 2011 and ARKEMA internal estimates.

Overview of the Group's business segments

#### Markets

The main end-markets for hydrogen peroxide are pulp and paper, chemical products (including organic peroxides in the case of the Group), water treatment, disinfection of food packaging, cleaning of electronic components, and textile. Its inherent qualities, in particular its neutrality *vis-à-vis* the environment, give this product interesting growth prospects (average worldwide growth estimated at 2 to 3% a year)<sup>(1)</sup>. Energy is a major component of the production costs of this business.

The Group ranks third in the world for production of hydrogen peroxide <sup>(2)</sup>, its main competitors being Evonik, Solvay, FMC and EKA (AkzoNobel). The global size of the hydrogen peroxide market is estimated at 3.2 million tonnes <sup>(3)</sup>.

#### Highlights

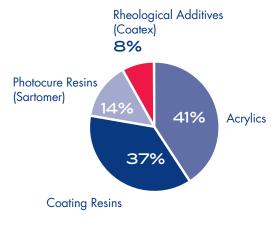
As part of the PPRT (*Plan de Prévention des Risques Technologiques*), ARKEMA performed the conversion of mercury electrolysis to membrane electrolysis, and shut down the dichloroethane (DCE) plant at Jarrie (France). For ARKEMA this project represented net investment of some 40 million euros in 2012 and 2013. Start-up of the new facilities took place end 2013.

# **1.2.3 COATING SOLUTIONS**

# 1.2.3.1 KEY FIGURES

(In millions of euros)	2013	2012	2011
Sales	2,224	2,175	1,814
EBITDA	292	279	284
Recurring operating income	199	192	221
Capital expenditure	117	137	120

## 1.2.3.2 BREAKDOWN OF THE SEGMENT'S SALES BY BU (2013) <sup>(4)</sup>



#### 1.2.3.3 GENERAL DESCRIPTION OF THE SEGMENT'S BUSINESS

The Coating Solutions segment comprises four BUs: Acrylics, Coating Resins, Photocure Resins (Sartomer), and Rheological Additives (Coatex).

Since its spin-off, ARKEMA has been strengthening its acrylic activities by securing competitive acrylic monomer upstream supplies in Europe, North America and Asia (project to acquire acrylic assets in China), by developing downstream integration of its acrylic monomers, and by building an integrated segment in the coatings sector. This strategy has drawn on various acquisitions. Indeed, in 2007 the Group acquired Coatex, a company specialised in rheological additives, in 2010 certain acrylics assets from The Dow Chemical Company in North America (monomers site at Clear Lake (United States) and emulsions activities), in July 2011 the coating resins and photocure resins from the Total group, and early 2014 announced a project for the acquisition of acrylic assets in China (see description in the Acrylics BU paragraph).

(1) Source: ARKEMA internal estimates.

- (3) Source: ARKEMA internal estimates.
- (4) In 2012, the breakdown of the segment's sales by BU was as follows: 38% for Acrylics, 38% for Coating Resins, 15% for Photocure Resins (Sartomer) and 9% for Rheological Additives (Coatex).

<sup>(2)</sup> Source: IHS Chemical Economic Handbook, Hydrogen Peroxide, February 2009, and ARKEMA internal estimates.

Overview of the Group's business segments

The Coating Solutions segment is a coherent structure of activities combining downstream activities in the coatings market (decorative paints and industrial coatings) and upstream activities with competitive acrylic monomers, which beyond the coatings market also supply fast-growing markets such as superabsorbents, water treatment, and oil and gas. The world's fourth leading producer of acrylic monomers <sup>(1)</sup> (third leading producer on closing the acquisition of the first 160,000 tonnes/ year line on the Taixing site), the Group has also become one of the world leaders in photocure resins and materials for coatings and paints. With its strong industrial presence on three continents and the market's most comprehensive product range, the Coating Solutions segment implements a strategy based on the following areas:

- further increasing downstream integration of acrylic monomers, with a target to achieve around 50% downstream integration by 2020, including long-term partnerships, which has been kept unchanged. Taking account of the planned acquisition of acrylic monomer production capacities on the Taixing site, downstream integration should stand at some 35% by 2015, on the basis of a 320,000 tonnes/year capacity for ARKEMA;
- improving profitability with the aim of achieving a 15% EBITDA margin in 2016 against 13% in 2012 by improving operational efficiency and optimising the product and market portfolio; and
- speeding up developments through long-term partnerships established with industry leaders, geographical expansion in fast-growing regions, and innovation centered on the development of more environmentally friendly solutions.

#### Acrylics BU (15% of Group sales in 2013)

#### Products

The Acrylics BU's main products are acrylic acid and its derivatives (esters), as well as oxo-alcohols.

The main raw material used by the Acrylics BU is propylene. Its security of supply is a critical factor for the Group. The Group's main supplier in France is Total Petrochemicals France, under terms set out in section 1.5 of this reference document.

The main production sites of the Acrylics BU are currently Carling in France, and Bayport and Clear Lake in the United States. On closing the planned acquisition of acrylic monomer production capacities on the Taixing site, the BU will also have a manufacturing site in China.

#### Markets

The global size of the acrylic acid market is estimated at 4.8 million tonnes <sup>(1)</sup>.

The main markets for the Acrylics BU are coatings (decorative paints and industrial coatings, photocure resins, etc.), superabsorbents, plastic additives, water treatment, paper and adhesives, as well as enhanced oil and gas recovery. In the next few years, growth in coatings and in particular paints should be underpinned by the development of the construction market in emerging countries, by the growing use of high performance formulations in paints, and by the gradual recovery of the construction market in the United States. In superabsorbents, demand should be sustained by the growing use of diapers in emerging countries (China, India, etc.) and by an ageing population in the more mature markets. Water treatment should also enjoy buoyant growth thanks to the industrialisation of emerging countries and the tightening-up of environmental regulations regarding the treatment of municipal and industrial water. In the coming years, world growth in acrylics end-markets could average 4 to 5% per year <sup>(2)</sup>. In China, growth should reach 7 to 8% per year <sup>(2)</sup>.

The Group is the world's fourth leading producer of acrylics <sup>(3)</sup> (third leading producer on closing the acquisition of the first 160,000 tonnes/year line on the Taixing site), and its main competitors are BASF, The Dow Chemical Company, and Nippon Shokubai.

Taking account of the planned acquisition of acrylic monomer production capacities on the Taixing site, the percentage of downstream integration should stand at some 35% by 2015, on the basis of a 320,000 tonnes/year capacity for ARKEMA. The Group intends to further increase its downstream integration, which should account for some 50%, including long-term partnerships, by 2020.

## Highlights

The Acrylics BU implements a number of projects to meet the growth of its end-markets:

 ARKEMA announced in January 2014 the creation of Sunke, a joint venture in which ARKEMA will have a majority interest, comprising the assets of Jurong Chemical's acrylic acid production site in Taixing opened in 2012. This acquisition, in the wake of ARKEMA's recent start-ups of its coating resins and Coatex production plants on the Changshu site, will enable the Group to accelerate the development of its Coating Solutions segment in China and in Asia and to assist its customers in particular in fast-growing markets such as superabsorbents, paints, adhesives, water treatment, etc. It also strengthens the Group's position in high growth countries, and provides it with a highly competitive acrylic monomer industrial footprint in Asia. The Taixing site currently has a 320,000 tonnes/year installed capacity, with two world-scale production lines. The competitiveness of this site will be further strengthened by the commissioning of a third line with a 160,000 tonnes/year capacity, due to start up in first quarter 2015. The Taixing facility will thus become one of the world's largest acrylic acid sites. When the deal closes, which is scheduled in summer 2014, ARKEMA will have access to half of the site's installed production, namely 160,000 tonnes/year, for a 240 million US dollars investment. When the third line comes on stream,

- (2) Source: ARKEMA internal estimates.
- (3) Source: IHS Chemical Economic Handbook Acrylic Acid, Acrylate esters and Superabsorbent polymers, February 2011, and ARKEMA internal estimates.

<sup>(1)</sup> Source: IHS Chemical Economic Handbook Acrylic Acid, Acrylate esters and Superabsorbent polymers, February 2011, and ARKEMA internal estimates.

Overview of the Group's business segments

ARKEMA will have the option to access two thirds of the site's acrylic acid installed capacity, namely 320,000 tonnes/year, for an additional 235 million US dollars investment. In a full year, sales corresponding to both these lines are estimated at around 600 million US dollars. Finally, ARKEMA has a further option in the next 5 years to potentially acquire the remaining third of the acrylic acid production capacities, at a cost of 165 million US dollars. The deal is subject to authorisation by the relevant authorities in China as well as a number of administrative formalities;

- ARKEMA brought on stream in second quarter 2012 in Carling (France) a new plant to produce DMAEA, an acrylic acid derivative for flocculants used in the treatment of wastewater, which are seeing a strong increase in demand in Europe and in Asia. These investments total 30 million euros, and have also covered the modernisation of the site's energy production plant and equipment;
- ARKEMA is finalising a significant 110 million US dollars development, modernisation and reliability investment plan at its Clear Lake and Bayport sites. ARKEMA indeed announced on 5 June 2013 the start-up of new acrylic acid capacities on its Clear Lake site. The project helps improve the reliability and boost the competitiveness of this plant, raising its capacity to some 270,000 t/year. The plan also entailed the conversion on the Bayport site of a butyl acrylate plant for the production of 2-ethyl hexyl acrylate, which was finalised in second quarter 2012, and the construction of a methyl acrylate production line at Clear Lake, due to come on stream in first half 2014;
- on 22 October 2013 Sumitomo Seika and ARKEMA inaugurated the new Sumitomo Seika superabsorbent plant on ARKEMA's Carling site. This investment raises Sumitomo Seika's overall superabsorbent production capacity at the Carling facility to 47,000 tonnes/year, and consolidates ARKEMA's position as an acrylic monomer producer on this platform; and
- following the presentation in September 2013 of a project for the closure of operations at the Chauny industrial site (France) to the Central Works Council, ARKEMA shutdown its production activities on the site at the beginning of 2014, after collecting opinions as required by law. The Chauny facility used to produce industrial chemical intermediates, primarily for the manufacture of plasticized PVC, polyester resins, and alkyd resins for paint.

### Coating Resins BU (14% of Group sales in 2013)

### Products and markets

ARKEMA is one of the major suppliers of the paint and coating industry with a comprehensive offering in terms of technologies and geographical coverage. ARKEMA's wide-ranging innovative product range comprises the following:

- liquid resins, with five sites in the United States, seven sites in Europe, and three sites in Asia. These resins include emulsions as well as alkyd resins, acrylic resins, and polyester resins, serving the construction paint and industrial coatings market, as well as the adhesive and sealant, inks, and road paint markets;
- powder resins, with one site in the United States and one site in Europe, serving the metal coating market. These 100% dry content solutions avoid the use of solvents, therefore fulfilling European requirements for the production of low VOC coatings;
- rheology additives for solvent-based resins, with one site in Europe.

Over the coming years, the annual growth rate of end-markets for this activity could be 3% on average <sup>(1)</sup>.

The Group now ranks third among world leaders in the coatings materials market <sup>(1)</sup>. The main competitors of the Coating Resins BU are BASF, The Dow Chemical Company, Allnex, Synthomer and DSM.

Thanks to its various R&D centres, ARKEMA is able to assist its global customers in their quest for innovative and environmentally friendly formulations. This is the case, for example, with alkyd emulsions developed by the Coating Resins BU to address environmental constraints on the use of solvents.

## Highlights

In Brazil, the Coating Resins BU boosted its presence with the acrylic additives and emulsions production site acquired from Resicryl on 1<sup>st</sup> October 2012.

In China, ARKEMA brought on stream at the end of 2013 an acrylic emulsions plant mostly intended for the decorative paints and adhesives markets. This new plant is based on the Changshu platform (China), and represents capex of the order of 30 million US dollars.

In December 2013, ARKEMA announced a project to divest its two South African subsidiaries, Arkema Resins Proprietary Limited and Harveys Composites Proprietary Limited, to Ferro Industrial Products Proprietary Limited, a company specialising in the production and distribution of coating products and materials for the composites market. Through this divestment, ARKEMA will dispose of non-core activities which represent few synergies with the rest of its coating resins activities. The business to be divested accounts for sales of around 45 million euros and concerns 125 people. The project is subject to approval by the relevant antitrust authorities in South Africa. The deal is expected to be closed in second quarter 2014.

Overview of the Group's business segments

In terms of innovation, ARKEMA has developed Celocor<sup>®</sup>, a new additive to help partly replace titanium dioxide (TiO<sub>2</sub>) in paint, therefore offering potential cost savings. The BU has also developed the SNAP<sup>®</sup> technology to help develop low or nil VOC emulsions, with toughness and gloss properties for the manufacture of baseboards, windows and other fittings, which previously could only be achieved with solvent-borne resins. Finally, ARKEMA has developed an innovative dispersion, Encor<sup>®</sup> 2433, that allows the formulation in aqueous phase of direct-tometal (DTM) coatings, without the need for a primer. This low VOC binder affords cost reductions and saves application time, and can be used in both interior and exterior paints directly applied to metal and in topcoats for metal.

#### Photocure Resins (Sartomer) (5% of Group sales in 2013)

### Products

Thanks to unique technologies, Sartomer supplies its customers with high added value high-tech products and applications. Photocure resins feature excellent technical performances, for example in terms of stain, impact and scratch resistance; their cure speed is virtually instantaneous, and they offer a wide range of application properties. These innovative environmentally friendly resins are 100% dry content resins, therefore fulfilling European standards on low VOC emissions, while supporting ARKEMA's strategy in the development of new "eco-sustainable" materials.

Photocure resins operations are present worldwide, with two sites in the United States, one site in Europe, and one site in Asia in Nansha, south of Canton, China, providing ARKEMA with new growth opportunities in Asia.

#### Markets

Photocure resins are used in wide-ranging markets, including printing (inks and varnishes), industrial coatings, optics (fiber, DVD, Blu-Ray), electronics (printed circuits), and wood coatings. Over the coming years, world growth for photocure resin endmarkets could stand at around 6% per year <sup>(1)</sup>.

The main competitors of the Photocure Resins BU are Allnex and Eternal.

#### Rheological Additives BU (Coatex) (3% of Group sales in 2013)

#### Products and markets

The Rheological Additives BU (Coatex) manufactures polymers, mainly acrylic based, used as dispersants and thickeners.

Main end-markets for these high-growth specialty chemical activities include paper, paint, water treatment, cosmetics, textile and concrete. With its headquarters and largest site in Genay (France), near Lyon, Coatex also operates industrial and storage facilities in Europe, the United States, Asia, and Latin America.

## Highlights

Coatex has stepped up its development, with:

- the acquisition finalised on 1<sup>st</sup> October 2012 of a production site for acrylic additives and emulsions from Brazilian company Resicryl;
- the opening end 2012 of a new Asia Pacific technical centre in Changshu, China, to provide technical support to its Asia Pacific customers operating in the decorative paint, paper, construction and mineral treatment markets.

# **1.3 CAPITAL EXPENDITURE**

# 1.3.1 DESCRIPTION OF THE MAIN CAPITAL EXPENDITURE MADE BY THE GROUP OVER THE PAST THREE YEARS

The Group's capital expenditure (in intangible and tangible assets) amounted to 365 million euros in 2011, 438 million euros in 2012, and 481 million euros in 2013. On average, over the past three years, the Group has therefore invested around 428 million euros per year. This expenditure excludes that relating to the vinyl activities divested in early July 2012. Over the last three years, capital expenditure has been focused on (i) the maintenance of industrial facilities, safety and environmental protection, accounting for approximately 50% of the total, and

(ii) development projects, in the form of either major projects or productivity improvements in existing facilities, accounting for approximately 50%.

Over the period, 25% of capital expenditure was spent on the High Performance Materials segment, 42% on the Industrial Specialties segment, 29% on the Coating Solutions segment, and 4% on Corporate projects. 54% of these investments were made in Europe, 24% in North America, and 22% in Asia.

Year	BU	Description
2011	Rheological Additives	Start-up of a rheological additives production plant at Changshu (China)
	<b>Technical Polymers</b>	Start-up of production plants for Kynar® PVDF and related monomer at Changshu (China)
	Incubator	Start-up of a carbon nanotube pilot production plant at Mont (France)
2012	Acrylics	Start-up of a new DMAEA production plant at Carling (France)
	Fluorogases	Extension of HFC-125 production capacity and construction of refrigerant blending plant at Changshu (China)
	<b>Technical Polymers</b>	50% production capacity increase for Kynar® PVDF at Changshu (China)
2013	Acrylics	Modernisation and production capacity increase for acrylic acid at Clear Lake (United States)
	Coating Resins	Start-up of an acrylic latex plant at Changshu (China)
	Thiochemicals	Overhaul of industrial infrastructures at Lacq (France) in partnership with SOBEGI and Total EP France following the shutdown of gas field exploitation
	Hydrogen Peroxide	Conversion of mercury electrolysis to membrane electrolysis at Jarrie (France)
	Technical Polymers	Threefold increase in PA10 capacity at Hipro Polymers (China)

The main development capital expenditure carried out by the Group over the past three years were:

Additionally, in April 2013, the Group acquired a majority stake in AEC Polymers, a French manufacturer of structural adhesives. The Group also acquired in October 2013 a 24.9% stake in Ihsedu Agrochem, a subsidiary of Indian group Jayant Agro specialising in castor oil production.

BUSINESS OVERVIEW AND RISK FACTORS Capital expenditure

# 1.3.2 DESCRIPTION OF MAIN CURRENT INVESTMENT PROJECTS

At the date of this reference document, the Group's main capital expenditure underway is as follows:

Thiochemicals	Construction of a thiochemicals production platform at Kerteh (Malaysia) combined with a project to produce bio-methionine in partnership with CJ CheilJedang
Fluorogases Construction of a 1234yf refrigerant fluorinated gas plant at Changshu (China)	
Organic Peroxides	Construction of an organic peroxide production site on the Al Jubail platform in Saudi Arabia, in partnership with Watan Industrial Investment
	Doubling of organic peroxide production capacity at Changshu (China)
Acrylics	Construction of a methyl acrylate plant at Clear Lake (United States)

In January 2014, the Group announced a project to set up a joint venture with Jurong Chemical in which ARKEMA will have a majority interest, and which will comprise Jurong's acrylic acid production assets in Taixing (China).

Capital expenditure is firstly funded by the cash resources generated by the Group during the year. Beyond this, the Group may use the credit resources detailed in paragraph 4.1.7 of this reference document.

# **1.3.3 FUTURE CAPITAL EXPENDITURE**

ARKEMA estimates that the amount of capital expenditure required to support its 2016 organic growth target stands at 1.7 billion euros for the 2013-2016 period. On average the Group's recurring capital expenditure should amount to around 5.5% of its annual sales, around 50% of which being allocated to development and productivity investments and around 50% to maintenance, safety and environment investments. The Group intends to achieve a significant share of its capital expenditure in China and in other emerging countries.

In 2014, the Group expects to spend capital expenditure of around 450 million euros, part of which being dedicated to the finalisation of the major project consisting of building the Thiochemicals platform in Kerteh, Malaysia.

Given its current cash situation and its financing resources described in paragraph 4.1.7 of this reference document, the Group believes that it is in a position to finance its future capital expenditure projects, in particular those mentioned in paragraphs 1.3.2 and 1.3.3 of this reference document.

# 1.3.4 PROPERTY, PLANT AND EQUIPMENT

The Group's policy is to own the industrial facilities that it uses. By way of exception, it sometimes rents offices and warehouses. The leases are signed with third party lessors. Leasing commitments are included in the off balance sheet commitments described in note 29 of the notes to the consolidated financial statements featured in paragraph 4.3.3 of this reference document.

The net book value of the Group's tangible fixed assets at 31 December 2013 was 1,943 million euros. It includes transportation equipment and pipelines owned by the Group (see note 10 of the notes to the consolidated financial statements in paragraph 4.3.3 of this reference document).

# 1.4 R&D AND INNOVATION STRATEGY

# 1.4.1 RESEARCH AND DEVELOPMENT

Research and Development (R&D) is an essential factor on which the Group relies to meet its strategy of innovation and improve its products and manufacturing processes.

In 2013, R&D efforts accounted for around 2.4% of the Group's sales. The Group intends to keep up this research effort in the coming years in order to develop ever more innovative products, in particular in its Coating Solutions and High Performance Materials segments, optimise the performance of its manufacturing units, and develop new processes. The Group's R&D function employed over 1,200 researchers in 2013, split between ten research centres located in France, the United States, China and Japan.

The R&D department, which reports to the Chairman and CEO, coordinates all the Group's research programs on a worldwide scale. It is responsible for ensuring that the strategic projects funded and controlled by the BUs are scientifically and technologically relevant, and that they are consistent with the Group's overall strategy. It is also responsible for developing "incubating" innovative products prior to their transfer to the BUs. R&D policy and the corresponding level of expenses are adapted in the long term to each of the Group's three segments: High Performance Materials, Industrial Specialties, and Coating Solutions. To initiate the development of breakthrough projects, the R&D department also relies in particular on a dedicated structure called "Incubator". In 2010, this structure developed in particular electrostrictive polymers via its subsidiary Piezotech. In 2011, a new ultra high temperature polymer (PEKK) was developed, and in 2012, the transfer of nanostructured PMMA for automotive glazing to the PMMA BU turned into a commercial success. In 2013, the Incubator began sampling for its latest copolymers for electronics, and also launched an "amorphous polyamides" activity.

Additionally, ARKEMA has made sustainable development one of the key points of its research strategy. Accordingly, the R&D department focuses on five research platforms: solutions for energy, renewable raw materials, lightweight materials, water treatment, and solutions for electronics. The first four platforms are based on the major societal challenges of energy, climate change, and access to water, as described in section 2.3 of this reference document. Typical developments include a wide range of innovative materials developed as part of these platforms. These are for example materials in the field of energy (renewable energies like photovoltaic, energy storage like lithium-ion batteries, energy saving, etc.), nanostructured materials, and materials produced from renewable raw materials. This sustainable development strategy is also evident from the development of highly innovative processes. In 2013, R&D efforts were split as follows:

- High Performance Materials segment: 40%;
- Industrial Specialties segment: 23%;
- Coating Solutions segment: 21%; and
- "Corporate" R&D program: to prepare the innovations of tomorrow, drawn up every year by the R&D department and submitted to the Executive Committee for approval: 16%.

By way of examples, in recent years the Group successively introduced:

- in 2011:
  - the development of the Altuglas<sup>®</sup> ShieldUp ultra high performance acrylic glass range to replace ordinary glass in automotive glazing, which will bring major weight savings in cars,
  - the development and industrialisation of a synthesis process for new pilot of PEKK, a polymer with a very high melting point (> 330°C) also playing a part in reducing the weight of aircraft,
  - the launch of Paladin<sup>®</sup>, a DMDS (dimethyl disulfide) derivative, a sulfur-based product naturally present in the lifecycle of some plants, used in soil preparation for vegetable crops, as a replacement for methyl bromide due to be gradually phased out under the terms of the Montreal Protocol, and
  - a contribution to the development of a methionine manufacturing process based on fermentation from natural raw materials, in partnership with South Korean company CJ CheilJedang;
- in 2012:
  - the synthesis of block copolymers for the etching of printed circuits on silicon under the limit of 22 then 16 nm, inaccessible to current lithography technologies,
  - the launch of a new Rilsan<sup>®</sup> HT (High Temperature) polyphthalamide (PPA) range that is ultra flexible, and has superior thermal stability compared to the existing range,
  - the launch of Rilsan<sup>®</sup> Invent Natural for the Laser Sintering Rapid Manufacturing market. This new Rilsan<sup>®</sup> grade joins Orgasol<sup>®</sup> Invent Smooth, and ensures excellent resolution in the detail of components, combined with very good processability,
  - the acquisition in early 2012 of Chinese companies Suzhou Hipro Polymers Co. Ltd. (Hipro Polymers) and Hebei Casda Biomaterials Co. Ltd. (Casda Biomaterials), which has helped develop new bio-sourced polyamide 10 grades and gain new market shares in the consumer goods, transport and sports sectors, and

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- two major innovations in the coatings sector: Celocor<sup>®</sup> and the Bumper Technology<sup>™</sup>. Celocor<sup>®</sup> opaque acrylic polymers enables to reduce the quantity of TiO<sub>2</sub> used in waterborne paints without affecting their properties, while the Bumper Technology<sup>™</sup> uses new dispersants to help optimise the light refraction power of the TiO<sub>2</sub> particles;
- in 2013:
  - a new organic peroxide grade, Luperox® FreeO, designed for the soles of sports shoes, which helps eliminate the foulsmelling decomposition products of the cross-linking agent used previously,
  - the launch of the first thermoplastic composite accommodating the use of ordinary thermoset composite technologies. Thanks to this innovation, ARKEMA was presented the JEC Award at the industry's main tradeshow,
  - a new polymer, Pebax<sup>®</sup> MV 1074 SA 01 MED, which was added to the Pebax<sup>®</sup> range for medical applications. This hydrophilic polymer is perfectly suited for minimally invasive devices such as surgical tubing that are exposed to bodily fluids. This new copolymer is USP VI (United States Pharmacopeia VI) certified, and offers uniquely high moisture absorption properties for device components such as catheters,
  - Rilsan® Clear Rnew G830, the first bio-sourced transparent polyamide initially developed for optical applications, is proving highly successful in a number of electronics and audiovisual applications, and
  - two new rheology additives, Crayvallac® SLT and Crayvallac® SLP, were launched for sealant applications. They offer superior stability and better control of rheology than the silica fume traditionally used.

Collaborations have been entered with the European Commission (Framework Program for Research and Technological Development (FPRTD)), and with several French organisations such as Agence Nationale de la Recherche (ANR, National Research Agency), Agence de l'Environnement et de la Maîtrise de l'Énergie (ADEME, Environment and Energy Agency), and Fonds Unifié Interministériel (Unified Interministerial Fund), and enable the Group's R&D efforts to enjoy joint public funding as well as active collaboration with many partners. The Group has been heavily involved in particular in various Investissements d'Avenir mechanisms, either through collaborative research projects or through working with IDEEL and IRT collaborative structures.

The links between the Group and its university partners network also reflect the quality of its innovation process. These relations include research contracts, doctoral or postdoctoral funding for students, but also original and innovative structures. Thus, ARKEMA takes part in industrial chairs, such as the chair of bio-plastics at Mines-Paritech or the industrial chair in organic electronics in Bordeaux, and it has established close relations in major structural research programs, for example with ESPCI laboratories in Paris (France), or IBP laboratories in Bordeaux (France).

### 1.4.1.1 HIGH PERFORMANCE MATERIALS

The High Performance Materials segment R&D focuses on the materials of tomorrow. Materials based on renewable raw materials, materials with a low environmental impact, lightweight materials for transport, are all developments that help combine performance and sustainable development.

Indeed, in 2011 the development of performance polymers resulted in the launch of several products, driven in particular by the sensitivity of the market to sustainable development.

The new Orgasol® Green Touch grade for the cosmetics market enhances the Orgasol® range with a powder manufactured from renewable resources (polyamide 11).

The Rilsan® range gained the Rilsan® Tieflex grade designed for the heavy goods vehicle air brake systems market, while the Rilsan® HT (High Temperature) range was expanded with the launch of a new, more flexible grade targeting new applications in the engine environment.

Finally, new polyamide powder grades, Rilsan<sup>®</sup> Invent Black and Orgasol<sup>®</sup> Invent Smooth, were launched for laser prototyping applications.

In 2012, yet more new products and applications were developed.

The acquisition in early 2012 of Chinese companies Hipro Polymers and Casda Biomaterials has helped develop new biosourced polyamide 10 grades and gain new market shares in the consumer products, transport, and sports sectors.

A new ultra flexible Rilsan® HT (High Temperature) polyphthalamide (PPA) range was launched. Its thermal stability was upgraded compared to the current range, while its service life was extended and its service temperature increased by up to 10°C.

Rilsan<sup>®</sup> Invent Natural joins Orgasol<sup>®</sup> Invent Smooth for the Laser Sintering Rapid Manufacturing market. It ensures excellent resolution in the detail of components, combined with very good processability. These qualities make this powder aptly suited to rapid prototyping and rapid manufacturing.

The latest Lotader<sup>®</sup> grades enjoyed major success in 2012 when they moved into new technologies for the manufacture of printed woven bags thanks to their adhesive versatility on inks of various natures, which this product range alone can accommodate.

A new Kynar<sup>®</sup> grade called MG-15 was launched for the water filtration membrane market. This is a very major market from an economic and societal viewpoint. The fluorinated polymer range was further expanded with new grades for foam, for use in the cable market. BUSINESS OVERVIEW AND RISK FACTORS R&D and innovation strategy

In 2013, ARKEMA launched a new hydrophilic polymer, a new addition to the Pebax<sup>®</sup> product range for medical applications. This new polymer is perfectly suited for minimally invasive devices such as surgical tubing. It is USP VI certified, and offers uniquely high moisture absorption properties.

2013 also saw the development of new applications for Rilsan<sup>®</sup> High Temperature grades in the replacement of metal tubing in engine compartments and in NOx reduction devices. Rilsan<sup>®</sup> HT was in fact awarded the 2013 Pierre Potier prize which acknowledges major innovations in chemistry promoting sustainable development.

The launch of Lotryl® Bestpeel 2012, a new adhesive in the functional polyolefins family with superior transparency and thermal stability properties, complements ARKEMA's offering of technical solutions in the field of packaging.

A new organic peroxide grade, Luperox® FreeO, was launched for the manufacture of sports shoe soles and other articles made of EVA expanded foam. This new grade helps eliminate the persistent foul odours released by a decomposition product of the crosslinking agent used previously. A number of world-renowned sports shoe brands have already successfully opted for this new grade.

CECA launched an additive that helps lower temperature when surfacing roads with asphalt mix. Cecabase® RT Bio 10 is biodegradable and non-toxic to the environment. It affords 30% energy savings in the asphalt mixing process.

The High Performance Materials segment is therefore establishing its growth by consolidating its product range, and by adapting the performance and functions of its products to the latest demands of the market.

The strong reputations of brand names such as Rilsan®, Hiprolon®, Pebax® and Luperox® are a testimony to the technical excellence of the High Performance Materials segment.

## 1.4.1.2 INDUSTRIAL SPECIALTIES

The objectives of the Industrial Specialties segment R&D are to ensure the competitiveness of the segment's processes, and to find new applications as well as new outlets for its products. One of the major objectives is the ongoing improvement of the main processes (acrylics, fluorochemicals, thiochemicals) to make them safer, more reliable and productive, and therefore more competitive, while minimising their environmental impact. Accordingly, R&D studies the benefits of new raw materials, and carries out tests on new catalysts or new types of reactors, or develops new synthesis routes.

R&D also contributes to the development of new products, as in the case of HFC-125 (a new low-GWP (Global Warming Potential) refrigerant fluid), or the Altuglas® ShieldUp nanostructured PMMA sheet developed in 2011. In 2012 a new PMMA cast sheet was developed, with excellent light diffusion properties, for the illuminated displays market.

In line with ARKEMA's strategy to develop plant-based chemicals, a family of PMMA-PLA (polylactic acid) alloys has been developed and is now produced on an industrial scale. A co-marketing agreement has been signed with NatureWorks, a world leader in bio-sourced polymers.

Innovation is also evident in the development of new markets for existing products. A good example of this is Paladin®, a dimethyl disulfide (DMDS) formulation used for the treatment of soil for vegetable crops. This application has had significant success in countries bordering the Mediterranean such as Turkey, Morocco, Israel and Egypt.

Similarly, a new application was launched in 2012 for methyl mercaptan when the foundation stone was laid at the ARKEMA CJ CheilJedang bio-methionine complex in Kerteh, Malaysia. Methyl mercaptan produced by ARKEMA is used as a raw material by CJ CheilJedang to produce bio-sourced methionine using a fermentation process that is unique in the world.

In 2013, ARKEMA introduced the first thermoplastic suitable for the manufacture of composites with the same processes and equipment as traditional thermoset composites. Thanks to this innovation, ARKEMA and its partners were presented with a JEC Award at the industry's leading tradeshow.

A specific PMMA grade was developed for the laser marking market, which enables the finest of designs to be engraved on the black glossy surface of Altuglas® Tattoo.

DMSO (dimethyl sulfoxide) is a solvent that is not labelled hazardous (in particular it is non-irritant and non-toxic), and can aptly replace toxic solvents like NMP (N-methyl pyrrolidone) and DMF (dimethyl formamide). Its low sulfur odour is its main drawback. Hence a new formulation with an odour-masking agent was launched in 2013, and is now a huge success in the solvent market.

## 1.4.1.3 COATING SOLUTIONS

The Coating Solutions segment R&D develops innovative solutions for the coatings market while combining technical performance with sustainable development. Working very closely with its customers to whom it provides responsive technical support, R&D also entails a process research component which enables it to optimise its production costs and produce new molecules on an industrial scale.

In 2011, Sartomer launched the SARBIO® range of bio-sourced resins comprising acrylic and methacrylic resins with guaranteed renewable carbon content. As a further example in coating resins, the High Gloss SNAP® technology uses nanostructuring to produce gloss paint with outstanding abrasion and washing resistance for architectural markets.

In 2012, two major innovations should be mentioned: Celocor<sup>®</sup> and Bumper Technology<sup>™</sup> (Coatex), which help overcome titanium dioxide supply problems encountered by paint manufacturing customers.

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Celocor® opaque acrylic polymers, made up of tiny "hollow particles", can partially replace TiO<sub>2</sub> in waterborne paint, without jeopardising the paint's performance. Moreover, they enhance the gloss of the paint and its resistance to dulling.

The Bumper Technology  $^{\rm m}$  uses new dispersants that separate  ${\rm TiO_2}$  particles in waterborne paint, which helps optimise its ability to refract light.

Sartomer also continues to innovate by offering new photopolymerisable acrylic resins. The newly developed "3D printing – UV curing" process consists in printing and instantly

drying, through UV radiation, successive layers of an acrylic resins formulation supplied by Sartomer, for the production of parts in three dimensions. In addition to offering great freedom of design, this technology produces top quality finish.

In 2013, ARKEMA introduced the Crayvallac<sup>®</sup> SLT and Crayvallac<sup>®</sup> SLP brands. These are rheology additives for formulations intended for the sealant market, to which they bring benefits such as viscosity and stability compared to the traditional solution based on silica fume.

## 1.4.2 INDUSTRIAL PROPERTY RIGHTS

The Group attaches great importance to industrial property rights, in respect of both its brand names and its patents, in order to protect the innovations developed by R&D and make its products known to its customers.

All the Group's patents and brand names represent an asset that is essential for conducting its business. Nonetheless, the isolated loss of a particular patent or brand name for a product or process would not significantly affect the Group's results, its financial situation, or treasury position.

## 1.4.2.1 **PATENTS**

For the Group, the patent protection of its technologies, products and processes is essential to manage its businesses in the best possible way.

Consequently, the Group registers patents in its main markets to protect new chemical compounds, new high technical performance materials, new synthesis processes for its main industrial products, and new applications for its products.

The number of patents granted and the number of applications filed for patents are good indicators of investments in R&D and quality of the latter. At 31 December 2013, the Group owned 5,748 patents. At the same date, it had 4,042 patent applications pending (all patent applications made according to a centralised procedure – like that of the World Intellectual Property Organization (WIPO) – are accounted for as one application, even though the application may lead to the granting of several patents, depending on the number of countries covered by the application). In 2013, the Group filed 199 applications for priority patents.

It should be noted that, in 2013, ARKEMA ranked for the third year in a row among the 100 most innovative companies in the world as mentioned in the 2013 "Top 100 Global Innovators" published by Thomson Reuters.

In those countries where the Group seeks patent protection, the duration of that protection is usually the maximum legal duration, namely twenty years, calculated from the time the patent application was filed. The protection provided can vary from one country to another, depending on the type of patent and its remit. The Group uses patent protection in many countries, mainly in Europe, China, Japan, Korea, North America, India, and more recently South America. The Group actively protects its markets. To this end, it keeps itself informed about its competitors and defends its patents against any infringement by a third party. ARKEMA also lodges opposition against third party patents that would not be justified.

The expiry of a basic patent for a product or process can lead to increased competition as other companies start marketing new products. Nonetheless, after the expiry of a basic patent, the Group can, in certain cases, continue to benefit from it commercially thanks to its know-how of a product or process, or because of new patents for applications or for improvements to the basic patent.

The Group also has a policy of acquiring or granting patent licences to meet its operational needs. Lastly, in respect of inventions made by employees, the Group implemented in 1989 a system ensuring additional compensation for inventors among its employees if patents for their inventions are commercially exploited.

## 1.4.2.2 TRADEMARKS

Protection of brand names varies according to each country. In the majority of countries, trademark rights stem from their registration, whereas in others, their usage, without applying for trademark registrations, can constitute a right. Brand name protection rights are obtained either by registering them nationally or through international registrations, or by the registration of Community trademarks. Registrations are usually granted for a period of ten years and can be renewed indefinitely.

The Group is developing a centralised and dynamic policy for applying for trademark registrations, using a worldwide network of trademarks attorneys.

In particular, the Group owns as trademarks the names of its leading products. Among its flagship brand names are, for example, Pebax<sup>®</sup>, Rilsan<sup>®</sup>, Hiprolon<sup>®</sup>, Forane<sup>®</sup>, Altuglas<sup>®</sup> and Plexiglas<sup>®</sup> (a brand name used only on the American continent). The Group has also protected the names chosen for its latest innovations, e.g. Kepstan<sup>®</sup>, Nanostrength<sup>®</sup>, and Apolhya<sup>®</sup>, by registering their trade names.

Mindful of the importance of its trademarks portfolio, the Group monitors the brand names registered by companies operating in business sectors that are identical, or similar, to its own, and has a policy of defending its own brand names.

## 1.5 SIGNIFICANT CONTRACTS

In order to conduct its business, the Group has concluded a number of contracts that can be of fundamental importance, in particular to secure access to raw material or energy resources, ensure certain operating procedures at its production sites, or because they represent significant financial income.

## 1.5.1 RAW MATERIAL AND ENERGY SUPPLY CONTRACTS

The contracts described in this paragraph represent major raw material or energy supply contracts concluded for several years. Other supply contracts can also be described as major contracts. They concern *inter alia* the Group's supply of hydrofluoric acid (HF), used as a main raw material for its fluorochemicals activities, the Group's supply of cyclododecatriene (CDT) used for the manufacture of PA 12, and the Group's supply of propylene for acrylics. For confidentiality reasons, terms and conditions of these contracts cannot be disclosed.

## CONTRACT FOR THE SUPPLY OF PROPYLENE (C<sub>3</sub>) FROM TOTAL PETROCHEMICALS FRANCE (TPF)

Pursuant to a long-term supply agreement entered into on 15 March 2006 and commencing on 1<sup>st</sup> May 2006, TPF, using Petrofina as its agent, has agreed to sell and deliver to Arkema France propylene produced by its steam crackers at Carling and Lavéra, or from the La Mède refinery, for use at Arkema France's sites and facilities at Carling (acrylics) and Lavéra (production of oxo alcohols). The product is delivered to Arkema France's sites and facilities mostly by pipeline and in some cases by rail. The quantities delivered are invoiced on the basis of a negotiated price or, in the absence of agreement, on the basis of a price which takes into account the monthly contract price "free delivered North West Europe" published by ICIS. Discussions are to take place with TPF to set out the new terms for the supply of propylene to Arkema France in the light of the announcement by TPF of the shutdown of its steamcracker in Carling.

## INDUSTRIAL AGREEMENT WITH EDF SIGNED ON 21 DECEMBER 1995

Arkema France has reserved electricity supplies from EDF for its manufacturing sites over a period of 25 years (1996-2020) in consideration for payment to EDF of a sum corresponding to a drawing right. The quantities of electrical power reserved at the time covered the electricity consumption of the nonchlorine producing sites of Arkema France and its subsidiaries. This contract was split into two between Total Petrochemicals France (TPF) and Arkema France by an amendment dated 23 September 2005, which sets out the rights and obligations of each party for the 15 years left to run.

## CONDITIONS OF SUPPLY OF ELECTRICITY FROM EXELTIUM

Arkema France is a founding member of Exeltium alongside six other "electricity-intensive" industrial companies and continues to source its energy supply from the latter for a significant part of its needs.

## 1.5.2 INDUSTRIAL AGREEMENTS

Industrial agreements include platform contracts, toll processing, and capacity reservation. The most recent agreements of this type are described in this paragraph.

Significant contracts

### MEMORANDUM OF UNDERSTANDING WITH TOTAL E&P FRANCE AND SOBEGI FOR THE LACQ SITE

Arkema France has signed a memorandum of understanding with Total E&P France and SOBEGI for the future of industrial activities on the Induslacq platform in Lacq, beyond 2013. This MOU entails three components: the ongoing extraction of gas to supply ARKEMA's thiochemicals plants with  $H_2S$  as well as SOBEGI's steam furnaces with fuel, the construction of new gas treatment plants and their link-up to existing facilities, and finally the modification of thiochemicals plants to operate with new  $H_2S$  specifications.

## EDA SERVICE CONTRACT WITH TOTAL PETROCHEMICALS FRANCE (LINE 41 AT CARLING)

Total Petrochemicals France (TPF) owns line 41 on the Carling site, which mainly produces EDA for Arkema France, and can also produce polyethylene for TPF. Under the line 41 EDA toll-processing contract, Arkema France is responsible for procurement of the main raw materials, the supply of the EDA production process and the financing of related investment. For its part, TPF provides Arkema France with toll-processing services, on line 41, of main raw materials into EDA and the supply of secondary raw materials and associated services.

### PRODUCTION CONTRACT FOR HYDROFLUORIC ACID AND FORANE F22 FOR DAIKIN AT THE CHANGSHU (CHINA) SITE

In 2002, the Group started production of Forane® F22 at its unit in Changshu near Shanghai. The production of Forane® F22 is backed up by the upstream production of hydrofluoric acid (HF). The Group shares this production of Forane® F22 with the Japanese company Daikin pursuant to Heads of Agreement signed on 30 July 1998. This agreement provides for Daikin to have reserve capacity and to have access to the supplies of hydrofluoric acid necessary for its production. Following an amendment to the contract made in 2009, the amounts payable by Daikin in consideration of this are calculated on the basis of a Forane® F22 market price, and the depreciation established to cover Daikin's share of the investment in the facilities.

## MMA CAPACITY ENTITLEMENT CONTRACT WITH DOW IN THE UNITED STATES

The Group has signed a contract with The Dow Chemical Company (formerly Rohm and Haas) to reserve methyl methacrylate (MMA) production capacity and supply in the United States. Pursuant to these contracts, The Dow Chemical Company supplies the Group with significant quantities of MMA. These contracts represent the Group's only source of MMA supply in the United States.

## 1.5.3 MULTI-ANNUAL SALES CONTRACTS

The agreements described in this paragraph which represent a significant source of sales for the Group are related to specific acquisition and divestment operations.

## CONTRACT FOR THE SUPPLY BY COATEX OF DISPERSANTS TO THE OMYA GROUP

On 1<sup>st</sup> October 2007 ARKEMA acquired Coatex, one of the world's leading producers of rheology modifiers for aqueous phase formulations. A new long-term supply contract was concluded on 18 April 2013 between Coatex and the Omya group (former Coatex shareholder) for the supply of dispersants by Coatex. The supplies executed under this contract represent a significant part of Coatex's overall sales.

## CONTRACT FOR THE SUPPLY BY ARKEMA THIOCHEMICALS SDN BHD OF METHYL MERCAPTAN TO CJ BIO MALAYSIA

Joint venture agreements were signed between ARKEMA and South Korean group CJ CheilJedang (CJ) on 12 March 2012. Under the terms of these agreements, Arkema Thiochemicals Sdn Bhd (86% ARKEMA and 14% CJ) is to supply from 2014, from its plant currently under construction at Kerteh (Malaysia), methyl mercaptan (MeSH) to CJ BIO Malaysia Sdn Bhd (86% CJ and 14% ARKEMA), for the manufacture by the latter of methionine in a production plant also under construction on the same industrial platform.

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## CONTRACT BETWEEN ARKEMA INC. AND NOVUS FOR THE SUPPLY OF 3-METHYL THIOPROPIONALDEHYDE (MMP)

Arkema Inc. entered into a long-term contract with Novus International, Inc. on 1<sup>st</sup> January 2002 for the production of 3-methyl thiopropionaldehyde (MMP), an intermediate in the manufacture of methionine, at its site in Beaumont (United States). Under the terms of this contract, Arkema Inc. has built an MMP production unit on behalf of Novus International, Inc., which is operated by and receives its feedstock from Arkema Inc. This contract also represents significant sales for the Group.

Additionally, other types of sales contract such as "Framework Agreement" or "Key Supplier Agreements" have also been concluded. A particular feature of these agreements is their worldwide dimension and the fact that they are multi-product or can concern several of ARKEMA's BUs.

## 1.5.4 GUARANTEES AND INDEMNITIES FROM THE TOTAL GROUP

In connection with the spin-off of Arkema's Businesses in 2006, Total S.A. and certain Total S.A. companies have extended certain indemnities, or have assumed certain obligations, for the benefit of ARKEMA, relating to (i) certain antitrust litigation, (ii) certain actual or potential environmental liabilities of the Group arising from certain sites in France, Belgium and the United States, the operations on which have ceased in the majority of cases, (iii) certain tax matters, and (iv) the spin-off of Arkema's Businesses. These indemnities and obligations are described in note 29 of the notes to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document. Moreover, as part of the Total Contribution Agreement, Total S.A. and ARKEMA made certain representations and warranties, some of them in connection with the separation of ARKEMA from Total.

Operational excellence strategy

## **1.6 OPERATIONAL EXCELLENCE STRATEGY**

## 1.6.1 THE GROUP'S COMMITMENTS

Reinforcing its operational excellence in order to position itself as one of the top industrial leader represents a priority for ARKEMA and one of the main vectors of the strategy implemented by the Group as part of its ambitions for 2016 and 2020.

Accordingly, ARKEMA has set out the following commitments in particular:

## Rank among the reference chemical manufacturers in terms of safety

In order to further improve its safety records, the Group has set out 2020 targets detailed in section 2.1 of this reference document. Implementing the necessary actions to achieve these targets will also help reinforce the reliability of the Group's sites.

The Group for example aims to further reduce the total recordable injury rate (TRIR), i.e. injuries with and without lost time, down to 2.0 by 2020 against 3.4 in 2012. In 2005, just before its stock market listing, this rate stood at 11.3. Over the same period, the Group also intends to take even greater account of the human factor, in particular by extending its peer observation programme to all its sites (against 47% of sites benefiting from this programme in 2012, the baseline year for the definition of the safety targets). This method entails identifying best practice and any deviations therefrom, and so helps significantly reduce unsafe situations and, in fine, the number of occupational accidents. Finally, the Group aims to extend across 100% of its sites (against 42% in 2012, the baseline year for the definition of the safety targets), the audits conducted on the basis of its AIMS integrated reference framework which pools within a single audit all the safety, environment and quality audits conducted by the Group. These audits are conducted jointly by auditors from the Group and from a third party certifying body, and help meet the requirements of standards such as ISO 9001, ISO 14001 and OHSAS 18001.

## Position its main production sites in the top quartile in terms of competitiveness

Since its stock market listing, ARKEMA has steadily improved the competitiveness and reliability of its main production sites, thereby constantly improving its industrial plants and reducing its cost structure. Various restructurings and reorganisations have been initiated in recent years in order to reduce very significantly the fixed costs of its various activities. Since 2013, the Group has been pursuing its productivity drive in particular to compensate all or part of the inflation on its fixed costs. ARKEMA has for example announced the closure of its Chauny site (France) effective 1<sup>st</sup> quarter 2014, and has continued to restructure its Coating Resins activities.

The Group also focuses on reducing its variable costs. This programme is based in particular on optimising its processes, as sustained by the Group's relentless innovation efforts, and on boosting the reliability of its processes and equipment. These efforts in particular will help optimise raw material consumption and energy efficiency on the Group's production sites.

Accordingly, the Group undertakes various targeted development or productivity investments.

When designing its new production plants or platforms, the Group draws on the recognised know-how of its technical and R&D teams in order to implement the latest technological processes developed by the Group, and to start up ever more competitive plants in terms of cost and operation. Accordingly, when designing and building its HFC-125 fluorogas plant opened in Changshu (China) in 2010, the Group implemented a new process exclusively developed by its R&D teams. The first of its size on the Asian continent, the plant was commissioned successfully on schedule and on budget and is since then running smoothly. Similarly, the construction project for a Thiochemicals platform in Kerteh, Malaysia, the main industrial project currently underway, will enable the Group to benefit from a platform in Asia using the latest technological developments and a particularly cost-competitive site.

The Group is also carrying out various investments to enhance the competitiveness of its main production sites. The Group has indeed initiated a US\$110 million capital expenditure plan on its Clear Lake and Bayport sites (United States) within the Acrylics BU. By building on ARKEMA's industrial expertise and process know-how in the field of acrylics, this capital expenditure programme has helped in particular modernise the Clear Lake industrial facilities, improve the competitiveness and reliability of its acrylic acid plants, and optimise its raw material usage, as well as the yields, and hence the utilisation rate of its production capacities. By finalising this programme, ARKEMA has successfully reached the first milestone for its main acrylic production platform in the United States. This modernisation and reliability drive should continue in the next few years. Equally, ARKEMA has modernised and optimised some of its major production platforms, including the Jarrie site (France) in Hydrogen Peroxide with the conversion of mercury electrolysis to membrane electrolysis, and the Lacq site (France) in Thiochemicals where raw material supply was modified following the discontinuation by Total of its gas production in Lacq. These changes have enabled various optimisation work and investments on the site in order to strengthen its competitiveness and secure its feedstock over the next 30 years.

## • Improve the quality of the service delivered to customers through an optimised supply chain

With its « Ambition » programme ARKEMA has been upgrading and reorganising its information systems in order to optimise its supply chain and therefore the quality of the service delivered to its customers and their satisfaction. This project will also help reinforce the control of working capital for the Group's various BUs, and so should help further optimise the level of inventories and reduce the number of working capital turnover days.

The initial phase of this rollout was completed successfully in 2013 with the implementation of this new information system within the Acrylics BU. The programme will continue to be rolled out across all Group BUs over the next three years;

## Optimise the procurement of goods and services

Similar to what was done for the procurement of raw materials and energy, the Group reinforces the globalisation of its goods and services procurement. These efforts should therefore enable it to reduce the total budget allocated to the purchasing of goods and services and to strictly manage its working capital.

# 1.6.2 THE GROUP'S INITIATIVE AS REGARDS OPERATIONAL EXCELLENCE

To achieve its ambition concerning operational excellence, ARKEMA's executive management has launched an initiative involving all of the Group's Business Units and subsidiaries. This programme could represent €50 million annual savings by 2016. Hence operational excellence will underpin, alongside innovation and geographical expansion, the achievement of the 2016 EBITDA organic growth targets.

This initiative, rolled out and monitored at individual BU level, involves all operational line players (industrial managers and site managers), and requires the commitment of all Group employees. It is then implemented through various structured procedures designed to strengthen the commitment of Group employees and develop a continuous progress culture.

This continuous improvement impetus requires in particular:

 assessing the potential for progress of each Business Unit. Following a study of the main areas for improvement at every production site within the BUs, targets are set at individual BU level as regards safety, reliability, productivity and raw material and energy consumption, and are translated into quantified objectives for saving fixed and variable costs;

- improving the follow-up of certain key indicators and of the achievement of the targets set to the BUs using a number of reporting regarding in particular the injury frequency rate with or without lost time, the optimisation of raw material, energy and logistics costs, the optimisation of industrial working capital, etc.;
- identifying best practice within the Group, the chemical sector, or other industrial sectors;
- capitalising on feedback by implementing best practice reference frameworks. The reference frameworks are gradually shared by all of the Group's production sites; and
- bolstering personnel training in particular as regards safety through training programmes such as Arkema Safety Academy detailed in section 2.5.2.4 of this reference document.

Implementing these various human and technical resources should therefore enable the Group to achieve the operational excellence objectives it has set itself for 2016.



## 1.7 RISK FACTORS

## 1.7.1 RISK MANAGEMENT AND INTERNAL CONTROL PROCEDURES

## 1.7.1.1 GENERAL ORGANISATION: OBJECTIVES AND SCOPE OF INTERNAL CONTROL AND RISK MANAGEMENT

## **Objectives**

ARKEMA implements the reference framework methodology of the Autorité des marchés financiers (AMF – French financial markets authority), published in 2007 and subsequently reviewed and expanded in 2010, which it has adapted to its activity and organisation.

Internal control is a Group-wide structure, defined and implemented by senior management, management and staff. Its objective is to ensure:

- compliance with current laws and regulations;
- application of the instructions and guidance set by senior management;
- the correct operation of internal processes, notably those serving to protect assets; and
- the reliability of financial information.

Generally, internal control is designed to help manage and control the Group's activities, the effectiveness of operations, and the efficient use of its resources.

However, no internal control structure can provide an absolute guarantee that these goals are met. In particular, it cannot guarantee that, despite all processes and controls put in place, all Group employees will constantly comply with the internal control rules and will apply all the defined processes.

The Group has also implemented a risk management system allowing the Executive Committee ("Comex") to maintain risks at a level that it deems acceptable. This system helps:

- create and protect the Group's value, assets and reputation;
- render decision-making and the Group's processes more secure so that the objectives may be achieved more easily;
- make actions more relevant to the Group's values; and
- rally the Company's employees around a common vision of the main risks.

## Scope

The internal control and risk management framework is adapted to the Group's organisation, which is structured around three components:

- the three segments made of Business Units (BUs), which are responsible for their respective performance and the implementation of internal control procedures (for further details, please refer to paragraph 1.1.1.2 of this reference document);
- the functional departments (or support functions), which assist the business segments and the BUs in their area of competence, including accounting, legal affairs and information systems, and ensure that the Group's organisation is consistent and optimised (for further details, please refer to paragraph 1.1.1.2 of this reference document); and
- the subsidiaries, through which the Group exercises its business activities (for further details, please refer to paragraph 5.1.2 of this reference document).

All those companies fully integrated in the basis of consolidation of the Group financial statements are concerned by these internal control and risk management procedures.

### 1.71.2 PERSONS INVOLVED IN INTERNAL CONTROL AND RISK MANAGEMENT PROCEDURES

## **Board of Directors and Committees**

The Board of Directors, the three committees in place (Audit and Accounts Committee, Strategy Committee, and Nominating, Compensation and Corporate Governance Committee), and the expertise of their members help contribute to the creation of an internal control and risk management culture suited to the activities of the Group.

In particular, it is the responsibility of the Audit and Accounts Committee to oversee the effectiveness of internal control and risk management systems, and assess the schedule of internal auditors and the result of their work.

## **Executive Committee**

The Comex puts in place the internal control structure and ensures compliance therewith, as it:

- defines the internal control framework and the rules for delegation of responsibility;
- sets targets for each BU, functional department and subsidiary, and provides the resources for these targets to be met;

- supervises the implementation of the control procedures that help achieve the targets it has set;
- considers the risks that are specific to each project submitted to Comex; and
- carries out an annual (and whenever deemed necessary) review of the major risks to which the Group is exposed on the basis of the work of the Risk Review Committee and its presentation of the mapping of risks. Comex calls on the Internal Audit and Internal Control department to help with its operation, as well as the appreciation of Comex members.

Each member of Comex is responsible for ensuring that Groupwide rules and principles constituting the internal control framework are observed in the entities for which he is responsible and in particular in the BUs which he supervises.

## **Risk Review Committee**

In order to strengthen the formal framework of the risk identification, analysis and control procedures, and to monitor on a regular basis the evolution of risk factors, a Risk Review Committee was set up in October 2007. This Risk Review Committee comprises the Executive Vice-President Strategy (committee chairman), the Executive Vice-President Industry, the Chief Financial Officer, the Legal Affairs Vice-President, the Sustainable Development Vice-President, the Group Safety Environment Vice-President, the Insurance Vice-President, and the Internal Audit & Internal Control Vice-President (secretary to the committee).

Chaired by the Group's Executive Vice-President Strategy, the committee reviews at least once every six months, or more often if justified by a specific event:

- the summaries of audits and evaluations conducted by the Internal Audit and Internal Control department, the Safety Environment Quality department, and the Insurance department;
- the report of fraud or attempted fraud prepared by the antifraud unit;
- a summary of ongoing disputes and their progress status, presented by the Legal department; and
- assessments of commercial intermediaries made by the commercial intermediaries review commission;
- a list of risks prepared from surveys conducted by the Internal Audit and Internal Control department, the Legal department, and the Accounts & Controlling department;
- a mapping of risks prepared by the Internal Audit and Internal Control department; and
- in each of these areas, the monitoring of corrective action.

Following this review, the Risk Review Committee can decide on the updating of corrective action or request additional information. It can also request the updating of the mapping of risks.

The conclusions of this review are reported to the Executive Committee.

On completion of this process, the Executive Committee can decide on updating the main risks described in paragraph 1.7.2 of this reference document.

The Risk Review Committee met three times in 2013.

## Internal Audit and Internal Control department

The Internal Audit and Internal Control department comprises two sub-departments: Internal Audit and Internal Control. Both are independent functions under the responsibility of the Executive Vice-President Strategy.

The role of Internal Audit in particular is to improve control over the Group's management systems and processes and, more broadly, to ensure that the Group's operations are in accordance with the internal control framework.

Any management process and system are subject to internal audit. The Internal Audit department provides the audited entities with a set of recommendations which are discussed and agreed with the entities in question. Implementation of these recommendations is covered by action plans that the entities commit to implement.

An internal committee consisting of the Chief Financial Officer, the Executive Vice-President Strategy, the Head of Internal Audit and Internal Control department regularly monitors the effective implementation of these recommendations.

The Internal Audit and Internal Control department draws up a draft program for the audit plan from:

- initiatives to identify risks;
- interviews with the Group's operational and functional departments; and
- a choice of priorities from various proposals made.

The final program is validated by Comex, and then examined by the Audit and Accounts Committee.

During 2013, the Internal Audit department carried out 35 audits (28 in 2012), namely 10 audits of industrial sites of the subsidiaries Arkema France, Arkema GmbH and Arkema Inc., 20 audits of subsidiaries in Europe, Africa, the United States, South America and Asia, and 5 audits of procedures in Europe, the United States and Asia.

The primary assignment of Internal Control is to strengthen the Group's internal control systems. The internal control action is supported, at subsidiary level, by a network of correspondents within the finance and IT departments of the subsidiaries.

Internal Control conducts analysis and formalisation of processes having an impact on financial information, for which key controls have been defined.

The methodology consists of:

- the analysis, for a process or sub-process, of the main risks of error, omission or fraud that could have a significant effect on consolidated financial statements;
- the identification and formalisation of control procedures to minimise any risk of error, omission or fraud;
- the periodic verification of the existence and effective operation of these controls, carried out by the Internal Control correspondents based in the subsidiaries (self-audit) or by Internal Audit; and
- the definition of corrective measures in the event of shortcomings, and the control of their implementation.

The list of procedures covered by this methodology is based on the fourteen procedures of the AMF reference framework implementation guide published in 2007 and updated in 2010. It is adapted to the specific features and size of the subsidiaries.

**Risk factors** 

The ongoing rollout of this process, launched in 2006, has helped cover a scope of companies representing virtually all production subsidiaries in 2013, as well as include newly acquired subsidiaries.

## Business segments, Business Units, functional departments and subsidiaries

The Group's businesses are organised into business segments as described in section 1.2 of this reference document. The business segments are made up of BUs which, within their respective area of activity, coordinate the use of resources allocated to them by the Executive Committee to meet the targets set. They are responsible for their own performance and for implementing suitable control procedures and processes, in accordance with the principles and procedures defined in particular within the Group's internal control framework, Code of Conduct, charters and guidelines.

The coherence and optimisation of the Group's organisation are ensured in particular by the functional departments.

Each subsidiary is placed under the responsibility of a local manager who is responsible, within his remit, for employing the resources defined with the BUs and the support functions to meet the targets, in accordance with current laws and the rules and principles defined by the Group.

## 1.7.1.3 INTERNAL CONTROL AND RISK MANAGEMENT FRAMEWORK

The Group's internal control and risk management systems are based on three essential principles:

- clear definition of responsibilities and delegations of powers, observing rules governing the separation of duties (in particular distinction between those who approve actions and those who take those actions), which helps ensure that any person who engages the Group's responsibility to a third party has the authority to do so;
- identification, analysis and management of risks;
- regular review of the correct functioning of internal control and risk management.

The Group has defined its organisation and operating guiding principles in a document entitled "Internal Control Framework", approved by the Executive Committee and available to all employees. This document, based on the "Safety, Health, Environment and Quality Charter", the "Usage Charter for the IT and Electronic Communication Resources", and the "Code of Conduct and Business Ethics" put in place by the Group, is structured in line with the Autorité des marchés financiers reference framework published in 2007 and updated in 2010, around five components:

- control environment;
- risk management (detailed in paragraph 1.7.1.4 of this reference document);

- control activities;
- information and communication; and
- continuous evaluation of internal control systems.

## Control environment

As the foundation of the other components of internal control, the control environment draws primarily on the organisational principles of the Group, the values of the Group set out in the "Code of Conduct and Business Ethics", and the level of awareness amongst employees.

All employees are informed of the importance attached to observing the rules of good conduct set out in the "Code of Conduct and Business Ethics", the "Health, Safety, Environment and Quality Charter", and the "Usage Charter for the IT and Electronic Communication Resources".

A Compliance Program has been put in place by the Group to guarantee and, if necessary, substantiate that the Group's employees strictly comply with domestic and European competition regulations in particular. Accordingly, once a year the Legal department sends a declaration to the main executives of the BUs, the functional divisions and the main subsidiaries, who state in return that they were aware of the Compliance Program and complied with its requirements in the previous year. They are responsible for obtaining an identical declaration, signed by the employees concerned within their organisation.

A procedure relating to fraud prevention was put in place in 2008. This procedure provides for surveying and centralising situations of fraud, and thus helps with the handling and prevention thereof.

In general, the roles and duties of every operational and functional manager are set out in their job description. Goals to be met by the managers, which include an internal control dimension, are set by their respective line managers, to whom they must periodically report on their activities.

Lastly, the Group has set up a dynamic human resources management approach and a policy of ongoing training designed to ensure that staff skills are continuously adapted, and to maintain a high level of individual involvement and motivation.

## **Control activities**

Control activities entail the application of the standards and procedures that help ensure that Group management directives are carried out at every level of the Group.

To this end, a body of rules has been formally established within the Internal Control Framework, and general principles, applicable to all Group entities, have been defined in order to enable monitoring of the application of the operating method defined by the Executive Committee. By way of illustration, delegation of commitment authority and management of investments are the subject of specific notes.

- BUs and subsidiaries are responsible for operational processes and are thus the first line of responsibility in internal control.
- Functional departments are responsible for defining and distributing policy and best practice guidelines relating to their area; they ensure that these are being correctly applied, particularly in the following fields:

- compliance with laws and regulations;
- safety and environmental protection; and
- reliability of financial information.
- The control of access to IT systems forms a key element of internal control, and is subject to formal management procedures involving the departments using the systems and the IT department.

The Internal Audit team in particular conducts evaluations of the Group's compliance with its Internal Control Framework in accordance with the Audit Plan approved annually by the Executive Committee and reviewed by the Audit and Accounts Committee.

## Information and communication

IT systems are a key component of the Group's organisation.

Mindful of the opportunities and risks related to the use of information technologies, the Group has set up an information system management structure, in terms of both controlling risks and creating value and performance.

This approach is designed to apply across the Group the 10 information system management practices drawn up formally by CIGREF (*Club informatique des grandes entreprises françaises*). Additionally:

- the Group has a highly detailed financial reporting system, an essential management tool used by the senior management;
- the main internal control documents are available on the Group's intranet; and
- each support function develops professional best practice and disseminates details thereof throughout the Group via their intranet.

## Continuous assessment of internal control systems

The internal control system is monitored on an ongoing basis. The Executive Committee is responsible for the internal control system overall, for its performance and for its oversight. However, each entity remains responsible for improving internal control performance within its own scope.

In general, any weaknesses in the internal control system must be reported to management and, if necessary, to the Executive Committee.

In addition, recommendations made by Internal Audit on completion of its missions are systematically reviewed, and a summary is presented to the Audit and Accounts Committee. When decisions to apply corrective measures are adopted, their implementation is monitored on a formal basis. Furthermore, as part of their duties, the statutory auditors may alert the Group and its Audit and Accounts Committee regarding any weaknesses that they have identified. These factors are taken into account by the Group in its efforts to improve internal control.

## 1.7.1.4 RISK IDENTIFICATION AND MANAGEMENT

In the course of its business, the Group is exposed to a number of internal and external risks.

As the Group's structure is highly decentralised, risk assessment and management is the responsibility of the BUs, the functional departments and the subsidiaries. Each of these entities has a duty to reduce the risks inherent to their activities.

The Group's risk management process is based on regular reviews of risk identification, analysis and treatment, as follows:

- every month each BU presents its results and indicators to the Executive Vice-President in charge of the BU. The Executive Committee reviews the results of the segments and their respective BUs every month;
- the Accounts and Controlling department organises a quarterly review of risks and litigation that may have to be taken into account in the Group's financial statements. The BUs, functional departments and subsidiaries report on their entity's risks. These risks are analysed and dealt with at quarterly meetings in the presence of the Chief Financial Officer, the Accounts and Controlling department, the Legal department, and the Internal Audit and Internal Control department; and
- the Internal Audit and Internal Control department carries out an annual survey of risks with the Group's main entities: BUs, functional departments, and subsidiaries. Risks are identified and analysed. The most significant risks are positioned on a risk mapping. This risk mapping is presented to the Risk Review Committee which assesses the relevance of updating it and puts forward suitable action plans where necessary. The conclusions of the Risk Review Committee are reported to the Executive Committee prior to the definition of the internal audit plan. This plan is drawn up on the basis of the risk mapping and on the need to cover the Group's scope of activity on a regular basis. The significant risks known to the Group are overseen by a member of the Executive Committee. They are also examined by the Audit and Accounts Committee. The main risks are set out in paragraph 1.7.2 of this reference document, where they have been classified into the following sections:
  - Economic and business environment related risks,
  - Supply chain risks,
  - Industrial safety and environmental risks,
  - Regulatory and legal risks,
  - Financial risks,
  - IT risks,
  - Strategy and corporate governance risks,
  - Insurance coverage default related risks.

#### 1.7.1.5 ACCOUNTING AND FINANCIAL INTERNAL CONTROL PROCEDURES

**Risk factors** 

Control and understanding of financial performance by operational and functional managers of the businesses for which they are responsible represent one of the key factors in the Group's financial control systems.

## Organisation of the finance function

The finance function, which is the responsibility of the Chief Financial Officer, includes:

- functions under his direct supervision, in particular:
  - the production of consolidated financial and accounting information, which is the remit of the Accounting and Controlling department, responsible for the reliability of the data constituting the Group's financial information and for providing management accounts shared across the various entities, thus facilitating the management of the businesses,
  - cash management and the optimisation of the Group's financing, under the responsibility of the Financing and Treasury department, and
  - investor relations, whose remit is to establish, develop and maintain relations with investors, shareholders and financial analysts, and release financial information once this has been approved by the Company's Board of Directors;
- functions delegated to:
  - the BUs, each having its own management control, allowing for monthly monitoring and analysis of BU performance, and
  - the subsidiaries, each being responsible for its own monthly accounts and for its half-year and full-year financial information.

## Accounting reporting and management control

The fundamental principles for financial reporting are set out in the financial reporting manual and the management framework for the Group. These reference documents are updated annually by the Accounts and Controlling department, after approval by the Chief Financial Officer, or the Executive Committee depending on the extent of any changes.

The purpose of financial reporting is in particular to enable the analysis of actual performance relative to forecasts and to previous periods. It is based on the processes described below.

## Medium-term plan

The Strategy department draws up a medium-term plan (over five years) once a year. This plan is studied by the Executive Committee, which is then able to assess the financial consequences of the major strategic directions and the main turning points identified in the environment under consideration.

## Budget

The budget sets out the financial performance targets to be achieved over the following year; it forms part of the mediumterm plan approved by the Executive Committee.

The budget is the main point of reference to measure the actual performance of the three business segments as well as their respective BUs, the functional departments, the subsidiaries, and the Group overall.

The budget is prepared annually under the responsibility of the Accounts and Controlling department.

The BUs and the functional departments submit their budget proposals, prepared with the subsidiaries, to the Executive Committee members overseeing them.

The budget of each BU and each functional department is then submitted to the Chairman of the Executive Committee.

The process is completed with the validation of the budget by the Company's Board of Directors.

## Year-end forecast

Once approved by the Executive Committee and reviewed by the Board of Directors, the budget may no longer be modified. Based on a frequency defined by the Accounts and Controlling department, end-of-period forecasts, for the end of the current quarter and the end of the year, are prepared by the BUs and the functional departments.

## Monthly reporting

Every month, the Accounts and Controlling department prepares consolidated reports detailed by segment and BU for the Executive Committee.

Financial statements, analytical accounts, capital expenditure, and cash flow are presented together with a commentary on the month's highlights.

This reporting is analysed in depth by the Executive Committee at one of its monthly meetings.

## Consolidated financial statements

The Company releases consolidated financial information on a quarterly basis. Figures for the six months to 30 June and the twelve months to 31 December are full financial statements in the sense of IFRS, whilst the quarterly information to 31 March and 30 September is in summary form only (balance sheet, income statement and cash flow statement).

Half-year financial statements are subject to a limited review by the statutory auditors, whilst full-year financial statements are fully audited.

As part of the closure of each accounting period, the Accounts and Controlling department identifies specific closure issues through preparatory meetings with the support functions and the BUs; in addition, similar meetings are organised at least once a year with the main legal entities within the Group.

On a quarterly basis the Accounts and Controlling department receives from each BU, functional department and subsidiary a report regarding risks.

Additionally, each entity is responsible for following up its offbalance-sheet commitments, and for collection and centralisation thereof. The Financing and Treasury department consolidates all these commitments every six months as part of the half-yearly and annual accounts procedure.

Monitoring of changes in accounting regulations is provided by the Accounts and Controlling department which issues technical notes on points of specific relevance to the Group.

## Financial statements of the parent Company

The preparation of the Company's financial statements is part of the Accounts and Controlling department's general procedure for the preparation of annual financial information. Furthermore, the Company submits forecast documents to the Board of Directors in accordance with regulations.

## IT systems

The IT Systems and Telecommunications department defines and coordinates the entire Group IT systems.

The Group continues its transformation program on the basis of the SAP integrated software. In particular, rollout of the financial system has continued in Europe, while the new GMAO (*Gestion de Maintenance Assistée par Ordinateur*) plant maintenance system has been implemented in France and the United States. Upgrading the Supply Chain represents the next major step in the integration within SAP. These developments are helping to improve the control environment of the Group, particularly through procedure review, increase in automated checks, and removal of interfaces.

## Letters of representation

Each year, the Group issues, under the signature of its Chairman and Chief Executive Officer and its Chief Financial Officer, a letter of representation certifying in particular the accuracy and reliability of the consolidated financial statements addressed to the Group's statutory auditors. To underpin this representation, the CEOs and CFOs of each consolidated subsidiary make an annual undertaking to observe the internal control rules and ensure the accuracy of the financial information supplied, in the form of a letter of representation to the Group's Chairman and Chief Executive Officer and to its CFO, as well as to the statutory auditors.

Furthermore, the Group's half-yearly letter of representation is based on the main subsidiaries' half-yearly letters of representation, following the same procedure, and certifying that the subsidiaries' half-yearly consolidated accounts have indeed been prepared in accordance with the Group's financial reporting manual.

## **Investor relations**

Press releases concerning financial information are prepared by the Investor Relations team and reviewed internally by the various departments of the Finance department concerned, then by the statutory auditors, and by the Audit and Accounts Committee. The Company's Board of Directors then approves the final text.

## 1.7.1.6 THE GROUP'S INSURANCE POLICY

The Group implements an insurance coverage strategy that combines a prevention policy in close cooperation with insurers (in particular for property damage, via periodic visits to the sites together with technical recommendations followed up on a regular basis), and the purchasing of insurance policies.

The Group's policy is to insure centrally, on a global scale, risks relating to the production, transport and marketing of its products. In order to optimise its policy of covering all the companies in the Group, the Group uses international insurance brokers. In general terms, the Group's insurance policies contain limits of cover which are applicable either per claim, or per claim and per year. These limits vary according to the risks covered. In most cases, coverage is limited both by a certain number of exclusions usual for these kinds of contracts and by deductibles of a reasonable amount taking into account the size of the Group.

In the 2013 financial year, the total amount of premiums paid by the Group and relating to the Group's insurance policies presented hereafter, was less than 1% of its sales.

The Group's insurance policies have been established so as to cover the risks present at the time they are set up, while also able to accommodate any new acquisitions or divestments that may take place during the year.

The Group will retain a certain level of risks either through deductibles on its insurance policies or centrally through a captive reinsurance company. This captive reinsurance company is active only in property insurance. The purpose of this captive company is to optimise the cost of external insurance.

A general description of the insurance policies taken out by the Group can be found below. Details have not been provided, to comply with confidentiality requirements and to protect the Group's competitiveness.

The Group believes that its insurance policies are adequate as compared to the insurance program currently available on the insurance market for groups of similar size and engaged in similar business activities.

The Group selects its insurers from the best and most financially sound companies when subscribing its policies. However, the possibility that one or more of these insurers, at the time of settling a claim, could be in a difficult, even compromised, financial situation casting doubt over the effective payment of compensation for the said claim, cannot be ruled out.

Furthermore, changes in the insurance market could lead to unfavourable changes to the Group's insurance policies, and to an increase in premiums for such policies. This could adversely affect the Group's business, financial situation, or results.

Insurers providing insurance cover as part of the Group's insurance program may (under certain conditions deemed customary for this type of insurance contracts) prematurely terminate the Group's insurance policies in the event of a major claim. In such an event, the Group will nevertheless remain covered throughout the notice period, which may vary from policy to policy.

## Liability

The Group has contracted liability insurance policies with leading insurance companies. The liability insurance policies (subject to applicable exclusions) cover the Group throughout

the world against the financial consequences of liability claims in the context of its business activities and in respect of physical, material or pure economic damages or losses caused to third parties. This program provides cover of up to approximately 700 million euros for the Group. Deductibles vary, particularly as a function of the location of subsidiaries.

**Risk factors** 

#### **Property damage**

The various sites of the Group are insured by leading insurance companies against material damage and business interruption which could result there from. This cover is intended to avoid any significant financial impairment and to ensure the resumption of operations in the event of losses. However, certain property and certain types of damage, which vary according to the country in which the loss occurs, could be excluded from the scope of this insurance policy.

The cover includes a "direct damage" element and a "business interruption" element (including sub-limits for machine breakdowns, natural disasters or terrorism) with the period of indemnification for the latter extending to a minimum of 24 months. Deductibles accepted vary according to the size of the subsidiary concerned. The maximum total retention in the event of a major claim is between 22 and 26 million euros.

The limit of cover for direct damage and business interruption can amount to 630 million euros, as a result of the combination of several policies.

## Cargo

The Group is insured against the risk of damage to its manufacturing assets, equipment, finished or semi-finished products and raw materials during transportation or storage by third parties up to a limit of 12 million euros per shipment. This limit is higher than the value of the largest shipments usually made or received by the Group. The policy includes a deductible and several exclusions usual for this kind of agreement.

### **Environmental risks**

In the case of sites located in the United States, the Group has taken out an environmental insurance policy with a leading insurance company with a limit of 50 million US dollars. Under certain conditions, this policy covers the environmental risks associated with the Group's production sites located in the United States. It covers all future accidents affecting the environment, whether inside or outside the American facilities, but it does not cover cases of pollution which were already known in 2005 and which are caused by past operations.

For Europe and the rest of the world, the Group has taken out an insurance policy covering its liabilities for pollution outside its sites with a limit of 50 million euros. Cases of pollution which were already known in 2005 and which relate to past operations are not covered.

## 1.7.2 MAIN RISKS

The Group carries out its business activities in a rapidly changing environment, which creates risks for the Group, many of which are beyond its control. The risks and uncertainties described below are not the only ones which the Group faces or will face in the future. Other risks and uncertainties of which the Group is currently unaware or that it deems not to be significant as of the date of this reference document could also adversely affect its business activities, financial situation, results, or future prospects.

The means implemented by the Group to assess and manage risks, and in particular the availability of a risk mapping, are featured, from a general standpoint, in section 1.7.1 above in this reference document. They are described more specifically in relation to each of the risks mentioned below.

The occurrence of one or more of the risks described below could have an adverse effect on the Group's activity, financial situation, results and future prospects.

## 1.7.2.1 RISKS RELATED TO THE ECONOMIC AND BUSINESS ENVIRONMENT

The Group has identified three types of risks associated with the economic environment in particular: risk relating to variations in supply and demand, risk related to countries, and risk related to competition.

## Risk related to variations in supply and demand

The Group's results could be directly or indirectly affected by variations in supply and demand, both upstream of its activities (raw materials and energy resources) and downstream, in the various end-markets it serves, such as decorative paints, automotive, construction and energy.

Upstream of its activities, the Group uses large amounts of raw materials and energy resources in the processes it requires for manufacturing its products. Certain raw materials like propylene and butadiene are indirectly linked to the price of crude oil, while others like sulfur, castor oil and fluorspar are not. The prices of these materials can be highly volatile, with any fluctuation leading to significant variations in the cost price of the Group's products. Regarding the products manufactured and marketed by the Group, external factors over which the Group has no control, such as economic conditions, competitors' activities, international situations and events, can also lead to volatility in demand and hence in the sales prices and volumes for these products.

## **Risk management**

The Group seeks to secure its sources of supply for these raw materials and energy sources and to reduce the cost thereof by diversifying its sources of supply. In some cases it may also use derivatives, such as futures, forwards, swaps and options, on both organised and over-the-counter markets. Such instruments are strictly related to existing contracts (see notes 22.5 and 23 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document).

The Group also seeks to pass increases in the cost of its raw materials on to its sales prices. The progress in the Group's results and profitability since its stock market listing bears testimony to its ability to adapt to fluctuations in the cost of raw materials.

To address the risk of volatility of demand, ARKEMA has a portfolio of diversified products and application markets and a balanced geographical presence. These assets enable the Group to mitigate the risk related to worsening economic conditions in any one of its end-markets.

The Group also continues to strengthen its positioning towards higher added value niche markets, e.g. animal feed, bioplastics, deepwater oil and gas extraction, new energies, and water treatment, which enable it to offset any potential downturn in the major end-markets with greater exposure to the economic climate.

Finally, the Group's integration in certain product lines such as acrylics, fluorochemicals and specialty polyamides reduces its exposure to market cycles.

## **Risk related to countries**

The Group operates on a worldwide basis and has production facilities primarily in Europe, North America and Asia. Many of its main customers and suppliers also have international operations. Consequently, the Group's business and financial results are likely to be directly or indirectly affected by any negative change in the economic and political environment in which the Group operates.

The direct and indirect consequences of conflicts, terrorism, political instability or the emergence of health risks in countries where the Group is active or markets its products could affect the Group's financial situation and future prospects, in particular by causing delays or losses in the delivery or supply of raw materials and products, and increasing costs related to safety, insurance premiums or other expenses needed to ensure the future business of relevant operations. The Group's international business activity exposes it to a multitude of local business risks, and its global success depends in particular on its ability to adapt to economic, social and political changes in each of the countries where it operates, and to develop and implement effective policies and strategies in each of its foreign bases.

## **Risk management**

The Group relies on subsidiaries in most countries in which it has industrial and commercial operations. These subsidiaries are under the authority of a regional director. This organisation helps represent the Group with local authorities and economic players, defend its interests, and better anticipate changing trends in the local political and economic environment.

Furthermore, with its balanced geographical presence in Europe, North America and Asia, the Group is able to minimise the global impact of any variation in the economic and political environment in any given region, and benefit from higher growth environments, in particular in Asia.

## **Risk related to competition**

The Group faces intense competition in each of its business lines.

In Industrial Specialties, the commodity nature of certain products can lead to significant price competition. Some of the Group's competitors are larger than the Group and are more vertically integrated, which could enable them to benefit from lower production costs for certain products that are also manufactured by the Group. In the downstream of its Coating Solutions segment and in its High Performance Materials segment, differentiation, innovation and the quality of the products and related services play an important role.

Any of the Group's products may face intense competition, due in particular to excess production capacity or low prices set by certain manufacturers that operate with particularly competitive production cost structures.

The introduction on the market of new innovative products, new technologies, or the emergence of new competitors could also affect the Group's competitive position.

## Risk management

Since its creation, the Group has implemented a policy aimed at operational excellence and cost optimisation in order to reinforce the competitive advantages it enjoys in its various product lines and guarantee the quality and performance of the products offered to its customers.

The Group also makes a significant R&D effort in particular in the High Performance Materials segment, resulting in the launch of a large number of new innovative products (see section 1.4 of this reference document).

Finally, the development of partnerships with customers and suppliers, who are leaders in their respective fields, lies at the heart of the Group's strategy, and allows it to build strong commercial relationships with its main partners.

## 1.7.2.2 SUPPLY CHAIN RISKS

**Risk factors** 

### **Risk related to transport**

The Group arranges for the transport of various hazardous, toxic or flammable materials by road, rail, ship and air, particularly for shipments to customers in the different countries where it operates. These modes of transport generate risks of accidents and any such accidents could give rise to claims against the Group, in particular in its role as the shipper.

Furthermore, due to (i) the strengthening of regulations on hazardous materials transport, (ii) the temporary or permanent lack of availability of transport means for certain toxic or hazardous products to certain destinations, (iii) the possible concentration of the offer on a single supplier (in particular in France and the United States), and (iv) labour movements affecting transport, the Group may have to face the following problems:

- delays in delivery or even refusals by its carriers to collect shipments;
- difficulties in meeting certain kinds of demand from its customers;
- increase in certain shipping costs or shipping equipment rental costs; and
- need to reduce certain shipments unless it sets up geographical swaps of products with other manufacturers.

The Group also owns or uses a small number of pipelines for carrying hazardous materials. Despite the safety measures that the Group has adopted for the operation of these pipelines (see section 2.1 of this reference document), the possibility of an accident can never be ruled out. In addition to the obvious environmental impact, such an accident would negatively affect the operation of certain plants and could therefore have a material adverse effect on the Group's business, financial situation, results and future prospects.

#### **Risk management**

To prevent or minimise risks related to transport, the Group endeavours to:

- diversify its suppliers and share its product movements between several hauliers when several offerings are available;
- resort to transport methods that are deemed less dangerous (barge, pipeline, road-rail or rail), when technical and economic conditions permit;
- select suppliers rigorously based on the SQAS (Safety Quality Assessment System) database laid down by a consortium of European chemicals manufacturers under the aegis of CEFIC;
- assess the quality and safety performance of carriers used;
- ensure regular maintenance of the transport equipment which it owns, hires or leases (wagons, iso-containers, tankers and pipelines);
- resort to systemic risk assessment studies when a modal shift is required;
- inform and influence regulators either directly or via trade unions and trade associations when regulations become more restrictive; and

 resort to various procedures for assessing operational risks, such as vetting bulk by sea chartering, and oversight of transport safety management system by the Transport Safety department which is part of Safety Environment Group division.

For pipelines, the Group carries out hazard studies in particular, with definition of compensatory measures to minimise risks where necessary, defines monitoring and response plans, and carries out drills with the emergency services.

### Risk related to storage

The Group uses many storage and warehousing facilities located on its manufacturing sites and elsewhere. Such storage facilities may present risks to the environment or to public health and safety. Accidents for which the Group may be held liable could arise in the storage and warehousing centres used by the Group.

Moreover, some of the storage providers that the Group uses derive substantial revenues from the Group in certain regions. Should one of these providers fail to perform, the Group could be compelled to renegotiate storage contracts under less favourable conditions, or to store its products in other locations.

#### Risk management

To anticipate and minimise the above-mentioned risks related to storage, the Group endeavours to:

- diversify its suppliers where several offers are available;
- put in place alternative emergency solutions combining transport plan and distribution diagram, with a lag time for implementation;
- select suppliers rigorously, based on the SQAS Warehouse and CDIT (Chemical Distribution Institute – Terminal) database; and
- conduct storage audits prior to signing contracts and every three years for hazardous materials warehouse facilities, under the responsibility of the relevant BUs.

## Risk related to dependence on suppliers

The Group has developed a policy for spreading the supplier risk in terms of product lines and geographical exposure for its supplies of raw materials, energy/gas, and services and equipment. However, for certain raw materials or equipment that are essential to its business, the Group is dependent on a limited number of suppliers, and in some cases just one supplier, for a significant part of such supplies. For example, some of the Group's operational units in France (in acrylic acid, oxoalcohols and functional polyolefins) were built downstream of steamcrackers owned by Total Petrochemicals France (TPF). The level of physical integration of these units with TPF's production capacities supplying the raw materials is particularly high. The scheduled shutdown of the Total Petrochemicals France steamcracker in Carling (France) will cause the Group to study a new logistics plan for the propylene supply required for its acrylics activity.

Furthermore, the Group has entered into long-term agreements featuring in particular minimum supply commitments with a number of its raw materials suppliers. In the event of failure to fulfil these contractual commitments or if the Group should terminate these agreements before the end of their term, the relevant suppliers could file claims for compensation or for payment of penalties.

Failure to perform by a major supplier, the non-renewal or the renewal under less favourable conditions of supply contracts for certain raw materials, or a significant increase in prices charged by any one such supplier could have a material adverse effect on the Group's industrial and financial performance.

The main contracts are described in section 1.5 of this reference document.

## **Risk management**

The centralised procurement policy put in place by the Group for raw materials and goods and services aims *inter alia* to analyse and address globally the risk related to the Group's exposure to strong supply dependency.

This policy is based on the following principles:

- a thorough evaluation of suppliers based on the following criteria: position in the market concerned, industrial performance, financial strength, development;
- contractual supply commitments based on a percentage of the Group's requirements;
- careful oversight of the duration of contractual commitments;
- a balanced spread of geographical (even political) risk;
- the development of partnerships/long-term contracts for supply situations structurally under severe constraints due to supplydemand balance and/or the limited number of suppliers;
- a cooperation agreement as part of technological developments;
- responsible management of certain speculative raw materials;
- diversification of supply sources when technical conditions permit;
- management of logistics flows and inventories adapted to both business and manufacturing requirements, particularly for strategic products; and
- participation in certain investments or development projects.

The Group has signed various long-term supply contracts (the main ones of which are described in section 1.5 of this reference document).

Finally, the Group has included the risk of default by one of its suppliers in its insurance policies.

## Risk related to dependence on customers

The Group has entered into agreements with certain customers that represent significant financial income. It cannot be ruled out that these contracts may not be renewed, or may be renewed under less favorable terms than initially agreed, or may be terminated.

## Risk management

The Group has a highly diversified customer base, and achieves less than 25% of its sales with its top 25 customers. No single customer accounted for more than 3% of the Group's sales in 2013.

Furthermore, the Group's commercial policy relies on the development of alliances or partnerships with its customers in order to establish strong relationships over the long term.

However, in some exceptional cases whereby the customer breaches its contractual commitments, the Group may have to initiate proceedings or even arbitrations to assert its rights.

## 1.7.2.3 INDUSTRIAL SAFETY AND ENVIRONMENTAL RISKS

The Group's business activities are subject to a body of regulations and international and local laws that are constantly changing in the areas of environmental protection and health and safety. These regulations impose increasingly strict obligations, particularly concerning industrial safety, emissions and discharges of toxic or hazardous substances (including waste) into the air, water, or ground, utilisation, labelling, traceability, handling, transport, storage, and the disposal of toxic or hazardous substances, exposure to the latter, as well as the restoration of industrial sites and the remediation of soil and groundwater.

## Risk related to the operation of industrial plants

Due to the very nature of their operations, the hazard, toxicity or flammability of certain raw materials, finished products or production or supply processes, the Group's plants may be subject to risks of accidents, fire, explosion and pollution. Any accident, whether at one of its production sites or during the transport or use of products manufactured by the Group, may cause delays in production or give rise to compensation claims on grounds of contractual liability or, as the case may be, on grounds of product liability.

Some of the Group's production facilities are also exposed to climatic or seismic risks due to their geographical location. The Group has in fact identified fourteen production facilities in the United States near the Gulf of Mexico (ten sites) and near the Ohio and Mississippi Rivers (four sites), three sites in Asia (China, India and Malaysia) and two sites in Europe (Italy) that may be exposed to risks of physical deterioration or even production interruption owing to major climatic events (storms or hurricanes in particular) or to seismic activity (earthquakes).

Furthermore, the Group's production facilities may experience extended shutdowns in particular as a result of problems with the supply of raw materials or energy resources or reliability of major equipment or even labour unrest.

**Risk factors** 

Such risks, over and above any liability issue, could have an impact on the Group's results, financial situation and business.

### Risk management

Each of the Group's plants and activities, wherever they may be located in the world, are subject to a group-wide safety management initiative adapted to the risks that they might generate.

This initiative, embodied in the Safety, Health, Environment and Quality Charter, is structured around the following three priorities:

- taking action on technical levels, for example in designing or improving production plants (process safety and ergonomics), and regarding the specifications of hazardous material transport equipment;
- taking action on the organisation, by ensuring that the management system of each entity complies with the Group's safety requirements that are also proportionate to the level of risk of each site. These requirements are reflected in the Arkema Integrated Management System (AIMS) reference database which compiles within a single audit all the audits conducted by the Group relating to safety, environmental protection, and quality; and
- taking action on the human factor, by developing a safety culture that raises everyone's awareness of their individual responsibility and of the importance of their personal behaviour, as well as dialogue between management and employees.

These various points are detailed in section 2.1.1 of this reference document.

The Group has also taken out insurance policies for liability and property damage with leading insurance companies (see section 1.7.1.6 of this reference document).

## **Risk related to health**

In manufacturing its products, the Group uses and has in the past used toxic or hazardous substances. Employees and former employees of the Group, and in some cases, employees of subcontracted companies and service providers, as well as customers of the Group and people living near the Group's manufacturing facilities, may have been exposed or may still be exposed, to these substances, and, as a result, have developed or may develop specific pathologies from such exposure. In addition, for certain substances, now regarded as risk-free, chronic toxicity, even in very low concentrations or exposure doses, could be discovered in the future. Certain products may also be used directly or indirectly in sensitive applications (in particular medical and food applications).

Furthermore, serious health crises, declared by the State and which can be of several types, can result in the shutdown of plants, research centres, even head offices and other facilities. These serious health crises include in particular:

- major epidemics or pandemics;
- crises related to contaminated medicines, food or vaccines;
- crises related to climatic or weather events (heat wave, exceptional drought or flooding); and
- consequences of chronic exposure to a hazardous contaminant over the long term.

### Risk management

The Group has put in place safety and monitoring procedures at Group level as well as individual production site level. It also conducts regular research into the toxicity of the products it uses, and in addition has developed a tool for monitoring individual exposure to toxic products. The various procedures in place are described in section 2.2.2 of this reference document.

The Group may also need, where necessary, to withdraw certain products in particular from certain sensitive markets.

In the event of a serious health emergency, crisis units managed by trained personnel are set up in the plants, in the countries and at Group level, to define the standards that guarantee high levels of health protection as well as the rules governing certain activities in order to achieve the lowest possible risk level, and put in place response plans to address health emergencies and exceptional situations. Additionally, in the event of epidemics or pandemics in particular, every ARKEMA site around the world has set out business continuity plans entailing actions on two levels:

- health and organisation measures to limit the transmission of viruses and protect the health of employees and subcontractors working on the sites (i) by providing information and raising everyone's awareness of health measures, and by providing water/alcohol solutions for hand washing as well as protective masks, (ii) by issuing instructions to contain isolated cases, (iii) by cutting down the number of meetings and travel, and (iv) by implementing teleworking solutions; and
- measures designed to adapt the activity to the level of absenteeism by organising a structure enabling a site to continue operating despite the absence of significant numbers of personnel, and in the extreme case of very high absenteeism, to ensure safety and the protection of the environment.

## Risk related to the environment

The business areas in which the Group operates entail significant environmental liability risks.

The Group operates many industrial facilities, in particular "Seveso" facilities (33 sites) as defined by European Directive 33 (EC) n° 96/82 of 9 December 1996 known as the "Seveso II Directive" or similarly identified facilities outside Europe, where hazardous substances that are liable to present significant risks to the health or safety of neighbouring populations and to the environment are used, produced or stored. In this respect, the Group has in the past and may in the future incur liability (i) for having caused injury or damages to people (mainly due to exposure to the hazardous substances that are used, produced or destroyed by the Group or that are present on its sites) or to property, or (ii) for having caused damages to natural resources.

While the Group has secured insurance policies to cover civil liability and environmental risks from leading insurance companies (see paragraph 1.7.1.6 of this reference document), should claims arise involving the Group's businesses or products, the possibility that it may be held liable for amounts exceeding the coverage ceilings or for uninsured events cannot be ruled out. Furthermore, any accident, whether it occurs at a production site or during the transport or use of products made by the Group, may result in production delays or claims for compensation, particularly contractual claims, or product liability claims.

The amounts covered by provisions or included in the Group's investment plans may prove to be insufficient if the Group's liability is engaged for environmental claims, due to the intrinsic uncertainties involved in projecting expenditures and liabilities relating to health, safety and the environment. It cannot be ruled out that the assumptions used to determine these provisions and investments may need to be adjusted, mainly due to changes in regulations, changes in the interpretation or application of regulations by the relevant authorities, or, with respect to issues related to restoration of the environment, technical, hydrological or geological constraints, or the discovery of pollution that is not yet known.

Achieving compliance for Group sites that are still in operation or for sites where operations have ceased entails a risk that could generate substantial financial costs for the Group.

Contingent environmental liabilities are detailed in note 20 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

#### Risk management

Environmental risk management is governed by a policy defined and followed up by the Environment Remediation department within the Group's Safety Environment division. This policy is rolled out within the Group's various BUs, under the responsibility of the industrial directors. The elements of this policy are detailed in section 2.2 of this reference document.

The Group also benefits from indemnity agreements granted by subsidiaries of Total S.A. with respect to industrial wasteland preceding Arkema's stock market listing (see description of these guarantees in note 29 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document).

## Risk related to the management of sensitive data and in particular the dependence on certain technologies

In its business activities the Group uses technologies that it owns as well as a certain number of technologies under licence from third parties. Furthermore, in some cases, the Group's activities rely on technologies that require particular know-how from its personnel. The Group also invests in new industrial plants and exposes itself to a risk of disclosure of confidential documents and of copying of a process or a technology that is key to its productions and to maintaining its international competitiveness.

If the Group was no longer able to use these technologies, this could produce an adverse effect on its business, financial situation, results and future prospects.

## Risk management

The Group conducts a policy for the technological development of processes, in particular as part of its R&D programs, so that it may have direct control, in its major activities, over the technologies it uses and so contribute to reducing its level of exposure to third parties in the field of technologies.

Additionally, the Group conducts a personnel retention policy (see section 2.5 of this reference document), and ensures that knowhow and control of certain sensitive technologies are shared by enough employees.

Furthermore, the subcontracting of equipment used at the core of the Group's key processes is entrusted to specific companies under confidentiality agreements. Files and technical manuals are handled by a small number of players, including the BUs' process officers and the engineers from the technical centres.

## Risk related to land that the Group does not own

While the Group owns most of the plots of land on which its facilities are built, some industrial facilities around the world are located on land that belong to third parties, either for reasons related to local regulations, or for technical or strategic reasons, and that the Group occupies under the terms of leases or similar agreements.

If these agreements were to be terminated or not renewed, or if a site was to be expropriated, this could adversely affect the Group's business, results, or financial situation.

## **Risk management**

The Group ensures, when negotiating contracts, that sufficiently long periods of time and extended advance notice periods are in place in order to establish occupation over the long-term and therefore minimise insecurity, and optimise where possible land management that suits its requirements. Contractual expiry or renewal dates are monitored regularly to minimise this risk.

To the best of the Group's knowledge, at the date of this reference document, there is no specific significant risk relating to the potential non-renewal during the year of leases or similar agreements.

## 1.7.2.4 REGULATORY AND LEGAL RISKS

**Risk factors** 

The Group is subject to a complex and constantly changing set of local, national and international laws and regulations in a large number of fields (safety, environmental protection, competition law, company law, commercial law, patent protection, labour law, tax law, customs regulations, etc.) that differ depending on the countries in which the Group operates.

The Group's central departments provide regulatory watch in their respective fields of expertise in order to maintain a high level of knowledge and anticipate possible future changes.

## **Risk related to product regulations**

If existing regulations were to be amended to become more restrictive for the Group or if new regulations were adopted, this could (i) compel the Group to significantly scale back on production and marketing of certain products, or, possibly, discontinue production and marketing altogether, (ii) restrict the Group's ability to alter or expand its facilities, and (iii) possibly compel it to abandon certain markets, incur significant expenditure to produce substitute substances, or institute costly emissions control or reduction systems.

A large number of these regulations, described in section 2.2.2 of this reference document, require chemical products to be recorded in lists, called inventories, with files of varying degrees of complexity being made available.

## **Risk management**

To ensure that its products are marketed in accordance with local, national or international regulations, the Group employs regulatory experts who rely on a global network of correspondents based in the industrial sites, in the BUs and in the subsidiaries, as well as experts in physico-chemistry, toxicology and ecotoxicology working at improving knowledge and understanding of the hazard characteristics of the substances and products manufactured, imported and marketed by the Group. All these experts also use efficient IT resources as well as access to databases allowing them to follow up the evolution of scientific knowledge and regulatory changes, and to produce the documents required to comply with the regulations within the prescribed time. These experts take part in professional associations which monitor proposed regulatory changes at State or agency level, and this helps the Group anticipate regulatory changes and so prepare accordingly.

In cases where regulatory changes concerning products lead to certain restrictions on the use of raw materials or the marketing of finished products, the Group relies on its R&D to develop alternative solutions. This is the case, for example, with resins for paint, an application for which the Group has successfully developed formulations that meet the latest VOC requirements (alkyds in emulsions, VAE emulsions, powder resins, high solid resins, etc.). Finally, in the particular case of Registration, Evaluation and Authorisation of Chemicals (REACH) and other local legislations described in chapter 2 of this reference document, ARKEMA has put in place a specific organisation to optimise the implementation of these regulations.

## Risk related to industrial property

The Group attaches great importance to industrial property rights, both in respect of its brand names and patents, in order to protect the innovations coming out of R&D, all the Group's patents and brand names representing an asset that is essential for conducting its business. As a result, inadequate protection of its industrial property rights or its brands could impair the Group's future prospects.

#### Risk management

The Group develops a dynamic policy to protect its innovations and its know-how (registration of patents and trademarks), relying in particular on a global network of industrial property consultants (further detail on the Group's industrial property protection policy may be found in section 1.4.2 of this reference document).

## Risks related to business mergers, acquisitions and divestments

As part of the implementation of its strategy, the Group has, in the past, provided a number of guarantees to third parties at the time of the divestment of various activities. It cannot be ruled out that, when some of these guarantees are invoked, the amounts of the claims may exceed the provisions potentially made by the Group in this regard, which could have an adverse effect on its results and financial situation.

The Group has also carried out many bolt-on acquisitions in recent years. These may expose ARKEMA to various risks and in particular potential liabilities or responsibilities related to these activities. Should the assumptions on the basis of which these acquisitions were carried out, not be realised, the development prospects of these activities may not be achieved.

#### **Risk management**

The Group endeavours, before entering any external growth operation, to take all necessary precautions when identifying targets, in particular by conducting an in-depth evaluation of the activities and companies concerned as well as the various liabilities related to the business being divested and by negotiating appropriate guarantees from the sellers with the advice of external consultants who are experts in the field.

The Group's policy in terms of business divestment is to limit its liability in the guarantees it is required to grant to the buyers.

## Risk related to current or potential litigations

In the normal course of its activities, the Group is a party or may become a party to a number of administrative, legal or arbitration proceedings, as a result of which it may be found liable on various grounds, in particular for violating antitrust laws relating to cartel behaviour, full or partial failure to fulfil contractual obligations, termination of established commercial relationships, pollution, or non-conformity of products.

A description of the major current or potential claims, in particular the arbitration proceedings initiated by the Klesch group, is given in note 20 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

To the best of the Company's and the Group's knowledge, there is no other governmental, legal or arbitration proceeding currently underway or with which the Company or the Group are threatened, that is likely to have or has had in the course of the last twelve months negative material effects on the financial situation or profitability of the Company or the Group.

Provisions are made in the accounts every time the payment of a quantifiable and large indemnity is likely (see note 20 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document). The resulting provisions, and in particular those relating to large claims, may however prove insufficient, which could have significant adverse consequences on the Group's business, financial situation, results or future prospects.

Additionally, generally it cannot be ruled out that, in the future, any new proceedings, related or not to existing proceedings, may be initiated against a Group entity, whereby these proceedings, were they to have an unfavourable outcome, could have an adverse effect on the Group's business, financial situation or results.

## Risk management

Legal risks related to current or potential litigations are subject to a quarterly review at Group level.

Accordingly, on the first day of the last month of each quarter, each BU, functional division and subsidiary has to inform in writing the Accounting and Controlling department and the Legal division of the Group of any legal risk or legal proceedings affecting or likely to affect the Group's operations. Representatives from the Accounting and Controlling division and the Legal division meet to analyse such risks and legal proceedings and to determine, in conjunction with the BUs, the functional divisions and the subsidiaries, the amount of the provisions relating to such risks and legal proceedings based on the rules described in note B "accounting principles and methods" to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document.

Additionally, the Group has put in place a Compliance Program, as referred to under paragraph 1.7.1.3 of this reference document, which sets out the behaviours and practices to be adopted to ensure compliance with the applicable antitrust rules in particular.

## Spin-off of Arkema's Businesses in 2006

As part of the Spin-Off of Arkema's Businesses, Total S.A. or some companies of the Total group have entered into contractual commitments and indemnities with the Company to cover certain environmental and tax risks as well as certain risks relating to antitrust law (see section 1.5 of this reference document and note 29.2 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document). However, these commitments and indemnities do not cover all the risks or liabilities that the Group may incur, and the Group will continue to assume part of such risks, which could produce material adverse effects on its business, financial situation, results or future prospects. Furthermore, certain contractual commitments and indemnities, in particular the antitrust indemnities, provide for assumptions whereby they would terminate in particular upon (i) the occurrence of certain events, such as a change of control of the Company or (ii) a breach by the Group of its contractual obligations. Should these events occur, this could produce material adverse effects on the Group's results, financial situation or future prospects.

## 1.7.2.5 FINANCIAL RISKS

The Group is exposed to financial risks of varying nature: liquidity risk, currency risk, interest rate risk, credit risk (counterparty risk), pension funding risk, and tax risk.

The information provided below is based on certain assumptions and expectations which, by nature, may prove not to be accurate, particularly with respect to changes in exchange rates and interest rates, and the Group's exposure to the associated risks.

## Liquidity risk

In order to finance its day-to-day operating requirements and its developments, the Group resorts to loans from banking institutions and bond issues. However, the Group may have to contend with unforeseen needs resulting in particular from an increase in working capital requirement or unfavourable market conditions. Furthermore, it cannot be ruled out that one or more banks may be unable to meet their obligations to the Group with respect to one of its main credit lines, which would result in significantly reducing the Group's access to financing or could make refinancing under equivalent conditions difficult.

Further detail on the borrowing conditions and in particular on early repayment clauses may be found in paragraph 4.1.7.1 and in notes 21 and 22 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

## **Risk management**

The Group's financing policy, implemented by the Financing/ Treasury division, aims to provide the Group with the necessary financial resources to fund its operations over periods of time adapted to its repayment ability. This policy is based on the following main points:

- have the Group's long-term credit rated by two rating agencies, and maintain the ratings at least at their current level;
- maintain a ratio of net financial debt to shareholders equity below 40%;
- maintain cash reserves in excess of 500 million euros;
- maintain average maturity of over 3 years; and

**Risk factors** 

diversify its sources of financing.

At 31 December 2013, the Group presented a strong financial profile:

- its net debt to equity ratio was 39%;
- it had liquidity reserves of around 1,200 million euros; and
- it also had an EMTN program, representing a maximum amount of 2 billion euros, designed to facilitate its access to bond markets.

At the date of this reference document:

- the average maturity of the Group's resources was in excess of 4 years; and
- the Group's long-term credit ratings were BBB (stable outlook) according to credit rating agency Standard & Poor's, and Baa2 (stable outlook) according to credit rating agency Moody's.

Consequently, at the date of this reference document, the Group is able to meet its payment commitments as part of its operations, and does not anticipate any problems in the coming months.

## **Currency risk**

Given its international operations, the Group is exposed to currency risks of a varying nature:

- the transactional risk related to the Group's day-to-day operations and development projects;
- the translation risk related to the consolidation in euros of the accounts of the Group's subsidiaries whose currencies are other than the euro. Fluctuations in these currencies, particularly the US dollar against the euro have in the past and may in the future materially affect the Group's financial situation and its operating results. For an indication of the impact on sales of the translation effect especially of the US dollar to the euro, please refer to paragraph 4.1.4 of this reference document; and
- the competitiveness risk related to the fact that the proportion of the Group's operating costs in the euro zone exceeds the proportion of its sales generated in this zone. As a result, the Group's competitive position may be affected by the weakness of certain currencies, and in particular the US dollar against

the euro, insofar as its competitors may take advantage of lower production costs in countries with a weak currency. Furthermore, the weakness of certain currencies in countries with major imports from the Group may affect its results.

### **Risk management**

The Group's objective is to minimise the impact of exchange rate variations on its result.

The transactional risk is hedged systematically when recorded in the accounts: Group companies cover their assets and liabilities in their currencies compared to their respective functional currencies, with their debts issued in their functional currencies except when funding in a currency is associated with a commercial risk in the same currency. Hence variations in exchange rates produce no material change in the income statement. Revenues and costs in foreign currencies are covered essentially by spot foreign exchange transactions and sometimes by forward transactions.

The currency risk related to future transactions such as the Group's investment projects or its cash flow forecasts is covered only exceptionally. Hedging of these cash flow forecasts is carried out by the Financing/Treasury division through simple derivative instruments.

Further details may be found in notes 22 and 23 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

- The translation risk is not hedged. The Group indeed considers that this risk is inherent to its worldwide operations.
- Finally, the competitiveness risk has already diminished and should continue to do so thanks to the Group's development and geographical expansion strategy aimed at a better balanced presence between the various geographical regions.

## Interest rate risk

The Group is exposed to variations in interest rates.

At 31 December 2013, the Group's debt was 1,300 million euros, which included essentially a 500 million euros bond issue with a 4% fixed rate, a 480 million euros bond issue with a 3.85% fixed rate, a 150 million euros bond issue with a 3.125% fixed rate, and the use up to 2 million euros of the securitisation program; the commercial paper program had not been used at 31 December 2013. The terms of this financing are described in paragraph 4.1.7.1 of this reference document.

On the basis of a 923 million euros net debt at 31 December 2013, and given its split between fixed-rate debt and floating-rate debt, a 1% increase in interest rates would reduce the cost of the debt by a little under 1 million euros.

## Risk management

The Group's objective is to minimise the impact of interest rate variations on its financing cost while reducing it.

- Rate risk exposure is managed by the Group's Financing/ Treasury department, and simple derivatives are used as hedging instruments.
- The Group has in recent years given priority to fixed-rate indebtedness given the historically low rates. However, the Group regularly re-assesses its position based on market developments, and could enter into rate swaps on its bond issues in order to reduce the cost of its indebtedness.

Further detail may be found in note 22 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

## **Credit risk**

## Accounts receivable and other debtors

The Group fosters relations with a large number of counterparties, most of which are its customers. On 31 December 2013, accounts receivable net of depreciation amounted to 824 million euros. These accounts receivable are detailed by due date in note 22 of the notes to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document.

The Group's exposure to credit risk is linked to the individual characteristics of its customers. Default by one of these customers is likely to lead to a financial loss limited to the amount of the uninsured percentage of the debt owed to the Group by this customer.

## Risk management

The Group's objective is to secure the collection of its accounts receivable through a global insurance policy implemented by the Financing/Treasury department.

- The Group has a highly diversified customer base and achieves less than 25% of its sales with its top 25 customers.
- There is no geographical concentration of credit risk as the Group achieves significant sales in a large number of countries.
- The Group hedges its customer risk thanks to a global credit insurance programme which, given the quality of its customer portfolio and a low claim rate, allows it to cover a significant proportion of its accounts receivable. The Group strives to further minimise this risk through a specific credit risk management policy which consists in assessing on a regular basis the solvency of each of its uninsured customers. Uninsured customers whose financial situation is not compatible with the Group's solvency requirements may only be supplied after they have settled payment for their purchase orders.

Further detail may be found in note 22 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document. The bad debt provision policy for fully or partially uninsured accounts receivable is detailed in this note 22.

## Investments

Bank credit risk is linked to financial investments, derivatives, and lines of credit granted by the banks. The Group is indebted overall, but may be required to invest cash in particular to maintain a certain level of available cash, or to fulfil local regulations, or to manage cash lags. At 31 December 2013, the amount of cash invested with banking establishments or money market funds amounted to 377 million euros. Default by any one of these counterparties is likely to lead to a financial loss limited to the amount of monies invested with the defaulting counterparty, which would then have an adverse impact on the Group's results.

## Risk management

The Group's objective is to minimise this risk by centralising the management of its financial resources and requirements.

- The Group recycles the financial surplus of its subsidiaries through intra-group current accounts wherever local regulations permit.
- Any new relationship between a Group subsidiary and a banking or financial institution is first approved by the Financing/Treasury department.
- The Group minimises its exposure to credit risk by investing only in highly secure assets with diversified and leading counterparties.

Further detail may be found in note 22 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

## Risk related to pension funding

The Group has obligations to its employees for pension benefits and other post-employment benefits due upon termination of employment in most countries where it operates (see section 2.5 of this reference document). The Group's pension and similar obligations could:

- exceed its related provisions if the actuarial assumptions used failed to materialise or if regulations changed; or
- result in asset shortfalls in some countries where the Group operates, particularly the United States, in the event of an adverse trend in the financial markets.

#### **Risk management**

The Group's objective is to minimise this risk by opting for defined contributions plans wherever possible:

**Risk factors** 

- the main defined benefit schemes have now been closed to new entrants for a number of years, and in some cases to further accrual too. Furthermore, some pension obligations dating back to before the spin-off of Arkema's Businesses have been retained by Total S.A.;
- certain pension schemes have been the subject of a transfer of pension rights to insurance institutions, in particular in France and the Netherlands;
- the management of assets allocated to covering pension benefit obligations to employees in some countries in which the Group operates and in which this allocation obligation exists, is outsourced to qualified professionals and controlled by independent trustees who themselves use the services of skilled professionals.

Further detail may be found in note 18 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

### Tax risk

Any change in the tax or customs duty laws or regulations or modifications in the interpretation of case law, international treaties or administrative doctrine in one of the many countries where the Group operates could adversely affect the Group's financial situation and results.

Furthermore, the Group may enjoy special tax treatment in some countries, such as reduced tax rates under certain conditions and for limited periods of time. If such special tax treatment were to be withdrawn, amended or not renewed, this could adversely affect the Group's financial situation and results.

#### **Risk management**

The Group's objective is to comply with the tax regulations in every country in which it operates while reducing its tax burden.

The tax function is overseen by a department within the Financing/Treasury division which comprises specialists who rely on local personnel, and calls upon the services of major external consultants when necessary.

The Central Tax department is responsible for the periodic updating of the Group's transfer pricing policy.

Tax audits are overseen by the Central tax department which is in charge of implementing corrective measures where required.

Further detail on the financial impact of tax disputes may be found in note 20 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

### 1.7.2.6 RISK RELATED TO INFORMATION SYSTEMS

Industrial and management processes as well as communication between employees and third parties are highly dependent on information technology systems which are based on complex and ever-changing technical environments. Failure of these systems could have a significant impact on the Group's operations. The main risks related to the information systems are as follows:

- the technical risk that may lead to an interruption in the operation of critical applications or the loss of sensitive data resulting in halting or seriously disrupting the operation of a manufacturing plant or a department; given the rollout of its SAP integration program, this risk of incidents is amplified; and
- the risk of intrusion or malicious use of the information systems, in particular to misappropriate information or sums of money.

#### Risk management

The Information Systems and Telecommunications division aims to provide authorised users with systems while ensuring the integrity and confidentiality of sensitive data.

Accordingly, the Group has adopted an Information Systems Security Policy which sets out the objectives and rules to be applied in order to ensure the reliability of its information systems in relation to the three criteria of availability, integrity and confidentiality mentioned above. ARKEMA has also defined and put in place a Health Safety Environment internal directive to bolster the security of its industrial networks.

According to this policy, the Information Systems and Telecommunications division implements *inter alia* technical measures (protection of network, high-availability architectures with data replication, redundant data centres, standard workstation architecture with up-to-date antivirus software, segregation of industrial networks, etc.) and organisational measures (availability of remote access for key personnel, IT systems monitoring, management of access rights, data recovery plans tested on a regular basis, information of users, annual review of IT risks, etc.). Stringent version management procedures that include non-regression testing are also in place to minimise any incidents brought about by the rollout of new software or hardware versions.

Finally, the Group has set up an Internal Control system consisting of a number of general computer controls to ensure the reliability of the Group's critical processes as well as compliance with security rules. The effectiveness of these measures is assessed once a year, and any identified weaknesses are the subject of action plans designed to correct them.

## 1.7.2.7 RISKS RELATED TO STRATEGY AND CORPORATE GOVERNANCE

## Risk related to the development of new products or processes

The business activities, results and future prospects of the Group are heavily reliant on its ability to produce new products and new applications and to develop new production processes. This is in particular the case for fluorogases in which regulatory changes require new blends or substitutes to be developed for which patent registration may prove a decisive factor. Furthermore, the Group invests in new industrial facilities and exposes itself to the risk of disclosure of confidential documents and of copying of a process or a technology that are essential to its productions and to maintaining its international competitiveness.

## **Risk management**

The Group dedicates substantial funds to R&D each year for the development of new products and processes. In the High Performance Materials and Coating Solutions segments, the regular introduction of new innovative products is in fact a key factor of success. Similarly, in Industrial Specialties, process performance is a major component of competitiveness. ARKEMA focuses its R&D efforts on fast growing markets such as new energies, batteries, lightweight materials (replacement of metal and glass), and water treatment. This effort has enabled to generate over 300 million euros sales in the last 5 years.

This major innovation drive also enables ARKEMA to adapt to regulatory trends.

Meanwhile, the manufacture of equipment used in our major processes is entrusted to specific companies under confidentiality agreements. Files and technical manuals are handled by a small number of players: the BUs' process officers and the engineers from the technical centres.

## **Risk related to joint ventures**

The Group is exposed to risks relating to joint ventures in which it does not hold an exclusive controlling interest. Some of these joint ventures are also important customers or suppliers of the Group. The joint ventures included in the Group's scope of consolidation are described in the notes to the financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

In accordance with the contracts and agreements governing the operation, control and financing of these joint ventures, certain strategic decisions can be made only with the agreement of all partners. There are risks of disagreement or deadlocks among the partners in these joint ventures. In certain cases that are beyond ARKEMA's control, these joint ventures could also take decisions that run against the Group's interests. Lastly, the Group's investments in these joint ventures, in general or pursuant to specific agreements with the partners in these companies, may require that it make further investments in them or purchase or sell certain companies.

### Risk management

ARKEMA has a small number of minority stakes in joint ventures, and accordingly protects its interests by putting in place, where possible, terms in the contracts designed to resolve deadlocks and achieve a fair allocation of decision-making powers between the various partners. The pacts or agreements relating to joint ventures are described in section 1.5 of this reference document for those that the Group considers significant.

## 1.7.2.8 RISKS RELATED TO INSURANCE COVERAGE DEFAULT

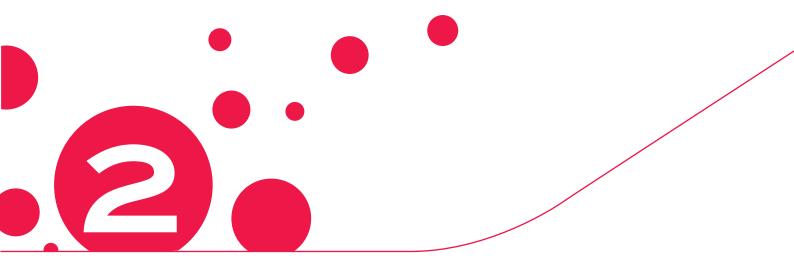
The Group's insurance policy is part of the overall risk management framework, and, as such, is therefore described in detail in paragraph 1.7.1.6 of this reference document.

At the date of this reference document, the Group believes that the limits of cover described in the said paragraph take into account the type of risks incurred by the Group and are adequate as compared to existing limits of cover available on the market for companies of similar size and engaged in similar business activities.

However, the possibility that, in some cases, the Group could be required to pay substantial compensation for claims that are not covered by the existing insurance programme or that it will incur very large expenses that will not be reimbursed or only partially reimbursed under its insurance policies cannot be excluded. Indeed, while the insurance market makes property insurance levels available that enables the Group to secure policies that cover the probable maximum claims, this is not necessarily the case with respect to casualty insurance, where the potential maximum claims are higher than what the insurance market can offer on terms acceptable for the Group.

The various types of insurance contracts subscribed by the Group are described in paragraph 1.7.1.6 of this reference document.





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CORPORATE SOCIAL RESPONSIBILITY

In a world that faces several economic, environmental and social challenges, Corporate Social Responsibility (CSR) contributes to creating value both for the society in which we live and in which future generations will live, as well as for the Group.

CSR objectives fulfil the expectations of the Group and its stakeholders. They are true guarantors of sustainable and responsible growth for the Group.

## **ARKEMA'S CSR ambition and commitments**

ARKEMA's CSR commitments concern five major areas:

• Be a top quartile performer in safety in the chemical industry

The Group's industrial safety initiative is rolled out around the world and involves three complementary themes: technical, organisational and human. Hence, the introduction of a common "safety culture" throughout the Group and the priority given to safety have enabled the continuous improvement of the Group's safety performance since its spin-off.

Reduce the environmental footprint of its activities

Reducing the Group's environmental footprint is an objective shared by all Group employees. This objective is based on three types of actions: minimising the emissions of its various activities, reducing the consumption of resources, and developing the use of renewable resources.

The Group also ensures that its products do not harm the health or the safety of people, or their environment.

## Place sustainable development solutions at the heart of its approach to innovation and in its product range

The Group places its product R&D and marketing teams at the service of sustainable development and the challenges of the planet. Accordingly, the Group creates innovative solutions in support of new energies, lightweight materials, the fight against climate change, access to water, and the use of biosourced raw materials. The Group's R&D policy is described in section 1.4 of this reference document.

## • Encourage openness and dialogue with all its stakeholders

The Group endeavours to dialogue with all its stakeholders on its activities and products. Accordingly, the Group developed its Common Ground<sup>®</sup> initiative in order to establish relationships based on mutual understanding and trust with people living near its facilities, various associations, and the world of education, and so get to know each other better. The Group, with its suppliers, also adopts a responsible behaviour based on the desire to develop balanced sustainable relations relying on trust.

## Promote the individual and collective development of the Group's men and women

The Group's men and women, unique in their know-how, profession, nationality, role and personality, together make up a community. The Group's social policy around the world is guided by two concerns: the individual development of its employees, and social development through actions focused on the improvement of collective working conditions.

Every Group entity aims to contribute to achieving the Group's CSR ambition on the basis of the above-mentioned areas as part of a continuous improvement initiative. The rules relating to the collection and consolidation process for the CSR data featured in this chapter are set out in particular in section 2.6 of this reference document.

By carrying through these commitments, the Group will achieve its ambition to be a recognised contributor to the sustainable development of the world around us, and to stand among the best chemical producers in the world not only through its economic performance, but also through its social, societal and environmental performance.

## CSR players and governance

To deliver on its CSR ambition, the Group set up on 2 April 2012 a Sustainable Development Division comprising the Product Safety and Environment and Sustainable Development functions. This division reports directly to the Group Industry Executive Vice President, a member of ARKEMA's Executive Committee ("Comex").

Moreover, a CSR steering committee was set up in October 2012, chaired by the Industry Executive Vice President, and which includes the Human Resources and Communication Executive Vice President as well as various functional directors, all actively involved in the Group's CSR policy. This committee is charged with overseeing actions conducted as part of the Group's CSR policy as well as setting out proposed CSR action plans which are put forward to Comex. The steering committee meets twice a year.

ARKEMA's CSR ambition, the proposed actions and those already implemented, the main indicators and the 2020 targets in terms of safety and environment were defined and validated in the course of four Comex meetings since December 2011.

The Sustainable Development Vice President also presented the Group's CSR organisation and ambition to the Audit and Accounts Committee at the end of 2012. This presentation in particular was an opportunity for reviewing the procedures in place to ensure the Group's compliance with the regulatory requirements

of extra-financial reporting, in particular the mandatory social and environmental information which the Company is required to provide, as well as CSR data on extra-financial reporting not required by French regulations, and for presenting the Independent Third Party Body charged with verification of the data as appointed by Arkema's Chairman and Chief Executive Officer.

All 2013 indicators featured in chapter 2 of this reference document were subject to assurance by the Independent Third Party Body, as indicated in the advisory notice provided by this body featured in section 2.8 of this reference document.

Every year, a representative from the Third Party Body or the Sustainable Development Vice President, present to the Audit and Accounts Committee the content of its extra-financial data verification assignment as well as its conclusions, which will be included in the advisory notice to be provided to the Company's annual shareholders meeting at the same time as the Board of Directors' report. This presentation is given just before the Board of Directors' meeting called to draw up its report to the general meeting, which includes all social and environmental information as well as the Third Party Body's advisory notice.

## 2020 targets

In 2013, ARKEMA decided to bolster its sustainable development commitments, and so set out four new environmental objectives for 2020. These new objectives, which concern reductions in emissions to air, greenhouse gas emissions, emissions to water and net energy purchases, reflect ARKEMA's resolve to minimise its environmental footprint and boost its operational excellence.

These four new environmental objectives complement the three 2020 safety objectives set by the Group in 2012, the main one being a reduction in TRIR (total recordable injury rate) down to 2.0 by 2020 latest.

## 2.1 BE A TOP QUARTILE PERFORMER IN SAFETY IN THE CHEMICAL INDUSTRY

**CORPORATE SOCIAL RESPONSIBILITY** 

Be a top quartile performer in safety in the chemical industry

## 2.1.1 GENERAL INDUSTRIAL SAFETY AND ENVIRONMENT POLICY

Safety and the protection of health and the environment are central to the Group's objectives in conducting its operations, with a permanent focus on improving its performance in these areas.

The Group's Health, Safety and Environment policy (HSE) has been continuously strengthened since its creation in order to incorporate the applicable regulations as well as the Group's own requirements. The Group has formally expressed its fundamental requirements in the Health, Safety, Environment and Quality Charter and in a global reference resource, the HSE manual, set up by the Group at the time of its creation, which form the basis for HSE management systems in all Group entities.

The Group's HSE policy is also an integral part of its approach to sustainable development, which is based on the firm belief that its long-term growth partly depends on the way it assumes its responsibilities in the areas of social relations, safety, security, and the environment.

Accordingly, the Group is a subscriber to the Responsible Care® initiative, which is defined by the International Council of Chemical Associations (ICCA) at global level, by the European Chemical Industry Council (CEFIC) at European level, and taken up by the majority of national federations, in particular by the *Union des industries chimiques* (UIC) in France. The Responsible Care® initiative is a voluntary initiative undertaken by the global chemical industry that extends beyond regulatory compliance. This progress initiative was first launched in the 90s in the field of health, safety, and industrial environment; it was subsequently extended to product stewardship.

In 2006 the ICCA launched the Responsible Care® Global Charter, to enhance the provisions of Responsible Care®, by strengthening sustainable development, product stewardship, measurable performance, and third-party audit of procedures.

On 16 November 2006 ARKEMA signed a declaration of support for the Responsible Care® Global Charter.

In 2012, ARKEMA decided in order to achieve its sustainable development commitments to set three 2020 safety objectives primarily translating its resolve to improve its safety performance and strengthen its operational excellence. These objectives are as follows:

- reducing its total recordable injury rate (TRIR) to 2.0 by 2020;
- extending to 100% of its sites its peer observation programme by 2020; and
- auditing 100% of its sites based on its AIMS integrated master framework by 2020.

### 2.1.1.1 ORGANISATION OF THE GROUP TO TAKE ACCOUNT OF INDUSTRIAL SAFETY AND ENVIRONMENT ISSUES

The Group's environment and industrial safety policy is rolled out around the world and applies to all Group subsidiaries as well as in every country in which the Group is present.

Direction Sécurité Environnement Groupe (DSEG), the Group's Safety Environment Division based at the Group's headquarters, has a global remit, and operates through safety and environment experts in every region.

## 2.1.1.2 AN INITIATIVE BASED ON THREE PRIORITY AREAS

The safety initiative is structured around three areas: prevention of safety, environment and pollution risks, management reference, and safety and environment culture.

## Prevention of safety, environment and pollution risks

The assessment of risks on the Group's industrial sites is carried out through systematic studies of (i) the manufacturing processes, (ii) operating conditions on the existing sites, (iii) transport operations (particularly those involving hazardous products), (iv) the design and construction of new installations, (v) changes to existing installations, and (vi) health and safety at work.

The identification of these risks, their ranking through a qualitative and quantitative approach based on simulation models and a network of experts, and preventive measures designed to reduce the effects of these risks and the likelihood of them occurring, are all covered by the technical and organisational resources put in place for the Group's industrial sites, as well as for the transport of hazardous substances.

The Group pays careful attention to the analysis of risks connected with its business activities, particularly in the case of Seveso-rated sites (or their equivalent) for which the Group demands that the level of safety requirements increases in line with the identification of potential risks. Similarly, the Group lends much importance to feedback (both within and outside the Group) regarding in particular the level of incidents and accidents as well as best practice in industrial risk management. CORPORATE SOCIAL RESPONSIBILITY

Be a top quartile performer in safety in the chemical industry

At the time of the design of a new production unit or when a significant extension to an existing production unit is made, the best options for improving industrial safety are sought. In addition, the Group regularly makes improvements to its existing production units. Thus the Group's capital expenditures allocated to safety and environment and to maintaining the plants up to standard totalled 195 million euros in 2013 (against 189 million euros in 2012).

In Europe, at the date of this reference document, 33 of the Group's production sites were monitored with extra vigilance, and were subject to European Directive (EC) n° 96/82 dated 9 December 1996, which deals with the control of major accident hazards involving hazardous substances, and called the "Seveso II Directive". This directive requires, in particular, the introduction of safety management systems and the regular updating of risk assessment surveys, whose conclusions can lead to additional risk-prevention requirements for the companies operating the sites.

Law n° 2003-699 of 30 July 2003 and its implementing decrees have strengthened the obligations imposed in France on companies operating Seveso sites, by laying down the principle that the government draws up and implements "plans for the prevention of technological risks" (PPTRs), the aim of which is to control urban development around risky sites and limit the effects of accidents that could occur there. At end 2013, 17 sites operated by the Group in France are the subject of PPTRs. The Group will be required to contribute to the funding of any measures related to these PPTRs. Furthermore, ministerial decree of 29 September 2005 concerning the evaluation and consideration of the probability of occurrence, the kinetics, the intensity of the effects, and the severity of the consequences of potential accidents in hazard studies for classified facilities subject to authorisation, will also entail by 2015 the introduction of additional risk control measures at the 17 sites mentioned above for which a PPTR is required.

As regards the reliability of its industrial facilities, the Group has fully endorsed the risk management objectives relating to industrial equipment (plants and pipes) as part of the nationwide industrial facilities upgrading plan. Furthermore, ARKEMA has been contributing to the work of the various working parties in this regard.

In the United States, the control of risks of industrial accidents is regulated, in particular, within the framework of Superfund Reauthorization Act (SARA), Risk Management Process (RMP) and the Emergency Planning and Community-Right-to-Know Act (EPCRA). The latter, in particular, requires companies to inform the government authorities when hazardous products, above a certain quantity, are being handled or stored, and requires companies storing such products to have emergency plans and procedures in place. Other regulations at federal, state or local levels govern certain specific aspects of the storage of chemical products, the safety of workers when handling stored products, and the storage of highly hazardous products.

## Management reference master resource: AIMS, the all-in-one audit

The Arkema Integrated Management System (AIMS) reference master resource brings together within a single audit all the audits

conducted by the Group concerning safety, environment and quality. It includes the Group's own requirements as well as those featured in standards endorsed by the Group (ISO 9001, ISO 14001 and OHSAS 18001). This "all-in-one" approach has a dual benefit: being part of the Group's culture, and ensuring consistency for all its safety, environment and quality management initiatives. In order to obtain external certifications, AIMS audits are conducted by mixed teams made up of Group auditors as well as auditors from a third party accreditation body. They are conducted every three years and complemented by follow-up audits every year. This new audit method will be extended to all of the Group's European sites. In the United States, the first audits based on this reference master document were conducted in 2011, and in China, in 2012.

In 2013, 58% of the Group's sites had an AIMS audit, against 42% of the sites in 2012.

## The target by 2020 is for 100% of the sites to have had an AIMS audit in the last 3 years.

Meanwhile, every year the Group conducts a large number of audits other than the AIMS audits, including:

- operational safety audits: construction site audits, pre-startup reviews, operational safety audits on topics such as Mechanical Integrity and Explosive Atmosphere issues, and simplified AIMS for smaller sites;
- process safety audits: these audits include inter alia fire protection, post-incident audits, and risk analysis reviews;
- supplier and logistics audits: transport companies and external warehouses are visited and assessed. These audits are in addition to the evaluations conducted by third parties such as the Safety & Quality Assessment System (SQAS) for land transport, Chemical Distribution Institute (CDI) for maritime transport, and the European Barge Inspection Scheme (EBIS) for river transport. Some packaging is also verified; and
- safety support action: this is conducted with a number of sites, and entails sharing with the sites' management teams, their analysis of their accident records and HSE activity. The initiative also includes work on drawing up and following up action plans.

The Feedback programme entails the sharing of experience regarding relevant incidents in order to prevent their recurrence. This sharing of experience takes place on a global scale, through various networks (geographical, professions, technologies). Through these networks, any significant incident triggers a safety alert and the implementation of corrective actions on Group sites that might encounter a similar incident.

## Safety culture: training, information of employees, and tools regarding industrial safety and environment

The behaviour-based approach represents a key component in risk prevention. The development of a safety culture heightening everyone's awareness of their responsibility and the importance of their behaviour lies at the heart of the Group's initiative. In order to develop a safety culture that is shared by all employees, the Group relies on a number of resources: the "Safety in Action" programme, the "Essentials", and field activities (peer

## CORPORATE SOCIAL RESPONSIBILITY

Be a top quartile performer in safety in the chemical industry

observation, flash audits, planned general inspections, safety rounds, safety field audits, etc.), as well as training in "Human Factors and Organisation related Safety" and "Safety Culture and Leadership".

The Group also strengthens its safety culture by organising training courses as part of the "Arkema Safety Academy", which include modules for HSE managers or relating to crisis management, behaviour, and the human factor.

## Environment culture: training and information of employees and regulatory watch

In the field of the environment, ARKEMA employees are trained in and acquainted with the main characteristics of their site, the concrete outcome of their everyday actions or activities as well as the operational control of emissions of every nature, the quality of operations during plant shutdown or startup in terms of emissions, and the sorting of wastes. For ISO 14001 accredited sites, *i.e.* 59% of ARKEMA's sites, a specific environment training programme is developed through an analysis of environmental risk performed for every plant, and a follow-up of the main feedback on environmental events is monitored in the Impact Safety reporting tool and related to their activity. This training programme is repeated on a regular basis to maintain awareness of the control of critical parameters.

As part of the programme described below, an "Essential" on the selective sorting of wastes is to be rolled out across ARKEMA's business base in 2014.

The Group also ensures that the HSE network understands the texts of European Community regulations, such as SEQE III or Directive IED, as well as the environmental reporting rules, and has also put in place audit programmes such as environmental audits performed on its American sites with a view to verifying the sites' regulatory compliance.

## HSE general training

As part of the induction of new recruits, general induction on site, and workstation training plans, as well as training initiatives for existing employees, HSE training is a priority. HSE managers attend specialist training, country by country, within or outside the Group. They also regularly take part in HSE conventions.

## The Safety in Action program

The Group is committed to achieving an ambitious programme to inform and mobilise its personnel to encourage and support changes in behaviour. This programme reflects a will to establish relentless vigilance as regards safety. It emphasises individual and collective commitment to taking action at individual team and workstation level. The programme is based in particular on two areas targeting exchange and communication, namely:

• the production of "Site Safety" films which help deliver systematically, to all visitors, information on safety instructions applicable on the site; and  the organisation of "Safety High Points" which help generate regular debates on topics related to safety, and concluding with the construction of action plans specific to each work context as well as the definition of improvement topics on a team level.

### The Essentials

The fourteen "Essentials" are simple and clear safety rules corresponding to everyday situations and derived from feedback. They must be known and applicable to everyone in an exemplary manner, with no allowance for compromise, across all Group sites. Employees are invited to suggest improvements that facilitate the application of a rule, and to report all substandard situations. Any employee can intervene with anyone else, whatever their position, whenever they encounter a breach of the rules. Three Essentials are rolled out per year, and each includes a specific campaign and actions over a three-month period to help every employee become familiar with the rules.

### **Field** activities

The principle of peer observation involves observing the behaviour of others in risky situations in order to raise awareness of risks and therefore reduce the number of occupational accidents. It capitalises on positive experiences and a collective search for solutions to improve practices. Using a structured observation method, each site implements the initiative in a way that best suits their own specific features (type of risks and nature of the activities). Personnel with similar qualifications are then encouraged to observe each other while carrying out their duties on the site. The peer observation method helps identify best practice and deviations from these practices, as well as risky situations. This principle has been implemented successfully in the United States, and is being rolled out in Asia and in the major European countries in which the Group operates; it is gradually being developed at every Group production site.

In 2013, 62% of the sites put in place this programme intended to improve safety through peer observation, against 47% in 2012.

## The target by 2020 is for the programme to be extended to 100% of the Group's sites.

To move on from a safety discipline culture to a safety commitment culture, ARKEMA has taken up the development of an initiative in place in the United States that was first devised in Canada. Called "SafeStart®", this initiative consists in observation of self and of other people, to identify critical states (rushing, frustration, fatigue and complacency) that can lead to critical errors (eyes not on task, line of fire, mind not on task, balance, traction or grip) transforming minor risks into major risks. Critical error reduction techniques are used to continuously improve accident prevention.

Flash audits or mini-audits are short (in general 20 to 30 minutes long), and are a new Group-wide tool designed to facilitate the collection of safety data. They help examine specific problems, including a review of conformity with the "Essentials", an evaluation of a problem specific to a production plant, and an

Be a top quartile performer in safety in the chemical industry

examination of the implementation of a Group priority action. Still under development, this tool has given satisfaction on the sites in which it has been tested.

Planned general inspections are conducted regularly with a frequency that varies from site to site (monthly or quarterly) to help check the technical conformity of the plant and equipment relative to predefined standards and levels of requirements.

The safety round is a field activity designed to show the commitment and support of the management to a plant's Health Safety Environment Quality (HSEQ) policy. It also provides an opportunity for the management and the site personnel to meet. It is neither an audit nor a check, but rather a communication tool for risk prevention and greater safety awareness.

Field safety audits to appraise external companies help evaluate continuously and over the long term *in situ* external companies in terms of their safety culture and commitment. This monitoring tool is also used to check HSE recommendations on major projects and promote a safety and risk prevention mindset during turnarounds.

As part of the Group's safety policy and the improvement of its safety records, communication on the subject has been emphasised to reaffirm ARKEMA's commitment, through a slogan and the displaying of safety records on each site.

## 2.1.2 SAFETY RECORDS

The Group's safety policies based on the three areas described in paragraph 2.1.1.2 of this reference document enable the Group to improve its safety records.

The table below shows the Group's occupational accident frequency rate, in number of accidents per million man-hours, drawn up as per the methodology note in section 2.6 of this reference document, for 2011, 2012 and 2013.

	2013	2012	2011
Lost-time accidents*	1.6	1.9	2.3
Total recordable accidents	2.8	3.4	4.4

\* "Lost-time accident" refers to any event causing bodily injury or psychological shock to an employee in the course of his/her duties and resulting in time off work.

## The Group's target is to achieve a 2.0 TRIR rate (total recordable injury rate) by 2020 latest.

For the record, the Group's frequency rates in 2005 were 5.3 for lost-time accidents, and 11.3 for accidents with and without lost time.

The severity of accidents is characterised by the number of working days lost per lost-time accident. It stands at an average rate of 33.9 days in 2013, against 29.6 days in 2012 and 34.0 days in 2011.

Reduce the environmental footprint of the Group's activities

## 2.2 REDUCE THE ENVIRONMENTAL FOOTPRINT OF THE GROUP'S ACTIVITIES

## 2.2.1 GENERAL POLICY IN TERMS OF REDUCING THE ENVIRONMENTAL FOOTPRINT

Committed to continuous improvement, and over and above essential compliance with regulations, ARKEMA has included environmental protection in its management system. Accordingly, reducing its footprint on the environment is one of the five objectives that the Group has set itself as part of its CSR initiative. To achieve this, the Group adapts its industrial practices in order to minimise its emissions, while optimising and reducing its consumption of energy, water and non-renewable raw materials. Therefore the vast majority of the Group's industrial sites rigorously monitor their wastes and emissions.

Since its creation, every year the Group has published the absolute/extensive values of its emissions and consumption of resources.

In order to oversee its environmental performance more precisely and provide a consolidated Group data report better suited to describe the evolution of this performance, ARKEMA has adopted a methodology enabling its plants to report on intensive indicators. This methodology limits the impact of any changes to its business base, its plants' productions, as well as any change to the method used to assess or compute environmental footprint variables. The computation procedure for these intensive indicators, Environmental Footprint Performance Indicators (EFPI), is described in the methodology note featured in section 2.6 of this reference document.

In 2013, ARKEMA decided in order to achieve its sustainable development commitments to set four new objectives for 2020 primarily translating its resolve to reduce its environmental footprint and strengthen its operational excellence.

These 2020 targets, with 2012 as the baseline, focus on:

- climate: reduce its greenhouse gas emissions by 30%;
- emissions to air: reduce its volatile organic compounds emissions by 20%; and
- emissions to water: reduce its chemical oxygen demand emissions by 20%.

Furthermore, as regards resource consumption, ARKEMA has set a target to reduce its net energy purchases by 1.5% on average per year in volume terms. These targets refer to the intensive indicators mentioned above, so that they reflect the Group's efforts to reduce its environmental footprint regardless of any changes to its business base or its production volumes.

Published for the first time in the 2013 reporting, these targets were set out by Comex in 2013, with 2012 as the baseline. The progress of these indicators, expressed as intensive figures, for the 2006 to 2012 period, is also featured in paragraphs 2.2.1.2 and 2.2.1.3 of this reference document.

Over and above the evolution of these four specific intensive indicators, ARKEMA will continue to publish the progress of extensive values for all the parameters monitoring its environmental footprint.

## 2.2.1.1 ENVIRONMENTAL MANAGEMENT SYSTEM

## **Environmental certifications**

The Group has put in place environmental management systems on its industrial sites, most of which have been granted an external environmental certification in accordance with the ISO 14001 standard. Based on the local context, certain sites have adopted other standards, *e.g.* the Responsible Care<sup>®</sup> Management System (RCMS) in the United States.

The environmental management system implies that each of the Group's industrial site identifies its environmental impacts (water, air including greenhouse gases (GHGs), wastes, noise, odours, and soil), and defines the priority areas which represent its action plan. A periodic environmental analysis of the sites is used to measure the progress achieved and define new improvement objectives. Each site rigorously monitors its emissions (including  $CO_2$  and GHGs) and wastes.

In addition to the audits conducted by the Internal Audit Division, Group sites are subject to two other types of audit: certifications by external bodies, and audits conducted by experts from the Group's Safety Environment (DSEG) Division.

The number of ISO 14001 – or RCMS (in the United States) – accredited sites was 59% in 2013 (against 55% in 2012) across the global business base excluding the vinyl activities divested in 2012.

Reduce the environmental footprint of the Group's activities

## **Environmental reporting**

The Group conducts its reporting, for environmental indicators, including GHGs, in accordance with its environmental reporting directive and the guidelines made available to all its subsidiaries. This reporting is based on the principles of relevance, representativeness, and consistency. The methodology used by the Group for this reporting is described in section 2.6 of this reference document.

## 2.2.1.2 MANAGEMENT OF DISCHARGES

ARKEMA conducts an active policy to control and reduce the impact of its activities on the environment.

Accordingly, discharges of substances are identified and quantified by discharge type (air, water, wastes) so that suitable measures can be implemented to control them.

## **Preventive measures**

For the Group's manufacturing sites, the reduction of environmental impact consists in particular in optimising the use of raw materials, energy, and natural resources such as water. Discharges into the natural environment and other waste production are thus also reduced.

The Group also carries out regular improvements to its production facilities, such as the modification of processes to reduce waste volumes or the installation of waste treatment units.

A number of regulations place strict limits on emissions from the Group's manufacturing facilities, including, for example, the European framework directive on water n° 2000/60 ("WFD") as regards water emissions. The Group has also taken part in a national campaign in France on research into hazardous substances in water fulfilling the WFD objectives.

Furthermore, in accordance with European Directive n° 2010/75/ UE on industrial emissions transposed into national law in the various countries, the industrial sites to which the directive applies are subject to authorisations to operate including emission limit values in agreement with the said values mentioned in the "BREF Conclusions" documents published following BREF (Best REFerence) revisions. BREF documents are reference documents drafted, revised and published under the aegis of the European IPPC Bureau, itself a branch of the Institute for Prospective Technology Studies. BREF documents identify and describe the performances of the best available techniques (BATs) in various sectors of activities.

Similarly, the United States Clean Air Act (CAA) sets federal standards relating to air pollution from fixed and mobile sources, and establishes national emission standards for 200 hazardous substances, based in particular on Maximum Achievable Control Technology (MACT).

European directive (EC)  $n^{\circ}$  2003/87, amended by European directive (EC)  $n^{\circ}$  2009/29 of 23 April 2009, established a GHG trading system within the European Union. Under this scheme, in accordance with the provisions of amended ministerial decree

of 31 May 2007, the Group was allocated annual allowances of 723,450 EUAs (EU Allowance Units) from 2012 onward to take into account the inclusion of the resins business sites into the Group's business base. These quotas were reviewed downwards to 620,811 EUAs at end 2012 following the divestment of the vinyl activities sites.

For the 2013-2020 period, the Group has filed applications for quota allocations for phase III of the European Union Emissions Trading Scheme. Four new sites have been added to the scope of this new phase. As Group sites belong to sectors and subsectors deemed to be exposed to a significant risk of carbon leakage, they will benefit from free allocations based on their emissions performance compared to relevant reference data. Annual quota allocations amount to some 732,960 EUAs. The Group does not expect that it will need to make significant purchases of additional CO<sub>2</sub> allowances.

## **Emissions to air**

ARKEMA is committed to minimising its emissions of the most polluting compounds, in particular volatile organic compounds (VOCs), substances responsible for air acidification (nitrogen oxides and sulphur dioxide) as well as dust, and accordingly conducts a large number of actions to minimise them.

The Group therefore reduces its VOC emissions:

- by collecting and processing effluents that contain them (the most widely used technology is based on the installation of a thermal oxidiser, or the scrubbing of exhaust products); and
- through regular campaigns to locate leaks and eliminate any emissions identified.

The Group also reduces its emissions of substances contributing to air acidification:

- by using, in its boilers, fuels with low or very low sulfur content, or natural gas instead of fuel oil; and
- by implementing new technologies involving low nitrogen oxide burners.

For emissions to air, a number of Group plants may be cited as an example for the actions they conducted in 2013 to minimise these emissions.

ARKEMA's Marseille site (France), for example, invested in an additional capture facility including connection of discharge vents to a thermal oxidiser, which could make it possible to achieve eventually a target of further reducing its VOC emissions by some 15 tonnes.

CECA also invests in a plant at its Parentis site to process its discharges on an activated carbon column, the target being to reduce its annual VOC emissions by 45 tonnes gradually from second half 2014.

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On ARKEMA's Changshu site in China, the installation of breather valves and absorption pots should help minimise VOC emissions from storage vents, the eventual objective being a 25% overall reduction in the site's emissions.

Moreover, investments into a new transport system and a closed silo are designed to reduce dust emissions from the Changshu site by 15 tonnes/year in 2014 and by 30 tonnes/year from 2015 (*i.e.* over 80% of the site's emissions).

## Emissions to air extensive indicators

For 2011, 2012 and 2013, the levels of environmental indicators corresponding to quantified emissions to air generated by the Group's activities are shown in the table below. These have been drawn up in accordance with the methodology described in section 2.6 of this reference document.

Emissions to air	2013	2012	2011
All substances contributing to acidification ( $t eq SO_2$ )	5,330	5,760	5,660
Carbon monoxide (CO) (t)	8,850	9,220	11,660
Volatile Organic Compounds (VOC) (†)	4,460	4,150	4,190
Dust (t)	400	460	640

The various investments made into boilers at some sites either by switching from the burning of fuel oil to the burning of natural gas (La Chambre, France), or by installing equipment for processing exhaust products (Carling, France), helped significantly reduce emissions of substances contributing to acidification in 2013.

As regards volatile organic compounds (VOCs), a review of the methods used to evaluate emissions to air has led to an upward revision of emissions from a European site for 2011 and 2012 which should have led to the reporting of 4,420 tonnes and 4,320 tonnes of ARKEMA's VOC emissions in 2012 and 2011 respectively.

In 2013, the Hengshui site (China) of Hebei Casda Biomaterials Co. Ltd. acquired in 2012 conducted its first reporting of volatile organic compounds (VOCs) emissions. Despite the inclusion of this site's emissions which represented 396 tonnes of VOCs in 2013, VOC emissions remained stable overall compared to 2012. Much progress was achieved by certain sites such as Marseille (France) where a vent was connected to a processing plant (90 tonnes drop in its emissions), or Franklin (United States) where fugitive emissions have been controlled more effectively (90 tonnes drop in its emissions). Arkema Inc. in the United States has invested in a programme at its Franklin site to improve the mechanical integrity of its plants, process controls and maintenance practices in order to help reduce its VOC emissions.

Furthermore, in 2013 ARKEMA continued its efforts to reduce dust emissions by taking a number of small actions, including preventive maintenance on fabric filters, which have resulted in a 13% overall reduction in these emissions to air.

## Emissions to air intensive indicator

For 2011, 2012 and 2013, the EFPI values corresponding to intensive VOC emissions to air generated by the Group's activities, calculated as per the methodology note featured in section 2.6 of this reference document, are given in the table below. Emissions from the largest VOC emitters among the Group's sites used for these computations account for over 80% of the Group's emissions.

Emissions to air	2020 target	2013	2012	2011
EFPI Volatile Organic Compounds (VOCs)	0.80	0.86	1	0.91

ARKEMA's emissions intensity, which takes no account of the Hengshui site's first reporting in 2013, as described in section 2.6 of this reference document, dropped in 2013 below the 2011 level.

## ARKEMA's objective is to reduce by 20% its VOC emissions by 2020 compared to 2012.

By 2012, the Group had already cut down its intensive VOC emissions (EFPI) by 28% compared to 2006 based on a comparable methodology for assessing VOC emissions. The 2006 extensive figures have been corrected to allow for greater reliability for the EFPI computation exercise. Without modifications to the extensive figures reported and audited in 2007 for 2006, the reduction mentioned above would be around 10% smaller.

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#### **Emissions to water**

Reducing its emissions to water is one of the Group's major environmental objectives. It lends particular importance to the issue of effluents with high chemical oxygen demand (COD) and the discharge of suspended solids.

ARKEMA conducts a large number of actions to minimise its emissions to water, in particular by reducing its effluents with high COD and suspended solid contents by systematically processing its effluents:

 by establishing its plants on inter-company platforms operating treatment plants;

- by gradually setting up physico-chemical and/or biological treatment plants to process effluents on remote sites; and
- by optimising treatment at effluent plants or controlling more effectively the effluents sent to the plants.

Accordingly, a significant investment for the installation of an effluent treatment plant will be made in 2014 at the Pierre-Bénite site (France).

#### Emissions to water extensive indicators

For 2011, 2012 and 2013, the levels of environmental indicators corresponding to quantified emissions to water generated by the Group's activities, drawn up in accordance with the methodology note in section 2.6 of this reference document, are shown in the table below.

Emissions to water	2013	2012	2011
Chemical Oxygen Demand (COD) (O2 t)	3,800	3,430	3,140
Suspended solids (t)	2,950	2,840	3,450

Improvements made to the operation of effluent treatment plants at the Spinetta site (Italy) and the Rio Claro site (Brazil) have helped reduce COD discharges overall by some 300 tonnes between 2011 and 2013. However, these efforts are completely masked by the arrival of a new contributor (the Hengshui site (China) of Hebei Casda Biomaterials Co. Ltd. acquired in 2012), as well as the quantification of this emission from 2012-2013 by American sites which did not exhaustively declare this emission in previous years.

Under computing conditions comparable to those used for 2011, COD emissions in 2013 would be below those of 2011 by some 1,000 tonnes.

#### Emissions to water intensive indicator

For 2011, 2012 and 2013, the EFPI values corresponding to COD intensive emissions to water generated by the Group's activities, drawn up in accordance with the methodology note in section 2.6 of this reference document, are shown in the table below. Emissions from the biggest COD emitters among the Group's sites used for these computations account for over 80% of the Group's emissions.

Emissions to water	2020 target	2013	2012	2011
EFPI Chemical Oxygen Demand (COD)	0.80	1	1	1.15

# ARKEMA aims to reduce by 20% its COD emissions by 2020 compared to 2012.

By 2012, the Group had already reduced by 23% its COD intensive emissions (EFPI) compared to 2006.

### Waste production

Production of waste at ARKEMA is inherent in its industrial activities; however, the Group strives to control production of waste at every stage of its operations.

This commitment is reflected in a number of areas:

• reduce waste at source, by designing products and processes that generate as few waste as possible;

- increase value of waste by turning them into by-products; and
- use waste as energy source, where possible.

The following are examples of the latest progress achieved regarding reducing or valorising the waste, consistent with ARKEMA's commitments:

- looking to use new valorisation sectors: using some of the waste as substitute fuel in boilers, instead of traditional fuels;
- recycling cleaning solvents and optimising cleaning cycles; and
- installing filters to reduce the volume of sludge.

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The table below shows for 2011, 2012 and 2013 the amounts of hazardous and non-hazardous waste generated by the Group's activities, calculated as per the methodology note in section 2.6 of this reference document.

Waste (in kt per year)	2013	2012	2011
Hazardous waste excluding material recovery	160	160	210
including landfill disposal	2.7	2.4	3.9
Non-hazardous waste	210	157	173

In 2012, a number of initiatives – reduction at source (Clear Lake site (United States)), recycling into alternative fuel (Carling site (France)), and material recycling – resulted in a 17% fall in the production of hazardous waste for the Group, regardless of the divestment of the vinyl activities. The reduction shown in the above table is larger bearing in mind the divestment of the vinyl activities.

ARKEMA's objective is not only to reduce its overall waste production, but also to recycle it into materials or recover their energy potential through their combustion.

Accordingly, in 2013, 15% of hazardous waste produced by ARKEMA in the world were recycled on or off the site where they were produced (recycled into materials), and 49% were utilised for energy recovery during their combustion.

In 2013, a particular effort for the traceability of exceptional waste from demolition or excavation work resulting from investment works was included in the reporting, which explains a deterioration of the non-hazardous waste indicator.

Additionally, many by-products from manufacturing processes which are not the purpose of the production are sold as products requiring no processing other than normal industrial practice, and are not reported as waste in accordance with current regulations.

#### Other pollutions

ARKEMA's addressing the pollutions related to its activities with regard to the people living near its industrial sites is a major point of the Group's environmental policy. Every year, steps are taken to minimise these pollutions, and include in particular:

- reducing odours:
  - modifications to incinerators to minimise SO<sub>2</sub> emissions, and
  - modifications to demisters;
- reducing noise levels: improvements to acoustic protection devices in air compressors;
- one example of reduction of visual pollution is the La Chambre (France) plant where the replacement of the fuel oil used in a boiler by gas should result in a noticeable improvement from second half 2014.

ARKEMA has also put in place real-time communication with its stakeholders on any event with a sound, visual or odour impact outside the boundaries of its production sites. Moreover, most sites now have a system in place for compiling and processing complaints from local people, and so, where possible, addressing them and minimising the nuisance concerned.

#### 2.2.1.3 MANAGEMENT OF RESOURCES

For the Group's industrial sites, the reduction of environmental impacts consists in particular in optimising the use of raw materials, energy and natural resources like water.

From the moment of their design, new manufacturing units incorporate the environmental footprint in the choice of process and equipment.

Work is also carried out regularly on the plants' operating methods, while development investments are made to reduce the consumption of water, energy resources and raw materials of the Group's facilities.

#### Water consumption

The Group uses water in the course of its industrial activities for:

- its manufacturing processes in reaction medium, the need to cool the production equipment, or to scrub product or equipment;
- the production of steam; and
- the operation of hydraulic barriers intended to process groundwater contaminated by historical pollutions (case of old sites).

The Group wishes to make its contribution to an optimised consumption of fresh water both from surface water and from groundwater.

It adapts its production practices to consume less water by using devices that reduce consumption and by developing closed circuits.

Based on local constraints and the sites' activities, the actions taken over the years can concern a wide variety of issues, including better monitoring of consumption, installation of flowmeters, introduction of leak detection programmes, changing the technologies, upgrading fire-fighting circuits, recovering rainwater, and recycling water from scrubbing or boiler condensates.

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In the United States, in 2013 Arkema Inc. invested into a new cooling tower at its Memphis site, which should enable the facility to reduce its water usage by some 2 Mm<sup>3</sup> over the coming years.

For 2011, 2012 and 2013, the levels of environmental indicators corresponding to the withdrawal and use of water by the Group's activities are shown in the table below. They have been drawn up as per the methodology note in section 2.6 of this reference document.

Use of water	2013	2012	2011
Total water withdrawn (in Mm³)	130	130	136

The combined effect of the divestment of the vinyl activities and an increase in production at certain sites resulted in a slight decrease in the Group's withdrawal of water in 2012. There was no change in consumption in 2013.

#### Consumption of raw materials

The Group wants to play a part in optimising the consumption of non-renewable raw materials used in its manufacturing processes.

It aims to save on the raw materials it consumes by initiatives to control its processes and develop operating best practice as part of a programme to minimise the variability of processes, or by adapting its processes' operating conditions such as excessive amount of reagent, stirring conditions within reactors, and temperature conditions.

Furthermore, the Group develops, alone or in partnership with its suppliers, actions such as the recycling of reaction solvents used in its manufacture, or offering the recycling of spent activated carbon to its customers.

Finally, the Group develops the use of renewable raw materials by using biosourced raw materials. ARKEMA is in fact the world's largest producer of specialty polyamides derived from castor oil. A long-standing producer of polyamide 11 from castor oil in Europe, in 2012 the Group acquired in China the companies Hebei Casda Biomaterials Co. Ltd., a producer of sebacic acid from castor oil, and Suzhou Hipro Polymers Co. Ltd., a producer of polyamides 10.10 and 10.12 from this sebacic acid.

ARKEMA also conducts research into the potential use of biosourced raw materials in some of its production processes, *e.g.* the substitution of propylene by glycerol in the manufacture of acrylic acid.

#### Consumption of energy

The Group uses various sources of energy mostly as part of its manufacturing operations, but also to maintain some of its buildings at certain temperature levels.

The Group wants to play a part in optimising the consumption of energy used in its manufacturing processes and facilities.

Some years ago it set up an initiative called "Arkénergie". This initiative relies on a network of Energy Saving Leaders based on the sites. Following an awareness period and the introduction of progress indicators, this initiative is based on two types of actions: best practice in conducting the operations and in the maintenance of the facilities, and investments designed to reduce energy consumption.

Investments in recent years designed to reduce the Group's energy consumption concern, depending on the sites, equipment such as new, more efficient compressors or motors, variable speed drives, exchangers, preheaters, and heat recovery devices in more efficient boilers and burners.

Actions such as checking and upgrading the insulation of pipework and steam traps, and locating leaks in compressed air circuits have also resulted in energy savings.

Other types of actions such as replacing filament lamps by LEDs on some sites, changing windows and doors, installing thermostats in storage areas, as well as motion detectors, in some cases have also had an impact, albeit less significant in quantitative terms.

Examples of major investments with a favourable impact on ARKEMA's energy consumption include the Lacq, La Chambre and Jarrie sites in France.

Total, SOBEGI and ARKEMA, with the support of the French State as well as local communities, invested over 154 million euros into Lacq Cluster Chimie 2030, a project to transform the Lacq (France) platform into an industrial cluster of excellence. This project enables ARKEMA to continue operating its thiochemicals activities from the hydrogen sulphide ( $H_2S$ ) provided by the last gas resources in Lacq, and represents an environmental benefit in terms of energy and transport compared to  $H_2S$  production from sulfur. Additionally, the investment made by ARKEMA will help reduce the energy consumption of its manufacturing operations with an annual energy saving target of the order of 40 GWh.

The La Chambre (France) site saw the launch of an energy saving plan based on process modifications, operating parameter optimisation, and enhanced recovery of vapour condensates or hot water. The plan should, over 2013 and 2014, help save almost 14% of the site's energy consumption.

A net investment of the order of 40 million euros was made by ARKEMA at its Jarrie (France) site in 2012 and 2013 into the production of chlorine, with financial support from the French State. All mercury electrolysis cells were dismantled, and a new electrolysis facility was built, based on the membrane process. This restructuring of the Jarrie industrial facilities will enable the

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use of mercury to be discontinued on the site and so prevent risks of emissions related to its use ahead of the end-of-2019 deadline laid down by French regulations. Furthermore, an investment into new air compressors in the hydrogen peroxide production plants should help further optimise energy consumption at the Jarrie plant.

#### Energy purchases extensive indicator

For 2011, 2012 and 2013, the Group's net purchases of energy, drawn up as per the methodology note in section 2.6 of this reference document, are shown in the table below.

Net purchases	2013	2012	2011
Total net purchases of energy (in TWh)	8.5	8.5	8.7

Net energy purchases in 2011 were recalculated to exclude the vinyl activities sold in 2012, the latter being electricity intensive sites for their electrolysis processes.

#### Energy purchases intensive indicator

For 2011, 2012 and 2013, the values of intensive EFPIs corresponding to net energy purchases generated by the Group's activities, calculated as per the methodology note in section 2.6 of this reference document, are given in the following table. Purchases by the biggest energy net purchasers among the Group's sites used for these calculations account for over 80% of the Group's net purchases.

Net purchases of energy	2013	2012	2011
EFPI net purchases of energy	1.02	1	1.02

ARKEMA's objective is to reduce by on average 1.5% per year its energy net purchases expressed as intensive values (EFPI) by 2020 compared to 2012.

#### Usage of soils

ARKEMA wants to minimise its footprint on and use of soils.

The first type of actions conducted by the Group in this regard concerns the remediation of soils.

Some of the Group's industrial sites, particularly among those whose manufacturing activity goes back a long time, have been, or are, responsible for environmental pollution, notably of soil or groundwater, and have been the subject of actions described in paragraph 2.2.1.6 of this reference document on the management of historical pollutions.

In this regard, ARKEMA develops new soil remediation techniques through stimulation of bacteria naturally present in the soil in order to help with the degradation of chlorinated solvents historically present, as is the case, for example, with the Saint-Auban and Mont sites in France. The work undertaken at the Mont site in 2013 is yielding conclusive results and will continue in 2014.

The second type of actions conducted by the Group concerns the management of part of some of its sites which are not or no longer taken up by production plants, in order to allow the development of certain animal species. These actions are described in paragraph 2.2.1.5 of this reference document on biodiversity.

Finally, the last type of actions conducted by ARKEMA concerns the regulatory restoration of diatomite quarries, post mining, of its CECA subsidiary. These quarries are located in Virargues and Saint-Bauzile in France. Restoration of these sites entails firstly a partial backfilling phase for those sections of the quarries that are no longer mined as mining progresses, by limiting the slope of remodelled land, and in some cases re-establishing tributaries of streams, wetlands, and other features. Backfilling only uses barren soil from the prior mining of the quarry. This remediation work is then completed with a final backfill when topsoil is added to this remodelled land. The final restoration is very often earmarked for agricultural use.

#### 2.2.1.4 CLIMATE CHANGE

#### Emissions of greenhouse gases

Emissions to air of greenhouse gases (GHGs) at ARKEMA are due to:

- operations requiring the input of energy (burning of fuel oil and gas);
- emissions from processes that generate CO<sub>2</sub>, N<sub>2</sub>O or CH<sub>4</sub> as product, by-product, co-product, waste or gas discharges like, for example, thermal oxidation used to process VOCs into CO<sub>2</sub>;
- HFC emissions from its production plants for these products; and
- fugitive emissions from cooling circuits using GHGs.

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#### Emissions of greenhouse gases extensive indicator

For 2011, 2012 and 2013, quantified emissions to air of greenhouse gases (GHGs) generated by the Group's activities are shown in the table below. They were drawn up as per the methodology note in section 2.6 of this reference document.

Emissions of greenhouse gases (GHGs)	2013	2012	2011
GHGs (kt CO <sub>2</sub> eq)	4,710	5,120	2,090
incl. CO <sub>2</sub>	1,470	1,460	1,490
incl. HFC	3,200	3,610	540

A review of the methods used to evaluate fluorogas emissions has led to a review of the Group's GHG emissions which should have resulted in the reporting of GHG emissions of 4,090 kt  $CO_2$  eq in 2011. As indicated in the reference document for 2012, this revision is due to the inclusion of new emissions from the Calvert City plant (United States) following a change in reporting rules requested by the Environmental Protection Agency in the United States and which represented 2,880 kt  $CO_2$  eq in 2012.

In 2006 the Group's emissions were 9,240 kt  $CO_2$  eq. Using computation conditions comparable to those of 2006, GHG emissions declared for 2013 would amount to 2,070 kt  $CO_2$  eq.

In 2013, the sites that contributed to a reduction in GHG emissions were Calvert City (United States) where a vent was connected to a thermal oxidizer, and Zaramillo (Spain) due to changes in the site's products.

ARKEMA takes action in terms of climate change by reducing GHG emissions from its own production plants.

To reduce its impact on global warming, the Group has undertaken a number of actions and deployed effective means to minimise GHG emissions. ARKEMA was already one of the French companies within the Association des entreprises pour la réduction de l'effet de serre (AERES), which have made a voluntary commitment to achieve GHG reduction targets.

The following examples illustrate this initiative:

- the introduction of devices to process emissions from facilities such as the thermal treatment plants at the Pierre-Bénite (France) and Changshu (China) factories;
- the replacement of boilers with more efficient equipment allowing a reduction in their gas usage (Carling site in France) and a change of technology for burners (La Chambre site in France); and
- the replacement of air-conditioners and cooling units with more efficient models as well as enhanced preventive maintenance work that have helped reduce emissions from this type of equipment by 50%.

### Emissions of greenhouse gases intensive indicator

For 2011, 2012 and 2013, the EFPI values corresponding to the GHG intensive emissions generated by the Group's activities, computed as per the methodology note in section 2.6 of this reference document, are given in the table below. Emissions from the biggest GHG emitters among the Group's sites used for these calculations account for over 80% of the Group's emissions.

Emissions of greenhouse gases	2020 target	2013	2012	2011
EFPI greenhouse gases (GHGs)	0.70	0.93	1	0.85

# ARKEMA's objective is to reduce by 30% its GHG emissions by 2020 compared to 2012.

By 2012, the Group had already cut down its GHG intensive emissions (EFPI) by 62% compared to 2006 based on a comparable methodology for assessing GHG emissions. The 2006 extensive figures have been corrected to allow for greater reliability for the EFPI computation exercise. Without modifications to the extensive figures reported and audited in 2007 for 2006, the reduction mentioned above would be around 10% smaller.

## Adaptation to the extreme consequences of climate change

The Group operates a number of sites in the United States, in particular near the Gulf of Mexico, and in Asia which can experience extreme weather events such as tornadoes, tropical cyclones (typhoons, hurricanes), and flooding, the frequency and intensity of which could be exacerbated by climate change. ARKEMA lends particular attention to the potential impact of these extreme weather events.

The Group therefore analyses the potential impacts of these weather events when acquiring new businesses. Where the potential climate impact is regarded as liable to have a particular incidence on the safety of people or on the economic aspects of the acquisition, it may then be the subject of a specific study by third party experts.

When designing new production plants, ARKEMA applies the HAZID (HAZard IDentification) method to be able to take account of the impact of external events such as natural disasters on the mechanical strength of the construction.

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The standards used for the construction of ARKEMA's plants comply with local regulations and data.

The design of facilities therefore includes extreme values of wind speed as well as data on flood risks (100-year flood) in the conditions of the sites housing new plants.

The measures implemented on sites potentially subject to such extreme events concern for example raised plants or control rooms, earth-filled dams, or concrete walls around storage facilities.

Response to these events is described in the emergency response procedures, for those sites that are potentially impacted. In all cases of alert, the sites comply with instructions from the authorities.

Emergency procedures are implemented to shut down and maintain the facilities safe in order to minimise the risk of emissions of chemical substances into the environment when these extreme events occur.

Stocks of some products are also maintained in external storage facilities that are not potentially impacted in order to prevent shortages in supplies to ARKEMA's customers.

The Group also indicates the exposure of its sites in some regions that are particularly exposed to this type of events. These extreme weather events do not include seismic risks, described in paragraph 1.7.2.3 of this reference document.

Nineteen of the Group's sites are exposed to storm risks (tornadoes and cyclones), eleven of which on the American continent and eight in Asia. A study was conducted end 2011 by a third-party body on behalf of ARKEMA. This lists the Group's eight industrial sites that are most severely exposed to tornadoes and cyclones in North America, together with the severity of these risks.

## 2.2.1.5 PROTECTION OF BIODIVERSITY

#### Measures taken to protect fauna and flora including biodiversity

In the course of its operations, the Group places the protection of the environment at the core of its objectives, and is committed to constantly improving its performance in these areas.

The protection of biodiversity first implies the protection of environment, fauna and flora and of all species that could be impacted by emissions due to the Group's activities.

Actions concern discharges from every site into water, the soil, and the air.

A periodic environmental analysis of the sites helps measure the progress achieved, identify its impacts, and define the priority areas for their action plans concerning the protection of the environment and therefore all the species that their activities might impact.

Additionally, from their design stage, new production plants include the environmental footprint in the choice of process and equipment. The actions conducted by ARKEMA in particular within the framework of laws and regulations to minimise chemical oxygen demand (COD) in its effluents discharged into rivers are designed to protect the dissolved oxygen gas that is key to all animal aquatic life.

The actions conducted by ARKEMA *inter alia* within the framework of laws and regulations in order to minimise volatile organic compound (VOC) emissions to air are designed to reduce the formation of ground-level ozone, a super-oxidant harmful to fauna and flora. Similarly, reducing SO<sub>2</sub> and NOx emissions helps prevent the formation of acid rain which, in addition to its direct effect on plant life, can also alter the characteristics of soils.

The actions conducted by ARKEMA within the framework of laws and regulations on the remediation of the soil on its sites where former industrial activities were or are the cause of environmental pollution, also help protect the various species which depend on their soil or groundwater.

#### Measures taken to develop biodiversity

Although the land it occupies is limited, the Group conducts a number of actions in Europe to contribute, on its scale, to the development of biodiversity on the sites where some of the land is not allocated to industrial activities.

In France, the Pierre-Bénite site, in partnership with the NATURAMA environmental education association, initiated a programme to refurbish areas that had been wasteland since 2010. A survey of the fauna and flora present on the site highlighted the importance and remarkable aspect of an existing reed bed. Accordingly, the initial action of the management plan spanning several years was the restoration of this reed bed, with appropriate plantations and the elimination of invasive plants, followed by its extension with the creation of a second basin in 2012. In 2013, flower meadows and ponds were landscaped within the boundaries of the platform where demolished old buildings used to stand. These flower meadows have above all an aesthetic appeal, by offering colourful and fragrant spaces. They also have ecological benefits insofar as these environments abound with biodiversity, being home to many varieties of plants, insects and birds.

The Carling (France) site called upon the services of consultants specialising in the environment (*Atelier des Territoires*) for the remediation and enhancement of the ecological status of a former wastewater treatment lagoon with a surface area of 3.5 hectare, while rehabilitating the landscape. The project began in 2012 with an analysis of species potentially present and therefore to be nurtured to allow ecological diversity to develop. 2012 and 2013 saw the restoration of hedgerows and ponds judiciously positioned for harmonious cohabitation with the surrounding industrial facilities, on the one hand, and the improvement of open meadows as well as landscaped boundaries favourable to fauna and flora biodiversity, on the other. These refurbishments yielded the first noticeable benefits in spring 2013.

Reduce the environmental footprint of the Group's activities

Meanwhile, as described in paragraph 2.2.1.3 of this reference document, CECA, a subsidiary of the Group, takes care of the regulatory post-mining remediation of its diatomite quarries in France. Accordingly, CECA has commissioned the Fédération de Protection de la Nature Ardèche (FRAPNA) to carry out an expert survey of the fauna and flora on its Saint-Bauzile site. This survey is part of a five-year plan, launched during an inventory in 2000. The second study carried out in 2011 highlighted the presence in the quarry and its immediate surroundings of a wealth of everimproving flora and fauna. These findings confirmed the benefit of restoring vegetation with local plant species as recommended by FRAPNA in 2007, in terms of herbaceous as well as short and tall woody plants. Such studies help redefine and adjust plant species, in line with FRAPNA recommendations, for the replanting of embankments and slopes in zones being remediated. The work in progress therefore helps redevelop the biodiversity of the land being restored.

Equally, when the authorisation to mine our quarry in Virargues (France) was renewed and extended on 26 July 2013, CECA concluded two agreements with two relevant regional bodies in order to implement measures to safeguard and boost the local ecosystem.

The first convention, signed for a duration of 25 years with Union Régionale des Forêts d'Auvergne (URFA) and its Mission Haies Auvergne, is designed to reinforce the functionality for the bird fauna of the local fields and woods on the land belonging to CECA. Work overseen by URFA will help the creation of hedgerows stretching over 2,475 m, and the annual monitoring of the hedgerows so created. The second convention, signed for a duration of 5 years, with the Syndicat Interdépartemental de Gestion de l'Alagnon et de ses affluents (SIGAL), aims to put in place a specific programme for the refurbishment, management and oversight of the most severely spoilt sections of the streams within the watershed of the river Alagnon in order to promote the development of protected species of freshwater crustaceans.

These concrete examples do show that industrial activity and biodiversity can coexist.

#### 2.2.1.6 MANAGEMENT OF HISTORICAL POLLUTION AND RELATED PROVISIONS

Some of the Group's industrial sites, particularly those whose manufacturing activity goes back a long time, have been, or are, responsible for environmental pollution, notably of soil or groundwater. Under these circumstances, a number of sites currently being operated by the Group, or that were operated by the Group in the past and subsequently sold, as well as adjoining sites or sites where the Group stored waste or had waste eliminated, have been, still are, or could be in the future subject to specific demands for remediation from the relevant authorities.

Where there is a problem of soil or groundwater contamination on a site, investigations are launched to establish the extent of the area concerned and ascertain whether the pollution is likely to spread. The Group cooperates with the authorities to define the measures to be taken when the risk of an impact on the environment or a danger to health has been identified.

The amount of provisions for environmental risk at 31 December 2013 is given in note 19.3 of the notes to the consolidated financial statements in paragraph 4.3.3 of this reference document.

## 2.2.2 MANAGING PRODUCTS RESPONSIBLY (PRODUCT STEWARDSHIP)

#### 2.2.2.1 POLICY AND GENERAL ORGANISATION

The Group ensures that it markets products that are useful to society at large, are safe, and do not harm human health or the environment.

To this end the Group has an organisation, teams of experts, IT resources and databases to enable it to meet regulatory requirements on product safety.

Product Stewardship requires constantly improving knowledge of the characteristics of the products and their conditions of use. Accordingly, the Group has for many years relied on a team of expert toxicologists and ecotoxicologists who conduct the necessary studies to characterise the hazards presented by products, and work in close collaboration with regulatory experts carrying out risk evaluation in conditions of use. In particular, the Group translates its commitment in this regard through Registration, Evaluation and Authorisation of Chemicals (REACH), a European regulation, probably the most ambitious in the last twenty years, aiming to thoroughly change the method for managing and controlling chemical substances that are produced, imported, or sold on the European market, by improving the level of knowledge, analysing environmental and health risks, and defining measures for managing the risks which their manufacture and use may present. The Group endorses the objectives of REACH which represents an additional means to the continuous improvement of knowledge of its substances and their safe use, thereby meeting the legitimate expectations of civil society.

The REACH regulation entails a number of processes:

• <u>Registration</u>: It requires all manufacturers and importers of chemicals, as such or in blends, in Europe, to file a complex registration dossier for each substance of which more than one tonne is produced or imported per year;

Reduce the environmental footprint of the Group's activities

- Evaluation: A number of dossiers selected by the European Chemicals Agency (ECHA) will be the subject of an indepth evaluation by the relevant authorities. This evaluation is managed as part of CoRAP (Community Rolling Action Plan) which defines over a 3-year rolling period the dossiers to be examined per year, and by which Member State. The conclusions can range from "compliant and with no followup required", to "a proposal to include the substance on the candidate list", or "a proposal for restriction". CoRAP is updated every year;
- <u>Authorisation</u>: this new authorisation procedure is required for substances "of very high concern", namely those in the following categories: carcinogenic, mutagenic and reprotoxic (CMR), persistent, bioaccumulative and toxic (PBT), and very persistent and very bioaccumulative (vPvB), as well as substances of equivalent concern. An initial step entails registering these substances on a candidate list which will then be used to feed into Annex XIV. Inclusion in Annex XIV implies the filing of an authorisation dossier for the uses for which an authorisation is desired. Failure to file a dossier will imply that the substance is no longer produced, imported or marketed within 18 months following the closing date for filing the authorisation dossier; and
- <u>Restriction</u>: The restriction procedure is designed to ban one or more targeted uses presenting a major risk to health or the environment. The dossier is prepared by a Member State.

To be in a position to conduct the major workload corresponding to the obligations of this regulation, the Group has set up a projecttype organisation overseen by a Steering Committee at Executive Committee level. The core of this setup is centralised at Group level within the Safety Environment Product Division (DSEP) in charge of the health, environment and safety issues of products as well as regulatory implications, and based on a team of experts in toxicology, ecotoxicology and regulations. These various experts ensure the implementation of the REACH regulation centrally, by relying on a network of correspondents that take part in drafting parts of the dossiers concerning the Business Units, the industrial sites, the subsidiaries and R&D for operational issues, and the Purchasing, Information Systems, Legal, and Communication divisions for functional issues. This organisation has enabled the Group to fulfil the requirements of the REACH regulation:

- <u>Registration</u>: 151 substances were registered with ECHA following the initial registration deadline set for 30 November 2010, and 123 substances were registered for the second registration deadline set for 31 May 2013. The Group expects to register a total of 480 substances (including the resins and specialty alkoxylates activities acquired in 2011), of which 10 or so are potentially subject to authorisation, a figure that was refined following these two registration periods, now closed, completed by a survey of the BUs on the evolution of their portfolios. The Group estimates that compliance with this new regulation will cost it around 45 million euros over the 2012 to 2020 period;
- <u>Evaluation</u>: ARKEMA had 4 files under evaluation in 2013. These are three manufactured substances (carbon tetrachloride (CTC) manufactured by ARKEMA until 1<sup>st</sup> July 2012 then used at the Mont site (France), diphenyl guanidine (DPG) for

which ARKEMA is acting as leader of the registration file, and methyl chloride manufactured at the Jarrie site), and a substance used as raw material (bisphenol A (BPA)) which is the subject of European risk studies and national bills, in particular concerning its use in materials in contact with food products. No particularly binding conclusions are anticipated for CTC, DPG or methyl chloride at European level, except for a few complementary tests. By contrast, BPA and indirectly its derivatives may be subject to restriction measures in certain markets, in particular the food market. At French level, a law was published in the Official Journal of 24 December 2012 aiming to suspend from 1st January 2013 the manufacture, importation and sale on the market of any packaging, container or article comprising BPA and used to enter directly in contact with foodstuffs for babies and small children. This ban has been extended to all categories of people from 1<sup>st</sup> January 2015. ARKEMA has little exposure on the market of food containers, and in addition works closely with its customers to substitute products derived from BPA;

- Authorisation: In the phase to register substances on the candidate list, ARKEMA follows the proposals for registration and responds to the consultations organised by ECHA for substances the use(s) of which may be subject to authorisation (NB. substances used as synthesis intermediates are not subject to authorisation). An estimate of the problem at stake is conducted, from which actions may then be decided, such as: study for substituting the substance in the targeted uses, filing of authorisation dossier when moving on to Annex XIV, conversion of unit, planned shutdown of activity. The candidate list currently features 144 substances. These substances include in particular (i) di ethyl hexyl phthalate (DEHP) produced at the Chauny site (France), (ii) hydrazine produced at the Lannemezan site (France), and (iii) sodium dichromate used as a process aid at the Jarrie site (France). Among these substances, DEHP was the subject of registration under Annex XIV. In September 2013 ARKEMA announced a plan to shut down its Chauny site and therefore discontinue DEHP production in 2014. Sodium dichromate was the subject of registration under Annex XIV, and ARKEMA will file an authorisation dossier, as the search for an alternative solution has yet to yield results;
- <u>Restriction</u>: Cobalt chloride has gone from a recommendation for registration under Annex XIV with a view to authorisation, to a recommendation for restriction that would *a priori* only target metal coatings, an application that does not affect ARKEMA which uses it as a process aid at its Jarrie site. Nevertheless, pending a formal proposal for restriction and as a precautionary measure, ARKEMA is studying a substitution solution.

Outside Europe, the Group markets its chemicals in accordance with the mandatory inventories in the various countries or regions which use them. Due to its history and global presence, the Group has products that are already notified in many inventories. Should a need arise for a new product notification, the Group has a major database on the characteristics of its products, which means that it can file dossiers in an optimum time scale. Notifications are executed thanks to the work of experts at Group level who rely on the country subsidiaries and/or a network of local specialist consultants. In many countries, the Group records knowledge of the products' characteristics and conditions of use in a (Material) Safety Data Sheet ((M)SDS), a document prepared to be able to market chemical products classified as hazardous to human health and/or the environment. The (M)SDS must feature the necessary prevention and safety data for the use of a hazardous product. These (M)SDSs are prepared in some forty languages thanks to a high performance IT infrastructure and the information compiled from a global database grouping together all product compositions as well as their toxicological, ecotoxicological and physico-chemical data, thereby ensuring consistency of information wherever the products are marketed. The Group releases (M)SDSs in accordance with regulatory requirements, and/or makes them available on its website and/or via the QuickFDS internet platform.

The organisation of the Group, the resources allocated, and the motivation of all personnel have enabled extended safety data sheets to be made available (extended-(M)SDSs, the latest format established by REACH), which now include a description of exposure scenarios for identified uses, therefore allowing improved risk management.

The Group has a high performance IT system to draft its regulatory documents, and adapts it as required in order to include the latest formats and data related in particular to the implementation of GHS (Globally Harmonized System of Classification and Labelling for Chemicals) in the countries that endorse this system, which defines a common classification and labelling method.

The Group has also developed a system for publishing labels which uses validated data from its central database to print labels within a consistent classification, regardless of the country in which the product is manufactured and/or marketed.

Thanks to its organisation, its scientific and regulatory expertise, its teams of experts assisted by efficient information technologies, the Group shows its commitment, over and above these regulatory requirements, to marketing its chemical products in a safe and responsible manner, by informing its customers and the public in complete transparency.

## 2.2.2.2 HEALTH, SAFETY AND ENVIRONMENT FOR CONSUMERS

Product Stewardship, which goes beyond regulations, consists in ensuring that the products have no effect on the health and safety of people, or their environment. This approach involves every player in the product chain, from raw material supplier to end-customer. The Group ensures that it markets products that are useful to society, are safe, and do not endanger health, the environment, or the safety of users and consumers by taking actions that go beyond mere compliance with the regulations described in paragraph 2.2.2.1 of this reference document, in accordance with the undertakings set out in its Safety, Health, Environment and Quality Charter.

The Group has already translated its commitment to Product Stewardship by endorsing the Responsible Care® Global Charter of ICCA, as part of international programmes such as HPV (High Production Volume) conducted by the latter, and by EPA (Environmental Protection Agency) in the United States.

The Group remains committed in this regard by participating in the Global Product Strategy (GPS) programme. This commitment entails the creation of a specific web page dedicated to GPS and the regular publication of information sheets in the form of Safety Summaries on the ICCA website as well as on its own website, as and when the REACH registration dossiers are filed.

In the interest of Product Stewardship for its own products, ARKEMA goes beyond its regulatory obligations and supplies (M)SDSs even for its products that are not rated hazardous.

In order to inform its customers of the environmental performance of its products, ARKEMA also carries out Life Cycle Analyses (LCAs) on certain products; these multicriteria analyses in particular help convert the full inventory of flows related to a product's production into environmental impacts.

These analyses help evaluate the impact of the products following such parameters as emissions of carbon dioxide, ozone depletion potential, contribution to acidification, consumption of energy and water, and the use of soils during their production.

The Group has developed in-house competence within its Rhône-Alpes Research Centre in France in order to apply this global approach, recognised and standardised as part of its customer relations.

The Group follows the recommendations of the International Reference Life Cycle Data System (ILCD) in conducting these analyses. CORPORATE SOCIAL RESPONSIBILITY Place sustainable development solutions at the heart of its approach to innovation and in its product range

## 2.3 PLACE SUSTAINABLE DEVELOPMENT SOLUTIONS AT THE HEART OF ITS APPROACH TO INNOVATION AND IN ITS PRODUCT RANGE

The Group places its product and process R&D at the service of sustainable development and the challenges of the planet by offering innovative solutions in favour of new energies, the fight against climate change, access to water, and the use of renewable raw materials.

## 2.3.1 DEVELOP PRODUCTS FOR NEW ENERGIES AND THEREFORE CONTRIBUTE TO PRESERVING FOSSIL RESOURCES

New energies are one of the Group's major research areas.

ARKEMA develops new products for this market, and so contributes to preserving fossil resources. The two priority areas are photovoltaics and lithium-ion batteries, which saw the following developments:

- polyvinylidene fluoride (PVDF), either grafted or copolymerised, is an excellent binder for battery electrodes, and an excellent material for their "separating" ability (as a polymer film separating the two electrodes);
- new-generation lithium salts, still at an exploratory stage, should make lithium-ion batteries safer thanks to their thermal and chemical stability;
- ethylene-vinyl-acetate (EVA) and organic peroxides are used as encapsulation materials in photovoltaic cells; and
- PVDF is used as backsheet in photovoltaic cells.

Meanwhile, ARKEMA is also developing thermoplastic composites that could find applications in wind turbine blades.

## 2.3.2 FIGHT AGAINST GLOBAL WARMING

The Group develops resistant and lightweight materials which are used for example in cars to reduce their weight and therefore fuel consumption. They also contribute to minimising  $CO_2$  emissions in the transportation sector.

The Group's main innovations in this area include:

- nanostructured PMMA (polymethyl methacrylate) to replace glass;
- Rilsan® polyamide 11 to replace metal; and
- acrylic or polyamide thermoplastic composites, poised to replace traditional composites, in particular as they can be recycled.

ARKEMA won the 2013 Pierre Potier Award, an annual prize rewarding chemistry innovations serving sustainable development, with Rilsan® HT, its high performance polyamide produced from non-food plant-based raw materials. With its unique combination of flexibility and stability at very high temperatures, this material can aptly replace metal and rubber in the automotive industry in under-hood fluid piping. Six times lighter than steel and three times lighter than aluminium, it therefore contributes to reducing the weight of vehicles and so their fuel consumption and  $\rm CO_2$  emissions.

The Group also develops evolutions or new applications for its products contributing to minimising GHG emissions.

Accordingly, ARKEMA continues to develop low Global Warming Potential refrigerant gases, and has announced the launch of an industrial project for the production of 1234yf to meet the needs of automotive air-conditioning. Generally, as a world leader in refrigerant fluorogases, ARKEMA continues its strategy to constantly adapt to changes in global regulations, and develops competitive solutions to be part, on a world scale, of the drive to reduce greenhouse gas (GHGs) emissions.

Place sustainable development solutions at the heart of its approach to innovation and in its product range

In a totally different field, CECA has developed a range of bitumen additives for warm mix asphalt techniques that afford energy savings of 20 to 30%, for road bitumen application.

ARKEMA has also developed the Kynar Aquatec<sup>®</sup> resin, an aqueous formulation for white paint used in reflective roofing with a lifetime far in excess of conventional paint, which allows a reduction in air-conditioning requirements in regions exposed to strong sunlight.

## 2.3.3 DEVELOP PRODUCTS FOR IMPROVING WATER QUALITY AND ACCESS TO WATER

Water treatment is also one of the Group's major R&D themes. The main products and solutions developed for this purpose are fluorinated polymer membranes as well as CECA's filter aids.

The Group also markets a variety of products for water treatment:

- acrylic acid is used to manufacture polyacrylates used in water treatment plants for the flocculation of suspended solids;
- hydrogen peroxide is used as an agent to minimise chemical oxygen demand. A clean reagent, hydrogen peroxide only has water and oxygen as by-products, and offers the benefit of generating neither wastewater sludge nor toxic by-products;
- Rilsan<sup>®</sup> fine powders have been chosen by many large municipalities for the coating of their drinking water systems as well as wastewater treatment equipment due to their resistance, stability and flow properties.

## 2.3.4 USE OF RENEWABLE RAW MATERIALS TO PRESERVE FOSSIL RESOURCES IN THE FACE OF GROWING POPULATION NEEDS

By developing products from renewable raw materials, the Group contributes to the drive to preserve non-renewable fossil materials.

Its developments concern biosourced polymers, as well as derivatives from glycerol and vegetable oils.

In 2013, ARKEMA received the EUBIA Prize (European Biomass Industry Association). This prize rewards a significant advance in biomass energy conversion. The Group in fact markets a number of product ranges derived from plant-based raw materials, including an extensive range of polyamides (PA11, PA10) processed from castor oil. ARKEMA has also undertaken research with a view to marketing new products derived from renewable raw materials, and is involved in the EuroBioRef and BioCore European integrated biorefinery research projects.

The Group's R&D policy and actions are described in further detail in section 1.4 of this reference document.

CORPORATE SOCIAL RESPONSIBILITY Encourage open dialogue with all stakeholders

## 2.4 ENCOURAGE OPEN DIALOGUE WITH ALL STAKEHOLDERS

## 2.4.1 TERRITORIAL, ECONOMIC AND SOCIAL IMPACT OF THE GROUP'S ACTIVITY

# ON EMPLOYMENT AND REGIONAL DEVELOPMENT

ARKEMA's social responsibility is embodied in the support provided to the development of the territories in which the Group is present or is involved.

The Group's activity generates tens of thousands of direct and indirect jobs around the world. Therefore the Group plays a role in the economic and social development of the regions in which it operates.

In 2013, the Group's investments made a direct and indirect contribution to employment of the order of 3,100 full-time equivalent jobs. Additionally, the effect of these investments on the economic fabric of the regions concerned equates to 9,500 full-time equivalent jobs.

In this respect, the major investment projects completed in 2013 – at Carling, Lacq and Jarrie (France) and at Clear Lake (Texas) in the United States – by their scope have an economic impact on the regions concerned that is far greater than any recurring capital expenditure that the Group might also undertake.

Additionally, in France, when it has to redeploy some of its activities, the Group strives to compensate for job losses, where applicable, and contributes to revitalising those economic regions that have been impacted. These actions are laid down in the revitalisation agreements legal framework signed with public authorities, and take the form of a variety of measures, including:

- financial support for setting up or taking over companies; and/ or
- prospection into establishing new activities, and assistance for their development.

This was for example the case with the proposed shutdown of activities at the Chauny site (Aisne, France) presented to the trade unions in September 2013.

Additionally, in some regions ARKEMA provides technical support to young innovative companies, for example, in the Lacq (France) region, to companies moving in to the "Chemstart'up" chemistry enterprise zone.

On a broader level, ARKEMA implements a policy of support to innovative small and medium-sized enterprises (SMEs) that are

connected to its activities, through joint projects or by acquiring a stake in them. This entails, for example, individual research centres establishing a close cluster unit with a neighbouring school or laboratory, while putting in place the conditions of a partnership with local SMEs.

ARKEMA is indeed one of the founding members of Axelera, a world-scale competitiveness cluster which brings together and coordinates in the Rhône-Alpes region (France) players from industry, research and education around a chemistry and environment related theme. Axelera is one of the most dynamic competitiveness clusters, and, six years after its creation, counts over 250 members, 50% of which are SMEs, and 180 certified projects representing a budget of over half a billion euros and involving four hundred people. The cluster has generated a real innovation impetus, and has become a genuine cluster that is gradually joining the ranks of the top performing European chemistry entities. Beyond its initial vocation to foster local R&D initiatives, the cluster now increasingly provides selective support for the growth of economic activities that create value and jobs, both within and outside France, in particular through an "outpost" in Shanghai (China).

Following on from Axelera, ARKEMA is also a founding member of IDEEL (low-carbon energy and ecotechnologies institute based in Lyon). In June 2013 IDEEL signed its first triennial convention for the funding of its programmes to develop innovative solutions at the service of the factory of the future. This institute aims to make chemical manufacturing processes cleaner and more costefficient and to transform industrial wastes into products that can be recycled or into new sources of energy.

In France, the Group is also a member of other competitiveness clusters, which play a growing role in the innovation sector and contribute to the emergence of innovative solutions that create jobs: Plastipolis (plastics), EMC<sup>2</sup> and Aerospace Valley (composites for aerospace and aeronautics), IAR (industries and agro-resources), and Mov'eo (automobile and public transportation).

These partnerships have a dual dimension for ARKEMA, namely foster innovation and strengthen its local integration, thereby making the Group a key player upstream of certain strategic industrial sectors of the future (thermoplastic composite materials, renewable raw materials, etc.).

## 2.4.2 RELATIONS WITH STAKEHOLDERS

#### 2.4.2.1 CONDITIONS OF DIALOGUE

The company TNS Sofres conducted a survey in 2<sup>nd</sup> quarter 2013 on the image of the Group involving 713 opinion leaders, in particular managers, financial experts, journalists and teachers in Germany, Belgium, Spain, the United Kingdom, Italy and the Netherlands.

This survey highlighted major improvements in these stakeholders' perception of ARKEMA in terms of commitment to sustainable development.

78% of interviewees have a good opinion regarding ARKEMA's responsible behaviour towards society and sustainable development, while 81% have a good opinion on ARKEMA's commitment to sustainable development. These figures are up from 2008, by 12 points and 15 points respectively. Additionally, 79% of interviewees believe that ARKEMA's products bring advances to sustainable development.

For several years now, changes to the regulatory framework have encouraged a consultation, dialogue and information process on the Group's actions that have a strong impact on the environment.

In France for example, ARKEMA continued to play an active role in the meetings of many local information and consultation committees as well as permanent secretariats for the prevention of industrial pollution (SPPPI), and more specifically in information and exchange meetings as part of the implementation of the "plans for the prevention of technological risks" (PPTR) for the Pierre-Bénite, Jarrie, Saint-Auban, Marseille and Carling sites.

ARKEMA goes beyond the scope of the regulatory framework, and puts in place conditions for dialogue with all stakeholders.

In the United States 50% of the Group's sites are involved in mandatory "Community Advisory Teams" or in "Community Advisory Panels" in order to share with local people information on the sites' activities, and address their concerns. These can be monthly, annual or biannual meetings. In 2013, ARKEMA plants that took part in these initiatives included Axis, Beaumont, Blooming Prairie, Bristol, Calvert City, Clear Lake, Geneseo, King of Prussia, Louisville, Memphis and St. Charles.

ARKEMA put in place over ten years ago an innovative longterm approach to relations with its industrial sites' stakeholders, called Common Ground<sup>®</sup>. First launched in France, the Common Ground<sup>®</sup> initiative has been gradually rolled out in every country in which the Group operates. After being rolled out in Europe (Germany, Italy and Spain), it is now in place in China. In the United States, this initiative is one of the components of the Responsible Care<sup>®</sup> program approved by the American Chemistry Council (ACC).

Managers of manufacturing sites roll out the Common Ground<sup>®</sup> initiative in order to build, with elected officials and local populations, relations based on mutual understanding and trust. Listening, talking, explaining, informing on the operation of plants, on the control of risks to safety, the environment and health, on innovation and the everyday application of the products manufactured, are the guiding principles of this initiative. It is based on three vectors:

## • Listening in order to understand expectations

One of the aims of Common Ground® is to give a vital place to listening to the local communities and provide answers to the expectations voiced by stakeholders. In order to pinpoint these expectations, the Group has carried out opinion surveys designed to understand the questions and concerns of people living near its industrial sites. The findings of these surveys are used to assess the perception of our manufacturing sites by the local residents and the impact of relations developed with their local environment. Over the years, the findings of surveys have shown that the climate is now more favourable, in particular with fewer concerns on the perception of industrial and chemicals risks. These surveys also provide guidance to help improve the Group's community relations actions. A new wave of opinion surveys is planned by 2016.

#### Talking and explaining the activities

Every industrial site in the Group is committed to developing and fostering regular and constructive dialogue with its stakeholders by informing them of the nature of its activities, highlights in the life of the site or its projects, its records and targets in terms of industrial safety, its environmental performance, its situation vis-àvis current regulations, incidents or accidents that have occurred, and corrective measures adopted.

The plants regularly organise Common Ground<sup>®</sup> initiatives such as open days, guided tours, exhibitions, etc. This gives participants the opportunity to become acquainted with products, manufacturing processes, and measures available regarding the control of risks and the protection of health and the environment of the Group. These visits also help promote direct dialogue between the participants and the plants' personnel.

In 2013, 644 Common Ground<sup>®</sup> initiatives were carried out worldwide, and 81% of sites took an active part in these events.

In the United States, 340 Common Ground<sup>®</sup> initiatives were conducted in 2013. Thirteen sites took part in the "Science Teacher Program", as detailed in paragraph 2.4.2.2 of this reference document, and 8 sites (Alsip, Axis, Calvert City, Cary, Grand Rapids, North Kansas City, St. Charles and Torrance) organised open days. Eighteen of the twenty-one sites in the United States took an active part in at least one of the two operations mentioned above. Every site has put in place a program to foster community relations with the local population based on trust, and some examples of the program are presented on the Arkema Inc. website.

Encourage open dialogue with all stakeholders

In France, 166 Common Ground<sup>®</sup> initiatives were conducted, and 86% of sites took an active part in the organisation of events.

France and the United States were the two countries that organised the largest number of initiatives of this type for the benefit of local people.

In Asia, in 2013, several operations were also initiated as part of the Common Ground® programme.

#### Preventing risks and making progress

The steady improvement of industrial safety, and of the protection of the environment and health in order to promote a culture of risk prevention, is a priority for all ARKEMA sites. In this regard, the Group is fully in line with the "real-time communication" approach initiated by the French chemical industry, and systematically informs the press of any incident, even minor one, occurring in a Seveso classified industrial facility. The Group considers that "real-time communication" is key, and that it bolsters trust with local people, the local press, elected officials and other stakeholders, and so is planning to extend, as appropriate, this type of actions to all its sites around the world. As part of a proactive initiative, ARKEMA regularly organises the simulation of incidents or accidents in order to test the complementarity of emergency response resources on the site and from outside emergency services, as well as alert and information procedures and methods for the protection of local people.

#### 2.4.2.2 PARTNERSHIP AND SPONSORSHIP ACTIONS

ARKEMA engages with young people, and strives to show the adults of the future what chemistry brings to their everyday life.

In France for example, ARKEMA partners the *Palais de la découverte*. The partnership, launched in 2011, continued in 2012 and 2013. A state-of-the art chemistry laboratory was installed to offer a programme of experiments and presentations entitled *Étonnante Chimie* (Amazing chemistry). Every year, almost ten thousand visitors can discover, in an entertaining and interactive mode, the contribution of chemistry to sustainable progress through presentations given by the scientific mediators of *Palais de la découverte* on the basis of ARKEMA's innovations.

For the third edition of the Semaine de l'industrie (Week of Industry) from 19 March to 18 April 2013, Group employees rallied round alongside the Union des industries chimiques to step aboard the "Innovation and Industry" train. Through twenty stages across French and European cities, this exhibition train helped raise awareness of innovations from branches of industry, including chemicals, in which France boasts expertise and sets standards worldwide. ARKEMA employees took part in ten stopovers to present the activities and professions of the chemical sector through which everyone can fulfil their potential in a world of innovation; they also talked with a wide-ranging public looking for professional guidance or retraining. Over 20,000 visitors stepped on board the train, and so discovered the chemical sector. In 2013, as they have done regularly for over ten years, many sites in France took part in the 22<sup>nd</sup> edition of the *Fête de la Science* organised by the French Ministry for Higher Education and Research. A large number of employees rallied to help people discover the extraordinary diversity of disciplines and exchange ideas with young people; the Serquigny, La Chambre and Marseille Saint-Menet sites welcomed several classes of high school students for a visit of their facilities; demonstration and experiment workshops were offered by our Jarrie engineers at the *Village de la science* in Pont de Claix, and our La Chambre engineers at *Galerie Eurêka* in Chambéry, to acquaint visitors with the contribution of chemistry to everyday life.

In 2013, ARKEMA took part in France in the 17<sup>th</sup> edition of *Mondial des Métiers*, a professional show for information on jobs and career choices, which this year welcomed a record number of visitors, in excess of 117,000. Throughout the show, employees from French Group sites in Rhône-Alpes (ARKEMA Jarrie and Pierre-Bénite plants, Coatex plants, CETIA and CRRA centres) presented the diversity and modernity of the chemical professions.

Similarly, Arkema France took part in the *Village de la chimie* event in 2013, which attracted some 8,000 visitors. For two days, the visitors found out that chemistry, already highly present in everyday life, continues to develop in every sector of activity, and that it draws on scientific and technical resources calling on the latest technologies.

Throughout the world, ARKEMA is boosting its relations with the world of education.

Since 2010 ARKEMA has partnered the *Chemical World Tour*, an operation launched by the *Union des industries chimiques* and the *Fondation de la maison de la chimie* in France, in cooperation with the French Ministry for Education and Ministry for Higher Education and Research. The *Chemical World Tour* aims to acquaint students with chemistry and its industry. Every year, five chemistry students and five journalism students are selected to make up pairs who then set off across the world to investigate the vital role of chemistry in the innovations that drive everyday life forward. The reports prepared by the pairs of students are put forward to the public's vote via the internet and the social networks. The 2013 edition of this innovation round-the-world trip focused on chemistry in electronics, and led the pair backed by ARKEMA to investigate the Group's recent developments applied to the miniaturisation of smartphones and tablets.

Created in October 2008 under the aegis of Fondation de France and ARKEMA, Fondation ENSIC (École Nationale Supérieure des Industries Chimiques) aims to promote access to the school's curricula by granting scholarships to students experiencing financial hardship. In 2013, the foundation provided assistance globally to 10 students.

In the United States, Arkema Inc. has been running a teaching module called "Science Teacher Program" since 1996. This has already benefited hundreds of researchers and teachers, who have been able to share their experiences with tens of thousands of students over the years. This program receives funding from

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the Arkema Inc. Foundation, and is offered in particular to young people on scholarships or registered with social programs.

In 2013, 61 North American elementary school teachers took part in this training in regions where ARKEMA operates production facilities or research laboratories. Thirteen sites took part in these events.

In India, Arkema Peroxides India Pvt Ltd., based in the Cuddalore region, has been supporting two local primary and secondary schools for a number of years. Financial donations as well as donations of equipment make up most of the assistance provided to these establishments in order to promote the schooling of children from the most disadvantaged families.

In China, most of our sites undertake actions that promote the education of young people. ARKEMA's Changshu site supports a group of students at the local primary school by providing financial and material support (books, desks, etc.) to promote access to knowledge for disadvantaged children. The subsidiary Suzhou Hipro Polymers Co. Ltd. has donated computers to the FengHuang school to support access to information and communication technologies. Meanwhile, Hebei Casda Biomaterials Co. Ltd. provides financial support of some 7,000 euros for the ongoing education of almost 230 pupils from the HengShui college.

In Malaysia, the Arkema Coating Resins site in Pasir Gudang provides support for 30 students that are orphans or come from low-income families in the Johor Region by providing them with financial help to buy school supplies as well as clothing so that they may continue their schooling in good conditions.

In Japan, the 20<sup>th</sup> anniversary of the Kyoto Research Centre was marked by a number of events. On 10 December 2013 for example, a "Science Day" was organised at the Kyoto Research Centre for the students and teachers of the Kansai French School (Tokyo). This visit gave them the opportunity to find out about the Group's products as well as the activities of the centre, which specialises in the development of new applications.

## 2.4.3 FAIR PRACTICES, REJECTION OF CORRUPTION

ARKEMA is committed to complying with antitrust regulations and to rejecting all forms of corruption and fraud. Accordingly, ARKEMA condemns and strives to prevent fraud and corruption also in its business dealings with its partners.

Compliance with these rules and the rejection of corruption is based in particular on two principles: (i) integration of these rules in the Group's Code of Conduct and Business Ethics, and (ii) the existence of a control procedure for minimising the risk of corruption and fraud.

Moreover, ARKEMA observes international conventions as well as laws in force in the countries in which the Group operates.

#### ARKEMA'S CODE OF CONDUCT AND BUSINESS ETHICS

ARKEMA put in place in November 2013 a new Code of Conduct and Business Ethics, superseding the first version of May 2006, which sets out the rules, based on the Group's ethical values, drawn from the essential principles of international fundamental texts <sup>(1)</sup>, which all Group employees are expected to undertake to observe.

Hence ARKEMA and its employees are guided in their actions by rules and principles of conduct.

This code may be accessed on the Group's internet and intranet websites.

Essentially, the Code of Conduct and Business Ethics sets out that:

- no employee may offer, supply or accept, directly or indirectly, any undue advantage of a pecuniary or any other nature, the purpose of which would be to secure a business relation or any other facility. Those partners particularly concerned are people holding public authority, customer agents or employees, financial or banking organisations, and political parties; and
- all employees shall scrupulously observe the rules of competition law in every country in which the Group operates.

#### PROCEDURES FOR CONTROLLING AND REDUCING CORRUPTION AND FRAUD RISK

ARKEMA has put in place a compliance and business ethics programme comprising the Code of Conduct and Business Ethics as well as the various rules and procedures applicable within ARKEMA.

The resources employed to ensure the correct operation of this program are:

 the personal accountability of every employee, at all levels, regarding compliance with competition regulations through initiatives raising awareness of competition rules in each BU;

(1) Universal Declaration of Human Rights, International Labour Organisation Principles, OECD Guidelines for Multinational Enterprises, and United Nations Global Compact Principles. Encourage open dialogue with all stakeholders

- the introduction of specific procedures in the BUs; and
- information on rules and correct conduct on competition matters through a Competition Practical Guide provided to employees.

This programme is implemented by the Compliance Committee and the Ethics Mediator, who are responsible for monitoring its application within the Group.

• The Compliance Committee, whose members are appointed by Arkema's Chairman and Chief Executive Officer, comprises the Internal Audit and Internal Control Vice President, a representative from the Human Resources Division, the Sustainable Development Vice President, the Group Safety Environment Industry Vice President, a representative from the Legal Affairs Division, and a representative from the Financing/ Treasury/Tax Division.

The Compliance Committee is charged with monitoring the application of compliance issues within ARKEMA in the following areas: competition law, commercial intermediaries, fraud, business practices and integrity, workplace integrity and fairness, and protection of the environment.

The Compliance Committee reports to Comex.

• The Ethics Mediator is appointed by Arkema's Chairman and Chief Executive Officer. He is fully familiar with the Group's activities and professions, and his career situation ensures the independence of his judgement.

The Ethics Mediator is generally and at all time bound by confidentiality towards third parties on the identity of the people raising issues with him, and maintains secrecy on any information that might help identify them; however, this obligation may be tempered, as regards the sole people required to be aware of this information, as strictly required to address and solve the question raised or to handle the case concerned, these people being then also bound by the same obligation.

In regions where ARKEMA conducts its activities, the regional managers are appointed correspondents of the Ethics Mediator.

For all practical questions regarding an ethical issue in general, and particularly any problem in applying the ARKEMA Code of Conduct and Business Ethics, the Compliance Committee and the Ethics Mediator may be called upon either by the Senior Management or by any employee.

In order to minimise the risk of situations arising that may lead to corruption, ARKEMA also takes steps to select reliable partners, through a process to appraise its commercial intermediaries, conducted in particular by the Compliance Committee.

Finally, as part of the global risk management measures put in place by ARKEMA, the Internal Audit and Internal Control Division conducts regular audits in the Group's subsidiaries, when it analyses the various management processes in place in these subsidiaries, to help identify possible risks of fraud, and set out, where appropriate, the necessary corrective actions (refer to paragraph 1.7.1 of this reference document for the global risk management measures).

## 2.4.4 SUBCONTRACTING AND SUPPLIERS

# SOCIAL AND ENVIRONMENTAL ISSUES IN THE PROCUREMENT POLICY

In order to build long-term relations with its suppliers, ARKEMA adopts a responsible behaviour towards them. It establishes balanced and durable relations, based on trust.

Its approach is based on the ethics principles set out in ARKEMA's Code of Conduct and Business Ethics described in paragraph 2.4.3 of this reference document. Relations with suppliers must be based on trust, develop in a straightforward manner, with contractual terms and conditions negotiated fairly, including regarding intellectual property rights and the principles of Responsible Care<sup>®</sup>.

ARKEMA is also a signatory to the French national inter-company charter of the buyers professional organisation (CDAF) as well as *Médiation Inter-Entreprises*, which holds out ten responsible procurement commitments.

The procurement policy of the Group's Goods and Services Purchasing Division provides for all employees to be aware of procurement ethics rules and the need to conduct their duties both in terms of ethics principles and a sustainable development approach. These requirements are systematically recalled to the buyers during training and information events.

In some cases, goods and services buyers also approach suppliers of services or equipment that promote energy savings as well as the optimisation of waste treatment and recycling activities.

As regards raw material procurement, the Group favours a collaborative approach with certain strategic suppliers, and engages in the joint improvement of the supply chain in terms of safety and the environment.

In its logistics purchases, ARKEMA includes *inter alia* a "carbon footprint" dimension when selecting its suppliers and transport methods. Generally speaking, when the technical and economic conditions are met, the choice of supplier and transport method will favour slow and low-emission methods such as rail, barge, maritime bulk or container rather than road and air. These concerns also converge with the need to control transportation risks as mentioned in paragraph 1.7.2.2 of this reference document.

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#### SOCIAL AND ENVIRONMENTAL ISSUES IN RELATIONS WITH SUPPLIERS AND SUBCONTRACTORS

In order to build long-term relations with its suppliers, ARKEMA also expects a responsible behaviour from its suppliers. Its approach is guided by the ethics principles set out in its Code of Conduct and Business Ethics described in paragraph 2.4.3 of this reference document.

Suppliers are encouraged to comply with principles that are equivalent to those set out in ARKEMA's Code of Conduct and Business Ethics.

ARKEMA's Code of Conduct and Business Ethics is indeed based on principles of respect of cultures and traditions in the communities and countries in which it operates, and compliance with the laws and regulations applicable in particular as regards health, safety, environment, competition and social law. It also sets out the principle of rejection of all forms of corruption.

Selection of a supplier is based on fulfilling a requirement in optimum conditions of performance, cost, quality, as well as compliance with Responsible Care® principles, in particular on safety, environment and regulatory compliance issues.

The Group's goods and services procurement policy is provided to all suppliers and also as part of calls for tenders.

The Group's Purchasing of Goods and Services Division regularly analyses the performances of its main suppliers, in particular as regards safety. The safety of personnel of external companies present on its sites is just as important for ARKEMA as the safety of its own personnel. Accidents involving personnel of external companies present on ARKEMA's sites are included in the computation of ARKEMA's accident rate.

As regards its logistics purchases, ARKEMA selects its hauliers taking account of their safety, security and environment performances. The procedures used to select road hauliers for hazardous materials are based on evaluations conducted by organisations such as SQAS (Safety and Quality Assessment System) in Europe. Since 2013 ARKEMA in China has relied on the same evaluations gradually being developed in the country as part of RSQAS (Road Safety and Quality Assessment System).

Equally, the ships used around the world for the bulk transport of ARKEMA's products are subject to preliminary vetting by a third party body.

In terms of raw material procurement, ARKEMA also conducts an evaluation of its suppliers on the basis of pre-approval questionnaires. These questionnaires are designed to assess their management system and/or their adherence to the principles of the Responsible Care® programme or to ascertain their certifications based on ISO type reference standards.

ARKEMA's Internal Audit and Internal Control Division also conducts audits of the Group's subsidiaries every year, which involve various tests on supplier approval and evaluation procedures and on practices and risks related to the procurement of raw materials as well as goods and services.



## 2.5 PROMOTE THE INDIVIDUAL AND COLLECTIVE DEVELOPMENT OF ALL ITS EMPLOYEES

ARKEMA conducts its operations through various industrial sites located essentially in Europe, America and Asia, as well as sales subsidiaries in some forty countries.

ARKEMA's human resources policy is based on individual development actions and on actions centred on collective working conditions.

Individual development includes recruitment, training and career path. Its end-purpose is to consolidate everyone's competences and know-how. Accordingly, a career management policy should help build career paths that consolidate the skills of the employees and, consequently, of the Company. The training policy complements these actions by providing the necessary theoretical and practical knowledge to take up a post or to change career path. Individual development internally relies on a policy of recognition and fair compensation. Benchmarking studies against other companies are conducted at regular intervals.

Actions based on collective working conditions are based on a continuous improvement rationale. They include all actions that improve working environment and prevention with the employees' health in mind. They also endeavour to foster a good social climate, while reinforcing diversity of origin, profile and background of the Group's employees and safeguarding the quality of corporate open dialogue in house.

## 2.5.1 EMPLOYMENT

The figures given in the following paragraphs concern the ARKEMA headcount. For 2011, the figures include personnel for the vinyl activities which were divested early July 2012.

Every company records personnel employed under an employment contract. Trainees/interns and temporary workers are not included in the headcount. Personnel numbers are recorded regardless of their working hours on the basis of the "one-for-one rule". Further details on the data collection and computation methods used and on the constraints they might present are given in section 2.6 of this reference document.

In September 2013, an agreement was signed with trade unions CFDT, CFE-CGC and CGT on jobs and skills management planning (GPEC) and on intergenerational management in the Group's companies in France. This agreement lays down in particular new targets in terms of recruitment of young people (under the age of 30) and "seniors" (50 years old and over), as well as the volume of people on work-study programmes within overall staff numbers (see paragraph 2.5.1.2 of this reference document).

## 2.5.1.1 TOTAL HEADCOUNT AND BREAKDOWN BY SEX, AGE AND GEOGRAPHICAL REGION

### Evolutions between 2011 and 2013

The evolution of headcount over the last three years and its geographical breakdown are as follows:

Total headcount by geographical region	31/12/2013	31/12/2012	31/12/2011
France	6,665	6,722	8,467
Rest of Europe	1,916	1,954	2,590
North America	2,566	2,574	2,790
Asia	2,402	2,332	1,629
Rest of the world	359	343	300
TOTAL ARKEMA	13,908	13,925	15,776
incl. permanent contracts <sup>(1)</sup>	13,434	13,349	15,277
incl. fixed term contracts	474	576	499

(1) See methodology note in section 2.6 of this reference document.

No significant variation was recorded in staff numbers between 2012 and 2013 (-17 people for the entire Group), despite the acquisition of a majority interest in AEC Polymers in April 2013 (+15 people).

### Breakdown by category and sex

At 31 December 2013, managerial positions accounted for 26.3% of Group employees, against 24.9% in 2012. Female employees in the same year accounted for 23.3% of Group employees, against 23.4% in 2012.

Geographical region	Managerial	Non Managerial	Male	Female
France	1,404	5,261	5,079	1,586
Rest of Europe	464	1,452	1,527	389
North America	1,237	1,329	2,017	549
Asia	451	1,951	1,761	641
Rest of the world	96	263	285	74
TOTAL ARKEMA	3,652	10,256	10,669	3,239
incl. permanent contracts <sup>(1)</sup>	3,615	9,819	10,392	3,042
incl. fixed term contracts	37	437	277	197

(1) See methodological note in section 2.6 of this reference document.

#### Breakdown by age range, category and sex

		Managerial Non Managerial			All				
Age range	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 25 years	25	10	35	428	212	640	453	222	675
25 to 29 years	120	78	198	760	241	1,001	880	319	1,199
30 to 34 years	257	119	376	927	316	1,243	1,184	435	1,619
35 to 39 years	307	169	476	1,075	275	1,350	1,382	444	1,826
40 to 44 years	428	167	595	1,253	341	1,594	1,681	508	2,189
45 to 49 years	446	166	612	1,194	310	1,504	1,640	476	2,116
50 to 54 years	474	151	625	1,200	259	1,459	1,674	410	2,084
55 to 59 years	398	88	486	907	229	1,136	1,305	317	1,622
60 to 64 years	187	32	219	225	67	292	412	99	511
65 years and above	27	3	30	31	6	37	58	9	67
TOTAL	2,669	983	3,652	8,000	2,256	10,256	10,669	3,239	13,908

#### 2.5.1.2 EVOLUTION OF NUMBER OF EMPLOYEES: JOINERS AND LEAVERS IN THE GROUP

The recruitment policy is designed to secure the highest level of skills for the Group in order to underpin its development.

In keeping with its founding values (simplicity, solidarity, performance and accountability), ARKEMA attaches a great deal of importance to cultural openness in applicants, their ability to work in teams and bring solutions, and their entrepreneurial skills.

ARKEMA has drawn up a recruitment charter to help promote the principles of fairness and non-discrimination in the selection of job applicants.

To facilitate the job application process and standardise recruitment procedures, ARKEMA uses a dedicated tool on its website (www.arkema.com). Used by every Group entity worldwide, this tool under the Careers heading of the Group's website helped receive a large number of job applications in 2011, 2012 and 2013. Interfaced with the AGEFIPH website (French association for management of funds for disabled people in work), it compiles applications in response to vacancies in the Group that fulfil the Group's diversity and equal opportunities commitments.

In 2013, ARKEMA decided to update its "employer brand" by devising a global campaign to attract the best talents. The project was taken up by the human resources function of every country in which the Group operates, and led to a positioning that puts forward ARKEMA's project to the applicants being sought.

As regards recruitment, the agreement on jobs and skills management planning (GPEC) and on intergenerational management signed in September 2013 provides that across the Group's companies in France young people under the age of 30 must represent every year 30% of permanent recruits and that "seniors" (50 years old and over) must represent 10% of the annual quota of permanent recruits.

#### Relations with the world of education

Mindful of optimising recruitment, the Group fosters special relations with the best educational and training structures for all its activities.

In France, ARKEMA takes part in many school events, such as recruitment forums, presentations, and site visits. Initiatives involving schools aim to foster exchanges around ARKEMA and its activities with undergraduates from generalist engineering schools (*Mines de Paris, Centrale Paris, Polytechnique*), schools of chemistry (ESPCI, *Chimie Paris*, ENSIC, ENSIACET, etc.), business schools, in particular ESSEC and ESCP Europe, and technical colleges in the fields of safety and maintenance.

To further strengthen its relations with schools and give them greater visibility, in October 2013 ARKEMA launched the "Campus" programme that pairs second-year students (*Campus* students) from the above target schools with Group employees (*Campus managers*) who graduated from those schools. The mission of *Campus student* is to feed back to the *Campus manager* the students' expectations, and organise with the latter as well as with ARKEMA's recruitment unit events such as visits to industrial sites, round-table discussions on career paths within the Group, and presentations on ARKEMA's R&D. This initiative is extended based on conditions adapted to the target schools for the training of production and maintenance technicians.

ARKEMA is one of the industrial partners of the "Sino-French Program in Chemical Sciences & Engineering" of *Fédération Gay Lussac* and the East China University of Science and Technology in Shanghai (ECUST). These programs aim to train chemical engineers with a dual French and Chinese culture, and so help fulfil ARKEMA's expectations in terms of its development in Asia, in particular in China. In 2012, ARKEMA welcomed on two occasions students from the first ECUST/Gay Lussac class, firstly to its Shanghai site in China, and secondly to its Pierre-Bénite site in France. This partnership continued in 2013 with the preparation of a day-long meeting on the Pierre-Bénite site, on 18 February 2014.

In the United States, every year the Developing Engineer Program enables ARKEMA to take on four to six engineering undergraduates from the top American universities for concrete training internships on its industrial sites over five years.

Every year, ARKEMA also offers many opportunities for training, apprenticeship contracts, graduation projects, and international volunteer internships (volontaire international en entreprise, VIE). Graduation internships, international volunteer internships and graduation projects are managed at corporate level to ensure closer monitoring of the Group's recruitment pool. In 2012, Arkema France adopted a proactive policy regarding work-study trainees, for both managerial and non-managerial positions. This policy was confirmed in an agreement on jobs and skills management planning (GPEC) and on intergenerational management in Group companies in France, signed in September 2013, which includes an undertaking to increase the number of work-study trainees so that it exceeds the legal threshold of 5% of the workforce by 2015.

As at 31 December 2013, the number of work-study trainees at Arkema France accounted for 4.5% of this company's headcount, against 3.1% at 31 December 2012.

### Recruitment trends for permanent employees between 2011 and 2013

During 2013, the Group recruited 864 employees under a permanent employment contract, against 883 in 2012.

These recruits concerned all of the Group's worldwide activities.

Permanent recruits by geographical region	2013	2012	2011
France	187	278	424
Rest of Europe	41	42	80
North America	279	254	314
Asia	303	265	229
Rest of the world	54	44	32
TOTAL ARKEMA	864	883	1,079

### Geographical breakdown of permanent recruits by category and sex

In 2013, 32.5% of recruits concerned managerial profiles, against 29.8% in 2012. Female recruits accounted for 20.0% of the total, against 23.2% in 2012, and 24.2% of managerial recruits, against 30.4% in 2012.

Per geographical region in 2013	Managerial	Non Managerial	Male	Female
France	67	120	145	42
Rest of Europe	12	29	34	7
North America	106	173	229	50
Asia	85	218	243	60
Rest of the world	11	43	40	14
TOTAL ARKEMA	281	583	691	173

#### Breakdown of permanent recruits by age range, category and sex in 2013

Age range	Managerial			Non Managerial			All		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 25 years	10	5	15	101	27	128	111	32	143
25 to 29 years	26	10	36	134	28	162	160	38	198
30 to 34 years	46	23	69	91	24	115	137	47	184
35 to 39 years	38	8	46	54	7	61	92	15	107
40 to 44 years	36	14	50	46	8	54	82	22	104
45 to 49 years	23	5	28	25	4	29	48	9	57
50 to 54 years	25	2	27	17	3	20	42	5	47
55 to 59 years	7	0	7	8	4	12	15	4	19
60 to 64 years	2	1	3	2	0	2	4	1	5
65 years and above	0	0	0	0	0	0	0	0	0
TOTAL	213	68	281	478	105	583	691	173	864

In 2013, the share of permanent recruits for young people below the age of 30 was 39.5% (against 42.8% in 2012) and that of "seniors" (50 years old and over) was 8.2% (against 8.9% in 2012).

#### Leavers

In 2013, ARKEMA recorded 1,352 leavers against 4,092 in 2012 (including 2,521 resulting from the sale of the vinyl activities and 158 from the divestment of Peninsula Polymers LLC and of the tin stabilizer business of Arkema Inc.).

Leavers by geographical region	France	Rest of Europe	North America	Asia	Rest of the world	Total
All leavers	592	136	338	251	35	1,352
of which resignations	62	30	125	134	11	362
of which redundancies	28	51	100	26	19	224

### 2.5.1.3 COMPENSATION AND COMPENSATION TRENDS

Overall compensation is a key element of the Group's human resources policy. It aims to valorise and reward fairly the contribution of every employee to the Group's success.

Implemented by the management, it represents a key tool in allowing recognition of the performance and commitment of employees in areas that are essential to the Group's development such as growth, innovation, safety, industrial reliability, and competitiveness.

To strengthen the link between contribution and compensation, all executive posts are rated in accordance with the Hay method. This initiative is being gradually rolled out to all non-executive posts, in particular in France.

The compensation structure comprises a number of components: fixed part, individual variable part, collective variable part which are applied differently based on the posts and the countries. It fulfils a number of objectives:

• compensate individual and collective performance;

- develop a sense of responsibilities in everyone, and involve all personnel in the achievement of objectives;
- ensure competitiveness within the job market;
- compensate fairly, and ensure consistency internally; and
- control costs.

In most Group companies, there are for just over 15% of employees, personal variable compensation elements, the amount of which is based on individual performance and a contribution to the collective performance of a BU, a country, or the Group.

Collective variable compensation elements enable around 60% of employees to share in the Group's development and its economic and financial performance. In France, profit-sharing and incentive agreements are part of this framework.

Over and above fixed and variable compensation elements, Group employees also benefit from deferred compensation elements in the form of employee shareholding, employee savings schemes, and, for some of them, performance shares.

Almost all Group employees (98%) benefit from guarantees in terms of minimum compensation.

#### Incentives and profit sharing

In addition to the profit-sharing scheme required by law in France, the Group's French companies have set up an incentive scheme giving all employees a share of profits and incentives to meet certain performance objectives, so as to promote the Group's growth. These schemes are specific to each subsidiary, but based on the same principles. Incentive compensation is made up of two components, firstly a bonus based on economic results, and secondly a performance bonus defined by each facility based on achieving objectives specific to each facility.

The incentive agreement of Arkema France was renegotiated by a collective agreement signed on 28 April 2011 by the trade unions CFDT, CFE-CGC, CFTC and CGT-FO. It is valid for three years, and covers the 2011, 2012 and 2013 financial years. Total incentive compensation that can be paid out for a given year represents a maximum of 5.7% of total payroll.

Negotiations were started at the end of 2013 to put in place a new incentive agreement covering 2014, 2015 and 2016.

In accordance with the provisions of social security amending finance law n° 2011-894 of 28 July 2011 for 2011, management and trade unions met at Group level in order to negotiate the terms of the profit-sharing bonus for employees. The parties were unable to reach an agreement, and so a 150 euros profit-sharing bonus for every Group employee in France was put in place by unilateral decision.

#### **Employee share ownership**

Since its spin-off in 2006, ARKEMA has been conducting a dynamic employee share ownership policy, and every other year offered its employees in twenty or so countries, representing some 95% of its personnel, the opportunity to subscribe for the Company's shares under preferential terms.

For further detail, refer to section 5.2.7 of this reference document.

#### **Employee savings schemes**

A Group Savings Plan (*Plan d'Épargne Groupe* – PEG) and a Collective Pension Savings Plan (*Plan d'Épargne pour la Retraite Collective* – PERCO) allow employees of Group companies in France to make voluntary contributions and invest their profitsharing and incentive income.

They enjoy matching funding from the employer, of up to 800 euros/year for PEG and up to 250 euros/year for PERCO.

The investment structures available are the Arkema Actionnariat France company mutual fund (Fonds Commun de Placement d'Entreprise – FCPE) (PEG) entirely invested in the Company's shares, a range of multi-company FCPE funds offering the choice of investment in different asset classes (equities, bonds, money market), and structured funds offering capital guarantees.

#### **Performance shares**

These measures, set up in 2006, complement the deferred compensation packages described previously.

Performance share award schemes are compensation and retention tools for the benefit of employees with responsibilities whose exercise influences the Group's results, as well as employees whose performance, or participation in a project, has been outstanding.

Every year, about 750 people, *i.e.* some 5% of personnel worldwide, are awarded performance share rights.

At the end of a four-year vesting period for the performance share award scheme decided in 2013, the beneficiaries are awarded Arkema shares definitively, subject to their still being employed in the Group and to performance conditions being met.

Further details on these compensation tools may be found in section 3.5 and paragraph 5.2.6, and in note 27 of the notes to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document.

### 2.5.1.4 PENSION AND WELFARE BENEFITS

In most countries in which the Group is present, employees benefit from a mandatory public scheme covering risks related to death, disability, work incapacity, pension, and health costs.

Additionally to these legal requirements, the various entities of the Group, both in France and abroad, are responsible for putting in place and keeping up to date social security and employee benefit provisions within the constraints of the agreed annual budgets, and in keeping with their needs and local practices. Thus, over 95% of Group employees benefit from additional death cover and work incapacity supplementary cover.

As regards death cover, the aim is to put in place a guarantee representing at least 18 months' salary. Approximately 80% of the global headcount benefits from this level of guarantee.

As regards retirement pension, the Group's policy is to favour defined contribution schemes rather than defined benefit schemes, and to limit very long term liabilities. Accordingly, the entities concerned have gradually closed their defined benefit schemes to new entrants, replacing them with defined contribution schemes.

This is the case in the United Kingdom and Germany where defined benefit schemes were closed to new entrants from 1<sup>st</sup> January 2002, on which date defined contribution schemes were set up.

In the United States, the following changes were made in 2006:

- the defined benefit plan was closed to employees recruited after 31 December 2006; and
- the benefits accrued by employees under age 50 at 31 December 2007 have been frozen and are vested definitively.

Promote the individual and collective development of all its employees

In the Netherlands, changes were made to the pension plan in 2006 to comply with new regulations, and the payment of a pension before the statutory pensionable age is no longer allowed. The corresponding pension liabilities are covered by an insurance policy in accordance with the law. In 2010, ARKEMA carried out a project to outsource pension commitments in the Netherlands concerning deferred members. In the United Kingdom, defined benefit schemes were closed to new accruals effective 1<sup>st</sup> August 2013. Those employees in these schemes have now joined existing defined contributions plans.

Further details may be found in note 18.3 of the notes to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document.

## 2.5.2 TRAINING AND INDIVIDUAL DEVELOPMENT

#### 2.5.2.1 POLICIES IMPLEMENTED FOR TRAINING AND INDIVIDUAL DEVELOPMENT

Professional training concerns every employee, whatever their profession, level of responsibility or age. It is designed to develop or acquire the necessary skills to hold a position, facilitate moves to a new post, and fulfil the Company's expectations in terms of technical expertise or management practice. Accordingly, ARKEMA affirms its commitment to providing every employee with access to training throughout their career.

In 2013, the number of training hours recorded in entities in which the Group has a minimum 50% stake and which employ over 30 people, which accounts for 96.4% of ARKEMA's total workforce, amounted to 307,206 hours, i.e. 23 hours of training per employee per year. The number of employees who benefited from at least one training course in the year (excluding e-learning) was 10,082, *i.e.* 75% of ARKEMA's headcount. Furthermore, 3,585 people benefited from e-learning, *i.e.* 26% of the headcount.

#### 2.5.2.2 CAREER MANAGEMENT

Career management is one of the cornerstones in the development of human resources at ARKEMA, as it helps diversify the experience of employees, as part of their career path, and so ensure that they improve their skills on a regular basis, which is essential to the Group's development.

The mission of career management is therefore twofold:

- ensure that the company has the skills it needs now and in the medium term to carry through its development; and
- assist the employees in building up their career paths, by allowing them to enhance their skills and implement their projects, based on the possibilities and opportunities within the Group.

There is a single career management policy within the Group, *i.e.* it is based on the same principles, whatever the employee's status (managerial or non-managerial), country, age or sex. These principles are as follows:

- provide every employee with the means to steer their career with the support they need at every stage;
- conduct a proactive internal promotion policy;
- identify and develop potential candidates in order to promote accountability and career development;
- promote functional or geographical mobility; and
- allow everyone to advance in the company and build up their experience and skills, while ensuring the fluidity of the organisations.

As well as the targets for recruiting young people and "seniors" (see paragraph 2.5.1.2 of this reference document), the agreement on jobs and skills management planning (GPEC) and on intergenerational management signed in September 2013 for the Group's companies in France provides for the appraisal of experts using profession-based scales in addition to the Hay classification. Specific measures such as the transfer of know-how, the *guichet retraite*, and part-time work on an 80% basis with 85% pay for the 24 months preceding the retirement date are also provided for to assist with the termination of service of "seniors".

## 2.5.2.3 INTERNATIONAL EXPERIENCE

The Group conducts its activities essentially in Europe, North America and Asia. It runs three international human resources management programs that help capitalise on its international diversity by developing the skills of its personnel around the world.

#### International experts

Senior experts are sent to certain countries to work on major projects for the Group if their particular expertise is not already available locally. Their assignment is to launch and oversee the project, train the personnel, and transfer their skills. A number of these experts are currently involved in the Group's development projects in China.

# Development program – a career landmark outside the home country

ARKEMA offers its young executives the opportunity to spend a few years abroad. This allows them to discover other practices, while giving them an additional asset in the progress of their career. Following a two to three year foreign posting, they return home, ready to share the wealth of new skills they have gained.

#### **Exposure training**

This three to six month training program allows ARKEMA personnel to broaden their field of expertise on one of the Group's sites used as training venue. This program utilises the diversity and wealth of skills available within the Group, and is of as much benefit to those employees attending the training as it is to the host teams who can then discover another culture.

#### 2.5.2.4 SPECIFIC PROFESSIONAL TRAINING PROGRAMS FOR EMPLOYEES

ARKEMA's training policy aims to boost its employees' skills in safety, health, the Group's professions and activities, and management.

To fulfil this ambition, new Group-wide programs are constantly being developed or updated, and various initiatives are implemented. These programs and actions relate in particular to knowledge of the Group and induction into the Group, taking up a managerial post, and raising management knowledge and skills, the prevention of stress at work, and the development of new professional skills in changing environments. As regards knowledge of the Group, a programme is organised every year for newly recruited executives in Europe. The last such programme was attended by almost 90 participants and focused on understanding of the Company's strategy. Induction programmes are also deployed at individual country level.

In terms of safety, ARKEMA is currently developing an international training programme: Arkema Safety Academy. This programme is intended for the Group's HSE managers and experts. Its objective is to help share safety issues and challenges, policy and tools at Group level. In 2013, this development concerned:

- the ongoing worldwide safety improvement programme based on peer observation;
- the roll-out, initially in France, of a module on the human and organisational factors of safety; and
- the preparation of further modules, their rollout scheduled to start in 2014.

In this field, ARKEMA also continues to develop e-learning modules, deployed around the world, on our major safety risks.

## 2.5.3 ORGANISATION OF THE WORKING WEEK

### 2.5.3.1 WORKING HOURS

In every country, the Group implements working hours that comply with legal and professional requirements in this regard.

Employees work full time, and to a lesser extent part time. As an example, within Arkema France, working time amounts to 1,575 hours per year for a full-time employee, while the number of working hours for part-time employees ranges from 50 to 80% of the full-time quota. In the United States, working time amounts to 1,960 hours per year for a full-time employee, while the number of working hours for part-time employees ranges from 50 to 90% of the full-time quota. For the Group as a whole, part-time employees represented 3.3% of the overall headcount at 31 December 2013, as in 2012.

Bearing in mind the specific features of the Group's industrial activities, the organisation of the working week involves, for some employee groups, continuous, discontinuous or semi-continuous work regimes.

In the event of additional workload or particular problems, the Group can, based on local current legislation and on the local job market, resort to fixed-term employment contracts, overtime, subcontracted work, or temporary staff agencies.

#### 2.5.3.2 ABSENTEEISM

In 2013, the number of hours off work (excluding authorised leave) in the Group was 3.4% of total man-hours, against 3.8% in 2012. Absenteeism on medical grounds represented 73.5% of the total number of hours off work, against 69.4% in 2012.



## 2.5.4 DIALOGUE WITH SOCIAL PARTNERS

ARKEMA is committed to developing listening to and consultation with its employees, either directly in the form of internal surveys or via personnel representatives. In countries where the law does not provide for personnel representation, specific bodies can be set up locally. On a European dimension, a social exchange and dialogue body is in place, namely the European Works Council.

#### 2.5.4.1 ORGANISATION OF DIALOGUE WITH SOCIAL PARTNERS

As part of its labour relations policy, the Group is developing an ongoing dialogue with employee representatives, across all Group entities, in accordance with cultural specifics and local laws and regulations.

At European level, the social exchange body is the European Works Council, comprising 23 members. It holds a one-day plenary meeting once a year to discuss issues within its remit, in particular:

- economic issues: market trends, commercial situation, level of activity, main strategic areas, development prospects, and objectives;
- financial issues: review of the Group's consolidated financial statements, review of annual report, and investments;
- labour issues: the Group's labour policy, employment situation – current and future;
- environmental issues: the Group's policy, and changes in European regulations; and
- organisational issues: substantial changes regarding the Group's organisation, evolution of its activities, creation or closure of activities concerning at least two European Union countries.

In 2013, the plenary meeting was held at the headquarters of ARKEMA on 11 July.

The liaison office of the European Works Council, which comprises eleven members appointed among personnel representatives within this council, meets with the management once every six months. Two meetings of the liaison office were held in 2013, on 1<sup>st</sup> March and on 29 October. In the United States, employees of union sites are covered by collective agreements negotiated with local and central trade unions. With an average three-year term, these agreements cover in particular compensation, the safety of people and processes, and the quality of life at work.

In the People's Republic of China, the first "Employee Representatives Congress" (ERC) of Arkema China Investment, ARKEMA's main structure in China, was elected on 20 December 2007 and put in place in January 2008. This body comprises at present 34 members who elected among them the four members of the "Presidium". The prerogatives of ERC are many, ranging from pay negotiations to safety and to training. This body complements the "Labour Unions" already in place at ARKEMA's industrial facilities in China.

#### Employee relations in relation to the Group's development

The Group's action is consistent with a structured permanent consultation approach with the personnel representative bodies, in order to accommodate changes in the Group.

In particular, the various reorganisation projects decided and implemented within the Group involve in-depth discussions with the personnel representative bodies as part of information and consultation procedures, both centrally and locally. Much attention is paid to the treatment of the social consequences of these changes.

In 2013, a project to shut down the activities of the Chauny site (France) was presented by the management of Arkema France to the trade unions. As permitted under the latest regulatory provisions set out in the *Accord National Interprofessionnel* (national cross-industry agreement) of 11 January 2013 and included in the law on the protection of jobs of 14 June 2013, it was agreed to open negotiations on the proposed shutdown of activities at the Chauny site (France) alongside the information and consultation phases involving Arkema France's Central Works Committee. Joint meetings were indeed held on 27 September, 8 October, 31 October, 13 November, 20 November and 4 December 2013.

#### 2.5.4.2 OVERVIEW OF PERSONNEL REPRESENTATION IN 2013

Percentage of Group employees, by geographical area, benefiting from personnel representation and/or trade union representation

	2013
France	100%
Rest of Europe	97.54%
North America	98.27%
Asia	77.46%
Rest of the world	66.55%
TOTAL ARKEMA	94.91%

#### 2.5.4.3 REVIEW OF COLLECTIVE AGREEMENTS SIGNED IN 2013

At Group level in France, three agreements were signed in 2013:

- two amendments to the Group agreement on the Arkema savings plan, one for the PEG scheme and the other for the PEG A scheme (reserved for share capital increases), relating to the exceptional release of the special profit-sharing and incentive reserve as part of law n° 2013-561 of 28 June 2013, concluded on 16 July 2013; and
- an agreement on jobs and skills management planning and on intergenerational management in Group companies, concluded on 12 September 2013.

Additionally, a disagreement report was notified on 16 July 2013, following the breakdown in negotiations on the profit-sharing bonus for the benefit of employees with respect to the dividends paid in 2013.

For 2013, Arkema France reached four company agreements, as follows:

- agreement on mandatory collective bargaining for 2013, concluded on 20 December 2012;
- amendment n° 5 to company agreement on Ark'Santé healhcare costs refund scheme, signed on 12 September 2013;
- amendment to framework agreement on reduction and reorganisation of working hours (daily and hourly rates), signed on 12 December 2013. This conformity amendment concerns the terms of the conclusions of the annual rate agreements on daily and hourly basis; and
- amendment n° 9 to memorandum of understanding of 18 December 1985 modifying the provisions on supplementary benefits, signed on 12 December 2013.

Additionally, a guidance note on the principles and implementation of teleworking at Arkema France was signed on 7 March 2013. It paved the way for the signing of a local site agreement within the Arkema France headquarters, the "pilot" site for the initiative, before potentially being extended to other sites.

Within the French subsidiaries the following company agreements were signed in 2013:

- Coatex:
  - agreement reached as part of the statutory annual negotiations ("NAO");
- CECA:
  - agreement on 2013 salaries, signed on 10 January 2013,
  - agreement on prevention of stress at work, signed on 26 March 2013, and

- agreement on early release of profit-sharing invested in frozen current account (Compte Courant Bloqué – CCB), signed on 27 July 2013;
- Altuglas International:
  - agreement on annual collective bargaining for 2013, signed on 19 February 2013, and
  - memorandum of understanding on incentive bonuses for Altuglas International in 2013-2014-2015, signed on 6 March 2013;
- MLPC International:
  - agreement on daily rates (amendment to agreement on reduction of working hours), signed on 15 May 2013,
  - agreement on gender equality,
  - agreement on prevention of harsh working conditions,
  - agreement on dispensation from work, and
  - agreement on the use of NTICs by personnel representatives.

Outside France, the employee relations policy within the Group and its affiliates is carried out based on local practices applicable to staff representation and employee/management relations:

- in Germany: agreements reached with central works council and works councils of the various sites of Arkema GmbH concerned in particular home-working, rest periods for older employees, the introduction of a bonus scheme, health and safety at work, and the organisation of flexible working hours;
- in Spain: Arkema Coating Resins concluded an agreement on short-time working measures for 50 days in 2012 and 50 days in 2013, and Arkema Quimica reached two agreements on the status of employees on the Madrid and Zaramillo sites (collective agreements);
- in Italy: Arkema Srl concluded a total of fifteen collective agreements in 2013, in particular on trade union law, working conditions and training. CECA Srl concluded two agreements, one on salaries and the other on the profit-sharing bonus;
- in the Netherlands: Arkema BV and Arkema Rotterdam BV both concluded company agreements on broad issues such as compensation, training, and personnel representation; and
- in the United States: three agreements were signed by Arkema Inc. They concern in particular compensation, working hours and work organisation, retirement and disability. A collective agreement was signed at Sartomer Inc. on the status of employees on the West Chester site.

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## 2.5.5 HEALTH AT WORK

#### 2.5.5.1 CONDITIONS OF HEALTH AT WORK

In matters of protection of health at work, ARKEMA has undertaken continuous progress actions in the prevention of harsh working conditions, stress, and risks at the workstation.

#### Prevention of harsh working conditions

In January 2012 Arkema France concluded an agreement on the prevention of harsh working conditions. This agreement marks ARKEMA's resolve to engage in an initiative for the continuous and measured improvement of working environments. It is valid for three years from 1<sup>st</sup> February 2012.

The key points of the agreement are as follows:

- the definition of internal harsh working conditions thresholds;
- a diagnosis of harsh working situations across all Arkema France sites;
- the implementation of concrete measures to adapt workstations and develop skills and qualifications;
- a drive to heighten awareness of sleep issues for shift operators;
- actions to improve working conditions; and
- preliminary work in the design phase of new plants.

Additionally, other agreements and action plans on the prevention of harsh working conditions signed by the French subsidiaries Sunclear (16 December 2011), Altuglas International (16 January 2012), Coatex (31 January 2012) and CECA (22 June 2012) embody in practice this desire to roll out the initiative across all Group companies in France.

#### Prevention of stress at work

Arkema France launched in 2008 a voluntary medical individual prevention initiative for stress at work. This is based on a diagnosis of employees' stress levels established at a medical check-up. ARKEMA also launched in 2009 a voluntary collective prevention initiative for stress at work designed to take action on the work environment where it has been identified as an "at-risk area" based on relevant indicators.

#### Protection of health at the workstation

Arkema France has developed a tool for monitoring individual exposure to toxic products, which is used jointly by occupational physicians and HSE departments in France. Another tool, called "MRT – Management des risques et des tâches" (Risk and Task Management) was rolled out in France and in the United States. This comprehensive workplace risk analysis software helps with overseeing improvement actions. Ergonomic issues applied to existing working conditions or during the design of new plants have also been strengthened.

Awareness actions are also conducted on a regular basis on sleep, nutrition, and the risk of addiction.

#### "No drugs, no alcohol"

ARKEMA launched a drug and alcohol prevention initiative across the Group, the rollout of which was completed on 1<sup>st</sup> January 2008. One of the fourteen "Safety Essentials" (as described in paragraph 2.1.1.2 of this reference document) is devoted to this initiative. This "No Drugs, No Alcohol Essential" was deployed across the world in 2013.

### 2.5.5.2 MEDICAL CARE

In 2013, medical check-ups were available in 94% of the Group's companies, representing 84% of the Group's employees.

#### 2.5.5.3 REVIEW OF AGREEMENTS SIGNED WITH TRADE UNIONS OR PERSONNEL REPRESENTATIVES ON MATTERS OF OCCUPATIONAL HEALTH

#### Prevention of harsh working conditions

Following the agreement reached in January 2012 by Arkema France on the prevention of harsh working conditions (see paragraph 2.5.5.1 of this reference document), actions in 2013 included:

- the setting-up of a central coordination structure comprising representatives of the HSE, HR and Occupational Health functions as well as local technical groups in charge of monitoring the deployment of the agreement;
- the drafting by ergonomists of an initial mapping of harsh working situations across all manufacturing and research sites, excluding the headquarters and the shared services centre for which a pre-diagnosis phase is scheduled for 2014;
- the launch, following this initial mapping, of an in-depth diagnosis of the harsh working situations identified, as well as training-action in ergonomics;
- the organisation of conferences to raise awareness of successive shift patterns followed by a field analysis of certain shift patterns; and
- a survey of the inclusion of ergonomics in the design of plants.

#### **Prevention of stress**

ARKEMA's voluntary initiative for the collective prevention of stress at work was the subject of an agreement for Arkema France, signed by four out of five trade unions, in May 2010. With this agreement, ARKEMA reaffirms its aim to offer each of its employees a working environment that is conducive to well-being at work.

1980. Risks related to occupational illness are described in paragraph 1.7.2 of this reference document.

concerned in order to facilitate the transfer of skills and knowhow within the Group. These measures were extended to all Group companies in France by a Group agreement concluded on 1<sup>st</sup> September 2007 with all trade unions. Further details may be found in note 20 of the notes to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document.

and at accommodating the retirement date for those employees

## 2.5.5.4 OCCUPATIONAL ILLNESS

In manufacturing its products, ARKEMA uses and has in the past used toxic or hazardous substances. Despite the safety and monitoring procedures that have been instituted at Group level and for each production site, Group employees may have been exposed to such substances and may develop specific pathologies

as a result of such exposure. In this respect, like most industrial companies, in the past, the Group has used a variety of insulating or heat-proofing materials containing asbestos in its production facilities. Consequently, certain employees may have been exposed to such materials

before these were gradually phased out and replaced with substitute products by the Group. Claims for occupational illness related to past asbestos exposure have been filed against the Group, mostly for periods before

As regards industrial hygiene, in addition to the introduction of enclosed industrial processes limiting emissions as much as possible, collective protective measures such as source capture of residual emissions, general improvement work designed to minimise exposure risks, and personal protective measures adapted to each task, the Group requires the implementation of assessments of exposure risks at the workstation, and ensures the use of regular metrology for residual exposure to hazardous chemical products for its employees. The aim of these measures is to prevent future risks of occupational pathologies where possible. Metrological data are kept in conditions that will guarantee their long-term integrity.

In France, the Arkema Group is also developing a policy of traceability of potential exposures to factors of harsh working conditions identified on its sites (which include chemical risks) as part of its unique document (risk assessment in accordance with French regulations) by the use of exposure prevention fact sheets and the issue of certificates of exposure to those employees concerned. The Group has been working since 2012 at the computerisation of these data, while including the requirements of the 2010 and 2014 legal texts on harsh working conditions.

This agreement covers collective preventive actions (such as training, communication and support to people) and the introduction of a procedure for identifying risk areas, analysing them with a view to identifying stress factors, and putting in place corrective actions.

The consolidated findings of employee stress measurement questionnaires completed during medical check-ups are part of the at-risk area identification process. Between Spring 2011 and end 2012, the return rate for these questionnaires for all Arkema France sites was 57% overall, with some disparity depending on the sites.

In 2013, Arkema France carried out a review of the implementation of this agreement with the trade unions. In the past three years, the following actions were implemented:

- a large number of training courses were organised on the prevention of stress at work, intended for occupational health services, managers, human resources managers, and HSE managers. In 2013, training intended for all employees was also developed. In the past three years, over 500 of them took up the offer of training on this issue;
- communication actions were also conducted, including the production of a facilitator kit for local observatories, "general public" brochures on the measurement of stress, the use of mobile devices, the digital social skills week, employee awareness actions on the use of information and communication technologies, and identifying an employee in trouble;
- following the initial mapping drawn up from Omsad (Observatoire français médical du stress, de l'anxiété et de la dépression) questionnaires, qualitative studies were conducted on identified high-risk areas. From these studies, action plans were drawn up to address these high-risk areas; and
- occupational stress observatories were rolled out. They comprise representatives from the HR and HSE functions, from occupational health departments, and from trade unions signatory to the agreement. These observatories meet once a year on average.

#### Early retirement of employees at asbestos classified sites

In France, five operating sites belonging to the Group were included by ministerial decree on a list of sites qualifying for early retirement provisions for asbestos workers available to people still in employment. The Group cannot exclude the possibility that other sites may be added to this list in future.

Accordingly, on 30 June 2003 Arkema France concluded with all trade unions an agreement aimed at improving the retirement terms of its employees as part of these measures,

Promote the individual and collective development of all its employees

## 2.5.6 DIVERSITY AND EQUAL OPPORTUNITIES, EQUAL TREATMENT

Equal opportunities represent, with the prevention of discrimination in general, a strong vector of ARKEMA's human resources policy. The Group therefore takes steps in particular to ensure gender equality, promote the inclusion of disabled employees, and observe the principle of non discrimination as regards age and nationality.

The various measures put in place to ensure equal opportunities and obtain measurable results include:

- a programme of periodical review of job descriptions to ensure that they accurately reflect the related duties and responsibilities, as well as an annual review of the posts, their titles and the profiles required, department by department, in order to safeguard equality and consistency within the professions; and
- a recruitment policy based on the single criterion of relevance of the profile with the post. In the United States for example, Arkema Inc. provides training to the people involved in the recruitment process, provides them with the descriptions of the posts and the profiles required, and remedies any situation showing a lack of employment of minorities or women within the company's sites.

#### 2.5.6.1 MEASURES TAKEN FOR GENDER EQUALITY

The Group has developed over recent years a policy of gender equality and equal pay.

The actions identified concern the following four areas:

- strengthen the principle on non discrimination in access to employment;
- ensure the principle of equal pay;
- promote and facilitate career paths; and
- promote parenting within the Company.

An agreement on equality at work was signed for Arkema France. Through the roll-out of this agreement, the agreements mentioned previously are also followed up through an analysis of the main indicators. A recruitment charter restating our commitment to non discrimination was also drawn up and distributed.

Arkema France also signed in April 2013 a Corporate Parenting Charter, thereby implementing its commitment to the issue of gender equality within the Group.

A guide will in fact be drafted for managers to provide them with the necessary information on interviews to be conducted as part of gender equality in the workplace.

ARKEMA ensures that female employees enjoy the same career development opportunities as their male counterparts. Accordingly at Arkema France, from the twelve promotions to executive posts offered in 2013, four, *i.e.* a 33.3% quota (against 42.8% in 2012), concerned women, while on 31 December 2013 women

accounted for 21.8% of non-executive permanent posts (against 21.4% in 2012) and 25.2% of overall headcount (against 24.6% in 2012).

In the United States, Arkema Inc. created an Affirmative Action Plan supporting gender and pay equality between all employees and job applicants, given similar qualifications and regardless of race, ethnicity, country of origin, religion or sex. The Affirmative Action Plan is updated annually for the period of 1<sup>st</sup> June through to 31 May.

In 2013 across the Group, women held 19% of management posts at level 15 and above based on the Hay classification, against 18% in 2012.

#### 2.5.6.2 MEASURES TAKEN FOR THE EMPLOYMENT AND INTEGRATION OF DISABLED PEOPLE

The Management and the various trade unions at Arkema France signed on 9 June 2008 an initial company agreement in support of maintaining disabled people in employment or helping them find employment. This agreement covered the 2008-2009-2010 period. The agreement was renewed on 16 June 2011 for the 2011-2012-2013 period, and ratified on 20 July 2011 by the Hauts-de-Seine Prefect. Based on a qualitative and quantitative report of actions undertaken in accordance with the first agreement, it consolidates the measures taken and puts in place further actions which, together, help achieve the objectives set:

- maintain disabled people in employment and guarantee them access to training and career development;
- conduct an open recruitment and integration policy;
- provide training to disabled people to enable them to take up employment;
- develop partnerships with the protected sector; and
- raise awareness of these issues within the Company.

The aggregate achievements over the 2011, 2012 and 2013 period are globally in line with the recruitment objectives set by this agreement, taking account of the changes to the company's scope of business following the departure of employees when the vinyl activities were sold in July 2012:

- the commitment to conclude 18 permanent employment contracts over the 2011-2013 period was fulfilled and even exceeded: 19 such permanent employment contracts have been concluded since 2011 (2 in 2013, 8 in 2012 and 9 in 2011);
- 5 fixed-term employment contracts, 16 temporary working assignments, and 5 work-study traineeship agreements were signed in 2013; and
- the drive to train disabled people also entailed welcoming 40 trainees for the term of the agreement, including 9 in

2013, for an overall target of 40 to 45, and 18 work-study contracts were concluded, including 5 in 2013. Arkema France launched in particular a vocational qualifications initiative for disabled people, which has also been taken up by other chemicals manufacturers in the Rhône-Alpes region. This course is offered as part of a vocational training contract, and leads to a production operator professional qualification certificate. The course, which began in December 2012, will continue until April 2014. It is currently attended by 9 people (3 of whom based at Arkema France sites). In liaison with the other companies partnering the project, Arkema France is working towards renewing this initiative for a new class to start in 2014.

Recourse to the protected sector continued to grow in 2013, with various actions launched in previous years being established over the long term: digitisation of files, maintenance of bicycles, disposal of waste electrical and electronic equipment, catering services, etc.

The four training sessions for disability officers organised in 2012 helped raise awareness, in some thirty Arkema France employees, of understanding disability and assisting disabled employees in the Company. Another training session was held in 2013.

It is anticipated that negotiations on this issue will open in the first half of 2014, the objective being the renewal of the principles deployed within ARKEMA.

## 2.5.6.3 ANTI-DISCRIMINATION POLICY

As part of its actions promoting diversity, Arkema France had undertaken an action plan on the Management of careers of older people, signed in December 2009 covering the period 1<sup>st</sup> January 2010 to 31 December 2012.

Under this plan, Arkema France reaffirms its commitment to implementing a career management policy for older people, ensuring their ongoing suitability for employment, and taking account of the capital of experience that this population represents.

This plan entailed three areas for action:

- anticipating career development;
- developing skills and qualifications as well as access to training; and
- transferring knowledge and skills, and developing tutoring and mentorship.

It also set a recruitment target for employees aged 50 and over at 5% on average over three years. The aggregate percentage achieved over 2010, 2011 and 2012 was 7.7%.

In order to include the issues of employment and career management for "seniors" within an overall approach to the management of skills and the transfer of knowledge, an agreement was signed in September 2013 on jobs and skills management planning as well as on intergenerational management in Group companies (see paragraph 2.5.2.2 of this reference document).

Taking on board the changes in the law regarding retirement and maintaining older people in work in France, has also resulted in an adjustment of the corresponding employee liabilities as indicated in note 19 of the notes to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document.

## 2.5.7 PROMOTION AND COMPLIANCE WITH THE PROVISIONS OF THE CORE CONVENTIONS OF THE WORLD LABOUR ORGANISATION

Generally speaking, ARKEMA scrupulously complies with the constitutional texts, treaties, conventions, laws and regulations in force in the countries or territories in which the Group conducts its business.

Accordingly, ARKEMA confirms its adherence to:

- the principles of the Universal Declaration of Human Rights and the European Convention on Human Rights;
- the core conventions of the World Labour Organisation; and
- the guiding principles of the OECD targeting multinational companies.

To confirm this adherence, ARKEMA has put in place an ARKEMA Code of Conduct and Business Ethics which sets out the requirements imposed on the Group wherever it operates, vis-à-vis its shareholders, customers, employees and any other

stakeholders. It also lays down the individual behaviour principles and rules which employees are required to observe within the Group.

#### 2.5.7.1 **RESPECT FOR FREEDOM** OF ASSOCIATION AND RIGHT TO COLLECTIVE BARGAINING

Among the fundamental principles and rights at work, the right to freedom of association and to collective bargaining is a factor of social progress which ARKEMA encourages to put in place wherever the Group operates. Accordingly, over and above compliance with legal and regulatory provisions in the countries in which it conducts its business, ARKEMA facilitates and promotes the creation of employee representation in order to put in place a suitable collective bargaining process. The organisation of

dialogue with social partners and a review of the collective agreements within the Group are given in paragraph 2.5.4 of this reference document.

Methodological note

#### 2.5.7.2 ELIMINATION OF DISCRIMINATION ON MATTERS OF EMPLOYMENT AND PROFESSION

As part of its policy of non-discrimination and promotion of gender equality and diversity, ARKEMA is committed to promoting the banning of discrimination of all kind. The policy of diversity, equal opportunities and equal treatment of employees within the Group is covered in paragraph 2.5.6 of this reference document.

#### 2.5.7.3 ELIMINATION OF FORCED OR COMPULSORY LABOUR, EFFECTIVE ABOLITION OF CHILD LABOUR

ARKEMA fully endorses the initiative to ban forced labour and is committed not to engage in child labour.

# 2.6 METHODOLOGICAL NOTE

## 2.6.1 METHODOLOGICAL NOTE ON ENVIRONMENTAL AND SAFETY INDICATORS

#### 2.6.1.1 ENVIRONMENTAL REPORTING BASE AND TOOLS

#### **Extensive data**

The Group's extensive quantitative environmental data are compiled by its environmental reporting system, REED (Reporting of Environmental and Energy Data), accessible globally via the web platform of a service provider.

The values of extensive indicators, once published after verification by the Independent Third-party Body, are not amended in the REED system. Any subsequent retroactive modification due to a change in the estimation method or to a correction is the subject of a commentary in the text of section 2.2 of this reference document.

The data are input by the HSE (Health Safety Environment) departments of the Group's sites, and validated on two levels – geographical then Group.

The environmental reporting consolidation base covers all Group sites for which operating (and emissions) permits at 31 December 2013 are in the name of ARKEMA or one of its majority-owned subsidiaries.

Activities sold or shut down in the course of 2013 are not included in the 2013 reporting, but remain in the reporting scope of previous years.

Activities acquired in the course of 2013 are included in the 2013 reporting for all their 2013 operations.

Activities started up in the course of 2013 are included in the reporting from their startup date.

#### Intensive data (EFPI)

In order to oversee its environmental performance more accurately and provide a Group consolidated data report that better describes the evolution of this performance, ARKEMA has adopted a methodology allowing its plants to report intensive indicators, called EFPIs (Environmental Footprint Performance Indicators). This methodology for computing intensities of emissions or consumptions of resources relative to production volumes, compared with a baseline year, as used by the Group, minimises the impact of any changes to its business base and the productions from its plants, as well as any changes to the method used to estimate or calculate environmental footprint variables.

The Group's intensive quantitative environmental data are compiled by the same REED environmental reporting system, accessible globally via the web platform of a service provider.

EFPI data are input by the HSE (Health Safety Environment) departments of the Group's sites, and validated on two levels – industrial director then Group. They are subject to a large number of consistency tests.

The EFPI reporting consolidation base covers all Group sites for which operating (and emissions) permits at 31 December 2013 are in the name of ARKEMA or one of its majority-owned subsidiaries and belong to the Group's largest contributor sites. All emissions or consumptions at these sites account for at least 80% of the Group's in year Y-1. Activities sold or shut down in the course of 2013 are not included in the 2013 EFPI reporting, but remain in the EFPI reporting scope of previous years.

Activities acquired in the course of 2013 will be included in the 2016 EFPI reporting for all their 2016 operations in comparison with the 2015 performance.

The Hengshui site (China) of Hebei Casda Biomaterials Co. Ltd. and the Zhangjiagang site (China) of Suzhou Hipro Polymers Co. Ltd. acquired in 2012 will only be included in the EFPI reporting from the 2015 EFPI onwards as compared with the 2014 performance.

Activities started up in the course of 2013 will be included in the 2015 EFPI reporting as compared with the 2014 performance.

The American sites which began reporting their emissions to water expressed as chemical oxygen demand (COD) in 2013 will only be included in the EFPI COD reporting from 2014 or 2015 as compared with the previous year's performance as soon as their emissions estimates are deemed reliable.

The EFPI calculation methodology allows the inclusion of new reporting sites within ARKEMA's previous performance. Should the inclusion of a large number of new sites result in a significant change to the confidence interval in this calculation of ARKEMA's EFPI, consideration will be given to whether an adjustment factor should be applied or whether the use of a new baseline year is proving necessary.

#### 2.6.1.2 SAFETY REPORTING SCOPE AND TOOLS

Quantitative data concerning safety:

- are input into the SafetyLog application accessible on the Group's intranet;
- are input by the individual sites and validated centrally;
- cover all the industrial sites operated by ARKEMA or its majorityowned subsidiaries, headquarters, and R&D centers; and
- do not include in 2012 the sites of the vinyl activities divested in 2012.

#### 2.6.1.3 CHOICE OF INDICATORS, MEASUREMENT METHODS, AND INFORMATION OF USERS

The Group has defined these indicators in order to monitor various emissions and consumptions that are relevant to its activities and in accordance with French law on *Nouvelles Régulations Économiques* (NRE) and its decree of 20 February 2002.

These indicators were set out at the Group's creation, and have been followed up since the 2006 reporting year.

They also comply with the regulatory requirements of article 225-I of French law "Grenelle II" n° 2010-788 of 12 July 2010 and its implementing decree of 24 April 2012.

Environmental reporting is covered by an "Environmental Reporting" directive, an "EFPI Reporting" directive, and an "Energy Reporting" directive, issued by the Group Safety Environment (DSEG), Sustainable Development (DDD), and Energy Purchasing (DAMPE) Divisions, and accessible to all personnel on the ARKEMA intranet.

The computation and estimation methods used may evolve, for example because of changes to national or international regulations, for the sake of consistency between geographical regions, or in the event of problems in their application.

The directives may then be adapted into guides which are accompanied by training sessions per geographical region, where required.

Safety reporting is the subject of a "Monthly Safety Reporting" directive issued by DSEG and accessible to all personnel via the ARKEMA intranet.

#### 2.6.1.4 FURTHER EXPLANATIONS ON ENVIRONMENTAL AND SAFETY INDICATORS

The following information is provided by way of clarification of the definition of the indicators applied by the Group.

#### Total substances contributing to acidification

This indicator is calculated from SOx and NOx emissions converted into tonnes of  $\mathrm{SO}_2$  equivalent.

### Volatile Organic Compounds (VOCs)

The list of products regarded as VOCs may vary from country to country, and in particular between Europe and North America.

The VOC definitions used by the Group are those recommended in Europe by Directive 2010/75/EU on industrial emissions (IED).

Emissions from American sites are therefore obtained by adding to the national reported data products such as fluorinated organic compounds.

#### Chemical Oxygen Demand (COD)

COD emissions reported are those emitted into the natural environment.

In cases where water from a Group facility is treated in an external treatment plant, the reported data takes account of the effectiveness of treatment by the external treatment plant.

In cases where a Group site takes in external COD-laden water, ARKEMA's reported data concerns the COD load effectively introduced by ARKEMA (outgoing minus incoming).

#### Waste

Segregation of hazardous waste and non-hazardous waste may vary from one geographical region to another. The definitions used by the Group are those of the Basel Convention on the control of transboundary movements of hazardous waste and their disposal.

Methodological note

By-products that are recycled without processing at an ARKEMA site by being sold to third parties are not included in the computation of waste.

#### Water consumption

All sources of water are included in the reported data, namely groundwater/well, river, sea, public or private networks, drinking water, excluding rainwater collected in separate networks.

#### **Energy consumption**

Reported consumption corresponds to net purchasing of energy.

Autoproduction corresponding to the energy produced by exothermic chemical reactions which do not amount to withdrawal from the planet's energy resource is not included.

Sales of energy are deducted from purchases of energy. This is for example the case with the sites fitted with steam and electricity cogeneration from purchased gas (reported) which sell electricity back (deducted). In cases where sites do not have any December data due to late reporting by energy providers, the values for the year are extrapolated from the data at end November.

#### Greenhouse gases (GHGs)

Reported GHG emissions are direct GHG emissions corresponding to the Kyoto Protocol.

Their impact is calculated in tonnes of CO<sub>2</sub> equivalent.

In this reporting, 2012 emissions have been computed using the Global Warming Potential values published in 2007 by the IPCC (Intergovernmental Panel on Climate Change).

In 2012, reporting of North American data included fluorinated gases, which were not required to be declared by the national authorities in 2011.

For intensive data, the GHGs of fluorogases not listed in the Kyoto Protocol but listed in the Montreal Protocol are included in the EFPI computation.

#### **Accidents**

Total recordable injury rates (TRIR) and lost-time injury rates (LTIR) are computed for all of the Group's own personnel as well as for subcontracted personnel working on ARKEMA sites on the basis of standard USA 29 CFR 1904.

## 2.6.2 METHODOLOGICAL NOTE ON SOCIAL AND SOCIETAL INFORMATION AND INDICATORS

#### 2.6.2.1 REPORTING SCOPE AND TOOLS

The Group's quantitative social data are compiled from various reporting procedures.

Data concerning headcount:

- are input in the AREA 1 application accessible via the Group's intranet;
- are input by human resources managers or general managers of companies of the Group (depending on size);
- are validated at an aggregate level for the Arkema, Altuglas International, CECA, Coatex, Sartomer groupings;
- cover all 50% minimum owned Group companies.

The quantitative and qualitative data concerning the other social and societal information:

- are input into the AREA 2 application accessible on the Group intranet;
- are input by human resources contributors of companies or geographical subsidiaries;

- are validated by human resources managers of geographical zones or general managers of subsidiaries;
- cover all 50% minimum owned Group companies with a headcount exceeding 30 employees, which accounts for 96.4% of the Group's overall headcount.

#### 2.6.2.2 CHOICE OF INDICATORS, DETERMINATION METHODS AND INFORMATION OF USERS

The Group has defined relevant indicators relative to its activities and its social policy.

Indicators concerning the personnel and the safety records were put in place at the time of the Group's creation, and have been followed up since the 2006 reporting year.

Additional social, as well as societal, information and indicators are the subject of new reporting for 2012 via the AREA 2 compilation system. Their use was gradually extended in 2013, in particular with the monitoring of training hours recorded. This information and these indicators also comply with the regulatory requirements of article 225-1 of French law "Grenelle II" n° 2010-788 published on 12 July 2010 and its implementing decree of 24 April 2012.

This social reporting is the subject of a number of procedure documents, namely AREA 1 and AREA 2 guides which have been provided to all contributors and validators of these reports.

The computation methods may have limitations and may evolve, for example because of national social regulations or practices that vary from one region to another, difficulties in reporting back certain information in some areas, or the availability of certain information based on the countries.

#### 2.6.2.3 FURTHER EXPLANATIONS ON SOCIAL INFORMATION AND INDICATORS

## Headcount

Reported headcount includes employees on the Group's payroll (employees present and employees whose employment contract – of whatever nature – has been suspended) at 31 December of the year being reported.

Permanent employees are those benefiting from an employment contract for an indefinite period of time. Outside France, employees engaged on fixed-term contracts exceeding 12 months and renewed more than once are also included among permanent employees.

#### **Categories of personnel**

Data are presented by professional category. In France, employees have the executive status (*cadre*) as defined in the collective agreements governing the companies concerned. Outside France, employees have the executive status (*cadre*) if their Hay post level is 10 or above.

#### Recruitment

These data cover the recruitment of employees on permanent contracts (permanent headcount) only.

#### Compensation

Collective variable components are those variable components that depend on global economic criteria as well as the economic and financial results of the company which the employee reports to. In France, these are incentive bonus and profit-sharing payments.

### Social security

Social security cover refers to benefits from a collective or mutual insurance scheme providing coverage for incapacity/disability/ death risks.

### Training

The record of training hours excludes e-learning hours.

### Absenteeism

The absenteeism rate corresponds to the total number of hours of absence in the year (sickness, accident, maternity, strike, unpaid leave, excluding paid leave) relative to the total number of manhours in the year.



# 2.7 INDICATORS

		2013	2012	2011
SAFETY				
Total recordable injury rate (TRIR) <sup>(1)</sup>		2.8	3.4	4.4
Lost-time injury rate (LTIR) <sup>(1)</sup>		1.6	1.9	2.3
Severity of accidents (2)		33.9	29.6	34,0
Quota of AIMS audited sites <sup>(3)</sup>	%	58	42	
Quota of sites implementing peer observation	%	62	47	
Safety, environment and maintenance capital expenditures	€m	195	189	188
ENVIRONMENT				
Quota of sites ISO 14001 audited <sup>(4)</sup>	%	59	55	54
Emissions to air				
Substances contributing to acidification	t eq SO <sub>2</sub>	5,330	5,760	5,660
Carbon monoxide	t	8,850	9,220	11,660
Volatile Organic Compounds (VOC) <sup>(5)</sup>	t	4,460	4,420	4,320
Dust	t	400	460	640
Emissions to water				
Chemical Oxygen Demand (COD)	O <sub>2</sub> t	3,800	3,430	3,140
Suspended solids	t	2,950	2,840	3,450
Waste				
Hazardous waste	kt	160	160	210
including landfill disposal	kt	2.7	2.4	3.9
Hazardous waste recycled into materials	%	15		
Hazardous waste utilised for energy recovery	%	49		
Non-hazardous waste	kt	210	157	173
Resources				
Water withdrawn	Mm <sup>3</sup>	130	130	136
Net purchases of energy	TWh	8.5	8.5	8.7
Emissions of greenhouse gases (GHG) <sup>(6)</sup>	kt eq CO <sub>2</sub>	4,710	5,120	4,090
<ul> <li>including CO<sub>2</sub></li> </ul>	kt eq CO <sub>2</sub>	1,470	1,460	1,490
including HFC	kt eq CO <sub>2</sub>	3,200	3,610	2,540
SOCIAL				
Headcount				
Total headcount as at 31 December <sup>(7)</sup>		13,908	13,925	15,776
including permanent contracts		13,434	13,349	15,277
<ul> <li>including fixed-term contracts</li> </ul>		474	576	499
% managerial positions	%	26.3	24.9	24.0
% female employees	%	23.3	23.4	21.2
Quota of female employees in managerial positions <sup>(8)</sup>	%	19	18	
Recruitments <sup>(9)</sup>		864	883	1,079
% of female recruits	%	20.0	23.2	22.1
% of 50 years old and over recruits	%	8.2	8.9	9.4

## CORPORATE SOCIAL RESPONSIBILITY

Indicators

		2013	2012	2011
% of below 30 years old recruits	%	39.5	42.8	43.9
Leavers <sup>(10)</sup>		1,352	4,092	
<ul> <li>of which resignations</li> </ul>		362	405	
<ul> <li>of which redundancies</li> </ul>		224	191	
<ul> <li>of which resulting from divestment/merger</li> </ul>		0	2,679	
Part-time employees	%	3.3	3.3	
Training				
Total training hours (11)	thousand	307		
Training hours per employee		23		
Number of employees who benefited from one training		10.000		
course <sup>[12]</sup>		10,082		
Number of employees who benefited from e-learning		3,585		
Work-study trainees <sup>(13)</sup>	%	4.5	3.1	
Health and welfare				
Absenteeism <sup>(14)</sup>	%	3.4	3.8	
Hours off work on medical grounds	%	73.5	69.4	
Quota of employees benefiting from medical follow-up	%	84	84	
Quota of employees benefiting from work incapacity supplementary cover	%	95	89	
Quota of employees benefiting from additional life cover	%	95	81	
Quota of employees benefiting from death benefit <sup>(15)</sup>	%	80	73	
Compensation				
Quota of employees benefiting from minimum compensation guarantees	%	98	98	
Quota of employees benefiting from collective variable compensation elements	%	60		
Quota of employees benefiting from individual variable compensation elements	%	15		
Representation				
Quota of employees benefiting from personnel and/or trade union representation <sup>(16)</sup>	%	94.9	94	
SOCIETAL				
Number of Common Ground <sup>®</sup> initiatives <sup>(17)</sup>		644	278	
Quota of Group sites involved in Common Ground® programme	%	81		

(1) Number of accidents per million man-hours.

(2) Average number of lost-time days per accident.

(3) AIMS (Arkema Integrated Management System) audit which encompasses ISO 9001, ISO 14001 and OHSAS 18001 requirements.

(4) Or RCMS (Responsible Care Management System) in the United States.

(5) 2011 and 2012 data revised as indicated in section 2.2.1.2 of this reference document.

(6) 2011 data revised as indicated in section 2.2.1.4 of this reference document.

(7) Distribution by geographical region, age band, category of post and gender, as detailed in section 2.5.1.1 of this reference document.

(8) Post level 15 or above based on Hay classification.

(9) Distribution by geographical region, age band, category of post and gender, as detailed in section 2.5.1.2 of this reference document.

(10) Distribution by geographical region, as detailed in section 2.5.1.2 of this reference document.

(11) Recorded in establishments majority-held by the Group and employing over 30 people, which corresponds to 96.4% of total headcount.

(12) Excluding e-learning.

(13) Quota of work-study students relative to headcount (business base: Arkema France).

(14) Total number of hours off work (excluding authorised leave of absence) relative to total number of man-hours.

(15) Guarantee representing at least 18 months' salary.

(16) Distribution by geographical region, as detailed in section 2.5.4.2 of this reference document.

(17) Initiative launched by ARKEMA as part of its relations with its manufacturing sites' stakeholders.



## 2.8 FAIRNESS OPINION OF AN INDEPENDENT THIRD PARTY PURSUANT TO ARTICLE L. 225-102-1 OF THE FRENCH COMMERCIAL CODE

This is a free translation of a report issued in the French language and is provided solely for the convenience of English-speaking users. This report should be read in conjunction with and is construed in accordance with French law and professional auditing standards applicable in France.

> Bureau Veritas SA Immeuble Le Guillaumet 60, avenue du Général de Gaulle 92800 Puteaux Société anonyme au capital de 13,091,570.88 euros RCS Nanterre B 775 690 621

#### VERIFICATION REPORT ON THE SINCERITY OF THE INFORMATION RELATIVE TO THE TRANSPARENCY REQUIREMENTS ON THE DISCLOSURE BY COMPANIES OF ENVIRONMENTAL AND SOCIAL TOPICS

The reviewed social, environmental and societal information are relative to year ended 31 December 2013.

#### **REQUEST, RESPONSIBILITIES AND INDEPENDENCE**

At the request of the Arkema Group, and in accordance with the requirements of article L. 225-102-1 of the French Commercial Code (*Code de commerce*), we performed, as independent third party, an independent verification of the social, environmental and societal information contained within the 2013 Arkema reference document.

The preparation and presentation of the qualitative and quantitative information for the publication required by the article R. 225-105-1 of the French Commercial Code (*Code de commerce*) is the sole responsibility of ARKEMA. The collection and management of this information has been coordinated by the Sustainable Development Direction of ARKEMA in accordance with:

- the reporting tools REED (environment) and Safetylog (health & safety) as well as the environmental and health & safety linked procedures;
- the reporting tools AREA 1 and AREA 2 for the social information as well as the linked guidance.

This is further named "the reporting methodology", available at the corporate level, and a summary of which is included under the form of a methodological note in the reference document section 2.6, which will be available on ARKEMA's website.

It's our role, in accordance with the requirements of the article R. 225-105-2 of the French Commercial Code (*Code de commerce*), to conduct the verification pursuant to the issuing of this verification report.

The conclusions of this report include:

- an attestation of completeness of the social, environmental and societal information required by the article R. 225-105-1 of the French Commercial Code (*Code de commerce*);
- a reasoned opinion on the sincerity of the published information as well as a limited assurance opinion of the quantitative information, and if any a reasoned opinion on the explanation given in case of the omission of certain consolidated information.

This opinion is independently stated, and without partiality. Our work has been conducted according to the professional practice. Bureau Veritas has implemented its Code of Ethics which is applied by its staff.

#### NATURE AND SCOPE OF OUR WORK

During the period from September 2013 to February 2014, a team of verifiers competent in social responsibility conducted the work; they are experienced on social, environmental and societal issues.

#### CORPORATE SOCIAL RESPONSIBILITY

Fairness opinion of an independent third party pursuant to article L. 225-102-1 of the French Commercial Code

We verified that the information covers the consolidated perimeter as defined in the articles L. 233-1 and L. 233-3 of the French Commercial Code (*Code de commerce*). The perimeter's adjustments for the social and environmental information are clarified in the methodological note of the reference document.

For the attestation of completeness of the information we undertook the following work:

- taking note of the Group policy relative to sustainable development, according to its social and environmental impacts and its societal commitments;
- comparison of the information presented in the reference document with the list as provided for in article R. 225-105-1 of the French Commercial Code (*Code de commerce*);
- verification of the explanation given in case of omission of consolidated information.

For the reasoned opinion on the sincerity of the information, we conducted our work in accordance with the French legal order published on 13 May 2013 determining the methodology according to which the independent third party conducts its mission.

We conducted the following procedures in order to provide limited assurance that nothing has come to our attention that causes us to believe that the produced information contains any material misstatements likely to call into question its sincerity, in all material aspects according to the "reporting methodology".

- review of the "reporting methodology" with regard to relevance, reliability, completeness, understandability of information;
- identification of the persons, within the Group, in charge of the collection, and if any, those who are responsible for the procedures of internal control and risk management;
- verification of the implementation of a process for the collection, treatment, compilation, internal control of the information to guarantee their completeness and consistency;
- examination of the internal control and risks management procedures relative to the preparation of the information;
- interviews with persons in charge of the social, environmental and societal reporting;
- selection of consolidated information to be tested <sup>(1)</sup> and definition of the nature and the scope of the tests, taking into consideration their importance with regard to the social and environmental consequences related to the Group's activities as well as to its societal commitments.
- Regarding the quantitative information we recognised as to be the most important we have:
  - performed an analytical review of the information and check for a sample of information the calculations and the compilation of the information at the corporate level and the controlled entities;
  - selected a sample of sites <sup>(2)</sup> based on their activities, their contribution to the consolidated information, their localisation, the results of the previous verification exercises and a risks analysis.
- Regarding each selected entity we performed the following work:
  - interviews to check that the "the reporting methodology" is correctly implemented;
  - performance of detailed tests, checking, based on sampling, the calculation applied and reconciling the information with supporting evidences.

The entities selected accounted for an average of more than 20% of the consolidated information, recognised as the most important, for each topic environment and social.

- Regarding the qualitative information, for the information we believe to be the most important we have conducted interviews, exanimated source documents and, if any, public information.
- Regarding the explanations relative to the missing/omitted information, we assessed their relevance.
- (1) Social information: total headcount breakdown by gender, age, status category, employees recruitments and departure, individual variable compensation elements, hours of training, part of the workforce working part-time, absences for medical reasons, part of the workforce benefiting from personnel representation or/and trade union representation, part of the workforce receiving routine medical care/monitoring, part of women in executive posts. Environmental and health & safety information: consumption of energy, GHGs, VOC emissions, COD emissions to water (4 major indicators), as well as substances contributing to acidification, dust emissions, water withdrawn, suspended solids, hazardous waste, non-hazardous waste, total CO<sub>2</sub> emissions, HFC emissions. For Health & safety: TRIR, LTRIR and SR.

Societal information: number of "Common Ground®" initiatives and part of the companies taking an active part in these events.

(2) For social information the companies: Arkema France, Arkema (China) Investment Co. Ltd. Shanghai Branch, those entities represent around 39% of the total headcount.

For environmental and health & safety information, the following sites: Pierre-Bénite, Saint-Auban, Lacq, Mont, Honfleur, La Chambre (France), Porto Marghera, Spinetta Castellazo (Italy), Changshu (China), Calvert City (USA), the contribution of those sites to each of the 4 major indicators represents: 66% of GHGs; 15% of energy consumption; 36% of VOC and 15% of COD.



#### COMMENTS ON THE "REPORTING METHODOLOGY" AND ON THE INFORMATION

The procedures and process for the reporting of the Group lead us to make the following comment:

• The method for the calculation of the EFPI ensures a very good representativeness of the environmental performance improvement within the same scope. This method should be, however, insufficiently conservative in case of integration of too many sites, consequently an adaptation might be necessary to ensure the continuity of this representativeness.

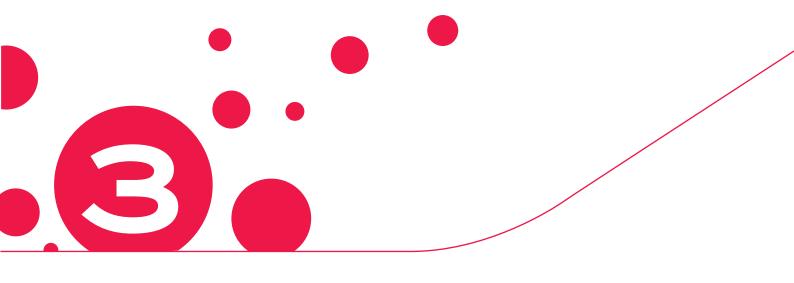
#### ATTESTATION OF COMPLETENESS OF THE INFORMATION

Based on our work, we attest to the completeness of all the required social, environmental and societal information.

#### SINCERITY OPINION AND LIMITED ASSURANCE

Based on our work, nothing has come to our attention to suggest that the social, environmental and societal information communicated by Arkema Group in its 2013 reference document is not fairly presented in all material aspects in accordance with the reporting methodology.

> Puteaux, 3 March 2014 Bureau Veritas Jacques Matillon Agency Director



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#### **3.6** STATUTORY AUDITORS' REPORT PREPARED IN ACCORDANCE WITH ARTICLE L. 225-235 OF THE FRENCH COMMERCIAL CODE (CODE DE COMMERCE) **ME** 148

The different parts constituting the Annual Financial Report are identified in this content by the pictogram  $\ensuremath{\texttt{AFR}}$ 



This chapter 3, together with section 1.7.1 of this reference document, constitutes the Chairman of the Board of Directors' report required under article L. 225-37 of the French Commercial Code (*Code de commerce*). This report was prepared by the Company's Chairman and Chief Executive Officer with the help of a working group comprising in particular the secretary to the Board of Directors and the head of the Internal Control department, after taking account of AMF recommendations n° 2012-12 of 9 February 2012, updated on 4 December 2013, n° 2013-15 of 10 October 2013 and n° 2013-17 of 4 November 2013. It was then submitted to and reviewed by the Nominating, Compensation and Corporate Governance Committee (for the corporate governance part) and by the Audit and Accounts Committee (for the internal control part) before being approved by the Company's Board of Directors on 3 March 2014.

The other information required under the above-mentioned article L. 225-37, namely conditions of shareholders participation in annual general meetings, information regarding the structure of the Company's share capital, and factors likely to have an impact in the event of a public offering, is given in paragraphs 5.5.1, 5.2.1, 5.3.1, 5.3.2 and 5.3.3 of this reference document respectively.

## 3.1 COMPLIANCE WITH CORPORATE GOVERNANCE SYSTEM

As regards corporate governance, the Company has decided to refer to the recommendations of the Corporate Governance Code for listed companies of the AFEP and MEDEF as revised in June 2013 ("AFEP-MEDEF Code"), available on the AFEP website (www.afep.com) and MEDEF website (www.medef.com). In accordance with the "comply or explain" rule provided for under article L. 225-37 of the French Commercial Code (*Code de commerce*), and with article 25.1 of the AFEP-MEDEF Code, the Company considers that, barring exceptions for which comprehensible, relevant and detailed explanations are provided in the following summary table, the Company complies with the corporate governance regime in force in France.

Disregarded provisions of the AFEP-MEDEF Code	Explanations
<b>16. Audit and Accounts Committee</b> "The time available for reviewing the accounts should be sufficient (no less than two days before review by the Board)."	Given the timetable for closing the accounts and publishing the results, as well as the Company's internal organisation, the Audit and Accounts Committee reviewing the accounts generally meets the day before the Board of Directors' meeting. However, members of the Audit and Accounts Committee effectively receive the necessary documents and information to carry out their duties with a sufficient timeframe (generally 5 days prior to the meeting) to be able to review them in a satisfactory manner and give their opinion to the Board of Directors. The aim of a two-day timescale requirement as provided for under the AFEP-MEDEF Code is part of the governance targets which ARKEMA intends to put in place in the very near future.
<b>23.2.4. Stock options and performance shares</b> "in accordance with the terms set by the board and announced upon the award, the performance shares awarded to executive directors should be conditional upon the acquisition of a defined quota of shares upon the availability of the awarded shares."	Given the restrictive obligations to hold shares set by the Board of Directors whereby the Company's Chairman and Chief Executive Officer must, until the termination of his term of office, in particular hold at least 30% of the shares awarded on a definitive basis, and a number of shares obtained upon the exercise of stock options corresponding to at least 40% of the net capital gain on acquisition, the Nominating, Compensation and Corporate Governance Committee has not deemed it necessary to introduce a condition to purchase additional shares in the Company (for further details on the holding requirements for the Chairman and Chief Executive Officer, see paragraph 3.4.3.3 of this reference document).
<b>23.2.5. Start-of-contract, termination and non-compete</b> <b>compensation</b> Severance pay "These performance requirements set by the board must be demanding and may not allow the indemnification of an executive director, unless his or her departure is imposed upon them regardless of the nature of their severance, and linked to a change in control or strategy."	The rule linking forced severance to a change in control or strategy has not been retained in order to compensate for the loss of all the benefits, in particular for length of service, related to the executive employee status of Mr Thierry Le Hénaff during his 17 years in the Total group, at the time of the Company's spin-off and stock market listing and of his appointment as Chairman and Chief Executive Officer of the Company.

## 3.2 COMPOSITION OF ADMINISTRATIVE AND MANAGEMENT BODIES

### 3.2.1 BOARD OF DIRECTORS

#### 3.2.1.1 PRINCIPLES FOR THE COMPOSITION OF THE BOARD OF DIRECTORS

The composition and functioning of the Company's Board of Directors are determined by current laws and regulations, by the Company's Articles of Association, and by the Internal Rules of the Board of Directors.

As of the date of this reference document, the Company is run by a Board of Directors comprising eleven members, nine of whom are independent. The Company's Board of Directors comprises two women members and one member representing shareholder employees.

#### Independence of directors

As part of its process to assess its members' independence and to prevent risks of conflict of interests between director and top management, the Company or the Group, the Board of Directors takes into account all the criteria of the AFEP-MEDEF Code, which are taken up in its Internal Rules. Accordingly, an independent director is one who, other than his position on the Board, has no relationship whatsoever with the Company, the Group or its management. In particular, an independent director may not:

- be, or have been within the last five years, an employee or executive officer of the Company or an employee or director of a consolidated company;
- be, or have been within the last five years, an executive officer of a company for which the Company, directly or indirectly, is a director or for which a Company's executive officer or employee is a director;
- be, or be linked directly or indirectly to, a customer, supplier, investment or corporate banker of significant importance to the Company or the Group or for which the Company or Group represents a significant portion of the business;
- have a close family relationship with an officer of the Company or the Group;
- have been an auditor of the Company during the last five years;
- have been a director of the Company for more than twelve years; or
- be or represent a significant shareholder of the Company owning over 10% of the Company's share capital or voting rights.

The annual review of the independence of each member of the Board of Directors, in accordance with the AFEP-MEDEF Code and the Board of Directors' Internal Rules, took place at the Nominating, Compensation and Corporate Governance Committee meeting on 20 January 2014 and the Board of Directors meeting on 23 January 2014. At these meetings, the Nominating, Compensation and Corporate Governance Committee and the Board of Directors examined in particular if the business relations that may exist with the companies Steria and Natixis S.A. with which some of the directors are associated were material or not. To this end, a summary of the operations conducted between ARKEMA and these companies was presented to the Board of Directors in order to assess the volume of business represented by these operations between each of these companies respectively and ARKEMA.

Upon examination of the situation of each director, and in the light of the absence of materiality, if not non-existence, of any volume of business with the above-mentioned companies, the Board of Directors decided that, except for Mr Thierry Le Hénaff, Chairman and Chief Executive Officer of the Company, and Mr Patrice Bréant, employee of a Group company, all other Board members qualify as independent. Additionally, the Board of Directors meeting on 3 March 2014 also qualified as an independent director the Fonds Stratégique de Participations, the appointment of which as a new director will be submitted to the vote of the combined annual general meeting of 15 May 2014.

Consequently, and in accordance with the AFEP-MEDEF Code which provides for Mr Patrice Bréant, director representing the shareholder employees, not to be included in the computation of the percentage of independent directors, the rate of independence of the Board of Directors, following the said annual general meeting and provided the *Fonds Stratégique de Participations* is appointed by said meeting, will be 91% (i.e. 10 directors out of 11). This proportion is greater than the AFEP-MEDEF Code recommendation providing for at least half the board members to be independent in companies with diversified capital and no controlling shareholders.

#### Balanced gender representation on the Board of Directors/ diversity

Pursuant to articles L. 225-17 paragraph 2 and L. 225-37 paragraph 6 of the French Commercial Code (*Code de commerce*), the Board of Directors ensures that the principle of balanced gender representation among its members is applied, in particular when renewing the directors' terms of office.

Composition of administrative and management bodies

Accordingly, and in accordance with the provisions of law  $n^{\circ}$  2011-103 of 27 January 2011 relating to balanced gender representation on boards of directors and supervisory boards and to professional gender equality, the Company's Board of Directors will be required to have a 20% proportion of female members in 2014 and 40% in 2017.

The Board of Directors meeting on 3 March 2014, on a proposal from the Nominating, Compensation and Corporate Governance Committee, decided to submit the appointment as director of the *Fonds Stratégique de Participations*, the permanent representative of which would be Mrs Isabelle Boccon-Gibod, to the vote of the annual general meeting called on 15 May 2014 to approve the financial statements for the year ending 31 December 2013.

Consequently, and subject to approval by the above-mentioned combined annual general meeting of the renewal of the term of office of Mrs Claire Pedini and the appointment of the *Fonds Stratégique de Participations* represented by Mrs Isabelle Boccon-Gibod, the proportion of female directors on the Company's Board of Directors, at the close of the said meeting, will be 25% (three out of twelve directors).

Pursuant to the AFEP-MEDEF Code and to the AMF recommendations in this regard, the Nominating, Compensation and Corporate Governance Committee also regularly reviews the boardroom diversity targets (in particular in terms of nationality and diversity of skills). On the date of this reference document, the Board of Directors considers that the diversity of the skills of the members on the Board is such that the Board is able to carry out its duties with the necessary independence and objectivity.

## Representation of shareholder employees/representation of employees

In accordance with the relevant regulation, the Board of Directors includes a member representing shareholders employee. It should be noted that Mr Patrice Bréant's term of office as director representing shareholder employees expires at the close of the annual general meeting called to approve the financial statements for the year ending 31 December 2013. In this regard, the Board of Directors meeting on 3 March 2014, after reviewing the list of candidates established and proposed by the shareholder employees in the Company and its affiliates, under article L. 225-180 of the French Commercial Code (*Code de commerce*), decided, on a proposal by the Nominating, Compensation and Corporate Governance Committee, to submit and support the renewal of Mr Patrice Bréant's term of office at the annual general meeting on 15 May 2014.

For further details on appointment proposals submitted to the Company's annual general meeting, please see paragraph 6.2.2 of this reference document.

Furthermore, pursuant to the provisions of law n° 2013-504 of 14 June 2013 relating to job security establishing the new article L. 225-27-1 of the French Commercial Code (*Code de commerce*), companies meeting the terms provided for by this law are required to appoint at least one director representing the employees, in accordance with the terms set by the Articles of Association. It should be noted that the Company does not meet the conditions laid down in the law and that it is consequently not subject to such obligation. However, the above-mentioned provisions apply to Arkema France, a subsidiary of the Company. Consequently the appointment of a director representing employees in Arkema France will take place in the conditions laid down by law in 2014.

#### Other characteristics

According to the provisions of the Company's Articles of Association:

- each director must hold at least 300 of the Company's shares throughout their term of office except for the director representing shareholder employees who must hold individually or through a *Fonds Commun de Placement d'Entreprise* (FCPE) (company mutual investment fund) governed by article L. 214-40 of the French Monetary and Financial Code (*Code monétaire et financier*), at least one share in the Company, or a number of shares of the said fund equivalent to at least one share in the Company;
- the age limit for directors is 70, as laid down in the Company's Articles of Association; and
- subject to the laws applicable to provisional appointments made by the Board of Directors, the directors shall serve for a term of office of four years.

In accordance with the recommendations of the AFEP-MEDEF Code, the directors' terms of office are staggered in order to avoid reappointment of the Board *en masse*, and ensure that the directors' reappointment process operates smoothly. In this regard, with the terms of office of all directors being staggered, the general shareholders meeting is therefore called every year to decide upon the renewal of one or more terms of office.

Furthermore, in accordance with the provisions of the Board of Directors' Internal Rules, each director is subject to an obligation to provide information to the Company on any situation, even a potential one, of direct or indirect conflict of interest with the Company (see paragraph 3.2.3.3 below on this point).

Composition of administrative and management bodies

### 3.2.1.2 COMPOSITION OF THE BOARD OF DIRECTORS AT 31 DECEMBER 2013

In the course of 2013, the composition of the Board of Directors has not changed. Consequently, at 31 December 2013 the composition of the Board of Directors was as follows:

Directors	Other offices held
THIERRY LE HÉNAFF	Current:
Main office held within the Company: Chairman and Chief Executive Officer Date of first appointment: 6 March 2006	France         Within the Group         Chairman of the Board of Directors, Arkema France         Outside the Group         Director, Eramet*
Date of last renewal: 23 May 2012	International ► None
Date appointment expires: AGM held to approve accounts for 2015 financial year Number of shares held at 31 December 2013: 52,837	Held in the past five years but now expired: Expired in 2013 None Expired 2009 to 2012 None
PATRICE BRÉANT	Current:
Main office held within the Company: Director representing shareholder employees Date of first appointment:	<ul> <li>France</li> <li>Within the Group</li> <li>Member of the FCPE Arkema Actionnariat France Supervisory Board</li> <li>International</li> </ul>
1 <sup>st</sup> June 2010	► None
Date appointment expires: AGM held to approve accounts for 2013 financial year Number of FCPE shares held at 31 December 2013: 278	Held in the past five years but now expired: Expired in 2013 None Expired 2009 to 2012 None
FRANÇOIS ÉNAUD	Current**:
Main office held within the Company: Director Date of first appointment: 10 May 2006 Date of last renewal: 24 May 2011 Date appointment expires: AGM held to approve accounts for 2014 financial year Number of shares held at 31 December 2013: 301	<ul> <li>France</li> <li>Executive Manager, groupe Steria SCA*</li> <li>Chairman and Chief Executive Officer and Director, Steria SA</li> <li>Chairman of the Board of Directors, Agence Nouvelle des Solidarités Actives (ANSA)</li> <li>Director, FONDACT (Association under 1901 law for participative management, employee savings plans, and responsible share ownership)</li> <li>International</li> <li>Director, Steria UK Limited (United Kingdom)</li> <li>Chairman of the Board of Directors and Director, Steria Holdings Limited (United Kingdom)</li> <li>Member of the Supervisory Board, Steria Mummert Consulting AG (Germany)</li> <li>Held in the past five years but now expired**:</li> </ul>
	Expired in 2013 <ul> <li>None</li> </ul>
	Expired 2009 to 2012 <ul> <li>Director, Steria Limited</li> <li>Director, Steria Services Limited</li> </ul>

\* Listed company.

\*\* Outside the Group.

Composition of administrative and management bodies

BERNARD KASRIEL	Current**:
Main office held within the Company: Director	France ▶ Director, L'Oréal*
Date of first appointment: 10 May 2006	International <ul> <li>Director, Nucor* (USA)</li> </ul>
Date of last renewal: 4 June 2013 Date appointment expires: AGM held to approve accounts for 2016 financial year Number of shares held at 31 December 2013: 800	Held in the past five years but now expired**: Expired in 2013 None Expired 2009 to 2012 Partner at LBO France
VICTOIRE DE MARGERIE	Current**:
Main office held within the Company: Director Date of first appointment: 7 November 2012 Date appointment expires: AGM held to approve accounts for 2014 financial year Number of shares held at 31 December 2013: 300	France         Chairman, Rondol Industrie         Director, Ecoemballages         Director, Eurazéo*         International         Director, Norsk Hydro* (Norway)         Director, Morgan Advanced Materials* (United Kingdom)         Director, Italcementi* (Italy)         Held in the past five years but now expired**:
	Expired in 2013 <ul> <li>None</li> <li>Expired 2009 to 2012</li> <li>Director, Ciments Français</li> <li>Director, groupe Flo</li> <li>Director, Outokumpu</li> </ul>
LAURENT MIGNON	Current**:
Main office held within the Company: Director Date of first appointment: 10 May 2006 Date of last renewal: 24 May 2011	France         Chief Executive Officer Natixis SA*         Chairman of the Board of Directors, Natixis Global Asset Management (NGAM)         Chairman of the Board of Directors, Coface SA         Member of the Executive Board, BPCE         International         Directors
Date appointment expires:	<ul> <li>Director, Lazard Ltd*</li> <li>Held in the past five years but now expired**:</li> </ul>
AGM held to approve accounts for 2014 financial year <b>Number of shares held</b> <b>at 31 December 2013:</b> 300	<ul> <li>Field in the past rive years but now expired :</li> <li>Expired in 2013</li> <li>Director, Sequana*</li> <li>Permanent Representative of Natixis, censor at the Supervisory Board of BPCE</li> <li>Expired 2009 to 2012</li> <li>Chairman, Coface Holding SAS</li> <li>Permanent Representative of Natixis, Director, Coface SA</li> <li>Chairman and Chief Executive Officer, Oddo Asset Management</li> <li>Permanent Representative, Oddo et Cie, Managing Partner, Oddo Corporate Finance</li> <li>Director, Cogefi SA</li> <li>Director, Génération Vie</li> <li>Member of the Supervisory Board, Banque Gestion Privée</li> </ul>

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\* Listed company. \*\*Outside the Group.

Composition of administrative and management bodies

THIERRY MORIN	Current**:
Main office held within the Company: Director Date of first appointment: 10 May 2006 Date of last renewal: 4 June 2013 Date appointment expires: AGM held to approve accounts for 2016 financial year Number of shares held at 31 December 2013: 1,000	France         • Chairman, Thierry Morin Consulting (TMC)         • Chairman of the Management Board, Université de Technologie de Compiègne         • Chairman, TM France         International         • Chairman, TMPARFI SA (Luxembourg)         Held in the past five years but now expired**:         Expired in 2013         • Chairman of the Board of Directors, Institut National de la Propriété industrielle (INPI)         Expired 2009 to 2012         • Chairman and Chief Executive Officer, Valeo         • Chairman, Valeo Finance         • Chairman, Valeo Finance         • Chairman, Valeo Finance         • Chairman, Valeo Finance         • Chairman, Valeo Service         • Chairman, Valeo Service         • Chairman, Valeo SpA         • Chairman, Valeo Japan Co. Ltd         • Chairman, Valeo Japan Co. Ltd         • Chairman, Valeo Gerunay Holding GmbH         • Manager, Valeo Auto-Electric Beteiligungs GmbH         • Manager, Valeo Grundvermögen Verwaltung GmbH         • Manager, Valeo Grundvermögen Verwaltung GmbH         • Manager, Valeo Service España S.A.         • Director, Valeo Iluminacion S.A.         • Director, Valeo Iluminacion S.A.         • Director, Valeo Iluminacion S.A.         • Director, CEDEP
MARC PANDRAUD	Current**:
Main office held within the Company: Director Date of first appointment: 15 June 2009 Date of last renewal: 4 June 2013 Date appointment expires: AGM held to approve accounts for 2016 financial year Number of shares held at 31 December 2013: 500	<ul> <li>France</li> <li>Vice-Chairman, Deutsche Bank France – Middle East and Africa</li> <li>International</li> <li>None</li> <li>Held in the past five years but now expired**:</li> <li>Expired in 2013</li> <li>None</li> <li>Expired 2009 to 2012</li> <li>None</li> </ul>
CLAIRE PEDINI	Current**:
Main office held within the Company: Director Date of first appointment: 1 June 2010 Date appointment expires: AGM held to approve accounts for 2013 financial year Number of shares held	<ul> <li>France</li> <li>Senior Vice-President of Compagnie Saint-Gobain in charge of Human Resources</li> <li>International</li> <li>None</li> <li>Held in the past five years but now expired:</li> <li>Expired in 2013</li> <li>None</li> </ul>
at 31 December 2013: 300	Expired 2009 to 2012 ► Permanent representative of Alcatel, Director, Thalès

\* Listed company. \*\* Outside the Group.

Composition of administrative and management bodies

JEAN-PIERRE SEEUWS	Current**:
Main office held within the Company: Director	France None
Date of first appointment: 10 May 2006	International None
Date of last renewal: 23 May 2012	Held in the past five years but now expired**: Expired in 2013
Date appointment expires: AGM held to approve accounts for 2015 financial year Number of shares held at 31 December 2013: 2,900	<ul> <li>None</li> <li>Expired 2009 to 2012</li> <li>None</li> </ul>
PHILIPPE VASSOR	Current**:
Main office held within the Company: Director Date of first appointment: 10 May 2006 Date of last renewal: 4 June 2013	France  Chairman, Baignas SAS  Chairman, V.L.V. SAS  Chairman, Triple V. SAS  Chairman, VLV Orfila SAS  Chairman, DGI Finance SAS  Director, BULL*
Date appointment expires: AGM held to approve accounts for 2016 financial year Number of shares held at 31 December 2013: 1,300	International <ul> <li>None</li> </ul> Held in the past five years but now expired**: Expired in 2013 None Expired 2009 to 2012 Director and Chairman, Infovista Director, Groupama S.A.

\* Listed company.

\* \* Outside the Group.

The shareholders at the combined annual general meeting on 15 May 2014 will be called to vote on the following renewals and appointments, which have been approved by the Board of Directors:

- the renewal, for a four-year term expiring at the close of the annual general meeting held in 2018 to approve the financial statements for the year ending 31 December 2017, of:
  - the term of office of Mrs Claire Pedini as director, and
  - the term of office of Mr Patrice Bréant as director representing shareholder employees;
- the appointment for a four-year term expiring at the close of the annual general meeting held in 2018 to approve the financial statements for the year ending 31 December 2017, of the *Fonds Stratégique de Participations* as director, represented by Mrs Isabelle Boccon-Gibod.

A proposal to appoint Mrs Hélène Vaudroz as director representing shareholder employees (8<sup>th</sup> resolution), which is not supported by the Board of Directors, will also be submitted to the shareholders. It is specified that in accordance with article 10.2 of the Company's Articles of Associations, only one director representing shareholder employees can be elected and that only the candidate having received the higher number of votes and at least the majority will be elected.

For further details on these resolutions, see paragraph 6.2.2 of this reference document.

#### 3.2.1.3 INFORMATION ON THE MEMBERS OF THE BOARD OF DIRECTORS (1)

**Thierry Le Hénaff**, born in 1963, holds degrees from École Polytechnique and École Nationale des Ponts et Chaussées and a Master's degree in Industrial Management from Stanford University in the United States. He is a Chevalier de l'Ordre National du Mérite.

After starting his career with Peat Marwick Consultants, in 1992 he joined Bostik, Total S.A.'s Adhesives Division, where he held a number of operational positions in France and worldwide.

In July 2001, he was appointed Chairman and Chief Executive Officer of Bostik Findley, the new entity resulting from the merger of Total S.A.'s and Elf Atochem's Adhesives divisions.

On 1<sup>st</sup> January 2003, he joined Atofina's Executive Committee, where he was in charge of three BUs (Agrochemicals, Fertilizers

<sup>(1)</sup> The information given below was up to date as at 31 December 2013.

and Thiochemicals) and three functional divisions. In 2004, he joined Total's Chemicals Executive Committee.

He has been Chairman and Chief Executive Officer of Arkema since 6 March 2006, and Chairman of the Board of Directors of Arkema France since 18 April 2006.

**Patrice Bréant** (Director representing shareholder employees), born in 1954, is a graduate of the Rouen *Institut National Supérieur de la Chimie Industrielle*, and holds a doctorate in Organic Chemical Engineering. He is an Expert Engineer in Experimental Methodology and in Statistical Process Control.

He began his career within the Group in 1983 at the CDF Chimie, later Orkem, Nord Research Center as Polyethylene Formulation and Modification Research Engineer. In 1990 he joined the Cerdato R&D Centre in Serquigny, and later the Technical Polymers Division within the Materials Study Laboratory.

He serves as a member of the Supervisory Board of the Arkema Actionnariat France Mutual Investment Fund (*Fonds Commun de Placement d'Entreprise* FCPE), in which he held 278 shares at 31 December 2013. He has been a member of the Serquigny Works Council since 1994. He was also *rapporteur* to the research commission of Arkema France's Central Works Council from 1994 to 2007. He has also been union representative for ARKEMA's Serquigny site, and CFE-CGC central trade union representative for Arkema France since 2004.

**François Énaud**, born in 1959, holds a degree from the École Polytechnique and graduated as a civil engineer from the École Nationale des Ponts et Chaussées. He is a Chevalier de la Légion d'Honneur.

François Énaud has been Chairman and Chief Executive Officer of Steria since 1998.

After spending two years with Colas as works engineer (1981-1982), François Énaud joined Steria in 1983, where he held various management positions (Technical and Quality division, Chief Executive Officer of subsidiaries, Transport division and Telecom division), before becoming Chief Executive Officer.

**Bernard Kasriel**, born in 1946, holds a degree from *École Polytechnique*, and an MBA from Harvard Business School and from INSEAD. He was a partner of LBO France from September 2006 to September 2011.

He joined Lafarge in 1977 as Executive Vice-President (and then Chief Executive Officer) of the Health branch. He was appointed Executive Vice-President of the Lafarge group and member of its Executive Committee in 1981. After spending two years in the United States as Chairman and Chief Operating Officer (COO) of National Gypsum, in 1989 he became Director and Chief Executive Officer, then Vice-Chairman and Chief Executive Officer of Lafarge in 1995. He was Chief Executive Officer of Lafarge from 2003 to end 2005.

Before joining Lafarge, Bernard Kasriel began his career at the Institut de Développement Industriel (1970), before becoming Chief Executive Officer in regional companies (1972), and then joining the Société Phocéenne de Métallurgie as Executive Vice-President (1975). **Victoire de Margerie**, born in 1963, is a graduate of *École des Hautes Études Commerciales* (HEC) in Paris and of *Institut d'Études Politiques* (IEP) in Paris, and she holds a DESS in Private Law from the Université de Paris 1 Panthéon-Sorbonne, and a PhD in Management Science from the Paris 2 Panthéon-Assas University. She has been Chairman and principal shareholder of Rondol Industrie, a micromechanics SME, since 2009.

She previously held operational positions in industry in Germany, France and the United States within Elf Atochem, Carnaud MetalBox and Péchiney. Between 2002 and 2011, she also taught strategy and management of technology at the Grenoble School of Management.

**Laurent Mignon**, born in 1963, is a graduate of *École des Hautes Études Commerciales* (HEC) and the Stanford Executive Program. He has been Managing Director of Natixis SA since May 2009.

Laurent Mignon held various positions in the banking business within Indosuez Bank for over 10 years, ranging from trading to investment banking. In 1996, he joined Schroders Bank in London, followed by AGF in 1997 as Chief Financial Officer, and was appointed member of the Executive Committee in 1998. In 2002 he was appointed to head the investment activities of Banque AGF Asset Management, AGF Immobilier, and, in 2003, of the Life and Financial Services sector and of Credit Insurance.

From September 2007 to May 2009, he was Managing Partner of Oddo et Cie alongside Philippe Oddo.

**Thierry Morin**, born in 1952, holds an MBA from Paris IX – Dauphine University.

An Officier de l'Ordre National du Mérite, and a Chevalier de la Légion d'Honneur et des Arts et des Lettres, he is also Chairman of the Board of Directors of Université de Technologie de Compiègne (UTC), former Chairman of the Board of Directors of INPI (Institut National de la Propriété Industrielle), and Chairman of Société TM France.

Thierry Morin joined the Valeo group in 1989, where he held various positions (business segment financial director, group financial director, and director for purchases and strategy) before becoming Executive Vice-President in 1997, Chief Executive Officer in 2000, Chairman of the Executive Board in 2001, then Chairman and Chief Executive Officer from March 2003 to March 2009. Prior to that, he had been in charge of various functions at Burroughs, Schlumberger and Thomson Consumer Electronics.

**Marc Pandraud**, born in 1958, is a graduate of *École Supérieure de Commerce de Paris* (ESCP). He has been Chairman of Deutsche Bank's activities in France since June 2009. He was appointed Vice-Chairman of Deutsche Bank Europe, Middle East and Africa in June 2013, and is in charge of clients for the merchant bank in the Europe, Middle East and Africa region.

He began his career as an auditor with Peat Marwick Mitchell (1982-1985). Subsequently he was Vice-President of Bear Stearns & Co. Inc. (1985-1989), Chief Executive of SG Warburg France S.A. (1989-1995), Chief Executive of Deutsche Morgan Grenfell (1995-1998), then Chief Executive in charge of investment banking (1998). He later joined Merrill Lynch as Chief Executive of Merrill Lynch & Co. Inc. (1998) and Chief Executive of Merrill Lynch France (1998) before becoming President of Merrill Lynch France (2005-2009). Marc Pandraud is a *Chevalier de l'Ordre National du Mérite*.

CORPORATE GOVERNANCE Composition of administrative and management bodies

> **Claire Pedini**, born in 1965, is a graduate of *École des Hautes Études Commerciales* (HEC), and holds a Master's in Media Management from ESCP. She has been Senior Vice-President of Compagnie Saint-Gobain in charge of Human Resources since 1<sup>st</sup> June 2010.

> After holding a number of finance and management control positions at Total, Claire Pedini headed the group's financial communication from 1992 to 1994, after completing the group's IPO on the New York stock exchange in 1991.

> She was Head of Total's Press department from 1995 to 1997. She then joined Alcatel in September 1998 as Director of Financial Communication and Investor Relations. In 2002 she became Director of Financial Communication and Corporate Relations. In February 2004 she was appointed Deputy Chief Financial Officer for the Group.

> In 2006, she was appointed Director of Human Resources and a member of Alcatel-Lucent's Executive Committee, Director of Human Resources and Communications in June 2006, then Head of Human Resources and Transformation in 2009.

**Jean-Pierre Seeuws**, born in 1945, holds a degree from *École Polytechnique*.

In 1967 he joined Rhône-Poulenc, where he was responsible for the production and chemical engineering sectors. In 1981, he became Chief Executive Officer of the Base Mineral Chemicals, Films and then Fine Minerals businesses. In 1989 he joined Orkem as divisional Chief Executive Officer and became Deputy Chief Executive Officer of Total's Chemicals business (and a member of the Management Committee) in 1990. He has been Chief Executive Officer of Total's Chemicals business since 1995 and Chairman of Hutchinson since 1996. He was a member of Total S.A.'s Executive Committee between 1996 and 2000.

Between 2000 and 2005, Jean-Pierre Seeuws was Total's general delegate for Chemicals in the United States and Chief Executive Officer of Atofina Chemicals Inc. and Total Petrochemicals Inc.

**Philippe Vassor**, born in 1953, holds a degree from *École Supérieure de Commerce de Paris* (ESCP Europe), and is also a chartered accountant and auditor.

He has been the president of Baignas S.A.S. since June 2005.

Philippe Vassor spent the core of his professional career (1975 to 2005) at Deloitte where he became Chairman and Chief Executive Officer for France and a member of the worldwide Executive Group, responsible for human resources (from 2000 to 2004).

### 3.2.2 MANAGEMENT

## 3.2.2.1 CHAIRMAN & CHIEF EXECUTIVE OFFICER

Since the Company's stock market listing in 2006, ARKEMA has undertaken an in-depth transformation project in a chemical industry marked by many changes over the years, notably in the regulatory and competition fields.

Accordingly, in 2006 the Board of Directors decided not to separate the roles of Chairman of the Board and Chief Executive Officer in order to put in place a simple, reactive and responsible decision-making process.

This governance structure put in place within the Group, which operates strictly in accordance with the respective prerogatives of the Company's various bodies as provided for under French law (shareholders general meetings, chief executive officer and Board of Directors) also entails:

- the presence on the Board of Directors of a vast majority of independent members (91% <sup>(1)</sup>);
- a close association to the Group's strategy of all the independent members of the Board of Directors, who exclusively sit on the Strategy Committee;
- the presence on the other committees of the Board of Directors of a very large majority of independent members (100% at the date of this reference document);

- the introduction by the Board of Directors of limitations on the powers of the Chairman and Chief Executive Officer, who is required to inform or submit for prior approval by the Board of Directors the most significant operations. These limitations on the powers of the Chairman and Chief Executive Officer are set out in detail in paragraph 3.3.1 below; and
- an annual assessment of the Board of Directors by all directors, except for the Chairman and Chief Executive Officer (see paragraph 3.3.2.4 below).

Furthermore, the Chairman and Chief Executive Officer is not a member of any of the expert committees of the Board of Directors.

The Company's management approach, the effectiveness of which has been proven since 2006, and which is not in doubt at the date of this reference document, is therefore applied in accordance with corporate governance best practice.

Consequently, insofar as this governance structure still appears to be the most suitable to carry through the ARKEMA project over time, the Board of Directors, at a meeting on 23 May 2012 held immediately after the Company's general shareholders meeting that had renewed the term of office of Thierry Le Hénaff as director, re-elected him to the position of Chairman and Chief Executive Officer.

Each year the directors are questioned, as part of the annual assessment of the Board of Directors, on the continuation of the governance structure in place. Moreover, the Nominating,

(1) Subject to approval of the 5<sup>th</sup> and 6<sup>th</sup> resolutions by the combined annual general meeting of 15 May 2014.

Compensation and Corporate Governance Committee regularly conducts a specific review of the existing governance structure, and verifies that the chosen structure is always the best suited. It presents its conclusions to the Board of Directors, which then decides on the continuation or otherwise of the structure in place.

#### 3.2.2.2 EXECUTIVE COMMITTEE

The Chairman and Chief Executive Officer has put in place an Executive Committee (Comex) comprising two operational executive vice-presidents and four functional executive vicepresidents who report to him directly.

The Comex is in charge of the Group's operational management supervision as well as coordination and monitoring of the implementation of the strategy within the Group. It is a decisionmaking body that focuses on strategic matters and on performance monitoring, and examines major issues regarding organisation and large projects. It also ensures the effective implementation of internal control. The Comex meets twice a month.

At the date of this reference document, the following people sit on the Comex:

• Thierry Le Hénaff: Chairman and Chief Executive Officer.

Four functional executive vice-presidents:

- Luc Benoit-Cattin: Executive Vice-President Industry for the Group, overseeing Industrial Safety, Environment and Sustainable Development, Technology, Logistics, Quality, and the Purchasing of Goods and Services;
- Bernard Boyer: Executive Vice-President in charge of the Group's Strategy, responsible for strategic planning, economic studies, acquisitions and disposals, internal auditing, insurance and risk management;
- Michel Delaborde: Executive Vice-President in charge of Human Resources and Communication for the Group; and
- Thierry Lemonnier: Chief Financial Officer for the Group supervising accounting, management control, cash management, legal affairs, tax, investor relations and IT systems.

Two operational executive vice-presidents:

- Pierre Chanoine: Executive Vice-President overseeing the High Performance Materials segment and the Fluorogases and Hydrogen Peroxide BUs within the Industrial Specialties segment; and
- Marc Schuller: Executive Vice-President overseeing the Coating Solutions segment and the Thiochemicals and PMMA BUs within the Industrial Specialties segment, as well as energy and raw material global procurement.

#### Information on members of the Executive Committee:

**Luc Benoit-Cattin**, born in 1963, is a graduate of École Polytechnique and École des Mines de Paris.

Between 1988 and 1995 he held a number of positions in administration at the French Ministry for Economy, Finance and Industry. From 1995 to 1997 he was Technical Advisor to the Minister for Industry. In 1997 he joined the Pechiney group as Plant Manager and later on as Head of a Business Unit for rolling and aluminium. In 2002 he joined CGG Veritas, where he was successively Director of Resources and Operating Performance, Director of Offshore, and, from 2009, Managing Director of Geophysical Services and a member of the Executive Committee. He has been a member of ARKEMA's Executive Committee since March 2011.

**Bernard Boyer**, born in 1960, holds degrees from École Polytechnique and École Nationale Supérieure des Pétroles et Moteurs.

He has spent his whole career working in the chemicals industry in operational positions, starting out in a factory then moving to Elf Atochem's head office (Finance & Strategy), from 1992 to 1998. In 1998, he joined Elf Atochem's Adhesives affiliate as Executive Vice-President. He was appointed Atofina's Director of Acquisitions and Divestitures in 2000, then Director of Economy, Planning and Strategy, Acquisitions and Divestitures at the end of 2003. He has been a member of ARKEMA's Executive Committee since its creation in 2006.

**Michel Delaborde**, born in 1956, holds a degree in economics from *Université de Paris, Sorbonne*.

In 1980 he joined Total where he was in charge of human resources for both head office and refineries. After two years as head of the Human Resources department Trading & Middle East, he was put in charge of communication for Total in 1996, serving as director of communications first for Total-Fina, then for Total-Fina-Elf after the merger in 1999. In 2002 he joined Atofina as Director of Human Resources and Communication and was appointed to the Chemicals Executive Committee of Total. He has been a member of ARKEMA's Executive Committee since its creation in 2006.

**Pierre Chanoine**, born in 1949, is a graduate of *École Supérieure de Commerce* in Reims and also holds an MBA from Sherbrooke University (Canada).

He began his career in 1974 at Elf Aquitaine. After holding a number of financial positions, he joined Texas Gulf in the US in 1989, in charge of commercial development export. From 1991 to 2001 he was in charge of Corporate Planning and Strategy, and later the Chlorine/Caustic Soda business at Elf Atochem. After holding a position in Spain, in 2002 he became Head of Atofina's Urea Formaldehyde Resins business. In 2004 he became Group President in charge of this business, and Director of the Fluorogas BU in 2005. He has been a member of ARKEMA's Executive Committee since 2008.

**Thierry Lemonnier**, born in 1953, is a graduate of *École Nationale Supérieure de Géologie* in Nancy and holds a Master's degree from Stanford University (United States).

He joined Total in 1979 as an economist engineer at the Exploration/Production segment. In 1983, he joined Total's Finance/Treasury department. In 1987, he was appointed head of Downstream Affiliates Operations, and in 1993 became Chief Financial Officer for Refining/Marketing. In 2000 he was appointed director of Chemical Affiliates Operations. He then joined Total's Chemical branch in 2001 and was appointed to the Executive Committee, in charge of finance, controlling and accounting. He has been the Group's Chief Financial Officer and a member of ARKEMA's Executive Committee since its creation in 2006.



Marc Schuller, born in 1960, is a graduate of École Supérieure des Sciences Économiques et Commerciales (ESSEC).

He joined Orkem in 1985 as product manager for acrylics. In 1990 he joined the Strategy Segment of Total Chimie and in 1992 he became deputy managing director of the Structural Resins department at Cray Valley. In 1995, he was appointed commercial director Petrochemicals/Special Fluids at Total, and later director Base Petrochemicals at Total-Fina. In 2000, Marc Schuller was appointed director of Atofina's Butadiene/ Aromatics BU, and special project manager for the Chairman. In 2003, he became Director of the Thiochemicals and Fine Chemicals BU. After being a member of Atofina's management committee, he became a member of ARKEMA's Executive Committee at its creation in 2006.

### 3.2.3 ADDITIONAL INFORMATION ON THE MEMBERS OF THE BOARD OF DIRECTORS AND THE MANAGEMENT

#### 3.2.3.1 ABSENCE OF FAMILY TIES

To the Company's knowledge, and at the date of drafting this reference document, there are no family ties between (i) the members of the Board of Directors, (ii) the members of the Executive Committee, and (iii) between the members of the Board of Directors and those of the Executive Committee.

#### 3.2.3.2 ABSENCE OF ANY CONVICTION FOR FRAUD, LIABILITY WITH A BUSINESS FAILURE, OR PUBLIC INCRIMINATION AND/OR SANCTION

To the Company's knowledge, and at the date of drafting this reference document, no member of the Board of Directors or the Executive Committee has been:

- convicted of fraud during the past five years;
- implicated in a bankruptcy, receivership or liquidation as a member of an administrative, management or supervisory body during the past five years;
- charged with any offence or any official public sanction taken against them by statutory or regulatory authorities during the past five years.

To the Company's knowledge, no corporate officer or director, acting as a member of an administrative, management or supervisory body of an issuer, has been barred by a court from participating in the management or conducting the business of a listed company over the past five years.

#### 3.2.3.3 ABSENCE OF CONFLICTS OF INTEREST

To the Company's knowledge, there are no potential conflicts of interest between the duties to the Company of the members of the Board of Directors, the senior management and their private interests. The Company has set up measures to prevent potential conflicts of interest between the directors and the Company. These measures are described in paragraphs 3.2.1.1 and 3.3.2.2 of this reference document. Furthermore, each director has undertaken, in accordance with the Company's Board of Directors Internal Rules, to maintain under all circumstances, their independence of analysis, judgment, decision-making and action, and, in this respect, to inform the Board of any situation of conflict of interest, direct or indirect, even potential, with the Company.

To the Company's knowledge, no arrangements or agreements have been made with the main shareholders, customers or suppliers of the Company whereby a member of the Board of Directors or of the management would have been selected.

To the Company's knowledge, there are no restrictions accepted by the members of the Board of Directors or the management concerning the transfer of their holding in the Company's share capital, other than those set out in paragraph 3.4.3.3 of this reference document.

#### 3.2.3.4 INFORMATION REGARDING SERVICE CONTRACTS

To the Company's knowledge, there are no service contracts binding the members of the Board of Directors or the Executive Committee to the Company or any of its subsidiaries and providing for the granting of benefits under the terms of such a contract. The members of the Executive Committee, however, are all employees of the Company except for Mr Thierry Le Hénaff.

## 3.3 FUNCTIONING OF ADMINISTRATIVE AND MANAGEMENT BODIES

The duties and functioning rules of the Company's administrative and management bodies are laid down by the law and by the Company's Articles of Association as well as by the Board of Directors Internal Rules as first adopted by the Board on 31 May 2006 and amended on several occasions to take account of changes in the way the Company's administrative and management bodies operate as well as changes in terms of corporate governance, in particular the recommendations of the AFEP-MEDEF Code.

### 3.3.1 MANAGEMENT AND LIMITATION ON THE POWERS OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

The Chairman and Chief Executive Officer is invested with the most extensive powers to act in the Company's name in all circumstances. He exercises these powers within the limits of the Company's corporate purpose and subject to those powers expressly vested by law in the general meetings and the Board of Directors. He represents the Company in its relationships with third parties.

The Board of Directors may set limits on the powers of the Chairman and Chief Executive Officer, but such limits are not enforceable against third parties.

In 2006, the Board of Directors introduced internally a right of preliminary review by the Board of Directors whereby the Chairman and Chief Executive Officer shall inform the Board of the most significant transactions or submit them to its prior approval.

Therefore the Board of Directors shall authorise beforehand:

- any industrial investment in excess of 80 million euros, with the annual investment budget also to be submitted to the Board of Directors for approval;
- any acquisition or divestment project with an enterprise value in excess of 130 million euros; and

• annual liquidations of investment exceeding the annual budget by over 10%.

In addition, the Board of Directors shall be informed after the event:

- of any industrial investment in excess of 30 million euros; and
- of any acquisition or divestment project with an enterprise value in excess of 50 million euros.

The general powers of the Chairman and Chief Executive Officer were confirmed by the Board of Directors meeting on 23 May 2012.

At its meeting on 24 January 2013, the Board of Directors also authorised the Chairman and Chief Executive Officer, with powers of sub-delegation, to issue in the name of the Company, deposits, commitments and guarantees up to a limit of 80 million euros, and to continue the deposits, commitments and guarantees previously made.

This authorisation was renewed under the same terms up to a limit of 90 million euros, at the Board of Directors meeting on 23 January 2014.

### 3.3.2 DUTIES AND FUNCTIONING OF THE BOARD OF DIRECTORS

#### 3.3.2.1 DUTIES

The Board of Directors is a collegiate body mandated by the shareholders within which decisions are taken collectively. It is accountable to all of the shareholders.

The Company's Board of Directors exercises the powers it is assigned by law in order to act in the Company's best interests in all circumstances. In this regard, it sets out the guidelines governing the Company's activity and oversees their application. Subject to those powers expressly conferred on the shareholders and within the limits of the Company's corporate purpose, the Board of Directors considers any issue involving the proper operation of the Company, and decides on issues concerning the Company.

To this end, it must in particular review strategic developments in the Group, appoint the executive directors responsible for managing the Company in line with the strategy, monitor the implementation of this strategy, take decisions regarding major transactions, monitor the quality of information supplied to CORPORATE GOVERNANCE Functioning of administrative and management bodies

shareholders and the markets, in particular through the financial statements, and ensure the quality of the Board of Directors' functioning.

The Board of Directors can decide to set up one or more expert committees. It lays down the composition and attributions of these committees, which will conduct their proceedings under the responsibility of the Board of Directors. In accordance with the Internal Rules of the Board of Directors and of its committees, some subjects are therefore submitted for prior review by the appropriate committee before being presented to the Board of Directors for approval.

#### 3.3.2.2 FUNCTIONING

The functioning of the Board of Directors is determined by current laws and regulations, by the Articles of Association and by its Internal Rules as adopted by the Board of Directors meeting on 12 May 2006 and amended on several occasions and for the last time on 23 January 2014, in particular to take account of the amendments to the AFEP-MEDEF Code made in June 2013.

In accordance with its Internal Rules, the Board of Directors meets at least four times a year and as often as the interests of the Company demand. Meetings of the Board are convened by its Chairman. The convening notice stipulates the venue of the meeting, and may be delivered by any means, even verbally, eight days before the date of the meeting, and without notice in urgent cases.

The Board of Directors meetings are chaired by the Chairman of the Board or, in his absence, by the oldest director in attendance.

The Board of Directors may legitimately deliberate even in the absence of a notice of meeting if all members are present or represented. In accordance with its Internal Rules, in all cases permitted by law and if specified in the notice of meeting, directors participating in the meeting by means of videoconferencing or other telecommunication method meeting the technical characteristics set by current laws and regulations, are deemed present for the purpose of quorum and majority requirements.

Decisions are taken by majority vote of the members present, deemed present or represented. In the case of a split vote, the Chairman has the casting vote.

In accordance with corporate governance best practice and recommendations of the AFEP-MEDEF Code in particular, the Company's Board of Directors Internal Rules also set out the rights and obligations of the directors and provide for the following in particular:

the directors must, before accepting the functions of Company's director, ensure that they are acquainted with the Company's Articles of Association, the Board of Directors' Internal Rules, and the legal and regulatory texts governing the functions of director of a *société anonyme* (public limited company) and in particular the rules relating to the definition of the powers of the Board of Directors, the plurality of terms, the agreements referred to under article L. 225-38 of the *Code de commerce* (French Commercial Code), the holding and use of privileged information, the declarations of trading in the Company's shares and the abstention periods during which members may not trade in the shares;

- the directors are mandated by all the shareholders and must act in all circumstances in the Company's best interest;
- the directors must apply the necessary time and attention to their duties. Consequently, the directors may not hold more than four other directorships in listed companies, including foreign companies, not affiliated with their group. Accordingly, the directors undertake to inform the Chairman of the Nominating, Compensation and Corporate Governance Committee of any new directorship or executive directorship that they might accept in a company outside the Group or their affiliated group, including their participation in the committees of these companies' boards; executive corporate officers may not hold more than two other directorships in listed companies outside the Group and must seek the opinion of the Board of Directors prior to accepting any new directorship in a listed company;
- the directors undertake to maintain their independence of analysis, judgment, decision-making and action under all circumstances, and, accordingly, in particular notify the Board of Directors of any situation involving a conflict of interest, whether direct or indirect, actual or potential, with the Company. They must refrain from taking part in any vote on any resolution of the Board where they find themselves in any such situation involving a conflict of interest; furthermore, the directors must confirm every year the absence of any situation of conflict of interest between them and the Company, in response to a request from the Company at the time of drafting the reference document, and at any time on request of the Chairman and Chief Executive Officer;
- the directors undertake to notify the Board of Directors of any agreement between them and the Company, entered into directly, indirectly or via an intermediary, prior to entering into such agreement. Furthermore, the directors undertake not to assume any duties in companies or business activities that are in competition with the Company without previously notifying the Board of Directors and the Chairman of the Nominating, Compensation and Corporate Governance Committee;
- the directors must be committed and, where possible, take part in all the meetings of the Company's Board of Directors and of the committees to which they have been appointed, as well as general meetings;
- prior to each Board of Directors meeting, a file is sent to each director in sufficient time before the meeting and in principle with the notice of meeting, unless an emergency arises justified by particular circumstances, providing information on items on the agenda to be discussed that require special analysis and prior consideration, whenever this can be accomplished without any breach of confidentiality. The directors may also request from the Chairman and Chief Executive Officer any additional information they may consider necessary to properly fulfil their duties, particularly in the light of the meeting's agenda;
- if they deem it necessary, the directors may also request, at the time of their appointment or during their term of office, additional training on the Group's specific features, businesses, and areas of activity. This training is organised by the Company, which supports the related costs;

- all documents provided for Board meetings and all information collected during or outside Board meetings are confidential, without exception, whether or not the information collected is presented as being confidential. In this regard, the directors must consider themselves bound by strict professional confidentiality beyond the simple duty of discretion provided for by the law. Furthermore, the Directors undertake not to express their individual views outside the boardroom on matters discussed during Board of Directors' meetings, or on the essence of the opinions expressed by individual directors; and
- as required by statute and regulations, the directors must refrain from trading in the Company's securities (including derivative financial instruments) insofar as, by virtue of their duties, they have access to privileged information. Furthermore, the directors must disclose any transactions they have entered into in respect of the Company's securities.

#### 3.3.2.3 ACTIVITY OF THE BOARD OF DIRECTORS

The Board of Directors met seven times in 2013 (as in 2012). The average attendance rate for all directors at these meetings was 92% (against 90% in 2012). The meetings on average lasted approximately three hours.

The agenda of the Board of Directors meetings included recurring annual topics, in particular (i) approval of corporate and consolidated financial statements and of the Company's financial communication, budget and preparation of annual general meeting, including agreement on the draft resolutions, (ii) approval of the strategy, on a proposal by the Strategy Committee, (iii) approval of the Chairman of the Board of Directors' report on the composition of the Board of Directors and the application of the principle of balanced gender representation, on conditions of preparation and organisation of the work of the Board of Directors as well as the internal control procedures put in place by the Company, and generally questions of governance, (iv) the setting of compensation conditions for the Chairman and Chief Executive Officer, the Executive Committee members, as well as the setting and allocation of attendance fees between Board members and Committee members, (v) a review of reports on the work of the expert committees, and (vi) an annual assessment of the Board of Directors.

In 2013, the Board of Directors also reviewed the following topics:

- the renewal of the terms of office of Mrs Bernard Kasriel, Thierry Morin, Marc Pandraud and Philippe Vassor as directors, and the renewal (i) as members and chairmen of the Audit and Accounts Committee, for Philippe Vassor, and of the Nominating, Compensation and Corporate Governance Committee for Thierry Morin, and (ii) as member of the latter committee, for Bernard Kasriel;
- the 2013 performance share allocation plan;
- the situation of the sites from an environmental and safety standpoint;

- the Group's insurance programme for 2014;
- the report on the 2013 road shows;
- the bond issue;
- the introduction of a Euro Medium Term Notes (EMTN) programme; and
- the various strategic, investment or divestment projects (such as Kem One and Jurong Chemical in particular).

Additionally, at each meeting the Chairman reviewed the operations concluded since the previous meeting, and sought the authorisation of the Board of Directors on the main projects underway likely to be concluded before the next Board of Directors meeting. The Board of Directors was also informed at least once a quarter of the Company's financial situation, cash position, and commitments and liabilities.

Since the beginning of 2014, the Board of Directors has met three times, with an attendance rate of 97%.

During these meetings, the Board focused in particular on (i) the closing of the corporate and consolidated annual accounts for the year ended 31 December 2013 and all related documents: management report, the Chairman of the Board of Directors' report pursuant to article L. 225-37 of the French Commercial Code (Code de commerce), and generally the 2013 reference document, as well as the preparation of the shareholders general meeting, and in particular the drafting of the resolutions submitted to the shareholders meeting, including the proposed allocation of the profit and the distribution of a dividend, (ii) an assessment of the independence of directors, a review of the terms of office of the Company's Chairman and Chief Executive Officer including the fixing of his powers in terms of deposits, advance payments and guarantees for 2014, and an assessment of the functioning of the Board of Directors in 2013, (iii) the setting of the amount and principles of allocation of attendance fees for 2014, the renewal of the terms of office as directors due to expire, and the appointment as a director of the Fonds Stratégique de Participations (FSP), and subject to its appointment by the annual general meeting of 15 May 2014, its appointment as a member of the Audit an Accounts Committee as well as the choice of the permanent representative of the FSP at the Board of Directors as well as at the Audit and Accounts Committee in the person of Mrs Isabelle Boccon-Gibod, (iv) the project for a share capital increase reserved for employees, (v) the compensation elements for the Chairman and Chief Executive Officer (2014 fixed part, variable part due for 2013 and variable part criteria for 2014), and for the Executive Committee members (2014 fixed part, variable part due for 2013, and variable part criteria for 2014), as well as the principles for the performance share plans for 2014, (vi) ARKEMA's governance and, in this regard, the amendment of the Internal Rules of the Company's Board of Directors, and (vii) the annual reports of the Audit and Accounts Committee, the Nominating, Compensation and Corporate Governance Committee, and the Strategy Committee.

Functioning of administrative and management bodies

#### 3.3.2.4 ASSESSMENT OF THE FUNCTIONING OF THE BOARD OF DIRECTORS

In accordance with the AFEP-MEDEF Code and its Internal Rules, the Board of Directors conducts an annual self-assessment of its operation, while every three years a formal assessment is conducted by an external consultancy. The form and terms of the Board's assessment are debated by the Nominating, Compensation and Corporate Governance Committee every year.

For 2011, the functioning of the Board of Directors was assessed by an external consultancy at the beginning of 2012, who produced a report, the summary of which was presented to the Board of Directors. This assessment showed that generally speaking the functioning of the Board of Directors has continued to improve since 2009 and that its performance and compliance with corporate governance rules were considered to be satisfactory, if not very satisfactory. The areas for improvement identified in the external consultancy's report and agreed by the Board of Directors were:

- the introduction of a human resources review once a year, and the ongoing improvement of the succession plan;
- the consolidation of the environmental review;

- more comprehensive feedback from annual and half-yearly road shows; and
- ongoing communication on economic parameters impacting the Company's results.

The self-assessment of the Board of Directors for 2013 was debated by the Board at its 23 January 2014 and 3 March 2014 meetings respectively, as follows: (i) submission to the directors of a questionnaire prepared by the Nominating, Compensation and Corporate Governance Committee and approved by the Board of Directors, followed by (ii) analysis and report by the said Committee to the Board of Directors of the directors' replies. This assessment showed that the directors were very satisfied overall with the functioning of the Board in 2013 and in particular with the effective contribution of each director as well as the quality of the information provided. The members of the Board of Directors are also very satisfied with the consideration given to the areas for improvement agreed following the assessment carried out by the external consultant at the beginning of 2012.

### 3.3.3 BOARD OF DIRECTORS' COMMITTEES

The Board of Directors has set up three permanent expert committees which as at the date of this reference document comprise independent members only: an Audit and Accounts Committee, a Nominating, Compensation and Corporate Governance Committee, and a Strategy Committee.

The role, organisation and functioning of each committee are set out in their respective Internal Rules, as established and approved by the Board of Directors. Accordingly, the Internal Rules of each committee state as follows:

- the term of office of committee members shall coincide with their term of office as directors, but the Board of Directors may modify the composition of the committees at any time;
- the proceedings of each committee will be valid only if at least two members are present;
- no committee member may be represented by another person; and
- each committee reports on its work to the Board of Directors and presents an annual assessment of its functioning drawn up on the basis of the requirements of its internal regulations, as well as any suggestion for improving its functioning.

Committee members may receive from the Company only those attendance fees due with respect to their term of office as directors and members of a committee.

The role of the committees is to examine and prepare certain matters to be discussed by the Board of Directors; accordingly, the committees put forward their opinions, proposals and recommendations to the Board.

#### 3.3.3.1 THE AUDIT AND ACCOUNTS COMMITTEE

#### Composition and functioning

As at the date of this reference document, the Audit and Accounts Committee consists of three directors: Philippe Vassor (chairman), Claire Pedini, and Jean-Pierre Seeuws, in accordance with the provisions of article L. 823-19 of the French Commercial Code (Code de commerce).

In accordance with the AFEP-MEDEF Code, no member of the Audit and Accounts Committee holds a management position in the Company, and every member of the Committee has been qualified as independent by the Board of Directors. Furthermore, the appointment or reappointment of the chairman of the Audit and Accounts Committee proposed by the Nominating, Compensation and Corporate Governance Committee is subject to particular scrutiny by the Board of Directors.

In accordance with article L. 823-19 of the French Commercial Code (*Code de commerce*), it should be noted that Philippe Vassor, chairman of the Audit and Accounts Committee, has particular expertise in financial and accounting matters, as he has spent most of his career (from 1975 to 2005) with the Deloitte consultancy of which he was Chairman and Chief Executive Officer in France. Furthermore, in accordance with the AFEP-MEDEF Code, the members of the Audit and Accounts Committee all have financial or accounting expertise (see biographies of the members under paragraphs 3.2.1.2 and 6.3 of this reference document).

Functioning of administrative and management bodies

The members of the Audit and Accounts Committee have also all benefited from a presentation of the Group's accounting, financial and operational specifics.

The Audit and Accounts Committee meets several times a year, in particular to review the periodic consolidated financial statements. It meets at the request of its Chairman, two of its members or the Chairman of the Company's Board of Directors. The timetable of Audit and Accounts Committee meetings is set by its chairman. Furthermore, the chairman of the Audit and Accounts Committee has appointed the Chief Financial Officer as secretary to the said committee.

The statutory auditors are invited to attend every Audit and Accounts Committee meeting. The Audit and Accounts Committee hears their conclusions after the meeting outside the presence of representatives of the Company.

The Chairman and Chief Executive Officer does not take part in the meetings of the Audit and Accounts Committee.

Unless there is a reasoned decision to the contrary by the Board of Directors, no Audit and Accounts Committee member shall hold more than two other offices as a member of the audit and accounts committee of a listed company in France or abroad. The Board of Directors also ensures that it does not appoint to the Audit and Accounts Committee a director from a company on whose audit and accounts committee one of the Company's directors also holds a seat.

#### **Duties**

In order to enable the Company's Board of Directors to ensure the quality of internal control and the reliability of information provided to shareholders and to the financial markets, the Audit and Accounts Committee exercises the prerogatives of expert committees provided for under article L. 823-19 of the French Commercial Code (*Code de commerce*), and in the AMF working group's final report on the audit committee dated 22 July 2010. Accordingly, the Audit and Accounts Committee is responsible for monitoring (i) the financial information preparation procedure, (ii) the effectiveness of the internal control and risk management systems, (iii) the statutory auditing of the annual corporate and consolidated financial statements by the statutory auditors, and (iv) the independence of the statutory auditors. Accordingly, and in accordance with its internal regulations, it performs the following duties in particular:

- it submits recommendations on the appointment of the statutory auditors and their remuneration, in compliance with independence requirements;
- it ensures compliance with all applicable laws and regulations when statutory auditors are commissioned to perform work other than auditing the accounts;
- it reviews the options and assumptions used in preparing financial statements, reviews annual consolidated accounts, half-yearly and quarterly financial information and the full year financial statements and forecasts of the Company prior to their consideration by the Board of Directors, and assesses the accounting content of press releases prior to their issue;
- it oversees the statutory auditing of the annual corporate and consolidated accounts by the statutory auditors, and the financial information preparation procedure;

- it assesses the suitability and consistency from year to year of accounting principles and policies;
- it reviews internal control procedures;
- it reviews the work programs of external and internal auditors;
- it reviews audit work;
- it assesses the organisation of delegations of commitment authority;
- it oversees the effectiveness of internal control and risk management systems;
- it reviews the conditions for using derivatives;
- it considers upon request by the Board of Directors, as the case may be, major transactions planned by the Group;
- it remains regularly updated on developments in significant claims and disputes;
- it reviews the main off balance sheet undertakings, particularly the most significant new undertakings; and
- it prepares and submits reports as provided by the Internal Rules of the Board of Directors, and presents to the Board in draft form that portion of the annual report and, more generally, any documents required by the applicable regulations, falling within its remit.

#### Activity of the Audit and Accounts Committee

The Audit and Accounts Committee met five times in 2013 with an attendance rate for its members of 100%.

The Chief Financial Officer (appointed as secretary to the Committee), the head of the accounting department and the statutory auditors attended every meeting.

The work of the Audit and Accounts Committee in 2013 focused mainly on (i) a review of the 2012 financial statements (consolidated and corporate, and review of the provisions at 31 December 2012), and the related 2012 draft management report, the 2012 draft reference document, the 2013 guarterly accounts, the half-yearly accounts at 30 June 2013, and the draft half-yearly financial report at 30 June 2013, a review of the draft press releases relating to the quarterly, half-yearly and annual results, as well as a review of the Company's forecast management documents, (ii) the approval of the statutory auditors' fees for 2013 as well as the renewal of the terms of office of the joint statutory auditor and alternate auditor, (iii) a review of internal control procedures and the Internal and External Audit work schedule, and a review of the Group's risks and consequently of the mapping of risks, (iv) closing options and (v) the Group's tax situation.

Since the beginning of 2014, the Audit and Accounts Committee met once with a 100% attendance rate. The meeting focused in particular on the review of the 2013 consolidated financial statements and of the provisions at 31 December 2013, the 2013 draft management report, including social, environmental and societal information as required under article L. 225-102-1 of the French Commercial Code (*Code de commerce*), and the draft of the part of the Chairman of the Board of Directors' report concerning internal control and risk management in 2013, the draft press release relating to the 2013 results, and the activity report of the Committee to the Board of Directors.

Functioning of administrative and management bodies

In accordance with the AFEP-MEDEF Code and its internal regulations, the Audit and Accounts Committee conducts an annual self-assessment of its work. The assessment for 2013 shows that the Committee members were satisfied with the functioning of the Committee.

#### 3.3.3.2 THE NOMINATING, COMPENSATION AND CORPORATE GOVERNANCE COMMITTEE

#### **Composition and functioning**

The Nominating, Compensation and Corporate Governance Committee comprises four directors: Thierry Morin (chairman), François Énaud, Bernard Kasriel, and Victoire de Margerie. In accordance with the AFEP-MEDEF Code, no member of this Committee holds a management position in the Company, and every member of the Committee has been qualified as independent by the Board of Directors.

The Nominating, Compensation and Corporate Governance Committee meets several times a year. It meets at the request of its chairman, two of its members, or the Chairman of the Company's Board of Directors. The timetable of the Nominating, Compensation and Corporate Governance Committee meetings is set by its chairman. Furthermore, the chairman of the Nominating, Compensation and Corporate Governance Committee nominated the Group's Vice President Human Resources and Communication as secretary to the said committee.

#### **Duties**

In accordance with its Internal Rules, as amended by the Board of Directors meeting on 27 February 2013, the Nominating, Compensation and Corporate Governance Committee is responsible for (i) recommending to the Board of Directors the persons who should be appointed director or executive corporate officer, (ii) examining the current procedure and practices in place regarding the succession plans for members of the Executive Committee, and the progress of the Group's senior managers within the management bodies, examining the compensation policies for managers implemented in the Group, and proposing the compensation of corporate officers to the Board of Directors, and (iii) recommending to the Board of Directors the corporate governance principles to be implemented in the Group.

Accordingly, its duties include, regarding:

(i) nominations:

- it submits to the Board of Directors recommendations on the composition of the Board of Directors and its committees,
- it reviews annually the current procedure and practices in terms of succession plan for Executive Committee members, and of the progress of the Group's senior managers within the management bodies, and issues recommendations in this regard,
- every year, it submits to the Board of Directors a list of directors who can be considered as independent directors of the

Company, in accordance with the provisions of article 2.1 of the Internal Rules of the Company's Board of Directors,

- it assists the Board of Directors in appointing and evaluating the corporate officers, the directors, and the directors serving as committee members on the committees set up by the Board of Directors, and
- it prepares and submits an annual report on the committee's operation and work;

#### (ii) compensations:

- it reviews the compensation of the Company's executive officers, whether they are corporate officers or not, as well as the main objectives proposed by the senior management in this regard including stock option and performance share plans, pension schemes, contingency funds and benefits in kind,
- it submits to the Board of Directors policy recommendations and proposals in the areas of compensation, pension schemes and contingency funds, benefits in kind, and allocation of options to subscribe or purchase shares (stock options) or receive performance shares, especially allocation to corporate officers,
- it reviews the procedures for allocating attendance fees among Board of Directors members and the conditions for reimbursing any expenses incurred by the directors, and
- it prepares and submits reports as provided for by the Internal Rules, and presents to the Board of Directors that part of the annual report in draft form, and, more generally, any documents required by the applicable regulations and falling within its remit, in particular information on the compensation of corporate officers, stock options and performance shares;

#### (iii) corporate governance:

- it analyses and oversees corporate governance principles,
- it recommends corporate governance best practice,
- it prepares the annual assessment of the Board of Directors' work,
- it examines cases arising from conflicts of interest, as the case may be,
- it discusses corporate governance and ethical issues referred by the Board of Directors or its Chairman for examination, and
- it examines the Code of Conduct and Business Ethics and proposes modifications as the case may be.

#### Activity of the Nominating, Compensation and Corporate Governance Committee

In 2013, the Nominating, Compensation and Corporate Governance Committee met three times, with a 100% attendance rate for Committee members. The Group's Human Resources and Communication Executive Vice-President (appointed secretary to the Committee) attended every meeting.

The work of the Nominating, Compensation and Corporate Governance Committee mainly focused on the compensation of the Chairman and Chief Executive Officer and the Executive Committee members as well as executive officers, the annual assessment of the Board of Directors and the Committee, the examination of profiles (appointment and reappointment) for the post of director and for members of the committees, the evolution of long-term incentive programmes, changes to its Internal Rules, the choice of the Company's corporate governance regime, the implementation of performance share allocation plans, and the succession plan for Executive Committee members.

Since the beginning of 2014, the Nominating, Compensation and Corporate Governance Committee has met twice, with a 100% attendance rate. These meetings concerned in particular a review of the recommendations of the AFEP-MEDEF Code revised in June 2013, of the AMF 2013 report on corporate governance and executive compensation and the 2013 annual report on the AFEP-MEDEF Code, and hence a proposal to amend the Board of Directors Internal Rules, the annual assessment of the Board of Directors in 2013 and the Committee's annual assessment, a review of the independence status of directors, a review of the Chairman of the Board of Directors' report pursuant to article L.225-37 of the French Commercial Code (Code de commerce) for the part relating to corporate governance, a proposal for setting the amounts and the terms for allocating the attendance fees for 2014, a review of the proposal for renewal of the directors' terms of office of Mrs Claire Pedini and Mr Patrice Bréant, director representing shareholder employees, and a proposal for the appointment of the Fonds Stratégique de Participations as director, whose permanent representative would be Mrs Isabelle Boccon-Gibod, as well as the appointment of Mrs Hélène Vaudroz, candidate as well to be director representing shareholder employees, the proposal for the compensation of Executive Committee members (variable part due for 2013, fixed part for 2014, and criteria for 2014 variable part), and the proposal for the compensation of the Chairman and Chief Executive Officer (variable part for 2013, fixed compensation for 2014, and criteria for 2014 variable part) and the submission to the shareholders' opinion of the elements of compensation of M. Thierry Le Hénaff.

#### 3.3.3.3 THE STRATEGY COMMITTEE

#### **Composition and functioning**

Given the importance for members of the Company's Board of Directors to be well acquainted with ARKEMA's strategy, the Strategy Committee comprises every member of the Board of Directors qualified as independent, namely 9 members, as at the date of this reference document, including Jean-Pierre Seeuws as chairman.

The Strategy Committee meets as it sees fit, at least once for an annual meeting. At this meeting the Executive Committee presents the Group's strategy, and answers questions raised by the Committee members enabling the Committee to valid the main strategic orientations of the Group.

#### **Duties**

The duties of the Strategy Committee include the following:

(i) examine the Group's main strategic guidelines, including:

- the main strategic options or projects proposed by the Management,
- opportunities for external growth or divestment, and
- strategic financial operations and stock transactions;
- (ii) prepare and present to the Board of Directors an annual report on the operation and activities of the Strategy Committee.

#### Activity of the strategy committee

The Strategy Committee met once in 2013, with a 100% attendance rate for Committee members.

The work of the Strategy Committee during such meeting focused primarily on the analysis of the Group's strategy as well as the examination of operational projects.



## 3.4 COMPENSATION AND BENEFITS IN ALL KIND AWARDED TO EXECUTIVE AND CORPORATE OFFICERS

The principles and rules for determining the compensation and benefits in all kind awarded to the corporate officers and executives, corporate officers or otherwise, of the Company are laid down by the Company's Board of Directors based on recommendations by the Nominating, Compensation and Corporate Governance Committee comprising independent directors only. The following information is given pursuant to the AFEP-MEDEF Code, the AMF recommendation on the compensation of corporate officers dated 22 December 2008, recalled in the AMF recommendation n° 2012-02 on corporate governance and executive compensation dated 9 February 2012 and revised on 4 December 2013, and the AMF recommendation n° 2013-15 (2013 AMF Report on corporate governance and executive compensation for listed companies dated 10 October 2013).

### 3.4.1 COMPENSATION OF NON-EXECUTIVE CORPORATE OFFICERS

In accordance with a decision by the annual general meeting of 1<sup>st</sup> June 2010, the maximum annual amount of attendance fees which the Board of Directors can allocate between the members of the Board of Directors and of the expert committees is set, as at the date of this reference document, at 470,000 euros.

On a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting of 23 January 2014 established and allocated the total amount of attendance fees allocated to the directors for 2013 which stood at 391,500 euros (against 374,500 euros for 2012), as follows:

Compensation and benefits in all kind awarded to executive and corporate officers

## TABLE OF DIRECTORS' FEES AND OTHER COMPENSATION RECEIVED BY CORPORATE NON-EXECUTIVE OFFICERS (TABLE 3 AMF NOMENCLATURE)

(In euros)	Amounts paid for 2013	Amounts paid for 2012
Mr Patrice Bréant, Director representing shareholder employees Attendance fees	Nil*	Nil
Mr François Énaud, Director Attendance fees	41,000	39,000
Mr Bernard Kasriel, Director Attendance fees	41,000	44,000
Mrs Victoire de Margerie, Director ** Attendance fees	41,000	6,750
Mr Laurent Mignon, Director Attendance fees	29,000	35,000
Mr Thierry Morin, Director Attendance fees	48,500	48,500
Mr Marc Pandraud, Director Attendance fees	38,000***	38,000***
Mrs Claire Pedini, Director Attendance fees	48,000	48,000
Mr Jean-Pierre Seeuws, Director Attendance fees	49,500	49,500
Mr Philippe Vassor, Director Attendance fees	55,500	52,500
Mrs Isabelle Kocher, Director, resigned from office on 11 July 2012 Attendance fees	-	13,500
TOTAL	391,500	374,500

Except for Patrice Bréant, director representing shareholder employees for whom information is given above, members of the Board of Directors (non-executive corporate officers) received no other compensation and no other benefits in 2013 from the Company. Nor were they awarded any stock options or performance shares. Furthermore, no compensation other than that mentioned above and paid by the Company was paid to directors of the Company by other Group companies in 2013.

\* Mr Patrice Bréant is on the payroll of Arkema France as an Expert Engineer in Experimental Methodology and Statistical Process Control, and, as such, does not receive any attendance fees. His total compensation for 2013 was €96,239.

\*\* Mrs Victoire de Margerie has been a Director since 7 November 2012.

\*\*\* At Marc Pandraud's request, his attendance fees have been paid by the Company to a charity.

Insofar as the amounts of fixed and variable parts of the attendance fees have not been re-evaluated since 2006, the Board of Directors' meeting on the same day, on a proposal by the Nominating, Compensation and Corporate Governance Committee and after establishing a benchmark on the attendance fees paid to directors of similar companies has decided to revise the amount of attendance fees from 2014 as follows:

- an annual fixed part of 20,000 euros per director (against 15,000 euros previously) paid prorata temporis in the event of a change in the course of the year;
- a variable part taking account of the director's attendance at Board meetings, as follows:
  - 3,000 euros per director present at a Board of Directors meeting (with no change) and except for "unscheduled" meetings held by conference call and of a shorter duration for which the variable part is set, from 2014, at 1,500 euros per director present,

 2,000 euros per member present at a meeting of one of the expert committees, except for the chairman's variable part which is 4,000 euros (against 3,500 euros previously).

It should be noted that on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 24 January 2013 also agreed the principle whereby those directors who so wish may be awarded their attendance fees in the course of the year, at the end of each quarter, as follows:

- payment of the annual fixed part *prorata temporis*, *i.e.* 25% of the fixed part per quarter;
- payment of the variable part taking account of the director's attendance at Board meetings and expert committee meetings, based on the number of such meetings, held during the quarter.

Compensation and benefits in all kind awarded to executive and corporate officers

Consequently, in order to take account of the new amounts above, and retain the option of holding additional Board meetings and expert committee meetings, the Board of Directors has decided to propose to the annual general meeting called on 15 May 2014 to approve the financial statements for the year ending 31 December 2013, to raise the maximum annual amount of attendance fees from 470,000 euros to 550,000 euros. Further detail on this proposal may be found in section 6.2 of this reference document.

## 3.4.2 COMPENSATION OF MEMBERS OF THE EXECUTIVE COMMITTEE (1)

#### 3.4.2.1 COMPENSATION PRINCIPLES

The Nominating, Compensation and Corporate Governance Committee every year examines the (fixed and variable) compensation structure proposed by the Chairman and Chief Executive Officer for Executive Committee members. This compensation comprises:

- (i) an annual fixed part determined on the basis of the scope of the respective functions and responsibilities held by each Executive Committee member;
- (ii) an annual variable part determined on the basis of general quantitative targets, identical to those set for the Chairman and Chief Executive Officer which are very much aligned with the Group's economic performance and the implementation of its strategy. These quantitative targets related to the Group's economic performance are complemented by quantitative and qualitative targets designed to appraise the individual performance of each Executive Committee member within their remit; and
- (iii) the award of performance shares, subject in full to performance conditions.

In the past, Executive Committee members also benefited from stock options (see section 3.5 and note 27 of the notes to the consolidated financial statements featured in paragraph 4.3.3 of this reference document).

It should be noted that since 2010 Executive Committee members have been required, for the duration of their term of office, to retain at least 20% of the shares they were awarded definitively, and a number of shares from the exercising of stock options corresponding to at least 40% of the net capital gain on acquisition. These obligations are suspended once the number of ARKEMA shares held, whatever their origin, represents a total amount equivalent to 150% of their gross annual fixed compensation. It should be noted that the Chairman and Chief Executive Officer is subject to specific holding requirements (see paragraph 3.4.3.3 of this reference document).

The structure of compensation of Executive Committee members is regularly compared to the market practices of comparable companies in terms of sector of activity and market capitalisation.

Executive Committee members receive no attendance fees with regard to the directorships they hold with Group companies.

#### 3.4.2.2 ANNUAL COMPENSATION OF EXECUTIVE COMMITTEE MEMBERS (1)

The total gross fixed compensation awarded for 2013 to members of the Executive Committee by the Company amounted to 1,726,000 euros.

Furthermore, the total variable compensation paid in 2013 for 2012 to the members of the Executive Committee by the Company was 1,199,450 euros.

On the basis of the targets approved by the Board of Directors meeting of 27 February 2013: (i) general quantitative targets, identical to those applying to the Chairman and Chief Executive Officer and relating mainly to growth in EBITDA, recurring cash flow, and margin on variable costs of new developments, and (ii) quantitative and qualitative targets specific to each member, the Board of Directors meeting on 3 March 2014, on a proposal by the Nominating, Compensation and Corporate Governance Committee, approved the amount of the variable part allocated for 2013 to the Executive Committee members, for which the maximum amount set by the Board of Directors could represent up to 85% of the fixed part for each member. The overall amount of the annual variable part for the Executive Committee members (1) for 2013 stood at 1,067,180 euros.

Furthermore, on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting of 3 March 2014 set the compensation components for Executive Committee members for 2014 as follows:

- the overall amount of gross fixed compensation will be 1,760,520 euros, in line with the variation of the Group's overall compensation for 2014;
- the variable part will be determined on the basis of criteria that will continue to be based for the general quantitative criteria related to the Group's economic performance, on the achievement of EBITDA, recurring cash flow, and margin on variable costs of new developments targets, as well as on quantitative and qualitative criteria specific to each member. The maximum amount of the variable part may represent up to 85% of the fixed part for each member.

<sup>(1)</sup> Excluding the Chairman and Chief Executive Officer.

Compensation and benefits in all kind awarded to executive and corporate officers

As a consequence, compensation due and paid to Executive Committee members, excluding the Chairman and Chief Executive Officer, for 2013 and 2012 was as follows:

		2013 (Gross amounts €)		2012* (Gross amounts €)	
	Due for the year	Paid in the year	Due for the year	Paid in the year	
Fixed compensation	1,726,000	1,726,000	1,957,000	1,957,000	
Variable compensation	1,067,180	1,199,450	1,199,450	1,250,892	
TOTAL	2,793,180	2,925,450	3,156,450	3,207,892	

\* 7 members from 1<sup>st</sup> January to 30 June 2012 and 6 members from 1<sup>st</sup> July 2012.

## 3.4.2.3 SOCIAL SECURITY AND PENSION SCHEMES

Executive Committee members benefit from the same social security schemes (life assurance, disability, work incapacity, and reimbursement of healthcare costs) as employees of Arkema France. They also benefit from a defined contribution pension scheme whereby contributions are based on the part of their compensation exceeding by eight times the annual social security threshold, a part for which there is no mandatory legal scheme. There is also a defined benefit supplementary pension scheme, applicable to certain executives of the Group who benefited from a similar scheme prior to the Company's spinoff and stock market listing, the characteristics of which are given in paragraph 3.4.3.4 of this reference document.

### 3.4.3 COMPENSATION OF THE EXECUTIVE DIRECTORS

The Chairman and Chief Executive Officer is the Company's sole executive director.

#### 3.4.3.1 COMPENSATION PRINCIPLES

The compensation policy for the Chairman and Chief Executive Officer is defined, reviewed and debated every year by the Company's Board of Directors, on a proposal by the Nominating, Compensation and Corporate Governance Committee, comprising independent members only, in accordance with the recommendations of the AFEP-MEDEF Code in this regard. The Chairman and Chief Executive Officer is not present when this Committee or the Board of Directors meet to review his compensation.

Every year the Board of Directors carries out a global and exhaustive assessment of the components of the Chairman and Chief Executive Officer's compensation package to ensure that it is simple, clear, balanced and coherent. Accordingly, the Board of Directors ensures in particular that this compensation policy is aligned with the Group's strategic priorities over the medium and long term and is adapted both to the Group's economic performances and to the Chief Executive Officer's individual performances and responsibilities. The compensation policy for the Chairman and Chief Executive Officer is designed to provide encouragement and secure loyalty, in accordance with the practices of the market for equivalent functions in similar chemical companies and in French companies with similar market capitalisation. It is also consistent with the policy applicable to the Group's senior executives.

On the basis of the above, the structure of the Chairman and Chief Executive Officer's annual compensation comprises:

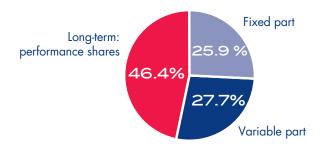
- a fixed part,
- an annual variable part, and
- the award of performance shares entirely subject to the fulfilment of performance conditions.

Additionally, the Chairman and Chief Executive Officer, in this very capacity, has the use of a company car and benefits from director unemployment insurance.

In accordance with the recommendations of the AFEP-MEDEF Code, the Chairman and Chief Executive Officer is not bound to any Group company by an employment contract.

He receives no attendance fees from the Company and does not benefit from any compensation resulting from a non-compete agreement. CORPORATE GOVERNANCE Compensation and benefits in all kind awarded to executive and corporate officers

By way of illustration, and based on the valuation of the performance shares awarded in November 2013, the structure of the Chairman and Chief Executive Officer's compensation for 2013 was as follows:



#### SUMMARY OF COMPENSATION, STOCK OPTIONS AND SHARES AWARDED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (TABLES 1 AND 2 OF AMF NOMENCLATURE)

	2013 (Gross amour	nts in €)	2012 (Gross amounts in €)		
	Due for the year	Paid during the year	Due for the year	Paid during the year	
Fixed compensation	750,000	750,000	750,000*	695,057	
Variable compensation**	800,250	1,042,726	1,042,726	915,000	
Exceptional compensation	Nil	Nil	Nil	Nil	
Attendance fees	Nil	Nil	Nil	Nil	
TOTAL	1,550,250	1,792,726	1,792,726	1,610,057	
Benefits in kind – Car	6,720	6,720	6,720	6,720	
Director unemployment insurance	17,001	17,001	17,001	17,001	
Valuation as per method used for consolidated accounts for stock option allocated during the year (detailed in note 27.1 of the notes to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document)		N/A		N/A	
Valuation as per method used for consolidated accounts for performance share allocated during the year (detailed in note 27.2 of the notes to the consolidated financial statements at 31 December 2013 in					
paragraph 4.3.3 of this reference document)		1,342,000		1,175,850	

\* Annual fixed basis from 23 May 2012.

\*\* Variable compensation is paid in the year following the period for which it has been calculated. The criteria defined in paragraph 3.4.3.2 were applied to the exclusion of all other criteria entailing the fulfilment of objectives.

#### 3.4.3.2 ANNUAL COMPENSATION OF THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

In accordance with the compensation policy described in the paragraph 3.4.3.1 above, the annual compensation of Mr Thierry Le Hénaff, Chairman and Chief Executive Officer, consists of:

1. an annual fixed compensation, reviewed, in accordance with the AFEP-MEDEF Code, upon every renewal of his term of office as Chairman and Chief Executive Officer, and based in particular on a market analysis of similar companies; this fixed compensation was last amended on 23 May 2012 so that it may be aligned with the compensation of managers of similar industrial companies in particular in terms of profile, size, market cap and profitability. The amount of the annual fixed part was set at 750,000 euros effective 23 May 2012 and was renewed by the Board of Directors meeting on 27 February 2013, for 2013, as well as by the Board of Directors meeting of 3 March 2014, for 2014. The level of annual fixed compensation of Mr Thierry Le Hénaff is below the average of the annual fixed compensations received by his peers.

**2. an annual variable compensation**, determined on the basis of the fulfilment of specific and demanding quantitative and qualitative targets, aligned with the Group's strategy; these targets are reviewed annually by the Board of Directors, on a proposal by the Nominating, Compensation and Corporate Governance Committee. Compensation and benefits in all kind awarded to executive and corporate officers

For 2013, the Board of Directors meeting on 27 February 2013 decided that the annual variable part determined on the basis of quantitative and qualitative criteria adopted by the Board of Directors, on a proposal by the Nominating, Compensation and Corporate Governance Committee, could represent up to 150% of his annual fixed compensation.

The criteria that were adopted for this purpose were as follows:

- three quantitative targets for a maximum weight of 110% of the annual fixed compensation (representing 73% of the criteria used to determine the variable compensation):
  - the EBITDA level, for a maximum weight of 55% of the annual fixed compensation, which enables to align the compensation of the Chairman and Chief Executive Officer with the annual financial performance of the Group and to reward the actions achieved by the Group, its capacity to adapt to market conditions and the good day-to-day management of the Group by the Chairman and Chief Executive Officer;
  - the recurring cash flow, for a maximum weight of 27.5% of the annual fixed compensation, which rewards the ability of the Group to generate the cash necessary to finance ARKEMA's strategic ambitions and in particular its capex plans, acquisition program and dividend policy while maintaining a solid balance sheet; and
  - the margin on variable costs of new developments for a maximum weight of 27.5% of the annual fixed compensation, which promotes innovation and the development of new customers, the launch of new applications as well as the completion of major investment projects in line with the Group's focused growth strategy.
- qualitative targets, specifically defined every year, through around fifteen items, for a maximum weight of 40% of the annual fixed compensation (representing 27% of the criteria used to determine the variable compensation), which are mainly linked to (i) the implementation of the Group's long-term strategy by the Chairman and Chief Executive Officer, and in particular the Group's profile evolution with the strengthening of a balanced geographical presence, the management of acquisitions, the development of innovation platforms and secured access to strategic raw materials, (ii) the day-to-day management of the company with quantified operational criteria (safety, fixed costs, working capital, capex and balance sheet structure) and (iii) the implementation of major industrial projects for the Group.

It should be noted that for reasons of confidentiality, in particular with regard to competitors, the value of the targets to be achieved, which was established in detail, may not be disclosed.

Given the criteria adopted as above and the actual achievements noted at 31 December 2013, the Board of Directors meeting on 3 March 2014, on a proposal by the Nominating, Compensation and Corporate Governance Committee, set the amount of the variable part for 2013 as follows:

• in respect of the three quantitative criteria linked to the financial performance of the Group (EBITDA, recurring cash

flow, and margin on variable costs of new developments), the 2013 results are below the objectives set for each of the criterion. As a result, the variable compensation allocated according to the quantitative criteria amounts to 69.4% of the annual fixed compensation; and

 in respect of the qualitative criteria which are mainly linked to the implementation of the Group strategy, the performance was assessed as being very good with, in particular, the completion or the progress of several significant industrial projects (construction of the thiochemical platform in Malaysia, finalization of the investment program of Lacq in order to secure sulfur raw material access for the next 30 years, the acrylic investment program in North America), the project of an acrylic joint-venture with Jurong Chemical in China, the strict management of fixed costs and working capital and the improvement of safety results. As a result, the variable compensation allocated according to the qualitative criteria amounts to 37.3% of the annual fixed compensation.

In total, the 2013 variable compensation as fixed by the Board of Directors amounts to 800,250 euros, 23% less than the 2012 variable compensation. It represents 106.7% of the 2013 annual fixed compensation, representing a global achievement rate of 71% (63% in respect of the quantitative criteria and 93% in respect of the qualitative criteria).

On a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 3 March 2014 may reach as for 2013 a maximum of 150% of the annual fixed compensation and will remain determined on the basis of quantitative targets, identical to those of the previous years, linked to the financial performance of the Arkema Group: EBITDA, recurring cash flow and margin on variable costs of new developments, with unchanged weighting of each criterion. To these quantitative criteria, qualitative criteria relating again to the three components identified for 2013 will be added: the implementation of the Group's long-term strategy by the Chairman and Chief Executive Officer, the day-to-day management of the company with quantified operational criteria (safety, fixed costs, working capital, capex and balance sheet structure) and the implementation of major industrial projects for the Group.

#### 3.4.3.3 ALLOCATION OF STOCK OPTIONS AND PERFORMANCE SHARES

The award of stock options and performance shares to the Chairman and Chief Executive Officer is given special attention by the Nominating, Compensation and Corporate Governance Committee, and is the focus of specific deliberation by the Board of Directors every year.

Like a number of Group employees, the Chairman and Chief Executive Officer benefits from stock options and/or performance shares in respect of the stock option and free share allocation plans put in place by the Board of Directors under the terms described in section 3.5 and in note 27 of the notes to the consolidated financial statements at 31 December 2013 in paragraph 4.3.3 of this reference document.

Compensation and benefits in all kind awarded to executive and corporate officers

Pursuant to the law, the AFEP-MEDEF Code and market recommendations, the Board of Directors also adopted the following principles regarding the award of performance shares to the Chairman and Chief Executive Officer:

- the award of all performance shares to the Chairman and Chief Executive Officer is subject to performance conditions evaluated over a period of at least 3 years;
- from 2013 onwards, the rights granted to the Chairman and Chief Executive Officer with respect to performance shares allocation plans may not exceed 12% of all rights granted in any one year.

Furthermore, since 2010, the Chairman and Chief Executive Officer has been subject, until termination of his functions, to an obligation to retain at least 30% of the shares awarded to him definitively, as well as a number of shares acquired upon the exercise of stock options corresponding to at least 40% of the net capital gain on acquisition. These obligations are suspended when the number of ARKEMA shares held, whatever their origin, represents a total amount equivalent to 200% of his annual gross fixed compensation. However, should the Chairman and Chief Executive Officer hold an amount of shares, of whatever origin, representing twice the fixed part of his then current annual gross compensation, a holding obligation will apply under the following terms:

- at least 10% of the shares allocated definitively, subsequent to this threshold being reached;
- a number of shares acquired from the exercise of stock options corresponding to at least 10% of the net capital gain on acquisition.

Given these stringent holding obligations, and notwithstanding the provisions of article 23.2.4 of the AFEP-MEDEF Code, the Board of Directors, on a proposal by the Nominating, Compensation and Corporate Governance Committee, did not consider it necessary to make the availability of performance shares conditional upon the purchase of additional shares in the Company.

Based on the above, and within the overall framework of the Group's capital compensation policy, the principles of which are set out in section 3.5 of this reference document, the Board of Directors meeting on 6 November 2013, on a proposal by the Nominating, Compensation and Corporate Governance Committee, decided to award to Mr Thierry Le Hénaff 26,000 performance shares, the definitive award of which at the end of a 4-year vesting period is contingent upon his continued term of office in the Group and the fulfilling of two stringent performance criteria (growth of EBITDA and comparative EBITDA margin) each applying for 50% of the allocated rights. These criteria are detailed in paragraph 3.5.1 of this reference document.

#### PERFORMANCE SHARES GRANTED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER IN 2013 (TABLE 6 AMF NOMENCLATURE)

	N° and date* of plan	Number of shares granted in 2013	Acquisition date/ availability date	Valuation of shares as per method used for consolidated financial statements
Mr Thierry Le Hénaff	Date: 6 November 2013			
	Plan 2013 (4+0)	26,000**	7 November 2017	€1,342,000

\* Date of Board of Directors meeting.

\*\* i.e. 0.04% of share capital.

In line with his former practice, and in accordance with the recommendations of the AFEP-MEDEF Code revised in June 2013, Mr Thierry Le Hénaff has given a formal undertaking not to use hedging instruments related to the stock options or the performance shares which were awarded or will be awarded to him by the Company as part of his functions throughout his term as an executive director of the Company.

In 2013, following the acknowledgement by the Board of Directors of the fulfilment of all the performance conditions of the performance share plans AP n° 1 of 2011, Mr Thierry Le Hénaff

was definitely awarded 8,200 performance shares subject to a holding requirement of 2 years (for further details on this plan, please refer to the history of the performance share plans in section 3.5 of this reference document).

As in 2012, no performance shares awarded to the Chairman and Chief Executive Officer became available in 2013.

Additionally, in accordance with the AFEP-MEDEF Code and AMF recommendations, the number of stock options exercised in 2013 by Mr Thierry Le Hénaff is set out in the following table:

Compensation and benefits in all kind awarded to executive and corporate officers

## SHARE SUBSCRIPTION OR PURCHASE OPTIONS EXERCISED BY THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER IN 2013 (TABLE 5 AMF NOMENCLATURE)

	N° and date* of plan	Number of options exercised	Exercise price
Mr Thierry Le Hénaff	Plan 2006 Date: 4 July 2006	4,470	€28.36

\* Date of Board of Directors meeting.

It should be noted that the Board of Directors meeting on 7 March 2012 decided that in the event of early termination of contract (termination or non-renewal of his term of office) or termination linked to a change of control of the Company or a change of strategy decided by the Board of Directors, and, except in the event of serious or gross misconduct, Mr Thierry Le Hénaff will retain his rights to stock options and free share or performance share allocation under the plans decided by the Board of Directors until his term of office terminates.

In accordance with the AFEP-MEDEF Code and AMF recommendations, the history of stock option and performance share awards is set out in tables in section 3.5 of this reference document.

#### 3.4.3.4 BENEFITS POST TERMINATION OF TERM OF OFFICE AS CHAIRMAN AND CHIEF EXECUTIVE OFFICER

Since the Company's spin-off and stock market listing, Mr Thierry Le Hénaff has not been bound to the Company by an employment contract. The compensation of Mr Thierry Le Hénaff is therefore entirely linked to his function as a corporate officer of the Company. In this regard, he benefits from retirement and termination of functions provisions as described below, as authorised by the Board of Directors and approved by the Company's shareholders general meetings on 5 June 2007 and 23 May 2012.

#### **Retirement benefits**

Mr Thierry Le Hénaff benefits from a supplementary defined benefit pension scheme offered to certain senior executives of the Group who benefited from an equivalent scheme before the spin-off; this supplementary pension scheme is subject to the beneficiary completing his career in the Group.

The provision of this supplementary pension scheme was authorised by the Board of Directors in 2006 as part of the establishment of the conditions for the exercise of his term of office and approved by the shareholders at their general meeting on 5 June 2007, in accordance with the procedure relating to regulated agreements and commitments. The annual amount of supplementary pension in respect of this supplementary pension scheme, calculated on the retirement date, is determined by applying the following coefficients to the calculation base:

- 1.8% for the reference compensation part ranging from 8 to 40 times the annual social security ceiling,
- 1% for the reference compensation part ranging from 40 to 60 times the annual social security ceiling,

multiplied by the number of years of service, limited to 20 years, and adding the 2 amounts thus obtained.

The maximum percentage of the reference compensation to which this defined benefit scheme would entitle the beneficiary is thus 36% of the part of the compensation ranging from 8 to 40 times the annual social security ceiling, and 20% of the reference compensation part ranging from 40 to 60 times the social security annual ceiling, the reference compensation being equal to the average of the last three years of compensation (fixed and variable) for his professional activity.

At 31 December 2013, the percentage of reference compensation to which this scheme would entitle the beneficiary was 27.9%.

The Chairman and Chief Executive Officer also benefits from a defined contributions pension scheme put in place in particular to help reduce the amount of social liabilities resulting from the defined benefit scheme mentioned above, for which contributions have been set at 20% of annual compensation exceeding eight times the social security annual ceiling and capped at the tax reintegration limit. The income from this defined contribution scheme is deducted from the additional pension paid in respect of the defined benefit scheme set out above.

The contributions paid in respect of the defined contribution scheme for the Chairman and Chief Executive Officer amounted to 23,700 euros in 2013.

The total annual amount due in respect of the defined benefit scheme, the defined contribution scheme and the mandatory schemes may in no event exceed 45% of the reference compensation. Should this be the case, the pension paid in respect of the defined benefit scheme is reduced in due proportion.

Compensation and benefits in all kind awarded to executive and corporate officers

Provisions are made for these amounts in Arkema's accounts, as shown in note 4 of the notes to the financial statements in paragraph 4.4.3 of this reference document.

#### Benefits related to termination of functions

Mr Thierry Le Hénaff benefits from severance compensation as part of his term of office as corporate officer, and in the event of early termination of contract (termination or non-renewal of his term of office) or termination linked to a change of control of the Company or a change of strategy decided by the Board of Directors, and except in the event of serious or gross misconduct.

In accordance with the AFEP-MEDEF Code, indemnity is due only in the event of forced dismissal of the Chairman and Chief Executive Officer, and the amount of this indemnity may not exceed twice his total annual gross compensation (fixed and variable). Additionally, the basis for calculating the termination indemnity shall be the fixed annual compensation for the year in which the early termination of contract has occurred and the average of the last two annual variable compensation payments made prior to the date of early termination of contract.

It should be noted, however, that the recommendation of the AFEP-MEDEF Code linking forced dismissal to a change of control or strategy has not been taken into account in order to compensate for the loss of benefits, in particular in terms of seniority, related to his status as a salaried executive of the Total group for 17 years, at the time of the Company's spin-off and stock market listing, and of his appointment as Chairman and Chief Executive Officer of the Company.

The payment of such benefit was approved by the shareholders, in accordance with article L. 225-42-1 of the French Commercial Code (*Code de commerce*), at the shareholders general meeting on 23 May 2012 after prior authorisation by the Board of Directors.

The amount of this benefit will be calculated on the basis of the fulfilment of five stringent performance conditions, as follows:

- TRIR: TRIR (Total Recordable Injury Frequency Rate) shall have dropped by at least 5% (average compound rate) per year between 31 December 2005 and the date at which this performance condition has been fulfilled;
- comparative EBITDA margin: this economic performance indicator shall be compared to that of chemical manufacturers in competition with and comparable to ARKEMA. The growth in ARKEMA's EBITDA margin shall be at least equal to the average growth in the EBITDA margin of the companies in the

reference panel between 31 December 2005 and the date at which this performance condition has been fulfilled;

- working capital requirement (WCR): the year-end WCR over annual sales ratio shall have decreased by at least 2.5% (average compound rate) per year between 31 December 2005 and the date at which this performance condition has been fulfilled;
- EBITDA margin: the EBITDA over sales margin shall have grown by at least 3% (average compound rate) per year between 31 December 2005 and the date at which this performance condition has been fulfilled;
- return on capital employed: the average of net operating income over capital employed ((recurring operating income – actual income tax <sup>(1)</sup>)/(capital employed – provisions)) for the last 3 years prior to the date of early termination of contract, shall exceed the cost of capital (8.5%). Capital employed and provisions are those for year-end, and recurring operating income for acquisitions made during the year shall be assessed on a full year basis and corrected for divestments.

Mr Thierry Le Hénaff was appointed Chairman and Chief Executive Officer at the beginning of 2006, therefore the reference index applicable when computing these five performance criteria shall be the index based on Group data at 31 December 2005. This date corresponds to the last financial period preceding the Company's stock market listing and the introduction of a separate and autonomous strategy.

The value of the end-of-period index to be taken into account in the computation of the criteria below shall be the average of the index calculated at Group level over the two years for which accounts have been published prior to the date of early termination of contract.

If 4 or 5 criteria have been fulfilled, Mr Thierry Le Hénaff shall receive 100% of the sums provided for in the event of early termination of contract.

If 3 out of 5 criteria have been fulfilled, Mr Thierry Le Hénaff shall receive 75% of the sums provided for in the event of early termination of contract.

If 2 out of 5 criteria have been fulfilled, Mr Thierry Le Hénaff shall receive 50% of the sums provided for in the event of early termination of contract.

If fewer than 2 criteria have been fulfilled, Mr Thierry Le Hénaff shall receive 0% of the sums provided for in the event of early termination of contract.

#### SYNOPSIS OF EMPLOYMENT CONTRACT/PENSION SCHEME AND OTHER BENEFITS (TABLE 11 AMF NOMENCLATURE)

	Employment contract		Supplementary defined benefit pension scheme		Indemnities or benefits due or liable to be due upon termination or change of functions		Indemnity resulting from non-compete agreement	
	Yes	No	Yes	No	Yes	No	Yes	No
Mr Thierry Le Hénaff		Х	Х		Х			Х

(1) On recurring activity (in particular excluding impact of M&A, restructuring operations).

### 3.4.4 ELEMENTS OF COMPENSATION DUE OR ALLOCATED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER FOR 2013 SUBMITTED TO THE SHAREHOLDERS' OPINION

In accordance with the recommendations of article 24.3 of the AFEP-MEDEF Code, the shareholders general meeting on 15 May 2014 (11<sup>th</sup> resolution) is being asked to render an advisory opinion on the elements of compensation due or awarded for the year ending 31 December 2013 to Mr Thierry Le Hénaff, Chairman and Chief Executive Officer of the Company, as shown below:

## ELEMENTS OF COMPENSATION DUE OR ALLOCATED TO MR THIERRY LE HÉNAFF FOR 2013 SUBMITTED TO THE SHAREHOLDERS' OPINION

<ul> <li>of office of the Chairman and Chief Executive Officers of comparable industrial companies. The Board of Directors meeting on 27 February 2013 maintained at C750,000 the fixed compensation below the average for his peers.</li> <li>Annual variable compensation €800,250</li> <li>The amount of the variable part due for 2013, which places the level of Mr Thinry Le h4mdTs annual fixed compensation, was fixed by the Board of Directors on 3 March 2014, on the boars of the quantitative and qualitative criteria set by the Board of Directors in 2013 and the fulfilment of these criteria noted on 31 December 2013, as follows:</li> <li>with regard to the three quantitative and qualitative criteria set by the Board of Directors in 2014 on the boars of CBIDA, recurring cash flow, and contribution of new developments), the results achieved in 2013 How been below the objectives set for each criteria; as a consequence, the variable part dialocted according to the quantitative criteria and to the science of the quantitative criteria mounde to 69.4% of his fixed annual compensation; and</li> <li>with regard to qualitative targets, reflexing in March Alexing the part of the Group's strategy, the parformance was assessed as being the projects (construction of the Thiochemicals platform in Malaysia, finalisation of the eresting variable compensation; and or with, in particular, variable compensation; in North America), the project of on acrylic jointy-and trade to a strateget with the solid card dark of the sciences for the next 30 years, the acrylic investment programs in Loca in order to sacere sulfur criteria amounted to 87.3% of his annual fixed compensation;</li> <li>In total, the 2013 wairiable compensation as fixed by the Board of Directors mounts to 800,250 euros, 23% less than the 2012 variable compensation.</li> <li>Performance fees</li> <li>N/A</li> <li>Mr Thierry Le Hénaff face into any exceptional compensation.</li> <li>Further detail on the criteria many be found in parag</li></ul>	Elements of compensation due or allocated for 2013	Amounts or accounting valuation submitted to the vote	Presentation				
<ul> <li>of the annual fixed compensation, was fixed by the Board of Directors in 2013 and the fulfilment of these criteria noted on 31 December 2013, as follows:</li> <li>with regard to the three quantitative and qualitative criteria as by the Board of Directors in 2013 and the fulfilment of these criteria noted on 31 December 2013, as follows:</li> <li>with regard to the three quantitative transport of the objectives set for each criteria as a consequence, the variable part allocated according to the objectives set for each criteria as a consequence, the variable part allocated according to the quantitative criteria are consequence, the variable part allocated according to the quantitative criteria are consequence, the variable part allocated according to the quantitative criteria are consequence, the variable part allocated as being very good with, in particular, the completion or the progress of several significant industrial of the Group's strategy, the performance was assessed as being very good with, in particular, the completion or the progress of several significant industrial of fixed costs and working capital and the improvement of safety results. As a consequence, the variable according to the qualitative criteria and working capital and the improvement of safety results. As a consequence, the variable compensation, the strict management rate of 1% (63%) in respect of the qualitative criteria and 9% in respect of the qualitative criteria and 9%</li></ul>	Fixed compensation	€750,000	of office of the Chairman and Chief Executive Officer so that this fixed compensation may be aligned with that of executive officers of comparable industrial companies. The Board of Directors meeting on 27 February 2013 maintained at €750,000 the fixed part due for 2013, which places the level of Mr Thierry Le Hénaff's annual				
Deferred variable compensation         N/A         Mr Thierry Le Hénaff receives no multi-yearly variable compensation.           N/A         Mr Thierry Le Hénaff does not benefit from any exceptional compensation.           Attendance fees         N/A         Mr Thierry Le Hénaff receives no attendance fees from Arkema.           Stock options         N/A         The Board of Directors decided at the beginning of 2013 to withdraw stock option arrangements.           Performance shares         €1,342,000         Making use of the authorisation granted by the shareholders general meeting on 4 June 2013 (12 <sup>th</sup> resolution), on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 6 November 2013 awarded 26,000 performance shares (i.e. 0.04% of the share capital) to Mr Thierry Le Hénaff (from a total of 250,000 shares awarded to over 750 beneficiaries).           The definitive granting of these shares, at the end of a 4-year period, is contingent upon a presence condition in the Group and the fulfilment of two performance criterion applies for 50% of the awarded rights. Further detail on the criteria may be found in paragraph 3.5.1 of this reference document.	Annual variable compensation	€800,250	<ul> <li>of the annual fixed compensation, was fixed by the Board of Directors on 3 March 2014, on the basis of the quantitative and qualitative criteria set by the Board of Directors in 2013 and the fulfilment of these criteria noted on 31 December 2013, as follows:</li> <li>with regard to the three quantitative targets, related to ARKEMA's financial performance (level of EBITDA, recurring cash flow, and contribution of new developments), the results achieved in 2013 have been below the objectives set for each criteria; as a consequence, the variable part allocated according to the quantitative criteria amounted to 69.4% of his fixed annual compensation; and</li> <li>with regard to qualitative targets which essentially concern the implementation of the Group's strategy, the performance was assessed as being very good with, in particular, the completion or the progress of several significant industrial projects (construction of the Thiochemicals platform in Malaysia, finalisation of the investment program in Lacq in order to secure sulfur raw material access for the next 30 years, the acrylic investment program in North America), the project of an acrylic joint-venture with Jurong Chemical in China, the strict management of fixed costs and working capital and the improvement of safety results. As a consequence, the variable part allocated according to the qualitative criteria amounted to 37.3% of his annual fixed compensation;</li> <li>In total, the 2013 variable compensation as fixed by the Board of Directors amounts to 800,250 euros, 23% less than the 2012 variable compensation. It represents 106.7% of the 2013 annual fixed compensation, representing a global achievement rate of 71% (63% in respect of the quantitative criteria and 93% in respect of the qualitative criteria).</li> <li>Further detail on the criteria may be found in paragraph 3.4.3.2 of this reference</li> </ul>				
N/A       Mr Thierry Le Hénaff does not benefit from any exceptional compensation.         Attendance fees       N/A       Mr Thierry Le Hénaff receives no attendance fees from Arkema.         Stock options       N/A       The Board of Directors decided at the beginning of 2013 to withdraw stock option arrangements.         Performance shares       €1,342,000       Making use of the authorisation granted by the shareholders general meeting on 4 June 2013 (12 <sup>th</sup> resolution), on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 6 November 2013 awarded 26,000 performance shares (i.e. 0.04% of the share capital) to Mr Thierry Le Hénaff (from a total of 250,000 shares awarded to over 750 beneficiaries).         The definitive granting of these shares, at the end of a 4-year period, is contingent upon a presence condition in the Group and the fulfilment of two performance criteria: growth of ARKEMA's EBITDA and comparative EBITDA margin. Each criterion applies for 50% of the awarded rights.         Further detail on the criteria may be found in paragraph 3.5.1 of this reference document.		N/A	Mr Thierry Le Hénaff receives no multi-yearly variable compensation.				
Stock options       N/A       The Board of Directors decided at the beginning of 2013 to withdraw stock option arrangements.         Performance shares       €1,342,000       Making use of the authorisation granted by the shareholders general meeting on 4 June 2013 (12 <sup>th</sup> resolution), on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 6 November 2013 awarded 26,000 performance shares (i.e. 0.04% of the share capital) to Mr Thierry Le Hénaff (from a total of 250,000 shares awarded to over 750 beneficiaries).         The definitive granting of these shares, at the end of a 4-year period, is contingent upon a presence condition in the Group and the fulfilment of two performance criteria: growth of ARKEMA's EBITDA and comparative EBITDA margin. Each criterion applies for 50% of the awarded rights.         Further detail on the criteria may be found in paragraph 3.5.1 of this reference document.		N/A	Mr Thierry Le Hénaff does not benefit from any exceptional compensation.				
arrangements.         Performance shares       €1,342,000         Making use of the authorisation granted by the shareholders general meeting on 4 June 2013 (12 <sup>th</sup> resolution), on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 6 November 2013 awarded 26,000 performance shares (i.e. 0.04% of the share capital) to Mr Thierry Le Hénaff (from a total of 250,000 shares awarded to over 750 beneficiaries). The definitive granting of these shares, at the end of a 4-year period, is contingent upon a presence condition in the Group and the fulfilment of two performance criteria: growth of ARKEMA's EBITDA and comparative EBITDA margin. Each criterion applies for 50% of the awarded rights. Further detail on the criteria may be found in paragraph 3.5.1 of this reference document.	Attendance fees	N/A	Mr Thierry Le Hénaff receives no attendance fees from Arkema.				
June 2013 (12 <sup>th</sup> resolution), on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 6 November 2013 awarded 26,000 performance shares (i.e. 0.04% of the share capital) to Mr Thierry Le Hénaff (from a total of 250,000 shares awarded to over 750 beneficiaries). The definitive granting of these shares, at the end of a 4-year period, is contingent upon a presence condition in the Group and the fulfilment of two performance criteria: growth of ARKEMA's EBITDA and comparative EBITDA margin. Each criterion applies for 50% of the awarded rights. Further detail on the criteria may be found in paragraph 3.5.1 of this reference document.	Stock options	N/A					
	Performance shares	€1,342,000	June 2013 (12 <sup>th</sup> resolution), on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 6 November 2013 awarded 26,000 performance shares (i.e. 0.04% of the share capital) to Mr Thierry Le Hénaff (from a total of 250,000 shares awarded to over 750 beneficiaries). The definitive granting of these shares, at the end of a 4-year period, is contingent upon a presence condition in the Group and the fulfilment of two performance criteria: growth of ARKEMA's EBITDA and comparative EBITDA margin. Each criterion applies for 50% of the awarded rights. Further detail on the criteria may be found in paragraph 3.5.1 of this reference				
	Benefits in kind	€6,720	Mr Thierry Le Hénaff has a company car.				

CORPORATE GOVERNANCE Compensation and benefits in all kind awarded to executive and corporate officers

## ELEMENTS OF COMPENSATION DUE OR ALLOCATED FOR 2013 ALREADY SUBMITTED TO THE SHAREHOLDERS' MEETING VOTE AS REGULATED AGREEMENTS

Severance compensation	No payment	Mr Thierry Le Hénaff benefits from severance compensation as part of his director's term of office, the amount of which, calculated on the basis of the fulfilment of five quantitative criteria set by the Board of Directors and approved by the shareholders general meeting (TRIR (Total Recordable Injury Frequency Rate), comparative EBITDA margin, working capital, EBITDA margin, and return on capital employed), may not exceed two years of his total annual gross compensation (fixed and variable). In accordance with the procedure relating to the regulated agreements and commitments, this commitment was authorised by the Board of Directors meeting on 7 March 2012 and <b>approved by the shareholders general meeting on 23 May 2012</b> (6 <sup>th</sup> resolution). Further detail on the conditions of the award of this compensation may be found in paragraph 3.4.3.4 of this reference document.
Non-competition compensation	N/A	Mr Thierry Le Hénaff does not benefit from non-competitive compensation.
Supplementary pension scheme	No payment	Mr Thierry Le Hénaff benefits from supplementary defined benefit pension scheme, applicable to certain senior executives of the Group receiving annual compensation exceeding eight times the social security annual ceiling, and contingent upon the fulfilment of the beneficiary completing his career in the Group. The income from this supplementary pension scheme will be deducted from the income from the defined contribution scheme applicable to certain senior executives of the Group. The Company's pension commitments for the Chairman and Chief Executive Officer corresponded, on 31 December 2013, to an annual pension, the calculation of which is based in particular on the average compensation paid over the last three years, equal to 27.9% of his current annual compensation. In accordance with the regulated agreements and commitments procedure, this commitment was authorised by the Board of Directors on 4 July 2006, and <b>approved by the shareholders general meeting on 5 June 2007</b> (4 <sup>th</sup> resolution). Further detail on this pension commitment may be found in paragraph 3.4.3.4 of this reference document.

### 3.4.5 STOCK TRANSACTIONS BY THE COMPANY'S EXECUTIVE OFFICERS AND MEMBERS OF THE EXECUTIVE COMMITTEE

Pursuant to article 223–26 of the General Regulation of the Autorité des marchés financiers, the following table features the operations declared by the individuals mentioned in article L. 621-18-2 of the French Monetary Financial Code (Code monétaire et financier) in 2013:

	Financial Instrument			Place of operation	Unit price	Amount of operation
Mr Bernard Boyer	Shares	Exercised stock options		Paris	€30.47	€60,940.00
Mr Patrice Bréant	FCPE shares	Transfer	5 March 2013	Paris	€73.21	€4,823.79
		Acquisition	2 April 2013	Paris	€70.16	€2,154.44
		Acquisition	26 April 2013	Paris	€70.58	€920.00
		Sale	5 July 2013	Paris	€71.02	€1,615.43
		Arbitrage	23 August 2013	Paris	€80.53	€8,175.53
Mr Pierre Chanoine	Shares	Exercised stock options	18 December 2013	Paris	€30.47	€46,314.40
Mr Michel Delaborde	Shares	Exercised stock options		Paris	€30.47	€76,175.00
Mrs Victoire de Margerie	Shares	Acquisition	1 March 2013	Paris	€77.85	€23,355,00
Mr Thierry Le Hénaff	Shares	Exercised stock options	24 December 2013	Paris	€28.36	€126,769. 20
Mr Thierry Lemonnier	Shares	Exercised stock options		Paris	€28.36	€74,813.68
Mr Marc Schuller	Shares	Exercised stock options	17 December 2013	Paris	€30.47	€76,175.00

## 3.5 STOCK-BASED COMPENSATION

From its stock-market listing in 2006, the Group has been keen to put in place compensation instruments based on the share capital, in order to incentivise and closely involve managers and certain employees in its future growth as well as its stock market performance.

Accordingly, the Board of Directors put in place in 2006 stock options and free performance share plans, as detailed below. Since 2010, all stock awards made to the Chairman and Chief Executive Officer and the Executive Committee members have been contingent upon the fulfilment of performance conditions.

Furthermore, in accordance with the law and the AFEP-MEDEF Code, since 2010 the Board of Directors has set, for every plan put in place, the number of shares resulting from the exercise of stock options or performance shares definitely acquired which the Chairman and Chief Executive Officer and the Executive Committee members must retain (see paragraphs 3.4.2.1 and 3.4.3.3 of this reference document). On a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors set out in detail, at the beginning of 2013, the principles of the stock-based compensation policy by way of allocation of performance shares, applicable from 2013 for the validity period of the authorisation granted by the shareholders general meeting on 4 June 2013, namely 38 months, as follows:

- involve managers and certain employees of the Group in its future growth as well as its stock market performance in the medium term;
- continue its share allocation policy implemented in 2006, namely share allocation not only reserved for executive managers, but concerning around 750 employees of the Group whose performance has been outstanding, or who should be incentivised;

 increase the definitive rights acquisition period to at least three years in order to firmly establish the medium-term compensation dimension as part of the overall compensation package;

Stock-based compensation

- make it imperative, for executive managers, to make the definitive award contingent upon the fulfilment of two stringent performance criteria, each applying for 50% of the rights allocated:
  - one internal criterion related to the growth of ARKEMA's EBITDA, fully consistent with the financial prospects disclosed to the market,
  - one external criterion based on the comparison of ARKEMA's average EBITDA margin compared to the average EBITDA

margin of a panel of chemical companies <sup>(1)</sup> over a same period of at least three years;

- generally, award existing shares, acquired as part of the buyback programme, resulting in no dilution for shareholders;
- withdraw stock option arrangements.

The accounting treatment of these capital compensation instruments is given in note 27 of the notes to the consolidated financial statements in paragraph 4.3.3 of this reference document.

### 3.5.1 FREE SHARE AND PERFORMANCE SHARE AWARD PLANS

In accordance with the AFEP-MEDEF Code, and the practice in place in other French listed groups, and with the exception of the share allocation in November 2013 resulting from the implementation by the Board of Directors of the authorisation granted by the shareholders general meeting on 4 June 2013, the award of performance share plans takes place at the same time every year, following the date of closure of the accounts.

The beneficiaries of free share and performance share allocation plans are executive managers as well as a number of Group employees whose performance has been outstanding. The number of beneficiaries is around 750 employees for each plan.

Except for the 2006 plan whereby vested shares resulted from a share capital increase operation, all vested shares in respect of previous plans were purchased by the Company as part of its share buy-back programme.

Consequently, and given the performance share award policy agreed by the Board of Directors in 2013, these plans do not result in a potential dilution for shareholders.

#### 2013 PERFORMANCE SHARE PLANS

In accordance with the stock-based compensation policy in force within the Group, the Board of Directors meeting on 6 November 2013, as authorised by the shareholders general meeting on 4 June 2013, and on a proposal by the Nominating, Compensation and Corporate Governance Committee, decided to award 250,000 existing performance shares (i.e. 20% of the overall quota granted by the said general meeting for a duration of 38 months) to 772 beneficiaries, including the Chairman and Chief Executive Officer and the Executive Committee members. The vesting period for performance shares was increased to four years in order to firmly establish the medium-term compensation dimension within the overall compensation package. At the end of the vesting period, no holding period is in place, but the definitive award of the shares is contingent upon a condition of presence in the Group and the fulfilment of two stringent performance criteria, each applying for 50% of the rights allocated, detailed as follows:

one internal criterion: growth of ARKEMA's EBITDA

The target by which all rights will be awarded in respect of this criterion is for the 2016 EBITDA to reach 1,280 million euros, with gearing not exceeding 40%. Should gearing exceed 40%, a review of the target EBITDA would be put forward by the Nominating, Compensation and Corporate Governance Committee to the Board of Directors.

No share will be awarded if the 2016 EBITDA is below 1,000 million euros. Between 1,000 million euros and 1,280 million euros, the award rate is determined based on a linear and continuous scale.

(1) The panel is made up of AkzoNobel (specialty chemicals), BASF (excluding Oil and Gas), Clariant, Lanxess, Solvay, Celanese (restated for the joint ventures), Chemtura, Dow. This panel can be modified if the competitive landscape changes significantly.

• one external criterion: comparative EBITDA margin

All rights will be allocated if ARKEMA's average EBITDA margin over the 2013-2016 period is greater than the average of that of the chosen panel by one point. If ARKEMA's average EBITDA margin over the said period is equal to that of the panel, the allocation rate will be 85%. If ARKEMA's average EBITDA margin over the same period is smaller than that of the panel by 2.5 points, no share will be awarded.

Between both these values, the allocation rate will be determined on the basis of an indicator determined as follows: indicator = ARKEMA's average EBITDA margin over the period - average EBITDA margin of the panel over the same period.

Value of target	Allocation rate in respect of the criterion
ARKEMA's average EBITDA margin > panel average EBITDA margin +1	100%
ARKEMA's average EBITDA margin = panel average EBITDA margin	85%
-0.5 < indicator < 0	75%
$-1$ < indicator $\leq$ -0.5	65%
-1.5 < indicator ≤ -1	50%
$-2 < \text{indicator} \le -1.5$	35%
$-2.5 < indicator \le -2$	20%

Indicator  $\leq -2.5$ 

For the Chairman and Chief Executive Officer and the other members of the Executive Committee, the conditions apply to all the rights to shares which they are awarded. For all other beneficiaries, these conditions apply to the fraction of rights exceeding 100.

#### **PREVIOUS FREE SHARE ALLOCATION** PLANS

The plans implemented in 2006, 2007, 2008 and 2009 feature similar characteristics:

• the free allocation of shares is not definitive until the end of a two-year period, subject to a condition of presence and conditions of performance;

• following this acquisition period, the shares are definitively acquired by the beneficiaries, who must then hold them for a further two years (holding period).

The performance conditions are relative to the Group's economic performance, measured principally by EBITDA or by the EBITDA margin.

The table below details the performance conditions for each plan, as well as the rate of achievement of the objectives.

Note that in 2009 the members of the Executive Committee declined the awards decided by the Board of Directors, in the light of the economic crisis.

As regards these four years, 2006, 2007, 2008 and 2009, the rights granted accounted for 1% of the Company's share capital at the date of the shareholders general meeting having authorised the award.

0%

#### HISTORY OF PERFORMANCE SHARE PLANS BETWEEN 2006 AND 2009 (TABLE 10 OF AMF NOMENCLATURE)

	2006	2007	2008	2009
Date of Annual General Meeting	10 May 2006	10 May 2006	10 May 2006	10 May 2006
% of rights that may be awarded relative to the Company's share capital		3%	, 2	
Date of Board of Directors' meeting	4 July 2006	14 May 2007	13 May 2008	12 May 2009
Number of rights awarded	150,000	125,000	180,000	184,850
including to the Chairman & CEO	8,000	7,000	14,000	14,000
Aggregate by authorisation	63	9,850 i.e. 1% of the shar	re capital at date of AG	βM
Hedging terms of the plans	Share capital increase	Share buy-back	Share buy-back	Share buy-back
Number of cancelled shares <sup>(1)</sup>	8,895	37,400	137,873	52,650
Number of vested shares <sup>(2)</sup>	141,105	87,600	42,127	132,200
Number of rights still to be acquired at 31 December 2013		-	-	
Vesting period	2 years	2 years	2 years	2 years
Holding period	2 years	2 years	2 years	2 years
Performance conditions	EBITDA growth 2007 versus 2005	2008 EBITDA margin	2009 EBITDA margin	2009 free cash flow (50%), Progress of ARKEMA's average EBITDA margin from 2007 to 2009 compared to panel of competitors (50%)
Achievement rate	100%	71.30%	0%	100%

(1) These performance shares became redundant due to the application of either the condition of presence or the condition of performance.
 (2) These shares were awarded to the beneficiaries (including early in the case of death, for example).

From 2010 to 2012, the Board of Directors amended the provisions applicable to the plans as follows:

• in accordance with the AFEP-MEDEF Corporate Governance Code, the definitive award of the rights is contingent upon the fulfilment of (i) performance conditions over a number of years, and (ii) "external" criteria comparing the Group's economic performance to that of a panel of chemical companies comprising AkzoNobel (specialty chemicals only), BASF (excluding Oil & Gas), Clariant, DSM, Lanxess and Solvay.

The table below details the performance conditions applicable to each of the plans as well as the rates of allocation reached. The level of fulfilment of the targets is not disclosed, as an *a posteriori* interpretation of these figures is not relevant given the changes in the Group's portfolio of activities as well as the economic climate in which the Group has been operating;

- implementation of distinct plans for employees of companies outside France, providing for a four-year rights acquisition period, with no holding obligation, in order to tie up the availability of the securities with the tax liability relating to the definitive free acquisition; and
- reinforcement of the "incentivising" component of this compensation tool, by increasing the rights acquisition period: in the case of allocation of a number of rights to free allocation of shares in excess of 200, 50% of the definitive allocation takes place after two years, and 50% after three years.

## HISTORY OF PERFORMANCE SHARE PLANS SINCE 2010 AND 2013

		2010			2011				2012	2013
Date of Annual General Meeting	15 June 2009	15 June 2009	15 June 2009	15 June 2009	15 June 2009	15 June 2009	15 June 2009	15 June 2009	15 June 2009	4 June 2013
% of rights that may be awarded relative to the Company's share capital					3%					2%
Date of Board of Directors meeting	10 May 2010	10 May 2010	4 May 2011	4 May 2011	4 May 2011	9 May 2012	9 May 2012	9 May 2012	9 May 2012	6 November 2013
Number of rights awarded	153,705	50,795	88,305	59,380	52,315	101,860	74,805	65,335	17,163	250,000
including Chairman & CEO	18,800	-	8,200	8,200	-	13,000	13,000	-	-	26,000
Aggregate by authorisation			663,663	i.e. 1% of	share cap	ital at date	of AGM			250,000 i.e. 0.04% of share capital at date of AGM
Hedging terms of the plans	Share buy-back		Share buy-back							
Number of cancelled shares $^{(1)}$	3,870	3,176	1,245	1,555	1,390	1,355	1,230	695	60	-
Number of vested shares <sup>(2)</sup>	149,835	-	87,060	-	-	-	-		11	
Number of rights still to be acquired at 31 December 2013	-	47,619	-	57,825	50,925	100,505	73,575	64,640	17,092	250,000
Vesting period	2 years	4 years	2 years	3 years	4 years	2 years	3 years	4 years	4 years <sup>(3)</sup>	4 years
Holding period	2 years	-	2 years	2 years	-	2 years	2 years	-	_ (4)	-
Performance conditions	P 20 averaç ver compared	0 EBITDA (50%) rogress of ARKEMA 10/2011 ge margin sus 2005 d to panel ompetitors (50%)	2011/20	2011 EBITI Progress of D12 averag ompared to competit	ARÈEMÁ e EBITDA	F 2012/20	2012 EBIT Progress of 113 averag ompared to competit	ARKEMÁ je EBITDA	None	EBITDA growth by 2016 (50%) and progress of average EBITDA margin over the 2013- 2016 period compared to that of a panel of competitors (50%)
Achievement rate	100%	100%			100%			n out of 2 achieved		-

(1) These performance shares became redundant due to the application of either the condition of presence or the condition of performance.

(2) These shares were awarded to the beneficiaries (including early in the case of death, for example).

(3) Except Italy and Spain where the rights acquisition period is 3 years.
(4) Except Italy and Spain where the rights holding period is 3 years.



## 3.5.2 STOCK OPTION PLANS

In accordance with the stock-based compensation policy decided by the Board of Directors in 2013, and in anticipation, no stock option plan has been implemented since 2012.

#### STOCK OPTION PLANS PRIOR TO 2012

The plans implemented from 2006 to 2008 feature common characteristics:

- exercise price set as the average opening price of the shares during the twenty trading days prior to the date of the Board of Directors meeting, with no discount applied;
- deferral of exercise of options for two years, and deferral of sale for a further two years, *i.e.* four years from the award date;
- condition of presence in the Group at the time of exercise of options.

As regards these three years, the Board of Directors authorised the award of a number of stock options concerning 2.64% of the Company's share capital at the date of the shareholders general meeting that authorised the award.

At 31 December 2013, 370,476 stock options resulting from these plans were still outstanding.

In 2009, given the economic crisis, it was decided not to award any stock options.

From 2010, the Board of Directors amended the provisions pertaining to the plans:

 in accordance with the AFEP-MEDEF Corporate Governance Code and the requirements of stakeholders in this regard, stock awards are subject to performance criteria chosen to align medium-term compensation in shares with the Group's strategy.

The chosen criteria are therefore indicators reflecting the Group's economic performance, as well as its relative performance compared to a panel of other comparable chemical companies comprising AkzoNobel (specialty chemicals only), BASF (excluding Oil & Gas), Clariant, DSM, Lanxess, and Solvay.

The table below details the performance conditions applicable to each plan.

It should be noted that the level of fulfilment of the targets is not disclosed for these plans, as an *a posteriori* interpretation of these figures is not relevant given the changes in the Group's portfolio of activities as well as the economic climate in which the Group has been operating. However, the rate of achievement of the targets is mentioned as an indication for each of the plans in the following table;

 longer deferral of exercise of stock options in order to strengthen the "loyalty-building" component of this compensation tool.

Hence, the plans decided in 2010 and 2011 feature the following characteristics:

- beneficiaries: executive managers in 2010 (74 beneficiaries) and Executive Committee members only in 2011 in order to reserve these riskiest plans to executive managers exercising the greatest responsibilities;
- exercise price set as the average opening price of the shares during the twenty trading days prior to the date of the Board of Directors meeting, with no discount applied;
- 50% of rights allocated may be exercised after a two-year deferral period, 50% of the rights being exercisable after five years for the 2010 plan, and four years for the 2011 plan;
- condition of presence in the Group at the time of exercise of options; and

performance criteria detailed in the table below.

As regards these two years, 2010 and 2011, the Board of Directors authorised the award of a number of stock options concerning 1% of the Company's share capital at the date of the shareholders general meeting that authorised the award.

At 31 December 2013, 601,515 stock options resulting from the 2010 and 2011 plans were still outstanding.

At 31 December 2013, the total number of stock options still outstanding was 971,991, i.e. 1.54% of the Company's share capital on that date.

## HISTORY OF STOCK OPTION PLANS (TABLE 8 OF AMF NOMENCLATURE)

	2006	2007	2008	2010		20	11
Date of annual general meeting	10 May 2006	10 May 2006	10 May 2006	15 June 2009	15 June 2009	15 June 2009	15 June 2009
Maximum number of options that may be awarded relative to the Company's share capital	5%			5%			
Date of Board of Directors meeting	4 July 2006	14 May 2007	13 May 2008	10 May 2010	10 May 2010	4 May 2011	4 May 2011
Number of stock options awarded	540,000	600,000	460,000	225,000	225,000	105,000	105,000
including to the Chairman and CEO: Mr Thierry Le Hénaff	55,000	70,000	52,500	35,000	35,000	29,250	29,250
Number of outstanding options at 31 December 2013	22,800	153,198	194,478	173,515	218,000	105,000	105,000
Aggregate by authorisation	1,600,000, i.e. 2.7% of the share capital at the date of the annual general meeting				0,000, i.e. 1% c e date of the anr		
Vesting period <sup>(1)</sup>	2 years	2 years	2 years	2 years	5 years	2 years	4 years
Minimum period until sale <sup>(2)</sup>	2 years	2 years	2 years	2 years	-	2 years	-
Expiry date	4 July 2014	14 May 2015	13 May 2016	10 May 2018	10 May 2018	4 May 2019	4 May 2019
Exercise price (in euros)	€28.36	€44.63	€36.21	€30.47	€30.47	€68.48	€68.48
Performance conditions (other than exercise price)	-	-	-	2010 EBITDA (50%) Progress of ARKEMA 2010/2011 average EBITDA margin versus 2005 compared to panel of competitors (50%)	2014 EBITDA margin	2011 ROCE	Average EBITDA margin 2011/2014
Achievement rate	-	-	-	100%	Not known to date	100%	Not known to date

(1) Subject to the individual being still employed by the Company upon the exercising of the options.

(2) As from end of vesting period.

**CORPORATE GOVERNANCE** 

Statutory auditors' report prepared in accordance with article L. 225-235 of the French Commercial Code

## 3.6 STATUTORY AUDITORS' REPORT PREPARED IN ACCORDANCE WITH ARTICLE L. 225-235 OF THE FRENCH COMMERCIAL CODE (CODE DE COMMERCE)

This is a free translation of a report issued in the French language and is provided solely for the convenience of English-speaking users. This report should be read in conjunction with and is construed in accordance with French law and professional auditing standards applicable in France.

#### KPMG Audit

*Département de KPMG S.A.* 1, cours Valmy 92923 Paris-La Défense Cedex Commissaire aux comptes

Membre de la compagnie régionale de Versailles

#### **ERNST & YOUNG Audit**

1/2, place des Saisons
 92400 Courbevoie – Paris-La Défense 1
 S.A.S. à capital variable
 Commissaire aux comptes
 Membre de la compagnie régionale de Versailles

#### Arkema S.A.

Registered office: 420, rue d'Estienne d'Orves – 92700 Colombes Share capital: 630,296,920 euros

## Statutory auditors' report, prepared in accordance with article L. 225-235 of the French Commercial Code (*Code de commerce*) on the report prepared by the Chairman of the Board of Directors of Arkema S.A.

Year ended 31 December 2013

To the shareholders

Ladies and Gentlemen,

In our capacity as statutory auditors of Arkema S.A., and in accordance with the provisions of article L. 225-235 of the French Commercial Code *(Code de commerce)*, we hereby report on the report prepared by the Chairman of your Company in accordance with article L. 225-37 of the French Commercial Code *(Code de commerce)* for the year ending 31 December 2013.

It is the Chairman's responsibility to prepare and submit to the Board of Directors' approval a report describing the internal control and risk management procedures implemented by the Company, and providing the other information required under article L. 225-37 of the French Commercial Code (*Code de commerce*) relating in particular to the corporate governance plan.

Our role is to:

- report to you on the information contained in the Chairman's report in respect of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information;
- confirm that this report contains the other information required under article L. 225-37 of the French Commercial Code (*Code de commerce*), it being specified that we are not responsible for verifying the fairness of this other information.

We conducted our work in accordance with French professional standards.

## **CORPORATE GOVERNANCE**

Statutory auditors' report prepared in accordance with article L. 225-235 of the French Commercial Code

## Information concerning the internal control and risk management procedures relating to the preparation and processing of accounting and financial information

The professional standards require that we perform the necessary procedures to assess the fairness of the information provided in the Chairman's report in respect of the internal control and risk management procedures relating to the preparation and processing of accounting and financial information. These procedures consisted in particular in:

- obtaining an understanding of the internal control and risk management procedures relating to the preparation and processing of the accounting and financial information on which the information presented in the Chairman's report is based, as well as of existing documentation;
- obtaining an understanding of the work involved in the preparation of this information, and of the existing documentation;
- determining if any material weaknesses in the internal control procedures relating to the preparation and processing of the accounting
  and financial information that we would have noted in the course of our assignment were duly disclosed in the Chairman's report.

On the basis of our work, we have nothing to report on the information in respect of the Company's internal control and risk management procedures relating to the preparation and processing of the accounting and financial information contained in the report prepared by the Chairman of the Board of Directors in accordance with article L. 225-37 of the French Commercial Code (*Code de commerce*).

#### Other information

We hereby confirm that the report prepared by the Chairman of the Board of Directors contains the other information required by article L. 225-37 of the French Commercial Code (*Code de commerce*).

Paris La Défense, 3 March 2014 The statutory auditors French original signed by

 Département de KPMG S.A.
 ERNST & YOUNG Audit

 Jacques-François Lethu
 François Quédiniac
 Valérie Quint

 Partner
 Partner
 Partner

**KPMG** Audit



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The different parts constituting the Annual Financial Report are identified in this content by the pictogram  $\blacksquare$ 

FINANCIAL AND ACCOUNTING INFORMATION Comments and analysis on consolidated financial statements

## 4.1 COMMENTS AND ANALYSIS ON CONSOLIDATED FINANCIAL STATEMENTS

This section should be read jointly with the notes to the consolidated financial statements at 31 December 2013 in section 4.3 of this reference document, and in particular with

the accounting policies described in note B – Accounting policies to the consolidated financial statements.

## 4.1.1 INDICATORS USED IN MANAGEMENT ANALYSIS

The main performance indicators used by ARKEMA are defined in note B.18 of the notes to the consolidated financial statements presented in section 4.3 of this reference document.

In analysing changes in its results, particularly changes in sales, ARKEMA identifies the influence of the following effects (such analysis is unaudited):

- effect of changes in scope of business: effects of changes in scope of business arise on acquisition or disposal of an entire business or on first-time consolidation or deconsolidation of an entity. An increase or reduction in capacity is not analysed as creating a change in the scope of business;
- effect of foreign currency movements: the effect of foreign currency movements is the mechanical impact of consolidation of accounts denominated in currencies other than the euro at

different exchange rates from one period to another. The effect of foreign currency movements is calculated by applying the foreign exchange rates of the prior period to the figures of the current period;

- effect of changes in prices: the impact of changes in average sales prices is estimated by comparing the average weighted unit net sales price of a range of related products in the current period with their average weighted unit net sales price in the prior period, multiplied, in both cases, by the volumes sold in the reference period;
- effect of changes in volumes: the impact of changes in volumes is estimated by comparing quantities delivered in the reference period with the quantities delivered in the prior period, multiplied, in both cases, by the average weighted unit net sales prices of the relevant prior period.

## 4.1.2 IMPACT OF SEASONALITY

ARKEMA's standard pattern of business shows seasonality effects. Various characteristics contribute to these effects:

- demand for products manufactured by ARKEMA is generally weaker in the summer months (July-August) and in December, notably as a result of the slowdown in industrial activity during these months, particularly in France and Europe;
- in some of ARKEMA's businesses, particularly those serving the paint and coatings as well as the refrigeration markets,

the level of sales is generally higher in the first half of the year than in the second half;

 the major multi-annual maintenance turnarounds at ARKEMA's production plants have an impact on seasonality.

These seasonal effects in the past are not necessarily representative of future trends, but can have a material effect on the changes in results and working capital from one quarter of the year to another.

## 4.1.3 DESCRIPTION OF THE MAIN FACTORS WHICH AFFECTED SALES AND RESULTS IN THE PERIOD

In 2013, the Group demonstrated its ability to adapt quickly to a mixed market environment that was less favourable than in 2012. A number of factors affected the performance achieved by the Group's activities to varying degrees or illustrated the implementation of the strategy:

- the confirmation of the positioning of the Group's activities in fastgrowing niche markets supported by sustainable development (lightweight materials in transports, bio-sourced polymers, new energies like lithium-ion batteries) and by the growth of global population and increasing standard of living primarily in Asia (superabsorbents for diapers, animal feed, etc.);
- the Group's strong presence in North America and in Asia where ARKEMA achieves 34% and 20% of its sales respectively;
- the ongoing drive for productivity and cost optimisation, in particular in the Coating Solutions segment which continued to restructure its Coating Resins business in North America, Europe and Asia, and which announced the shutdown of its Chauny site (France) due to be effective at the end of 1<sup>st</sup> quarter 2014. These various productivity efforts enabled ARKEMA to offset three fourth of the inflation on fixed costs in 2013;
- the Group's high density of projects with the implementation of several major developments, e.g. the US\$ 110 million investment programme in Acrylics in North America, the ongoing construction of the Thiochemicals platform in Kerteh, Malaysia - the Group's largest industrial project to date -, and the start-up of a new emulsion plant in Changshu, China. The Group also finalised its investment programme in Lacq (France) designed to secure sulphur feedstock on this site for the next 30 years, and the conversion of the mercury electrolysis to membrane electrolysis in Jarrie (France). These developments were a major contributor to the rise in capital expenditure between 2012 and 2013;
- the preservation of a very sound balance sheet structure with a €923 million net debt, representing one time the EBITDA and a 39% gearing ratio;

- a macroeconomic environment globally less favourable than in 2012:
  - with mixed market conditions between the various regions in which the Group operates. These market conditions deteriorated in Europe in the first nine months of 2013 compared to the first nine months of 2012, before stabilising at low points at year end. In North America (34% of the Group's overall sales), they remained strong, in the continuity of 2012, with a healthy automotive market and a gradual recovery in the construction and decorative paint markets supporting the growth in volumes in the Coating Solutions segment, albeit without recovering their pre-crisis levels. Finally, China experienced for the second year in a row, more moderate growth than prior years, and
  - variations in foreign exchange rates that had a negative impact on the income statement due primarily to the weakening of the US dollar against the euro and, to a lesser extent, to the weakness of the Japanese yen against the euro. On EBITDA, the translation effect is estimated at around -€17 million in 2013. The transaction effect, more difficult to quantify, can be estimated at a similar amount. It results from exports of products manufactured in Europe. The translation impact on the balance sheet was also negative due to the strong decline of the US dollar against the euro by the accounts closing date; and
- market conditions specific to certain product lines of the Group, and in particular:
  - for High Performance Materials, a significant improvement in demand in 4<sup>th</sup> quarter 2013 in the oil and gas sector in particular for the Filtration and Adsorption activity, following the first nine months marked by delays of certain oil and gas projects which impacted the segment's volumes and product mix,
  - in fluorogases, adverse climate conditions seen in 2<sup>nd</sup> quarter 2013, which traditionally represents the peak season for this activity, and increased competitive pressure from some Chinese producers which weighed on prices and margins of some fluorogases,
  - in PMMA in Europe, challenging market conditions, in particular in automotive, and
  - in acrylic monomers, unit margins below mid cycle levels were offset by sound volumes driven by a recovery in decorative paints in the United States as well as Acrylics expansion projects in North America.

## 4.1.4 ANALYSIS OF ARKEMA'S INCOME STATEMENT

In accordance with standard IFRS 5, the results of the vinyl activities, divested in early July 2012, have been accounted for in the Group's consolidated income statement as "discontinued operations" for 2012.

(In millions of euros)	2013	2012	Variations
Sales	6,098	6,395	-4.6%
Operating expenses	(4,950)	(5,137)	-3.6%
Research and development expenses	(144)	(148)	-2.7%
Selling and administrative expenses	(416)	(432)	-3.7%
Recurring operating income	588	678	-13.3%
Other income and expenses	(205)	(27)	-
Operating income	383	651	-41.2%
Equity in income of affiliates	5	10	-50.0%
Financial result	(55)	(54)	+1.9%
Income taxes	(161)	(186)	-13.4%
Net income of continuing operations	172	421	- <b>59.</b> 1%
Net income of discontinued operations	-	(200)	-
Net income	172	221	-22.2%
Minority interests	4	1	× 3
Net income – Group share	168	220	-23.6%
EBITDA	902	996	<b>-9.4</b> %
Adjusted net income of continuing operations	368	441	-16.6%

#### SALES

Sales reached €6.1 billion, close to the 2012 sales at constant scope and foreign exchange rate. In a less favourable economic environment than in 2012 in particular in Europe, volumes grew by +1.4%, supported mainly by Coating Solutions which benefited from growth investments in acrylic monomers in North America and in Europe and a gradual improvement in volumes in decorative paints in the United States. Despite a sharp improvement in the oil and gas market at end 2013 for the Filtration and Adsorption activity, volumes for High Performance Materials remained slightly down in the year compared to the high basis of comparison of 2012, impacted by delays of certain oil and gas projects and by a less favourable environment in photovoltaics. The -2.0% price / product mix effect reflects more challenging market conditions in fluorogases and a less favourable product mix in High Performance Materials. The -1.9% scope of business effect corresponds primarily to the divestment of the tin stabilizer business. Finally, the translation effect, essentially related to the significant decline of the US dollar against the euro, stood at -2.1%.

The breakdown of sales by geographical region is balanced and stable overall compared to 2012, with Europe representing 41% of the Group's total sales (40% in 2012), North America 34% (34% in 2012), Asia 20% (21% in 2012), and the rest of the world 5%.

The breakdown of sales by business segment remained also balanced, with High Performance Materials representing 30% of the Group's total sales (33% in 2012), Industrial Specialties 33% (33% in 2012), and Coating Solutions 37% (34% in 2012).

## EBITDA AND RECURRING OPERATING INCOME

In a mixed economic environment that was overall less favourable than in 2012, ARKEMA achieved €902 million EBITDA against €996 million in 2012. Higher volumes supported by organic growth investments and productivity efforts, which helped offset three quarters of the inflation in fixed costs, partially offset strong pressure on margins in fluorogases, unit margins slightly below mid cycle levels in acrylic monomers, a less favourable product mix in High Performance Materials, a -€17 million translation effect related to the weakening of the US dollar against the euro, and the impact of the divestment of tin stabilizer. EBITDA margin remained high at 14.8% (15.6% in 2012), confirming the quality and resilience of ARKEMA's specialty portfolio.

Operating expenses stood at €4,950 million against €5,137 million in 2012. This decrease is essentially due to the translation effect related to the weakness of the US dollar against the euro, the variation in raw materials costs which nevertheless remained high just as in prior years, and productivity efforts that helped offset three quarters of the inflation in fixed costs.

Research and development expenses reached €144 million, *i.e.* 2.4% of sales, against €148 million and 2.3% of sales in 2012. Excluding the decrease of expenses primarily linked to the decline of the US dollar against the euro, the Group maintained its research drive in order to continue developing new applications and sustain its growth plan and its ambition for 2016.

Selling and administrative expenses stood at €416 million against €432 million in 2012. This drop reflects the translation effect of the US dollar against the euro, a strict control of costs, and variations in the scope of business.

Recurring operating income stood at  $\in$ 588 million against  $\in$ 678 million in 2012, after deduction of  $\in$ 314 million depreciation and amortisation, slightly down on last year ( $\in$ 318 million). The increase in depreciation and amortisation due primarily to the start-up of new production plants was fully offset by the absence of exceptional depreciation in 2013, the translation effect related to the decline of the US dollar against the euro, and the impact of the divestment of the tin stabilizer business.

#### **OPERATING INCOME**

Operating income stood at €383 million against €651 million in 2012. This includes other income and expenses amounting to .€205 million in 2013, against .€27 million in 2012.

In 2013, other income and expenses mainly corresponded to:

- the consequences of the receivership of Kem One SAS which comprises the upstream part (chlorine / caustic soda electrolyses and PVC production) of the vinyl activities sold by ARKEMA in July 2012. As part of these proceedings, which closed on 20 December 2013, ARKEMA in particular will sell for 1 euro all the receivables it holds on Kem One SAS, adjusted certain commercial services and contributions supplied to the company, and provisioned the warranties given to third parties. In 2013, ARKEMA recorded a €148 million net charge with respect to the definitive exit of all vinyl activities;
- €38 million restructuring charges primarily linked to restructuring operations in the Coating Solutions segment. In particular, these correspond to charges and impairment of assets booked following the announcement of the project to close down the Chauny site (France) amounting to a total of €30 million as well as charges booked as part of the restructuring of the Coating Resins activities in North America, Europe and Asia;

• various charges related to divestment and acquisition operations, claims and disputes.

In 2012, other income and expenses mainly corresponded to the impact of a shortage in the supply of CDT (raw material for polyamide 12) following an accident on the Evonik site in Marl, Germany, amounting to -€17 million, and to various expenses related to divestment and acquisition operations.

#### EQUITY IN INCOME OF AFFILIATES

Equity in the income of affiliates came to €5 million against €10 million in 2012. This reflects primarily the performance of Qatar Vinyl Company. This 13% shareholding was sold by ARKEMA in 4<sup>th</sup> quarter 2013.

#### FINANCIAL RESULT

The financial result stood at -€55 million against -€54 million in 2012, which included a €5 million charge relating to actuarial losses on certain provisions for employee benefits (long-service awards). The €6 million increase in the cost of the debt reflects the increase in the average debt over the period, whereas the average interest rate dropped to around 3% (3.4% in 2012).

#### **INCOME TAXES**

Income taxes amounted to €161 million in 2013, representing 27.4% of the recurring operating income, stable compared to 2012. This rate reflects the geographical breakdown of the results, with a significant part of the Group's results generated in North America, and tax losses recorded in France following the recognition of significant exceptional charges. At end 2013, unrecognised deferred tax assets amounted to €632 million.

#### NET INCOME GROUP SHARE AND ADJUSTED NET INCOME

Net income Group share stood at  $\in 168$  million in 2013. It stood at  $\in 220$  million in 2012 after deduction of the  $\cdot \in 200$  million net result of discontinued operations corresponding to the net result of the vinyl activities sold in July 2012 which included  $\cdot \in 73$  million operating net result of the activity and other income and expenses amounting to a total of  $\cdot \in 127$  million.

Excluding the after-tax impact of non-recurring items, adjusted net income amounted to  $\notin$ 368 million in 2013, against  $\notin$ 441 million adjusted net income of continuing operations in 2012.

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## 4.1.5 ANALYSIS OF RESULTS BY SEGMENT

#### 4.1.5.1 HIGH PERFORMANCE MATERIALS SEGMENT

(In millions of euros)	2013	2012	Variations
Sales	1,842	2,101	-12.3%
Recurring operating income	212	252	-1 <b>5.9</b> %
Other income and expenses	(11)	(18)	-
Operating income	201	234	-14.1%
EBITDA	316	361	-12.5%
EBITDA margin	17.2%	17.2%	-

High Performance Materials sales reached  $\in 1,842$  million, 4.0% down at constant scope and foreign exchange rate compared with 2012 which represented a high basis for comparison. Variations in the scope of business primarily linked to the divestment of the tin stabilizer business accounted for over half the decrease in the segment's sales (-6.4%), while the translation effect related to the weakening of the US dollar and the Japanese yen against the euro represented -1.9%. Despite a sharp improvement in 4<sup>th</sup> quarter 2013, volumes were down over the twelve months. They reflect delays in certain oil and gas projects, which mainly affected Technical Polymers and Filtration and Adsorption, and a less favourable environment in photovoltaics. These factors also affected the segment's product mix and therefore the price effect.

EBITDA stood at €316 million against €361 million in 2012, while EBITDA margin remained constant at 17.2%, close to the segment's 18% target for 2016. Specialty polyamides again reported a solid performance thanks to their positioning in higher added value niche markets (bio-sourced polymers and lightweight materials for energy savings in cars and trucks). Lower demand in the traditionally high-growth oil and gas and photovoltaic markets impacted on the results of fluoropolymers as well as the Filtration and Adsorption activity. Profitability in Organic Peroxides continued to improve thanks in particular to the optimisation of the business unit's activities portfolio with the disposal of the tin stabilizer business.

Recurring operating income amounted to €212 million against €252 million in 2012, in line with the EBITDA variation, and a €5 million decrease in the segment's depreciation and amortisation (€104 million in 2013) primarily linked to changes in the scope of business.

Operating income stood at  $\notin$ 201 million in 2013. It includes other income and expenses for a net total of #11 million (#18 million in 2012), mostly related to the impact of claims and divestment operations. In 2012, other income and expenses mostly reflected the consequences of a disruption in the supply of CDT, the raw material of polyamide 12, following an accident at the Evonik site.

#### 4.1.5.2 INDUSTRIAL SPECIALTIES SEGMENT

(In millions of euros)	2013	2012	Variations
Sales	1,993	2,096	- <b>4.9</b> %
Recurring operating income	225	285	-21.1%
Other income and expenses	(2)	3	-
Operating income	223	288	-22.6%
EBITDA	340	399	-14.8%
EBITDA margin	17.1%	19.0%	-

Industrial Specialties sales stood at €1,993 million against €2,096 million in 2012. At constant scope and foreign exchange rate, this 3.0% decrease mostly reflects, in fluorogases, adverse weather conditions in 2<sup>nd</sup> quarter 2013 combined with increased competitive pressure in some gases, and, in PMMA, more challenging market conditions in Europe.

EBITDA stood at €340 million against €399 million in 2012, while EBITDA margin remained at a high level at 17.1% (19.0% in 2012) in line with the 17% target by 2016. While the results of the Fluorochemicals and PMMA activities were impacted by more challenging and mixed market conditions between geographical regions, the Thiochemicals activity continued to deliver a solid performance despite the impact of one-off technical problems encountered on the Lacq (France) and Beaumont (United States) sites, which affected its performance in 4<sup>th</sup> quarter 2013. Hydrogen Peroxide reported a stable performance.

Recurring operating income amounted to €225 million against €285 million in 2012, in line with the EBITDA variation, and includes globally stable depreciation and amortisation compared to 2012 at €115 million.

Operating income amounted to €223 million in 2013, and includes other income and expenses amounting to €2 million.

#### 4.1.5.3 COATING SOLUTIONS SEGMENT

[In millions of euros]	2013	2012	Variations
Sales	2,224	2,175	+2.3%
Recurring operating income	199	192	+3.6 %
Other income and expenses	(40)	(8)	-
Operating income	159	184	-13.6%
EBITDA	292	279	+4.7%
EBITDA margin	13.1%	12.8%	-

Coating Solutions achieved  $\notin 2,224$  million sales, 5.2% up on 2012 at constant scope and foreign exchange rate. Volumes grew significantly (+4.6%), supported both by higher demand in the decorative paints market in the United States and in Asia, and by the growth investments made in acrylic monomers on the Clear Lake (Texas) and Carling (France) sites. The translation effect, primarily due to the weakening of the US dollar against the euro, amounted to -2.7%.

Coating Solutions delivered €292 million EBITDA in 2013, 4.7% up on 2012, while EBITDA margin rose to 13.1%. Higher volumes and significant productivity efforts made across the segment and in particular in Coating Resins helped offset the negative impact of exchange rates and the relative decrease, compared to 2012, of unit margins in acrylic monomers. Coatex's rheology additives

activities and Sartomer's photocure resins business both achieved good performance, supported by innovation, geographical expansion, and their positioning in high added value specialty activities.

Recurring operating income reached €199 million against €192 million in 2012 after deduction of €93 million depreciation and amortisation, €6 million up on 2012, mostly due to the startup of new acrylic monomer plants in North America.

Operating income stood at €159 million in 2013 and includes other expenses and income amounting to -€40 million corresponding mainly to restructuring charges related in particular to the announcement of the closure of the Chauny site (France) for €30 million and to various restructuring operations in the Coating Resins business in Europe, North America and Asia.

## 4.1.6 BALANCE SHEET ANALYSIS: COMPARISON OF 2013 WITH 2012

(In millions of euros)	12/31/2013	12/31/2012	Variations
Non-current assets <sup>(1)</sup>	3,162	3,068	+3.1%
Working capital	908	971	-6.5%
Capital employed	4,070	4,039	+0.8%
Provisions for pensions and employee benefits	361	432	-16.4%
Other provisions	397	400	-0.8%
Total provisions	758	832	- <b>8.9</b> %
Long-term assets covering some provisions	60	58	+3.4%
Total provisions net of non-current assets	698	774	<b>-9.8</b> %
Net debt	923	900	+2.6%
Shareholders' equity	2,349	2,311	+1.6%

(1) Excluding deferred tax.

Between 2012 and 2013, non-current assets increased by €94 million. This variation was due primarily to:

- a €102 million increase in net tangible and intangible assets related primarily to:
  - €481 million capital expenditure (€438 million in 2012). The increase in capital expenditure from 2012 to 2013 reflects the Group's focused growth strategy. Capital expenditure in 2013 included €329 million recurring capital expenditure and €152 million exceptional capital expenditure related mostly to the construction of the Thiochemicals platform in Malaysia, the Lacq 2014 project designed to secure over the next 30 years sulfur feedstock on the Lacq site (France), and the conversion of mercury electrolysis to membrane electrolysis on the Jarrie site (France). In 2013, capital expenditure in Asia and in the rest of the world accounted for 30% of the Group's capital expenditure, while capital expenditure in North America and in Europe represented 18% and 52% respectively,
  - net depreciation and amortisation amounting to €323 million including €9 million impairment of assets following the announcement in 3<sup>rd</sup> quarter 2013 of the project to close down the Chauny site (France) in the Coating Solutions segment,
  - and a €56 million negative currency translation effect, related to the weakening of the US dollar against the euro at yearend;
- an €8 million reduction in other non-current assets including primarily (i) a €59 million decrease in the share held in the net equity of Qatar Vinyl Company, a company consolidated under the equity method whose shares were sold in 4<sup>th</sup> quarter 2013 as part of the definitive exit of all vinyl activities, (ii) a €28 million increase in receivable on the French State with regard to the research tax credit and the tax credit for

competitiveness and employment, (iii) a €16 million increase in other equity investments following various investments in several companies and the deconsolidation of two South African coating resins subsidiaries as part of a divestment project announced end 2013.

Working capital decreased by  $\in 63$  million between 2012 and 2013, including  $\cdot \in 33$  million relating to the translation effect. It represented 14.9% of Group sales in 2013 (against 15.2% in 2012) in line with the target set by the Group to maintain its working capital to sales ratio at around 15%. This performance reflects the ongoing control of working capital through the strict operational discipline put in place since ARKEMA's spin-off.

Between 2012 and 2013, ARKEMA's capital employed increased by  $\leq 31$  million to  $\leq 4,070$  million. In 2013, the breakdown of capital employed (excluding Corporate) was as follows: 35% for High Performance Materials (35% in 2012), 33% for Industrial Specialties (31% in 2012), and 32% for Coating Solutions (34% in 2012). The geographical breakdown of capital employed was as follows: the share of Asia and the rest of the world stood at 20% in 2013 (19% in 2012), the share of North America remained stable at 26%, and the share of Europe stood at 54% against 55% in 2012.

At 31 December 2013, gross provisions amounted to €758 million. Some of these provisions, accounting for a total of €60 million at 31 December 2013, are mostly covered by the guarantee facility granted by Total and described in note 29.2 of the notes to the consolidated financial statements at 31 December 2013 (section 4.3.3 of this reference document) and therefore by longterm assets recognised in the balance sheet. These consist mainly of provisions related to former industrial sites in the United States. Accordingly, at 31 December 2013, provisions net of these noncurrent assets amounted to €698 million against €774 million at 31 December 2012.

The breakdown of net provisions by type was as follows: pension liabilities of €264 million (€331 million in 2012), other employee benefit obligations of €92 million (€100 million in 2012), environmental contingencies of €122 million (€123 million in 2012), restructuring of €50 million (€50 million in 2012), and other provisions of €170 million (€170 million in 2012).

The  $\in 75$  million reduction in provisions for pension liabilities and other employee benefit obligations (mainly healthcare costs, welfare costs, long-service awards) between 2012 and 2013 is due primarily to higher discount rates over the period. The other provisions remained stable overall over the period. They included on 31 December 2013,  $\in 84$  million provisions relating to the divestment of the vinyl activities ( $\in 53$  million at end December 2012), some two thirds of which could be cashed-out in 2014.

Net debt amounted to €923 million at 31 December 2013, against €900 million at end 2012. Gearing, at 39%, remained in line with the Group's target to maintain it below 40%. It includes primarily the payment of a €1.80 dividend per share totalling €113 million, and the net impact of portfolio management operations amounting to €51 million corresponding mostly to the consequences of the receivership of Kem One SAS as well as various acquisitions and divestments finalised in 2013, including the disposal by the Group of its shares in Qatar Vinyl Company.

## 4.1.7 FINANCING RESOURCES

#### 4.1.7.1 BORROWING TERMS AND CONDITIONS AND FINANCING STRUCTURE OF THE GROUP

The Group has diversified financing resources including bond issues, multicurrency credit facilities, a securitisation program, and a commercial paper programme, as detailed below. At the date of this reference document, these resources amounted to  $\notin 2$  billion.

#### **Bond** issues

As part of the Group's long-term financing policy aimed at diversifying its financing resources as well as extending the maturity of its debt, the Company conducted the following three operations:

- on 25 October 2010, an initial bond issue for €500 million over seven years and with a 4% annual interest rate;
- on 26 April 2012, a bond issue for €230 million over eight years and with a 3.85% interest rate. On 5 October 2012, the issue of an additional €250 million tranche, bringing the total of the bond issue to €480 million;
- on 6 December 2013, a bond issue for €150 million over ten years with a 3.125% interest rate.

The documentation for the first two bond issues was filed with AMF (*Autorité des marchés financiers*) on 22 October 2010, under number 10-380, and on 5 October 2012, under number 12-478 respectively.

The 2013 bond issue was part of the Euro Medium Term Notes ("EMTN") programme put in place by the Group in 2013 in order to gain easier access to the bond markets. The documentation for this programme was filed with AMF under number 13-535 on 9 October 2013.

The documentation includes usual bond default cases, in particular non-payment, early repayment consecutive to non-payment, collective proceedings, or cessation of activity of the issuer or a major subsidiary. These default cases may be conditional to thresholds being exceeded or the expiry of grace periods.

Finally, all three bond issues are accompanied by an early repayment option at bondholders' request in the event of a change of control of Arkema also involving a downgrading of its credit rating to "non investment grade", or a simple downgrading thereof if it was "non investment grade" prior to the change of control.

Note, finally, that the documentation for the 2010 and 2012 bond issues includes an interest rate adjustment clause in the event of a downgrading of the Group's credit rating to "non investment grade".

Further details may be found in the EMTN programme base prospectus and in the two above-mentioned prospectuses, all three being available on the Company's website (www.finance. arkema.com) in the "Financials / Debt" section.

#### Revolving multi-currency credit facility for €700 million

On 26 July 2011, the Company and Arkema France (the "**Borrowers**") and a syndicate of banks signed a revolving multi-currency credit facility in the maximum amount of €700 million maturing on 26 July 2016 (the "**Facility**").

The purpose of the Facility is to finance, in the form of drawings and bank guarantees, the Group's general corporate purposes. This line of credit was not used as at 31 December 2013.

Other Group companies have the possibility to become borrowers under the Facility, in the same capacity as the Company and Arkema France.

The Facility provides for prepayment in certain cases, including a change of control over the Company (defined as any person, acting alone or in concert, holding, directly or indirectly, more than one third of the voting rights of the Company). Should this clause be triggered by a lender, it could lead to prepayment and cancellation of the commitments of such lender.

The Facility contains representations to be made by each Borrower relating, among other things, to the accounts, litigation, or the absence of events of default. Some such representations have to be reiterated at the time of each utilisation request.

The Facility also contains the standard undertakings for this type of agreement, including:

- information undertakings (mainly accounting and financial information);
- undertakings relating, among other things, to certain restrictions in connection with (but not limited to) the granting of securities, the completion of merger or restructuring transactions, the sale or purchase of assets, and the Group's indebtedness. Depending on the case, such restrictions will not apply to ordinary operations or to transactions involving amounts below certain thresholds;
- a financial undertaking: the Company undertakes to maintain a ratio of consolidated net debt to consolidated EBITDA (tested twice a year) equal to or less than 3. This ratio may be increased to 3.5 over a twelve-month baseline period if this increase is justified by the realisation of acquisition(s) of asset(s) or securities, increase(s) in capital, or investment(s) in joint ventures resulting from a joint venture agreement. The Company is authorised to exercise this flexibility twice over the lifetime of the Facility.

The Facility also provides for default cases similar to those described in the documentation of the above-mentioned bond issues.

Lastly, Arkema guarantees on a joint and several basis to the banks the obligations of Arkema France under the terms of the Facility, as well as those of the other borrowers, where applicable. The Facility is not subject to any other personal guarantee or security.

#### Securitisation programme

Arkema France has a non-unconsolidating securitisation program for its trade receivables in the maximum amount of  $\in$ 120 million. The programme's documentation features early repayment clauses, including, under certain conditions, non-compliance with the usual financial performance ratios of the receivable portfolio (dilution, late or non-payment ratios), payment cross-acceleration, or a change of control of Arkema France or the Company.

At 31 December 2013, the amount financed as part of this securitisation programme was €2 million.

#### **Commercial paper programme**

Arkema S.A. put in place in April 2013 a commercial paper programme with a ceiling of €1 billion. This programme was not used as at 31 December 2013.

#### 4.1.7.2 INFORMATION ON RESTRICTIONS ON THE USE OF CAPITAL THAT HAS SIGNIFICANTLY INFLUENCED OR MAY SIGNIFICANTLY INFLUENCE, DIRECTLY OR INDIRECTLY, THE GROUP'S BUSINESS

Subject to the stipulations of the syndicated facilities described above, there are no restrictions on the use of capital that may significantly influence, either directly or indirectly, ARKEMA's business.

#### 4.1.7.3 ANTICIPATED SOURCES OF FINANCING FOR FUTURE INVESTMENTS

Given the Group's cash position as at 31 December 2013 and its financing resources described in paragraph 4.1.7.1 of this reference document, the Group believes that it is in a position to finance its future investments, in particular those described in section 1.3 of this reference document.

## 4.1.8 GROUP CASH FLOW ANALYSIS: COMPARISON OF 2013 WITH 2012

(In millions of euros)	2013	2012
Cash flow from operating activities	467	499
Cash flow from investing activities	(389)	(754)
Net cash flow	78	(255)
of which:		
Non-recurring items	(193)	(153)
Net cash flow from portfolio management <sup>(1)</sup>	(51)	(231)
Net cash flow from discontinued activities	-	(230)
Recurring cash flow <sup>(2)</sup>	322	359
Free cash flow (3)	129	206
Cash flow from financing activities	(60)	355
Variation in cash and cash equivalents	18	100

 Including cash flow from portfolio management included in the cash flow from investing activities for +€72 million and cash flow related to the consequences of the receivership of Kem One SAS included in the cash flow from operating activities for -€123 million.

(2) Net cash flow excluding impact of portfolio management and non-recurring items.

(3) Net cash flow excluding impact of portfolio management.

#### CASH FLOW FROM OPERATING ACTIVITIES

In 2013, cash flow from operating activities amounted to  $\notin$ 467 million. It includes (i) income taxes of - $\notin$ 139 million, (ii) cash items in the financial result of - $\notin$ 41 million, (iii) non-recurring items of - $\notin$ 47 million mostly corresponding to restructuring expenses (- $\notin$ 26 million), and various cash-outs related to certain litigations, (iv) variation in working capital excluding cash flow related to the exit of the vinyl activities and non-recurring items of - $\notin$ 57 million, and (v) cash flow related to the consequences of the receivership of Kem One SAS for a net amount of -%123 million.

In 2012, cash flow from operating activities stood at €499 million and included (i) taxes of -€182 million, (ii) cash items in the

financial result of  $. \le 37$  million, (iii) non-recurring items of  $. \le 88$  million mostly corresponding to restructuring expenses and to the consequences of the accident on the site of Evonik in Marl (Germany), the main producer of the raw material for polyamide 12, (iv) a variation in working capital of the continuing activities of  $. \le 13$  million, and (v) operating cash flow from discontinued operations of  $. \le 157$  million.

Excluding items related to the divestment of the vinyl activities, operating cash flow stood at €590 million, €66 million down on 2012. This decrease is due primarily to the EBITDA and the working capital variations which were partly offset by the significant decrease in income taxes and non-recurring items included in the operating cash flow.



#### CASH FLOW FROM INVESTING ACTIVITIES

Cash flow from investing activities amounted to -€389 million in 2013. It includes primarily:

- €329 million capital expenditure in tangible and intangible assets corresponding to (i) growth projects such as the Acrylics investment programme in Bayport and Clear Lake (United States) and the construction of new plants in Asia, e.g. the acrylic latex plant in Changshu, (ii) investments made as part of the "Ambition" project designed to improve ARKEMA's supply chain and hence the satisfaction of the Group's customers, and (iii) maintenance, safety and environment investments;
- exceptional capital expenditure included in non-recurring items with a net total amount of €152 million, corresponding mainly to exceptional investments made as part of three major industrial Group projects: the construction of a Thiochemicals platform in Malaysia, the Lacq 2014 project designed to secure sulphur-based feedstock for the Group's thiochemicals activities on the Lacq site (France) over the next 30 years, and the conversion of a mercury electrolysis to membrane electrolysis on the Jarrie site (France);
- the impact of portfolio management for a net amount of +€72 million corresponding mainly to the acquisitions and divestments made in 2013, including the sale of shares in Qatar Vinyl Company.

In 2012, cash flow from investing activities stood at -€754 million. It included mainly (i) recurring capital expenditure of €351 million, (ii) non-recurring items, including exceptional capital expenditure, of -€65 million, (iii) the net impact of acquisitions and divestments finalised in 2012 for a total amount of -€231 million corresponding

mainly to the acquisition of Chinese companies Hipro and Casda and to the divestment of the tin stabilizer business, and (iv) cash flow from investing activities from discontinued activities of -€73 million.

## RECURRING CASH FLOW AND FREE CASH FLOW

Excluding non-recurring items and portfolio management, recurring cash flow stood at €322 million in 2013 against €359 million in 2012. It represents 36% of 2013 EBITDA, stable compared to 2012.

Free cash flow, which corresponds to the net cash flow excluding the impact of portfolio management and excluding the net cash flow from discontinued operations, stood at €129 million in 2013 against €206 million in 2012.

#### NET GROUP CASH FLOW

After taking account of the impact of portfolio management, the Group's net cash flow stood at €78 million in 2013. In 2012, net cash flow stood at €255 million.

#### CASH FLOW FROM FINANCING ACTIVITIES

Cash flow from financing activities amounted to -€60 million in 2013 against €355 million in 2012. This included a €142 million increase in the long-term debt mostly following the €150 million bond issue, a €100 million reduction in the short-term debt, and the payment of a dividend of €1.80 per share totalling €113 million.

## 4.2 TRENDS AND OUTLOOK

## 4.2.1 TRENDS

#### 4.2.1.1 MAIN TRENDS

At the beginning of 2014, market conditions remain contrasted from one region to another in the continuity of the second half of 2013. North America continued to benefit from a solid environment despite a particularly cold winter affecting the start of the year, which has had an impact on the operation of the Texas facilities in particular. In Europe, the situation has stabilised at low levels. In China, following the quieter period around the Chinese New Year, growth should gradually return to more sustained levels. Finally, market conditions in Fluorogases remain challenging in line with the second half of 2013. The first quarter 2013 represents a high comparison base for this activity. However, the base of comparison should become more favourable again from the middle of the second quarter.

The business environment in which the Group operates is characterised, at the date of this reference document, by (i) a context of ongoing high energy and raw material costs, (ii) ongoing weakness of the US dollar against the euro and significant volatility in foreign exchange rates affecting the currencies of emerging countries, (iii) a contrasted macroeconomic environment from one region to another marked by market conditions that have stabilised at low levels in Europe and an ongoing solid environment in North America, (iv) ongoing growth in China and in emerging countries, albeit at a significantly slower pace than in the past, (v) further opportunities related to the major sustainable development trends such as lightweight materials, access to drinking water, development of new energies, and use of renewable raw materials, (vi) tightening-up of regulations (e.g. REACH regulation in Europe), and (vii) continuing productivity efforts and repositioning by the Group's main competitors.

As of the date of this reference document, there is no reason to expect that the long-term prospects in the Group's main markets as described in chapter 1 of this reference document could be significantly affected over the long term, even if there is no guarantee that these trends will endure, given the uncertainties over the future of the economy in general, the markets in which the Group is active, raw material and energy prices, foreign exchange rates, and continuous regulatory changes.

#### 4.2.1.2 FACTORS LIKELY TO AFFECT THE GROUP'S OUTLOOK

Some of the statements regarding the Group's outlook contained in this reference document are based on the current opinions and assumptions of the Group's senior management. This information is subject to certain risks, both known and unknown, and to uncertainties. Consequently, actual results, performance or events may differ substantially from such outlook. Some factors that may influence future results are, without being exhaustive:

- general market and competition-related factors on a global, national or regional scale;
- changes in the competitive, customer, supplier and regulatory environment in which the Group operates;
- fluctuations in raw materials and energy prices;
- the Group's sensitivity to fluctuations in interest rates and in currencies other than the euro, particularly the US dollar and currencies influenced by the US dollar;
- the Group's capacity to introduce new products and to continue to develop its production processes;
- concentration of customers and of the market;
- risks and uncertainties relating to conducting business in many countries that may in the future be exposed or have recently been exposed to economic or political instability;
- changes in economic and technological trends;
- potential complaints, costs, commitments or other obligations relating to the environment.



## 4.2.2 OUTLOOK

The Group aims to become a world leader in specialty chemicals and advanced materials.

For 2014, market conditions should remain mixed from one region of the world to another, and it is assumed that the euro versus US dollar exchange rate will remain stable compared to last year. Over the course of the year, the Group will continue to pursue its growth policy with a capital expenditure programme of around €450 million. Finalising the project to acquire acrylic assets of Jurong Chemical in China, starting the Thiochemicals platform in Malaysia, accelerating research and development programmes on composite materials, bio-sourced polymers and batteries, and implementing productivity initiatives are top priorities of the year. While remaining cautious on the economic environment, the Group is confident in its ability to grow EBITDA in 2014.

Beyond this, the Group has set itself ambitious targets for 2016 with the aim of achieving €8 billion sales and a 16% EBITDA margin while maintaining its gearing below 40%. To achieve its objectives, the Group implements a focused growth strategy in market segments and in countries with a strong development potential. Organic growth will be primarily supported by growth projects developed thanks to innovation, by geographical expansion in higher growth countries such as China and the Middle East, and by accelerating an operational excellence programme designed to optimise the Group's variable and fixed costs that could represent €50 million annual savings in three years time. The Group will in particular continue to implement a number of cost-saving measures to help partly offset inflation in fixed costs. Capital expenditure anticipated by the Group over the period from 2013 to 2016 would amount to €1.7 billion in total. As regards portfolio management, the Group plans to make small to medium size bolt-on acquisitions representing additional sales of around €1 billion, and to divest small activities that are not strategic for the Group accounting for sales of around €400 million. The Group could allocate to this portfolio management programme €1.0 to 1.2 billion cash net of the proceeds from divestments. The project to acquire acrylic assets from Jurong Chemical in China at a cost of US\$ 475 million for the acquisition of 320,000 tonnes/year of acrylic acid, falls within this budget. In terms of divestments, the Group has completed just over half of its divestment programme with the sale of its tin stabilizer business end 2012 and the announcement of a project for the sale of its coating resins business in South Africa.

The Group's 16% EBITDA margin in 2016 would be broken down by segment as follows: 18% for High Performance Materials, 17% for Industrial Specialties, and 15% for Coating Solutions.

From a geographical standpoint, the Group eventually aims for a completely evenly balanced split between Europe, North America and Asia / rest of the world, with one third of its sales achieved in each of these three regions.

Finally, in the longer term, the Group aims to achieve €10 billion sales and an EBITDA margin close to 17% by 2020, while maintaining its gearing below 40%.

The Group indicates that the achievement of its objectives is based on assumptions deemed reasonable by the Group over this time scale at the date of this reference document (in particular the evolution of world demand, conditions relating to the cost of raw materials and energy, the balance between supply and demand for products marketed by ARKEMA and their price levels, and currency exchange rates). However, it takes no account of the materialisation of certain risks described in paragraph 1.7.2 of this reference document, or unknown factors related to the economic, financial, competitive or regulatory environment in which the Group operates, liable to affect the achievement of its objectives.

## 4.3 CONSOLIDATED FINANCIAL STATEMENTS

## 4.3.1 STATUTORY AUDITORS' REPORT ON THE CONSOLIDATED FINANCIAL STATEMENTS

This is a free translation into English of the statutory auditors' report on the consolidated financial statements issued in French and it is provided solely for the convenience of English-speaking users. The statutory auditors' report includes information specifically required by French law in such reports, whether modified or not. This information presented below is the audit opinion on the consolidated financial statements and includes an explanatory paragraph discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the consolidated financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions or disclosures. This report also includes information relating to the specific verification of information given in the Group's management report. This report should be read in conjunction with and construed in accordance with French law and professional auditing standards applicable in France.

#### KPMG Audit

Département de KPMG S.A. 1, cours Valmy 92923 Paris-La Défense Cedex Commissaire aux comptes Membre de la compagnie régionale de Versailles ERNST & YOUNG Audit 1/2, place des Saisons 92400 Courbevoie-Paris-La Défense 1 S.A.S. à capital variable Commissaire aux comptes Membre de la compagnie régionale de Versailles

#### Arkema

Year ended December 31, 2013

#### Statutory auditors' report on the consolidated financial statements

To the Shareholders,

In compliance with the assignment entrusted to us by your annual general meetings, we hereby report to you, for the year ended December 31, 2013, on:

- the audit of the accompanying consolidated financial statements of Arkema;
- the justification of our assessments;
- the specific verification required by law.

These consolidated financial statements have been approved by the Board of Directors. Our role is to express an opinion on these consolidated financial statements based on our audit.

#### I. Opinion on the consolidated financial statements

We conducted our audit in accordance with professional standards applicable in France; those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement. An audit involves performing procedures, using sampling techniques or other methods of selection, to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as the overall presentation of the consolidated financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the consolidated financial statements give a true and fair view of the assets and liabilities and of the financial position of the group as at December 31, 2013 and of the results of its operations for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union.

Consolidated financial statements

#### II. Justification of our assessments

In accordance with the requirements of article L. 823-9 of the French commercial code (*Code de commerce*) relating to the justification of our assessments, we bring to your attention the following matters:

- each year, the group tests its property, plant and equipment and intangible assets for impairment following the methodology described in note 6 of chapter B "Accounting policies" to the consolidated financial statements. We examined the methodology used for these impairment tests together with the underlying data and assumptions used and reviewed the calculations and the sensitivity tests made by the group. We also verified that the disclosures made in note 6 of chapter B of the notes to the financial statements "Accounting policies", as well as notes 4, 9 and 10 of chapter C "Notes to the consolidated financial statements" to the consolidated financial statements provide an appropriate level of information;
- the group books contingency and loss provisions to notably cover environmental risks, litigations in respect of competition law, restructuring costs and costs related to divested activities, following the principles disclosed in note 10 of chapter B "Accounting policies" to the consolidated financial statements. On the basis of available information, our work consisted in analyzing the procedures used by management to identify and measure risks subject to these provisions and in examining the data and assumptions underlying the estimates provided by the group to support such provisions, including some correspondence with lawyers, in order to assess their reasonableness. We also verified that the disclosures made in the chapter A "Highlights", in note 4 regarding other income and expenses, notes 19.2, 19.3, 19.4 and 19.5 regarding provisions, in notes 20.1, 20.2.2 and 20.2.4 regarding liabilities and contingent liabilities, and notes 29.1, 29.2.1 and 29.2.2 regarding commitments granted and received, of chapter C "Notes to the consolidated financial statements" provide an appropriate level of information, in particular regarding the consequences of takeover of Kem One by a third party and the request for arbitration filed by Klesch;
- the group books provisions to cover its employee pensions and other post-employment benefit liabilities using the method described in note 9 of chapter B "Accounting policies" to the consolidated financial statements. These liabilities were essentially measured by independent actuaries. We examined the underlying data and assumptions used, and verified that the disclosures made in note 9 of chapter B "Accounting policies" and note 18, regarding provisions for pensions and other employee benefits, of chapter C "Notes to the consolidated financial statements" provide an appropriate level of information.

These assessments were made as part of our audit of the consolidated financial statements taken as a whole, and therefore contributed to the opinion we formed which is expressed in the first part of this report.

#### III. Specific verification

As required by law we have also verified, in accordance with professional standards applicable in France, the information presented in the group's management report.

We have no matters to report as to its fair presentation and its consistency with the consolidated financial statements.

Paris La Défense, 3 March 2014 The statutory auditors French original signed by

KPMG Audit Département de KPMG S.A.

ERNST & YOUNG Audit

Jacques-François Lethu

François Quédiniac

Valérie Quint

## 4.3.2 CONSOLIDATED FINANCIAL STATEMENTS AT 31 DECEMBER 2013

### CONSOLIDATED INCOME STATEMENT

(In millions of euros)	Notes	2013	2012
Sales	(C1&C2)	6,098	6,395
Operating expenses	(01002)	(4,950)	(5,137)
Research and development expenses	(C3)	(144)	(148)
Selling and administrative expenses	()	(416)	(432)
Recurring operating income	(C1)	588	678
Other income and expenses	(C4)	(205)	(27)
Operating income	(C1)	383	651
Equity in income of affiliates	(C11)	5	10
Financial result	(C5)	(55)	(54)
Income taxes	(C7)	(161)	(186)
Net income of continuing operations	. ,	172	421
Net income of discontinued operations			(200)
Net income		172	221
Of which: non-controlling interests		4	1
Net income – Group share	(C6)	168	220
Of which: continuing operations		168	420
Of which: discontinued operations		-	(200)
Earnings per share (amount in euros)	(C8)	2.68	3.54
Earnings per share of continuing operations (amount in euros)	(C8)	2.68	6.75
Diluted earnings per share (amount in euros)	(C8)	2.65	3.49
Diluted earnings per share of continuing operations (amount in euros)	(C8)	2.65	6.67
Depreciation and amortization	(C1)	(314)	(318)
EBITDA*	(C1)	902	996
Adjusted net income of continuing operations*	(C6)	368	441
Adjusted net income per share of continuing operations (amount in euros)	(C8)	5.87	7.09
Diluted adjusted net income per share of continuing operations (amount in euros)	(C8)	5.80	7.00

\* See note B18 "Main accounting and financial indicators".

The accounting policies applied in preparing the consolidated financial statements at 31 December 2013 are identical to those used in the consolidated financial statements at 31 December 2012, except for the policies described at the start of note B "Accounting policies".

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### CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(In millions of euros)	Notes	2013	2012
Net income		172	221
Hedging adjustments	(C23)	(4)	(1)
Other items		2	-
Deferred taxes on hedging adjustments and other items			-
Change in translation adjustments		(78)	(13)
Other recyclable comprehensive income of continuing operations		(80)	(14)
Actuarial gains and losses	(C18)	62	(87)
Deferred taxes on actuarial gains and losses		(22)	20
Other non-recyclable comprehensive income of continuing operations		40	(67)
Other comprehensive income of continuing operations		(40)	(81)
Other comprehensive income of discontinued operations		-	(7)
TOTAL INCOME AND EXPENSES RECOGNIZED DIRECTLY IN EQUITY		(40)	(88)
Comprehensive income		132	133
Of which: non-controlling interests		2	1
Comprehensive income – Group share		130	132

## CONSOLIDATED BALANCE SHEET

(In millions of euros)	Notes	31 December 2013	31 December 2012
ASSETS			
Intangible assets, net	(C9)	973	962
Property, plant and equipment, net	(C10)	1,943	1,852
Equity affiliates: investments and loans	(C11)	17	71
Other investments	(C12)	52	36
Deferred tax assets	(C7)	66	83
Other non-current assets	(C13)	177	147
TOTAL NON-CURRENT ASSETS		3,228	3,151
Inventories	(C14)	896	920
Accounts receivable	(C15)	824	920
Other receivables and prepaid expenses	(C15)	125	147
Income taxes recoverable	(C7)	24	35
Other current financial assets	(C23)	2	8
Cash and cash equivalents	(C16)	377	360
TOTAL CURRENT ASSETS		2,248	2,390
Assets held for sale		-	-
TOTAL ASSETS		5,476	5,541
LIABILITIES AND SHAREHOLDERS' EQUITY			
Share capital		630	629
Paid-in surplus and retained earnings		1,687	1,587
Treasury shares		(12)	(16)
Translation adjustments		7	82
SHAREHOLDERS' EQUITY - GROUP SHARE	(C17)	2,312	2,282
Non-controlling interests		37	29
TOTAL SHAREHOLDERS' EQUITY		2,349	2,311
Deferred tax liabilities	(C7)	64	33
Provisions for pensions and other employee benefits	(C18)	361	432
Other provisions and other non-current liabilities	(C19)	439	446
Non-current debt	(C21)	1,207	1,071
TOTAL NON-CURRENT LIABILITIES		2,071	1,982
Accounts payable	(C24)	687	683
Other creditors and accrued liabilities	(C24)	256	318
Income taxes payable	(C7)	19	56
Other current financial liabilities	(C23)	1	2
Current debt	(C21)	93	189
TOTAL CURRENT LIABILITIES		1,056	1,248
Liabilities associated with assets held for sale		-	-
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		5,476	5,541

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## CONSOLIDATED CASH FLOW STATEMENT

(In millions of euros)	Notes	2013	2012
Net income		172	221
Depreciation, amortization and impairment of assets		324	362
Provisions, valuation allowances and deferred taxes		20	(23)
(Gains)/losses on sales of assets		(31)	(26)
Undistributed affiliate equity earnings		4	(1)
Change in working capital	(C28)	(30)	(42)
Other changes		8	8
Cash flow from operating activities		467	499
Of which: cash flow from operating activities of discontinued operations		-	(157)
Intangible assets and property, plant, and equipment additions		(481)	(479)
Change in fixed asset payables		30	(8)
Acquisitions of operations, net of cash acquired		(14)	(264)
Increase in long-term loans		(45)	(60)
Total expenditures		(510)	(811)
Proceeds from sale of intangible assets and property, plant, and equipment		10	41
Change in fixed asset receivables		-	3
Proceeds from sale of operations, net of cash sold		-	(6)
Proceeds from sale of unconsolidated investments		90	-
Repayment of long-term loans		21	19
Total divestitures		121	57
Cash flow from investing activities		(389)	(754)
Of which: cash flow from investing activities from discontinued operations		-	(73)
Issuance (repayment) of shares and other equity		11	47
Purchase of treasury shares			(13)
Dividends paid to parent company shareholders		(113)	(81)
Dividends paid to minority shareholders		-	(1)
Increase/decrease in long-term debt		142	497
Increase/decrease in short-term borrowings and bank overdrafts		(100)	(94)
Cash flow from financing activities		(60)	355
Net increase/(decrease) in cash and cash equivalents		18	100
Effect of exchange rates and changes in scope		(1)	6
Cash and cash equivalents at beginning of period		360	254
CASH AND CASH EQUIVALENTS AT END OF PERIOD		377	360
Of which: cash and cash equivalents of discontinued operations		-	-

### CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

	Shares i	ssued	_			Treasury	shares			
(In millions of euros)	Number	Amount	Paid-in surplus	Retained earnings	Translation adjustments	Number	Amount	Shareholders' equity – Group share	Non- controlling S interests	nareholders' equity
At 1 January 2012	61,864,577	619	1,021	463	97	(214,080)	(10)	2,190	27	2,217
Cash dividend	-	-	(81)	-	-	-	-	(81)	(1)	(82)
Issuance of share capital	1,012,638	10	37	-	-	-	-	47	-	47
Purchase of treasury shares	-	-	-	-	-	(250,000)	(13)	(13)	-	(13)
Cancellation of purchased treasury shares	-	-	-	-	-	-	-	-	-	-
Grants of treasury shares to employees	-	-	-	(7)	-	150,046	7	-	-	-
Sale of treasury shares	-	-	-	-	-	-	-	-	-	-
Share-based payments	-	-	-	9	-	-	-	9		9
Other	-	-	-	(2)	-	-	-	(2)	2	-
Transactions with shareholders	1,012,638	10	(44)	-	-	(99,954)	(6)	(40)	1	(39)
Net income	-	-	-	220	-	-	-	220	1	221
Total income and expense recognized directly through equity	-	-		(73)	(15)	-	-	(88)	-	(88)
Comprehensive income	-	-	-	147	(15)	-	-	132	1	133
At 31 December 2012	62,877,215	629	977	610	82	(314,034)	(16)	2,282	29	2,311

	Shares i	ssued	-			Treasury	shares			
(In millions of euros)	Number	Amount	Paid-in surplus		Translation adjustments	Number	Amount	Shareholders' equity – Group share		Shareholders' equity
At 1 January 2013	62,877,215	629	977	610	82	(314,034)	(16)	2,282	29	2,311
Cash dividend	-	-	(113)	-	-	-	-	(113)	-	(113)
Issuance of share capital	152,477	1	4	-	-	-	-	5	-	5
Purchase of treasury shares	-	-	-	-	-	-	-	-	-	-
Cancellation of purchased treasury shares	-	-	-	-	-	-	-	-	-	-
Grants of treasury shares to employees	-	-	-	(4)	-	87,060	4	-	-	-
Sale of treasury shares	-	-	-	-	-	-	-	-	-	-
Share-based payments	-	-	-	8	-	-	-	8	-	8
Other	-	-	-	-	-	-	-	-	6	6
Transactions with shareholders	152,477	1	(109)	4	-	87,060	4	(100)	6	(94)
Net income	-	-	-	168	-	-	-	168	4	172
Total income and expense recognized directly through equity	-			37	(75)	-	-	(38)	(2)	(40)
Comprehensive income	-	-	-	205	(75)	-	-	130	2	132
At 31 December 2013	63,029,692	630	868	819	7	(226,974)	(12)	2,312	37	2,349



## 4.3.3 NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

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## A. HIGHLIGHTS

#### **ORGANIC GROWTH PROJECTS**

On 5 June 2013, ARKEMA announced the startup of the acrylic acid capacity extension at its Clear Lake site in Texas. This project, which raises the site's capacity to some 270 kt per year, is the major component of the US\$110 million investment plan announced in November 2010. The other two components of this investment plan concern (i) the startup in the second half of 2012, on the Bayport site in Texas, of a 2-ethyl hexyl acrylate (2EHA) production plant for the pressure-sensitive adhesives market, and (ii) the addition on the Clear Lake site of a plant for methyl acrylate, which is used in the water treatment and specialty polymers markets, due to come on stream in the next few months.

On 15 November 2013 ARKEMA announced the official startup of its new emulsion polymers facility on its Changshu platform in China. This plant is part of the Coatings Resins Business Unit, and will provide customers in the Asia Pacific region with a full line of waterborne emulsion polymers for coatings and adhesives applications.

#### COMPETITIVENESS

On 19 September 2013, Arkema France presented to its Central Works Council a proposed plan to close down operations at its Chauny industrial site (France). Chauny is part of the Acrylics Business Unit, and produces industrial chemical intermediates primarily for the manufacture of plasticized PVC, polyester resins, and alkyd resins for paint. A non-recurring charge of €30 million was booked in other income and expenses in the third quarter, including €9 million of impairment on fixed assets (see note C4 "Other income and expenses").

#### **KEM ONE**

On 27 March 2013, ARKEMA was informed of the opening by the Lyon commercial court of insolvency proceedings with continuation of business during the observation period concerning the company Kem One SAS, which corresponds to the upstream part (chlorine/caustic soda electrolysis and PVC production) of the businesses sold by ARKEMA to the Klesch group in July 2012. In the first quarter of 2013 ARKEMA booked a €125 million exceptional expense corresponding to the Group's exposure in relation to Kem One SAS (receivables on Kem One and warranties granted to third parties).

In a ruling of 20 December 2013, the Lyon commercial court designated the new owner of Kem One SAS, and ended the insolvency proceedings. To facilitate this takeover, ARKEMA will in particular sell (for 1 euro) all its receivables on Kem One SAS which were fully covered by provision, has adjusted certain commercial services provided to Kem One SAS, and has given a commitment on precise terms to ensure internal redeployment of 100 Kem One SAS employees. On top of the provisions booked in the first quarter of 2013, in the final quarter of 2013 ARKEMA recorded a net exceptional expense of  $\in 17$  million (see note C4 "Other income and expenses").

In a writ received on 12 March 2013, the Klesch group initiated arbitration proceedings against ARKEMA. ARKEMA vigorously refutes these unfounded claims and has taken all necessary initiatives to defend its rights and prove its good faith before the relevant authorities. The proceedings are ongoing.

## **B. ACCOUNTING POLICIES**

Arkema S.A. is a French limited liability company (*société anonyme*) with a Board of Directors, subject to the provisions of book II of the French Commercial Code and all other legal provisions applicable to French commercial companies.

The Company's head office is at 420 rue d'Estienne d'Orves, 92700 Colombes (France). It was incorporated on 31 January 2003 and the shares of Arkema S.A. have been listed on the Paris stock exchange (Euronext) since 18 May 2006.

The consolidated financial statements of ARKEMA at 31 December 2013 were prepared under the responsibility of the Chairman and CEO of Arkema S.A. and were approved by the Board of Directors of Arkema S.A. on 3 March 2014. They will be submitted to the approval of the shareholders' general meeting of 15 May 2014. The consolidated financial statements at 31 December 2013 were prepared in accordance with the international accounting standards issued by the IASB (International Accounting Standards Board) as released at 31 December 2013 and the international standards endorsed by the European Union at 31 December 2013.

The accounting framework and standards adopted by the European Commission can be accessed from the following website:

http://ec.europa.eu/internal\_market/accounting/ias/index\_ en.htm.

Consolidated financial statements

The accounting policies applied in preparing the consolidated financial statements at 31 December 2013 are identical to those used in the consolidated financial statements at 31 December 2012, except for IFRS standards, amendments and interpretations, as adopted by the European Union and the IASB, that are obligatorily applicable for accounting periods commencing on or after 1 January 2013 (and which had not been applied early by the Group), namely:

Amendments to IFRS 1	First-time adoption of International Financial Reporting Standards – Severe hyperinflation and removal of fixed dates for first-time adopters
Amendments to IFRS 1	Government loans
Amendments to IFRS 7	Disclosures – Offsetting financial assets and financial liabilities
IFRS 13	Fair value measurement
Amendments to IAS 1	Presentation of items of Other Comprehensive Income (OCI)
Amendments to IAS 12	Deferred tax: recovery of underlying assets
IAS 19 (Revised)	Employee benefits
IFRIC 20	Stripping costs in the production phase of a surface mine
	Annual improvements to IFRS (published in May 2012)

The main changes resulting from revision of IAS 19 are:

- there is no longer an option to use the "corridor" method to record actuarial gains and losses on defined benefit plans;
- in the event of a plan amendment, the past service cost is immediately recognized in the income statement;
- the expected rate of return on plan assets is aligned with the discount rate.

The impact of these changes is negligible, as:

- the Group had already opted to record actuarial gains and losses in shareholders' equity;
- full recognition of the unamortized past service cost had mutually offsetting effects on pension obligations and healthcare and similar coverage.

The application of the other standards, amendments and interpretations did not have any significant impact on the Group's consolidated financial statements.

Consolidated financial statements

The standards, amendments or interpretations published by the IASB and the IFRS IC (IFRS Interpretations Committee) which were not yet in force at 1 January 2013 and have not been applied early by the Group, are:

Amendments to IAS 19	Defined benefit plans: Employee contributions	Not adopted by the European Union at 31 December 2013
Amendments to IAS 32	Offsetting financial assets and financial liabilities	Adopted by the European Union on 29 December 2012
Amendments to IAS 36	Recoverable amount disclosures for non-financial assets	Adopted by the European Union on 20 December 2013
Amendments to IAS 39	Novation of derivatives and continuation of hedge accounting	Adopted by the European Union on 20 December 2013
Amendments to IFRS 9 and IFRS 7	Mandatory effective date and transition disclosures	Not adopted by the European Union at 31 December 2013
Amendments to IFRS 10, IFRS 11 and IFRS 12	Transition guidance for IFRS 10, IFRS 11 and IFRS 12	Adopted by the European Union on 5 April 2013
Amendments to IFRS 10, IFRS 12 and IAS 27	Investment entities	Adopted by the European Union on 21 November 2013
IFRS 9	Hedge accounting and amendments to IFRS 9, IFRS 7 and IAS 39	Not adopted by the European Union at 31 December 2013
IFRS 10	Consolidated financial statements	Adopted by the European Union on 29 December 2012
IFRS 11	Joint arrangements	Adopted by the European Union on 29 December 2012
IFRS 12	Disclosure of interests in other entities	Adopted by the European Union on 29 December 2012
IFRIC 21	Levies	Not adopted by the European Union at 31 December 2013
IAS 27 (Revised)	Separate financial statements	Adopted by the European Union on 29 December 2012
IAS 28 (Revised)	Investments in associates and joint venture	Adopted by the European Union on 29 December 2012
	Annual improvements to IFRS cycle 2010-2012	Not adopted by the European Union at 31 December 2013
	Annual improvements to IFRS cycle 2011-2013	Not adopted by the European Union at 31 December 2013

The Group does not expect any significant impact to result from application as of 1 January 2014 of IFRS 10, 11, 12, IAS 27 (revised) or IAS 28 (revised), which are applicable from 1 January 2014. The other amendments, standards and interpretations are currently being analyzed.

Preparation of consolidated financial statements in accordance with IFRS requires Group management to make estimates and retain assumptions that can have an impact on the amounts recognized in assets and liabilities at the balance sheet date, and have a corresponding impact on the income statement. Management made its estimates and determined its assumptions on the basis of past experience and taking into account different factors considered to be reasonable for the valuation of assets and liabilities. Use of different assumptions could have a material effect on these valuations. The main assumptions made by management in preparing the financial statements are those used for measuring the recoverable value of property, plant and equipment and intangible assets, pension benefit obligations, deferred taxes and provisions. The disclosures provided concerning contingent assets and liabilities and off-balance sheet commitments at the date of preparation of the consolidated financial statements also involve the use of estimates.

Consolidated financial statements

The consolidated financial statements are prepared in accordance with the historical cost convention, except for certain financial assets and liabilities which are recognized at fair value.

The consolidated financial statements are presented in millions of euros, rounded to the nearest million, unless otherwise indicated.

The principal accounting policies applied by the Group are presented below.

#### 1. CONSOLIDATION PRINCIPLES

- Companies which are directly or indirectly controlled by ARKEMA have been fully included in the consolidated financial statements.
- The entities, assets and operations over which joint control is exercised are consolidated using the proportionate method.
- Investments in associates over which significant influence is exercised are accounted for under the equity method. Where the ownership interest is less than 20%, the equity method is only applied in cases where significant influence can be demonstrated.
- Shares owned in companies which do not meet the above criteria are included in other investments and recognized as available-for-sale financial assets in accordance with IAS 39.

All material transactions between consolidated companies, and all intercompany profits, have been eliminated.

#### 2. FOREIGN CURRENCY TRANSLATION

#### 2.1 Translation of financial statements of foreign companies

The functional operating currency of foreign companies in the scope of consolidation is their local currency, in which most of their transactions are denominated. Their balance sheets are translated into euros on the basis of exchange rates at the end of the period; the statements of income and of cash flows are translated using the average exchange rates during the period. Foreign exchange differences resulting from translation of the financial statements of these subsidiaries are recorded either in "Translation adjustments" in shareholders' equity in the consolidated financial statements for the Group share or in "Non-controlling interests" for the share not directly or indirectly attributable to the Group.

#### 2.2 Transactions in foreign currencies

In application of IAS 21 "The effects of changes in foreign exchange rates", transactions denominated in foreign currencies are translated by the entity carrying out the transaction into its functional currency at the exchange rate applicable on the transaction date. Monetary balance sheet items are restated at the closing exchange rate at the balance sheet date. Gains and losses resulting from translation are recognized in recurring operating income.

#### 3. GOODWILL AND BUSINESS COMBINATIONS

#### **Operations after 1 January 2010**

The Group uses the acquisition method for the recognition of business combinations, in accordance with IFRS 3 (Revised).

The identifiable assets acquired and liabilities assumed are stated at fair value at the acquisition date.

Where the business combination agreement provides for a purchase price adjustment, the Group includes the fair value of this adjustment at the acquisition date in the cost of the business combination, even if the adjustment is optional.

Non-controlling interests are measured at the acquisition date, either at fair value (the full goodwill method) or the NCI's proportionate share of net assets of the entity acquired (the partial goodwill method). The decision of which option to use is made for each business combination. Subsequent acquisitions of noncontrolling interests are always recorded in equity, regardless of the choice made at the time of the acquisition.

At the acquisition date, goodwill is measured as the difference between:

- the acquisition price plus the amount of any non-controlling interests in the acquired entity and the fair value of the acquirer's previously-held equity interest in that acquired entity; and
- the fair value of identifiable assets and liabilities.

Goodwill is recognized in the balance sheet assets. Any negative goodwill arising on an acquisition on favourable terms, and direct acquisition expenses, are recognized immediately in the income statement under "Other income and expenses" (see note B18 "Main accounting and financial indicators").

Contingent liabilities are recognized in the balance sheet when the obligation concerned is current at the acquisition date and their fair value can be reliably measured.

The Group has a maximum of 12 months to finalize determination of the acquisition price and goodwill.

#### **Operations prior to 31 December 2009**

The Group applied IFRS 3. The main points affected by IFRS 3 (revised) are the following:

- goodwill was calculated as the difference between the purchase price, as increased by related costs, of shares of consolidated companies and the Group share of the fair value of their net assets and contingent liabilities at the acquisition date;
- for any subsequent acquisition in the same entity, the difference between the acquisition cost and book value of non-controlling interests was included in goodwill;
- price adjustments were included in the cost of the business combination if the adjustment was probable and could be measured reliably;
- contingent liabilities arising from potential obligations were recognized.

## 4. INTANGIBLE ASSETS

Intangible assets include goodwill, software, patents, trademarks, leasehold rights, development costs and electricity drawing rights. Intangible assets are recognized in the balance sheet at their acquisition or production cost, less any accumulated amortization and impairment losses recognized.

Intangible assets other than goodwill and trademarks with indefinite useful lives are amortized on a straight-line basis over 3 to 20 years depending on the pattern according to which the entity envisages using the future economic benefits related to the asset.

The main categories of intangible assets and the amortization periods applied by the Group are as follows:

- patents: residual period until expiry of patent protection;
- licences: term of the contract;
- softwares: 3 to 5 years;
- capitalized research expenses: useful life of the project;
- REACH registration fees: protection period of study data;
- capitalized contracts: term of the contract.

### 4.1 Goodwill

Goodwill is not amortized. It is subject to impairment tests as soon as any indicators of potential impairment are identified. Impairment tests are performed at least annually. The methodology used for the performance of impairment tests is described in paragraph B6 "Impairment of long-lived assets".

Goodwill is measured and recognized as described in note B3 "Goodwill and business combinations".

## 4.2 Trademarks

Trademarks with an indefinite useful life are not amortized and are subject to impairment tests. The methodology used for the performance of impairment tests is described in paragraph B6 "Impairment of long-lived assets".

### 4.3 Research and development costs

Research costs are recognized in expenses in the period in which they are incurred. Grants received are recognized as a deduction from research costs.

Under IAS 38 "Intangible assets", development costs are capitalized as soon as ARKEMA can demonstrate, in particular:

- its intention and its financial and technical ability to complete the development project;
- that it is probable that future economic benefits attributable to the development costs will flow to the enterprise, which also implies having successfully completed the main non-toxicity studies relating to the new product; and
- that the cost of the asset can be measured reliably.

Grants received in respect of development activities are recognized as a deduction from capitalized development costs if they have been definitively earned by the Group. The Group also receives public financing in the form of repayable advances for the development of certain projects. Repayment of these advances is generally related to the future revenues generated by the development. The Group recognizes these advances in balance sheet liabilities (in the "Other non-current liabilities" caption) taking account of the probability of their repayment.

#### 4.4 Research tax credit

The Group recognizes the research tax credit as a deduction from operating expenses.

#### 4.5 REACH

As no specific IFRS IC interpretations exist on the subject, ARKEMA applies the following methods based on IAS 38:

- when most of the tests required for preparing the registration file have been acquired from a third party, ARKEMA records an operating right in the intangible assets;
- when most of the expenses involved in preparing the registration file have been carried out internally or outsourced, ARKEMA capitalizes the development costs that meet the requirements for capitalization defined by IAS 38 (see 4.3).

#### 5. PROPERTY, PLANT & EQUIPMENT

#### 5.1 Gross value

The gross value of items of property, plant and equipment corresponds to their acquisition or production cost in accordance with IAS 16 "Property, plant & equipment". Gross value is not subject to revaluation.

Equipment subsidies are deducted directly from the cost of the assets which they financed. With effect from 1 January 2009 and in accordance with the revised version of IAS 23, borrowing costs that are directly attributable to financing tangible assets that necessarily take a substantial period of time to get ready for their intended use or sale are eligible for capitalization as part of the cost of the assets for the portion of the cost incurred over the construction period.

Routine maintenance and repairs are charged to income in the period in which they are incurred. Costs related to major maintenance turnarounds of industrial facilities which take place at intervals of more than 12 months are capitalized at the time they are incurred and depreciated over the period between two such turnarounds.

Fixed assets which are held under finance lease contracts, as defined in IAS 17 "Leases", which have the effect of transferring substantially all the risks and rewards inherent to ownership of the asset from the lessor to the lessee, are capitalized in assets at their market value or at the discounted value of future lease payments

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if lower (such assets are depreciated using the methods and useful lives described below). The corresponding lease obligation is recorded as a liability. Leases which do not meet the above definition of finance leases are accounted for as operating leases.

#### 5.2 Depreciation

Depreciation is calculated on a straight-line basis on the basis of the acquisition or production cost. Assets are depreciated over their estimated useful lives by category of asset. The principal categories and useful lives are as follows:

<ul> <li>machinery and tools:</li> </ul>	5-10 years;
• transportation equipment:	5-20 years;
<ul> <li>specialized complex installations:</li> </ul>	10-20 years;

• buildings: 10-30 years.

These useful lives are reviewed annually and modified if expectations change from the previous estimates. Such changes in accounting estimate are accounted for on a prospective basis.

#### 6. IMPAIRMENT OF LONG-LIVED ASSETS

The recoverable amount of property, plant and equipment and intangible assets is tested as soon as any indication of impairment is identified. A review to identify if any such indication exists is performed at each year-end. An impairment test is performed at least once a year in respect of goodwill and trademarks with indefinite useful lives.

An asset's recoverable amount corresponds to the greater of its value in use and its fair value net of costs of disposal.

Tests are performed for each autonomous group of assets, termed Cash Generating Units (CGUs). A CGU is a group of assets whose continued use generates cash flows that are substantially independent of cash flows generated by other groups of assets. They are worldwide business operations, which bring together groups of similar products in strategic, commercial and industrial terms. For ARKEMA, the CGUs are the Business Units presented in note C1. The value in use of a CGU is determined on the basis of the discounted future cash flows that are expected to be generated by the assets in question, based upon Group management's expectation of future economic and operating conditions over the next 5 years or, when the asset is to be sold, by comparison with its market value. In 2013, the terminal value was determined on the basis of a perpetuity annual growth rate of 1.5% (the same rate as used in 2012) and mid-cycle cash flow. An after-tax rate of 8% is used to discount future cash flows and the terminal value in 2013 (also 8% in 2012). Any impairment is calculated as the difference between the recoverable amount and the carrying amount of the CGU. Because of its unusual nature, any such impairment is presented separately in the income statement under the "Other income and expenses" caption. Impairment may be reversed, to the maximum carrying amount that would have been recognized for the asset had the asset not been impaired. Impairment losses on goodwill are irreversible (in application of IFRIC 10, impairment losses on goodwill recognized in previous interim accounting periods cannot be written back).

Sensitivity analyses carried out at 31 December 2013 evaluating the impact of reasonable changes in the basic assumptions, and in particular the impact of a change of plus or minus 1 point in the discount rate and plus or minus 0.5 point in the perpetuity growth rate, have confirmed the carrying amounts of the different CGUs.

#### 7. FINANCIAL ASSETS AND LIABILITIES

Financial assets and liabilities principally comprise:

- other investments;
- loans and financial receivables included in other non-current assets;
- accounts receivable;
- cash and cash equivalents;
- debt and other financial liabilities (including accounts payable);
- derivatives, reported as part of other current assets and liabilities.

#### 7.1 Other investments

These securities are accounted for, in accordance with IAS 39, as available-for-sale assets and are thus recognized at their fair value. In cases where fair value cannot be reliably determined, the securities are recognized at their historical cost. Changes in fair value are recognized directly through shareholders' equity.

If an objective indicator of impairment in the value of a financial asset is identified, an irreversible impairment loss is recognized, in general through recurring operating income. Such impairment is only reversed via the income statement at the date of disposal of the securities.

#### 7.2 Loans and financial receivables

These financial assets are recognized at amortized cost. They are subject to impairment tests involving a comparison of their carrying amount to the present value of estimated recoverable future cash flows. These tests are carried out as soon as any indicator inferring that the present value of these assets is lower than their carrying amount is identified. As a minimum such tests are performed at each balance sheet date. Any impairment loss is recognized in recurring operating income.

#### 7.3 Accounts receivable

Accounts receivable are initially recognized at their fair value. Subsequent to initial recognition, they are recognized at amortized cost. If required, a bad debt provision is recognized on the basis of the risk of non-recovery of the receivables.

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## 7.4 Cash and cash equivalents

Cash and cash equivalents are liquid assets and assets which can be converted into cash within less than 3 months that are subject to a negligible risk of change in value.

## 7.5 Non-current and current debt (including accounts payable)

Non-current and current debt (other than derivatives) is recognized at amortized cost.

## 7.6 Derivatives

The Group may use derivatives to manage its exposure to foreign currency risks and risks of changes in the prices of raw materials and energy. Derivatives used by the Group are recognized at their fair value in the balance sheet, in accordance with IAS 39. The fair value of these unlisted derivatives is determined by reference to current prices for contracts with similar maturity. They therefore correspond to the "Level 2" category defined in IFRS 7.

Changes in the fair value of these derivatives are recognized within operating income and, for foreign currency instruments, in financial result for the portion of foreign exchange gains and losses corresponding to the interest income/expense reflected by the differences between the spot exchange rate and the forward exchange rate, except for those on instruments which are considered to meet the criteria for cash flow hedge accounting or hedge accounting of a net investment in a foreign operation under IAS 39.

For items that qualify for cash flow hedge accounting, the effective portion of the change in fair value is recognized in shareholders' equity under the "Income and expense recognized directly through equity" caption until such time as the underlying hedged item is recognized through the income statement. Any ineffective portion is recognized in operating income.

A hedge of a net investment in a foreign operation hedges the exposure to foreign exchange risk of the net assets of the foreign operation (IAS 21, "The effects of changes in foreign exchange rates"). The effects of this hedge are recorded directly in shareholders' equity under the "Income and expense recognized directly through equity" caption.

# 8. INVENTORIES

Inventories are valued in the consolidated financial statements at the lower of cost and net realizable value, in accordance with IAS 2 "Inventories". Cost of inventories is generally determined using the weighted average cost (WAC) method.

Cost of manufactured products inventories includes raw material and direct labour costs, and an allocation of production overheads and depreciation based on normal production capacity. Start-up costs and general and administrative costs are excluded from the cost of manufactured products inventories.

The net realisable value is the sale price as estimated for the normal course of business, less estimated costs for completion and sale.

## 9. PROVISIONS FOR PENSIONS AND OTHER LONG-TERM BENEFITS

In accordance with IAS 19 (Revised) "Employee benefits":

- payments made in the context of defined contribution plans are recognized in expenses of the period;
- obligations in respect of defined benefit plans are recognized and valued using the actuarial projected unit credit method.

#### **Post-employment benefits**

For defined benefit plans, the valuation of obligations under the projected unit credit method principally takes into account:

- an assumption concerning the date of retirement;
- a discount rate which depends on the geographical region and the duration of the obligations;
- an inflation rate;
- assumptions in respect of future increases in salaries, rates of employee turnover and increases in health costs;
- the most recent mortality statistics for the countries concerned.

Differences which arise between the valuation of obligations and forecasts of such obligations (on the basis of new projections or assumptions) and between forecasts and outcomes of returns on plan assets are termed actuarial gains and losses, and are recorded in other non-recyclable comprehensive income of continuing operations.

When a plan is amended or created, the entire past service cost is immediately recognized in the income statement.

A pension asset may be generated where a defined benefit plan is overfunded. The amount at which such an asset is recognized in the balance sheet may be subject to a ceiling, in application of IAS 19.64 and IFRIC 14.

#### Other long-term benefits

In respect of other long-term benefits, and in accordance with applicable laws and regulations, provisions are recognized using a simplified method. Thus, if an actuarial valuation using the projected unit cost method is required, actuarial gains and losses and all past service costs are recognized immediately in the provision, with a double entry being recognized to the income statement.

The net expense related to pension benefit obligations and other employee benefit obligations is recognized in recurring operating income, with the exception of:

- the effect of curtailments or settlements of plans, which are presented under the "Other income and expenses" caption in the case of substantial modifications to such plans;
- the net interest expense and the actuarial gains and losses related to changes in the discount rate on other long-term benefits, which are classified within the financial result caption.

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#### 10. OTHER PROVISIONS AND NON-CURRENT LIABILITIES

A provision is recognized when:

- the Group has a legal, regulatory or contractual obligation to a third party resulting from past events. An obligation can also result from Group practices or public commitments that create a reasonable expectation among the third parties in question that the Group will assume certain responsibilities;
- it is certain or probable that the obligation will lead to an outflow of resources to the benefit of the third party;
- its amount can be estimated reliably and corresponds to the best possible estimate of the commitment. In exceptional cases where the amount of the obligation cannot be measured with sufficient reliability, disclosure is made in the notes to the financial statements in respect of the obligation (See note C20 "Liabilities and contingent liabilities").

When it is expected that the Group will obtain partial or total reimbursement of the cost that was provided against, the expected reimbursement is recognized in receivables if, and only if, the Group is virtually certain of the receipt.

Legal expenses required for defence of the Group's interests are covered by a provision when significant.

Long-term provisions, other than provisions for pensions and post-employment benefit obligations, are not inflation-indexed or discounted as the Group considers that the impact of such adjustments would not be significant.

The current (less than one year) portion of provisions is maintained within the "Provisions and other non-current liabilities" caption.

#### 11. GREENHOUSE GAS EMISSIONS ALLOWANCES (EUA) AND CERTIFIED EMISSION REDUCTIONS (CER)

In the absence of an IFRS standard or interpretation relating to accounting for  $CO_2$  emissions allowances, the following treatment has been adopted:

- allowances allocated without payment of consideration are recognized for a nil value;
- transactions carried out in the market are recognized at the transaction amount.

At this point, greenhouse gas emissions allowances (EUA) allocated are adequate to cover the operational needs of ARKEMA's European industrial units and a deficit is not currently forecast. ARKEMA does not carry out a trading activity in respect of  $CO_2$  emissions allowances. However, in the normal course of its operations, ARKEMA may carry out cash or forward sales of its surpluses. These sales do not enter into the scope of application of IAS 39 because of the "own use" exception.

The CERs produced by the Group in the context of projects to reduce its greenhouse gas emissions are recognized in inventories, and sales are recorded at their net-of-tax value on delivery of the CERs.

#### 12. RECOGNITION OF SALES

Sales are measured at the fair value of the consideration received or receivable, net of returns, trade discounts and volume rebates. Sales are recognized on transfer to the purchaser of the risks and rewards related to ownership of the goods, which is determined mainly on the basis of the terms and conditions of the sales contracts.

## **13. INCOME TAXES**

#### 13.1 Current taxes

Current taxes are the amount of income taxes that the Group expects to pay in respect of taxable profits of consolidated companies in the period. They also include adjustments to current taxes in respect of prior periods.

The French tax consolidation regime enables certain French companies in the Group to offset their taxable results in determining the tax charge for the entire French tax group. The overall tax charge is payable by Arkema S.A., as the parent company of the tax group. Tax consolidation regimes also exist in countries outside France.

The French Finance Act for 2010 introduced the local tax named CET (*Contribution Économique Territoriale*). One of its components is the contribution based on companies' value added (*Cotisation sur la Valeur Ajoutée des Entreprises* – CVAE). After analyzing the methods for determining this contribution in the light of the positions of the IFRS IC and France's Accounting Standards Authority ANC (*Autorité des Normes Comptables*) in late 2009, the Group considered that in this specific case, the contribution meets the requirements to be treated as a current tax under IAS 12. The CVAE is therefore classified under "Income taxes" from 1 January 2010.

#### 13.2 Deferred taxes

The Group uses the liability method whereby deferred taxes are recognized based upon the temporary differences between the financial statement and tax basis of assets and liabilities, as well as on tax loss carry forwards and other tax credits, in accordance with IAS 12 "Income taxes".

Deferred tax assets and liabilities are valued at the tax rates that are expected to apply in the year in which the asset will be realized or the liability settled, on the basis of tax rates (and tax legislation) that have been enacted or virtually enacted at the balance sheet date. The effect of any changes in tax rates is recognized in income for the period, unless it relates to items that were previously debited or credited through equity. Deferred tax assets and liabilities are not discounted.

Deferred tax assets are recognized to the extent that their recovery is probable. In order to assess the likelihood of recovery of such assets, account is notably taken of the profitability outlook determined by the Group and historical taxable profits or losses. A deferred tax liability is recognized for all taxable temporary differences related to investments in subsidiaries, associates and joint ventures, unless:

- the Group controls the timing of the reversal of the temporary difference; and
- it is probable that this difference will not reverse in the foreseeable future.

Deferred tax assets and liabilities are offset if a legally enforceable right to offset current tax assets and liabilities exists and if they relate to income taxes levied by the same tax authority.

As the contribution based on companies' value added CVAE (*Cotisation sur la Valeur Ajoutée des Entreprises*) is considered as a component of income taxes, the relevant calculation methods generate temporary differences for which a deferred tax liability of 1.5% of the value is recorded.

### 14. CASH FLOW STATEMENTS

Cash flows in foreign currencies are translated into euros using the average exchange rates of each period. Cash flow statements exclude foreign exchange differences arising from the translation into euros of assets and liabilities recognized in balance sheets denominated in foreign currencies at the end of the period (except for cash and cash equivalents). In consequence, cash flows cannot be recalculated on the basis of the amounts shown in the balance sheet.

## **15. SHARE-BASED PAYMENTS**

In application of IFRS2 "Share-based payments", the stock options and free shares granted to management and certain Group employees are measured at their fair value at the date of grant, which generally corresponds to the date of the Board of Directors' meeting that granted the stock options and free shares.

The fair value of the options is calculated using the Black & Scholes model, adjusted, in the case of plans awarded from 2011, for an illiquidity cost due to the non-transferability of instruments; the expense is recognized in personnel expenses on a straight-line basis over the period from the date of grant to the date from which the options can be exercised.

The fair value of rights under free share grants corresponds to the opening market price of the shares on the day of the Board of Directors' meeting that decides on the grant, adjusted for dividends not received during the vesting period and, in the case of plans awarded from 2011, for an illiquidity cost related to the period of non-transferability. The expense recognized also reflects the probability that the presence condition will be fulfilled. This expense is included in personnel expenses on a straight-line basis over the vesting period of the rights.

#### **16. EARNINGS PER SHARE**

Earnings per share corresponds to the division of net income (Group share) by the weighted average number of ordinary shares in circulation since the start of the year.

Diluted earnings per share corresponds to the division of net income (Group share) by the weighted number of ordinary shares, both of these figures being adjusted to take account of the effects of all dilutive potential ordinary shares.

The effect of dilution is thus calculated taking account of stock options and grants of free shares to be issued.

#### 17. DISCONTINUED OPERATIONS AND ASSETS HELD FOR SALE

A discontinued operation is defined, according to IFRS 5, as a component of the Group's activity that either has been disposed of, or is classified as held for sale and which represents a separate major line of business or geographical area of operations that forms part of a single coordinated disposal plan.

In accordance with IFRS 5, "Non-current assets held for sale and discontinued operations":

- assets held for sale and related liabilities are presented on two specific lines of the balance sheet, without offsetting;
- a single amount, comprising the total profit or loss after taxes of discontinued operations, is reported in the income statement for the current period and the previous period;
- the Group's cash flow statement reports flows related to discontinued operations separately, except for cash flows related to financing if they cannot be identified separately for sales of assets;
- no further depreciation or amortization is recorded on depreciable/amortizable assets once they are classified as held for sale.

Assets held for sale net of the associated liabilities are measured and recognized at the lower of net book value and market value less costs necessary to complete the sale.

Any losses are charged to income from discontinued operations.

# 18. MAIN ACCOUNTING AND FINANCIAL INDICATORS

The main performance indicators used are as follows:

• **Operating income:** this includes all income and expenses of continuing operations other than financial result, equity in income of affiliates and income taxes;

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- Other income and expenses: these correspond to a limited number of well-identified non-recurring items of income and expense of a particularly material nature that the Group presents separately in its income statement in order to facilitate understanding of its recurring operational performance. These items of income and expense notably include:
  - impairment losses in respect of property, plant and equipment and intangible assets,
  - gains or losses on sale of assets, acquisition costs, negative goodwill on acquisitions on favourable terms and the valuation difference on inventories between their fair value at the acquisition date and their production cost,
  - large restructuring and environmental expenses which would hamper the interpretation of recurring operating income (including substantial modifications to employee benefit plans and the effect of onerous contracts),
  - expenses related to litigation and claims or major damages, whose nature is not directly related to ordinary operations;
- **Recurring operating income:** this is calculated as the difference between operating income and other income and expenses as previously defined;
- Adjusted net income: this corresponds to "Net income Group share" adjusted for the "Group share" of the following items:
  - other income and expenses, after taking account of the tax impact of these items,
  - income and expenses from taxation of an exceptional nature, the amount of which is deemed significant,
  - net income of discontinued operations;

- **EBITDA:** this corresponds to recurring operating income increased by depreciation and amortization;
- Working capital: this corresponds to the difference between inventories, accounts receivable, other receivables and prepaid expenses, income tax receivables and other current financial assets on the one hand and accounts payable, other creditors and accrued liabilities, income tax liabilities and other current financial liabilities on the other hand. These items are classified in current assets and liabilities in the consolidated balance sheet;
- **Capital employed:** this is calculated by aggregating the net carrying amounts of intangible assets, property, plant and equipment, equity affiliate investments and loans, other investments, other non-current assets (excluding deferred tax assets) and working capital;
- Recurring capital expenditure: investments in tangible and intangible assets, excluding a limited number of investments of an exceptional nature that the Group presents separately in order to facilitate cash flow analysis in its financial reporting. These exceptional investments are unusual in size or nature, and are presented either as non-recurring investments or included in acquisitions and divestments;
- Net debt: this is the difference between current and non-current debt and cash and cash equivalents.

# C. NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## NOTE 1 INFORMATION BY BUSINESS SEGMENT

As required by IFRS 8, "Operating Segments", segment information for the Group is presented in accordance with the business segments identified in the internal reports that are regularly reviewed by general management in order to allocate resources and assess financial performance.

ARKEMA has three business segments: High Performance Materials, Industrial Specialties and Coating Solutions. Two members of the Executive Committee supervise these segments; they report directly to the Chairman and CEO, the Group's chief operating decision-maker as defined by IFRS 8, and are in regular contact with him for the purpose of discussing their sector's operating activity, financial results, forecasts and plans.

High Performance Materials includes the following Business Units: Technical Polymers, Filtration and Adsorption (CECA) and Organic Peroxides. High Performance Materials provide innovative solutions with high value added, used in varied sectors such as transportation, oil extraction, renewable energies (photovoltaics, lithium-ion batteries), consumer goods (beauty products, sports equipment, packaging, etc.), electronics, construction, coatings and water treatment. As of 1 January 2013, Functional Polyolefins were transferred from Technical Polymers to the Filtration and Adsorption (CECA) Business Unit. Industrial Specialties groups the following Business Units: Thiochemicals, Fluorochemicals, PMMA and Hydrogen Peroxides. These integrated industrial niche markets on which ARKEMA is among the world leaders concern products used in several industrial sectors such as production of cold (refrigeration and air conditioning), oil and gas, paper pulp, animal nutrition, electronics and the automotive industry.

Coating Solutions comprises the following Business Units: Acrylics, Coatings Resins, Rheology Additives (Coatex) and UV-curing resins (Sartomer). This segment proposes solutions for decorative paints, industrial coatings, adhesives and high-growth acrylic applications (superabsorbers for disposable nappies, water treatment, oil and gas extraction).

Functional and financial activities which cannot be directly allocated to operational activities (notably certain research costs and central costs) are brought together in a Corporate segment.

Operating income and assets of continuing operations are allocated between business segments prior to inter-segment adjustments. Sales prices between segments approximate market prices.

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<b>2013</b> (In millions of euros)	High Performance Materials	Industrial Specialties	Coating Solutions	Corporate	Total
Non-Group sales	1,842	1,993	2,224	39	6,098
Inter segment sales	11	104	79	-	
Total sales	1,853	2,097	2,303	39	
EBITDA	316	340	292	(46)	902
Depreciation and amortization	(104)	(115)	(93)	(2)	(314)
Recurring operating income	212	225	199	(48)	588
Other income and expenses	(11)	(2)	(40)	(152)	(205)
Operating income	201	223	159	(200)	383
Equity in income of affiliates	1	-	-	4	5
Intangible assets and property, plant, and equipment additions	101	255	117	8	481
Including: Recurring capital expenditure	93	114	114	8	329
Employees at year end	5,377	5,087	3,049		13,513
Goodwill, net	268	57	330	6	661
Intangible assets other than goodwill, and property, plant and equipment, net	666	901	647	41	2,255
Investments in equity affiliates	9	8	-	-	17
Non-current assets (excluding deferred tax assets)	44	62	30	93	229
Working capital	364	272	255	17	908
Capital employed	1,351	1,300	1,262	157	4,070
Provisions and other non-current liabilities	(180)	(232)	(87)	(301)	(800)
Deferred tax assets	-	-	-	66	66
Deferred tax liabilities	-	-	-	(64)	(64)
Net debt	-	-	-	923	923

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<b>2012</b> (In millions of euros)	High Performance Materials	Industrial Specialties	Coating Solutions	Corporate	Total
Non-Group sales	2,101	2,096	2,175	23	6,395
Inter segment sales	17	109	78	-	
Total sales	2,118	2,205	2,253	23	
EBITDA	361	399	279	(43)	996
Depreciation and amortization	(109)	(114)	(87)	(8)	(318)
Recurring operating income	252	285	192	(51)	678
Other income and expenses	(18)	3	(8)	(4)	(27)
Operating income	234	288	184	(55)	651
Equity in income of affiliates	1	-	-	9	10
Intangible assets and property, plant, and equipment additions	122	159	137	20	438
Including: Recurring capital expenditure	110	98	123	20	351
Employees at year end	5,512	5,096	3,151	-	13,759
Goodwill, net	271	57	335	7	670
Intangible assets other than goodwill, and property, plant and equipment, net	670	771	645	58	2,144
Investments in equity affiliates	6	7	-	58	71
Non-current assets (excluding deferred tax assets)	30	37	13	103	183
Working capital	384	297	293	(3)	971
Capital employed	1,361	1,169	1,286	223	4,039
Provisions and other non-current liabilities	(222)	(294)	(76)	(286)	(878)
Deferred tax assets	-	-	-	83	83
Deferred tax liabilities	-	-	-	(33)	(33)
Net debt	-	-	-	900	900

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Breakdown of non-Group sales by CGU:

	2013	2012
High Performance Materials	30%	33%
Technical Polymers	13%	14%
Filtration and Adsorption (CECA)	10%	10%
Organic Peroxides	7%	9%
Industrial Specialties	33%	33%
Thiochemicals	9%	9%
Fluorochemicals	9%	10%
PMMA	11%	10%
Hydrogen Peroxides	4%	4%
Coating Solutions	37%	34%
Acrylics	15%	13%
Coatings Resins	14%	13%
Rheology Additives (Coatex)	3%	3%
UV-curing resins (Sartomer)	5%	5%

# NOTE 2 INFORMATION BY GEOGRAPHICAL AREA

Non-Group sales are presented on the basis of the geographical location of customers. Capital employed, Intangible assets and property, plant, and equipment additions, and Employees at year end are presented on the basis of the location of the assets.

<b>2013</b> (In millions of euros)	France	Rest of Europe	NAFTA (1)	Asia	Rest of the world	Total
Non-Group sales	652	1,866	2,065	1,224	291	6,098
Capital employed	1,828	350	1,075	788	29	4,070
Intangible assets and property, plant, and equipment additions	227	25	87	138	4	481
Employees at year end	6,649	1,815	2,566	2,326	157	13,513

<b>2012</b> (In millions of euros)	France	Rest of Europe	NAFTA (1)	Asia	Rest of the world	Total
Non-Group sales	637	1,911	2,192	1,322	333	6,395
Capital employed	1,904	331	1,051	719	34	4,039
Intangible assets and property, plant, and equipment additions	208	31	115	83	1	438
Employees at year end	6,719	1,849	2,574	2,339	278	13,759

(1) NAFTA: USA, Canada, Mexico.

# NOTE 3 RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses net of subsidies amount to €144 million in 2013 (€148 million in 2012): they include salaries, purchases, sub-contracting costs, depreciation and amortization.

# NOTE 4 OTHER INCOME AND EXPENSES

	2013 201		2012	2012		
(In millions of euros)	Expenses	Income	Net	Expenses	Income	Net
Restructuring and environment	(43)	2	(41)	(9)	6	(3)
Goodwill impairment	-	-	-	-	-	-
Asset impairment (other than goodwill)	-	-	-	(3)	-	(3)
Litigation and claims	(9)	-	(9)	(1 <i>7</i> )	5	(12)
Gains (losses) on sales and purchases of assets	(184)	29	(155)	(11)	2	(9)
Other	-	-	-	-	-	-
TOTAL OTHER INCOME AND EXPENSES	(236)	31	(205)	(40)	13	(27)

In 2013, the net restructuring and environmental expenses mainly correspond to impairment of assets and provisions established following the announcement of the closure of the Chauny plant.

Gains on sales include the profit on disposal of the shares in Qatar Vinyl Company Limited Q.S.C.

In 2012, litigations and claims correspond to the net operating losses on sales and purchases of assets essentially reflect the consequences of the start of insolvency proceedings concerning Kem One SAS by Lyon commercial court on 27 March 2013, then the recovery plan for the company drawn up by the same court on 20 December 2013, and expenses related to the plan

#### NOTE 5 FINANCIAL RESULT

to sell Coating businesses in South Africa.

Financial result includes (i) the cost of debt adjusted for capitalized financial expenses, (ii) as regards provisions for pensions and other employee benefits, the interest cost, the expected return on plan assets and the actuarial gains and losses related to changes in the discount rate on other long-term benefits and (iii) the portion of foreign exchange gains and losses corresponding to the interest income/expense reflected by the difference between the spot exchange rate and the forward exchange rate.

(In millions of euros)	2013	2012
Cost of debt	(47)	(39)
Financial income/expenses on provisions for pensions and other employee benefits	(13)	(17)
Foreign exchange gains and losses (spot/forward exchange rate difference)	(1)	(1)
Capitalized interest	6	3
Other	-	-
FINANCIAL RESULT	(55)	(54)

The average interest rate for the year on debt was approximately 3% (3.4% for 2012).

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# NOTE 6 ADJUSTED NET INCOME

Net income – Group share may be reconciled to adjusted net income as follows:

(In millions of euros)	Notes	2013	2012
NET INCOME – GROUP SHARE		168	220
Other income and expenses	(C4)	205	27
Taxes on other income and expenses		(5)	(6)
Non-current taxation		-	-
Net income of discontinued operations		-	200
ADJUSTED NET INCOME OF CONTINUING OPERATIONS		368	441

# NOTE 7 INCOME TAXES

# 7.1 INCOME TAX EXPENSE

The income tax expense is broken down as follows:

(In millions of euros)	2013	2012
Current income taxes	(137)	(185)
Deferred income taxes	(24)	(1)
TOTAL INCOME TAXES	(161)	(186)

The income tax expense amounts to €161 million for 2013 including €11 million for the CVAE (expense of €13 million in current taxes and income of €2 million in deferred taxes), compared with €186 million for 2012 including €12 million for the CVAE (see B13 "Income taxes").

The income tax expense represents 27.4% of recurring operating income.

# 7.2 ANALYSIS BY SOURCE OF NET DEFERRED TAX ASSETS (LIABILITIES)

The analysis by source of the net deferred tax assets (liabilities) is as follows, before offset of assets and liabilities at fiscal entity level:

(In millions of euros)	31/12/2012	Changes in scope	Changes recognized in shareholders' equity	Changes recognized in the income statement	Translation adjustments	31/12/2013
Tax loss and tax credit carryforwards	11	-	-	(5)	-	6
Provisions for pensions and similar benefits	125	-	(23)	(2)	(2)	98
Other temporarily non-deductible provisions	271	0	(11)	(19)	(3)	238
Deferred tax assets	407	0	(34)	(26)	(5)	342
Valuation allowance on deferred tax assets	(144)	-	(1)	24	0	(121)
Excess tax over book depreciation	121	0	1	16	(4)	134
Other temporary tax deductions	92	0	(12)	6	(1)	85
Deferred tax liabilities	213	0	(11)	22	(5)	219
NET DEFERRED TAX ASSETS (LIABILITIES)	50	0	(24)	(24)	0	2

After offsetting assets and liabilities at fiscal entity level, deferred taxes are presented as follows in the balance sheet:

(In millions of euros)	31/12/2013	31/12/2012
Deferred tax assets	66	83
Deferred tax liabilities	64	33
NET DEFERRED TAX ASSETS (LIABILITIES)	2	50

As the Group is able to control the timing of the reversal of temporary differences related to investments in subsidiaries and joint ventures, it is not necessary to recognize deferred taxes in respect of these differences.

# 7.3 RECONCILIATION BETWEEN INCOME TAX EXPENSE AND PRE-TAX INCOME

(In millions of euros)	2013	2012
Net income of continuing operations	172	421
Income taxes	(161)	(186)
Pre-tax income of continuing operations	333	607
French corporate tax rate	34.43%	34.43%
Theoretical tax expense	(115)	(209)
Difference between French and foreign income tax rates	(5)	(2)
Tax effect of equity in income of affiliates	2	3
Permanent differences	(1)	(2)
Change in valuation allowance against deferred tax assets	24	(97)
Deferred tax assets not recognized (losses)	(66)	121
INCOME TAX EXPENSE	(161)	(186)

The French corporate tax rate includes the standard tax rate (33.33%) and additional taxes introduced before 2011 and 2012. In view of the Group's tax position in France, the additional 10.7% contribution temporarily applicable from 2013 to 2014

has not been included in calculating the overall income tax rate, which therefore stands at 34.43%.

The net impact of the CVAE is included in permanent differences.

# 7.4 EXPIRY OF TAX LOSS CARRYFORWARDS AND TAX CREDITS

The Group's unrecognized tax loss carryforwards and tax credits can be used up to their year of expiry, indicated in the table below.

	31/12/2	013	31/12/2012		
(In millions of euros)	Base	Income taxes	Base	Income taxes	
2013	-		5	1	
2014	-		4	1	
2015	-		-	-	
2016	6	1	6	1	
2017	16	4	8	2	
2018 and beyond	50	14	9	3	
Tax losses that can be carried forward indefinitely	1,439	492	1,256	428	
TOTAL	1,511	511	1,288	436	
Carry back deductible	-	-	-	-	

NOTE 8 EARNINGS PER SHARE

	2013	2012
Weighted average number of ordinary shares	62,695,663	62,177,689
Dilutive effect of stock options	482,827	541,665
Dilutive effect of free share grants	256,632	259,145
Weighted average number of potential ordinary shares	63,435,122	62,978,499

Earnings per share is determined below:

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	2013	2012
Earnings per share ( $\in$ )	2.68	3.54
Diluted earnings per share (€)	2.65	3.49
Earnings per share of continuing operations (€)	2.68	6.75
Diluted earnings per share of continuing operations (€)	2.65	6.67
Earnings per share of discontinued operations (€)		(3.21)
Diluted earnings per share of discontinued operations (€)		(3.18)

Adjusted earnings per share is determined below:

	2013	2012
Adjusted earnings per share (€)	5.87	5.92
Diluted adjusted earnings per share (€)	5.80	5.84
Adjusted earnings per share of continuing operations (€)	5.87	7.09
Diluted adjusted earnings per share of continuing operations (€)	5.80	7.00

# NOTE 9 INTANGIBLE ASSETS

# 9.1 GOODWILL

	31/12/2013			31/12/2012	
(In millions of euros)	Gross book value	Accumulated amortization and impairment	Net book value	Net book value	
Goodwill	1,068	(407)	661	670	

The breakdown by segment, with allocation by CGU for goodwill above €50 million, is as follows:

[In millions of euros]	31/12/2013 Net book value	31/12/2012 Net book value
High Performance Materials	268	271
Of which: Technical Polymers	219	221
Industrial Specialties	57	57
Coating Solutions	330	335
Of which: Acrylics	103	105
Of which: Rheology Additives (Coatex)	96	96
Of which: UV-curing resins	101	103
Corporate	6	7
TOTAL	661	670

Changes in the net book value of goodwill are as follows:

(In millions of euros)	2013	2012
NET BOOK VALUE		
At 1 January	670	467
Acquisitions	-	-
Amortization and impairment	-	(3)
Disposals	-	(1)
Changes in scope	-	210
Translation adjustments	(9)	(3)
Reclassifications		-
Assets held for sale		-
At 31 December	661	670

The finalization of the acquisition of Hipro Polymers and Casda Biomaterials in 2013 did not lead to any adjustment to goodwill.

The change in goodwill during 2012 essentially corresponds to:

- acquisition of Hipro Polymers and Casda Biomaterials (€177 million);
- finalization of acquisition of Seppic's specialty alkoxylate business (€2 million);

 finalization of acquisition of Total's resins businesses (€31 million). The change mainly results from reclassification of know-how as goodwill.

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# 9.2 OTHER INTANGIBLE ASSETS

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		31/12/2013			
(In millions of euros)	Gross book value	Accumulated amortization and impairment	Net book value	Net book value*	
Patents	136	(109)	27	29	
Trademarks	26	(2)	24	24	
Software and licences	102	(83)	19	23	
Capitalized REACH costs	30	(6)	24	12	
Other capitalized research expenses	3	(1)	2	2	
Capitalized contracts	223	(138)	85	97	
Asset rights	40	(4)	36	38	
Other intangible assets	20	(10)	10	12	
Intangible assets in progress	85	0	85	55	
TOTAL	665	(353)	312	292	

\* The closing position at 31 December 2012 has been reallocated between the new categories.

# Changes in the net book value of other intangible assets are as follows:

(In millions of euros)	2013	2012
NET BOOK VALUE		
At 1 January	292	310
Acquisitions	52	42
Amortization and impairment	(31)	(32)
Disposals	-	(1)
Changes in scope	-	(24)
Translation adjustments	(4)	-
Reclassifications	3	(2)
Assets held for sale	-	(1)
At 31 December	312	292

In 2013, the Group recognized €2 million of impairment on its other intangible assets (€4 million in 2012).

# NOTE 10 PROPERTY, PLANT AND EQUIPMENT

		31/12/2013			
(In millions of euros)	Gross book value	Accumulated depreciation and impairment	Net book value	Net book value	
Land and buildings	1,329	(872)	457	463	
Complex industrial facilities	2,970	(2,327)	643	616	
Other property, plant and equipment	1,807	(1,366)	441	443	
Construction in progress	402	-	402	330	
TOTAL	6,508	(4,565)	1,943	1,852	

Other property, plant and equipment at 31 December 2013 mainly comprise machinery and tools with a gross value of €1,308 million (€1,255 million at 31 December 2012), and accumulated depreciation and provisions for impairment of €1,007 million (€966 million at 31 December 2012).

ARKEMA recorded impairment losses of €10 million on property, plant and equipment (€9 million in 2012).

Changes in the net book value of property, plant and equipment are as follows:

(In millions of euros)	2013	2012
NET BOOK VALUE		
At 1 January	1,852	1,706
Acquisitions	429	437
Depreciation and impairment	(293)	(300)
Disposals	(3)	(25)
Changes in scope	6	65
Translation adjustments	(44)	(10)
Reclassifications	(4)	5
Assets held for sale	-	(26)
At 31 December	1,943	1,852

The figures above include the following amounts in respect of assets held under finance lease arrangements:

		31/12/2013			31/12/2012	
(In millions of euros)	Gross value	Depreciation and impairment	Net value	Gross value	Depreciation and impairment	Net value
Complex industrial facilities and buildings	20	(10)	10	18	(8)	10

They mainly correspond to leases of a hydrogen production unit located at Lacq and a production unit at Carling.

# NOTE 11 EQUITY AFFILIATES

	% owr	iership	Equity	value	Equity ir (lo	n income ss)	Sa	es
(In millions of euros)	31/12/2013	31/12/2012	31/12/2013	31/12/2012	31/12/2013	31/12/2012	2013	2012
Qatar Vinyl Company Ltd. Q.S.C.		13%	-	59	4 (1)	10	34 (1)	52
Arkema Yoshitomi Ltd.	49%	49%	5	6	1	1	8	9
Meglas	33%	33%	-		-	-	3	3
CJ Bio Malaysia Sdn. Bhd.	14%	14%	8	6	-	-		-
Ihsedu Agrochem Private Ltd.	25%	-	4	-	-	-	4 (2)	-
Investments			17	71	5	11	49	64
Loans			-	-	-	-	-	-
TOTAL			17	71	5	11	49	64

(1) These figures concern the period up to the date of sale of the QVC shares, in November 2013.

(2) This figure concerns the period from the date of acquisition of IAPL shares in October 2013.

During 2013, ARKEMA acquired a 24.9% investment in Ihsedu Agrochem Private Ltd. and sold its 12.9% interest in Qatar Vinyl Company Ltd. Q.S.C.

# NOTE 12 OTHER INVESTMENTS

Other investments include the Group's investments in various listed and non-listed companies, which are stated at historical cost. The main movements in 2012 and 2013 are as follows:

(In millions of euros)	2013	2012
At 1 January	36	35
Acquisitions	8	2
Disposals	(13)	-
(Increases)/Reversals of impairment	(7)	(8)
Changes in scope	28	7
Translation adjustments		-
Other changes		
At 31 December	52	36

Movements in other investments notably include the 10% investment in Changshu 3F Fluorochemical Industry Co. Ltd., the 60% investment in AEC Polymers and the sale of 100% of the shares of Arkema Beijing Chemical Co. Ltd.

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# NOTE 13 OTHER NON-CURRENT ASSETS

		31/12/2013			31/12/2012	
(In millions of euros)	Gross value	Impairment	Net value	Gross value	Impairment	Net value
Loans and advances	168	(8)	160	144	(9)	135
Security deposits paid	17	-	17	12	-	12
TOTAL	185	(8)	177	156	(9)	147

Loans and advances include amounts receivable from the French tax authorities in respect of the research tax credit (CIR), and from 2013, the tax credit for competitiveness and employment (CICE). Loans and advances also include  $\in$ 31 million of receivables on Total related to the remediation costs in respect of closed industrial sites in the United States (see note C19.3 "Other provisions and other non-current liabilities/Provisions for environmental contingencies").

The CIR for 2010, amounting to €21 million, will be reimbursed during the second quarter of 2014.

# NOTE 14 INVENTORIES

(In millions of euros)	31/12/2013	31/12/2012
INVENTORIES (COST)	963	991
Valuation allowance	(67)	(71)
INVENTORIES (NET)	896	920
Of which:		
Raw materials and supplies	231	259
Finished products	665	661

## NOTE 15 ACCOUNTS RECEIVABLE, OTHER RECEIVABLES AND PREPAID EXPENSES

At 31 December 2013, accounts receivable are stated net of a bad debt provision of €79 million (€29 million at 31 December 2012); the receivables concerned by the provision relating to Kem One, amounting to €51 million, will be sold to the company's new owner for 1 euro.

Other receivables and prepaid expenses notably include receivables from governments in an amount of €71 million at 31 December 2013 (€77 million at 31 December 2012),

including €68 million of VAT and receivables on Kem One in connection with warranties provided to Kem One's suppliers amounting to €60 million and fully covered by provisions; these receivables on Kem One will be sold to the company's new owner for 1 euro.

Details of accounts receivable net of valuation allowances are presented in note C22.4 "Credit risk".

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# NOTE 16 CASH AND CASH EQUIVALENTS

(In millions of euros)	31/12/2013	31/12/2012
Short-term cash advances	11	9
Monetary mutual funds	288	218
Available cash	78	133
CASH AND CASH EQUIVALENTS	377	360

## NOTE 17 SHAREHOLDERS' EQUITY

At 31 December 2013, Arkema S.A.'s share capital amounted to €630 million, divided into 63,029,692 shares with nominal value of €10.

## 1. CHANGES IN THE SHARE CAPITAL

Following the exercise of 152,477 stock options, the Company carried out two capital increases of a combined total of €1 million, on 30 June and 31 December 2013.

### 2. TREASURY SHARES

The Company did not buy back any treasury shares during 2013. On 5 May 2013, Arkema S.A. permanently allocated 87,060 free shares to the Group's employees in application of plan 2011-1.

# 3. DIVIDEND DISTRIBUTION

The shareholders' general meeting of 4 June 2013 adopted a resolution proposing to distribute a dividend of €1.80 per share in respect of the 2012 financial year, or a total amount of €113 million. This dividend was paid on 11 June 2013.

# NOTE 18 PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS

	2013	2012
(In millions of euros)	2013	2012
Pension obligations	269	332*
Healthcare and similar coverage	46	52*
Post-employment benefits	315	384
Long service awards	42	42
Other long-term benefits	4	6
Other long-term benefits	46	48
PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS	361	432

\* These figures have been restated for the unamortized past service cost as a result of application of IAS 19 (revised). This restatement has no impact on the total provision, as the effects concerning pension obligations (+€7 million) and healthcare costs (-€7 million) offset each other.

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In accordance with the laws and practices of each country, ARKEMA participates in employee benefit plans offering retirement, healthcare and similar coverage, and special termination benefits. These plans provide benefits based on various factors including length of service, salaries, and contributions made to the national bodies responsible for the payment of benefits.

These plans are either defined contribution plans or defined benefit plans. In certain cases they can be either partly or totally funded by investments in dedicated plan assets, mutual funds, general funds of insurance companies or other assets.

Post-employment benefits are detailed in tables in 18.1, 18.2, and 18.3 below.

The features of the main defined benefit plans are as follows:

- in the United States, the largest defined benefit plan is the "Employee Pension Plan". This plan is now frozen and no new rights can be earned except in the case of a few employees. Under this plan, beneficiaries receive a lump sum or an annuity when they retire. The assets funding this plan are externally managed and are subject to the minimum funding rules laid down in the federal Pension Protection Act;
- 18.1 EXPENSE IN THE INCOME STATEMENT

The expense related to defined benefit plans is broken down as follows:

• in France, the two top-up pension plans are closed to new members. One of them is managed by an insurance company and funded by plan assets. The beneficiaries of these plans receive an annuity once they retire.

The top-up health coverage plan for retired employees is also closed and is not funded. Other benefit plans (bonuses, long service awards and retirement gratuities) pay out lump sums; they are open to all employees and are partly-funded;

- in Germany, all defined benefit plans are closed to new members. Plan participants receive a monthly payment once they retire (the normal retirement age is set at 65). These plans are not funded, except for the company's head office plan, which shows a non-significant funding asset;
- in the Netherlands, plans are covered through an insurance company. These plans are still open to new participants and pay out an annual amount once the employees retire;
- in the United Kingdom, the two plans were frozen as of 1 August 2013 and no further rights can be earned from that date. These plans are covered by a pension fund.

	2013 2012			2012		
(In millions of euros)	Total	Pension obligations	Healthcare and similar coverage	Total	Pension obligations	Healthcare and similar coverage
Current service cost	13	12	1	12	11	1
Past service cost	(2)	(1)	(1)	(3)	(2)	(1)
Settlements	-	-	-	-	-	-
Interest expense	22	21	1	24	22	2
Expected return on plan assets	(10)	(10)	-	(14)	(14)	-
Other	-	-	-	-	-	-
(INCOME)/EXPENSE: CONTINUING ACTIVITIES	23	22	1	19	17	2
(INCOME)/EXPENSE: DISCONTINUED ACTIVITIES	-	-	-	1	1	-

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# 18.2 CHANGE IN NET PROVISIONS OVER THE PERIOD

	Pension obligations		Healthcare and similar coverage		Total post-employment benefits	
(In millions of euros)	2013	2012	2013	2012	2013	2012
Net liability/(asset) at beginning of year	331	261	52	56	383	317
Expense for the year	22	18	1	1	23	19
Contributions made to plan assets	(14)	(21)	-	-	(14)	(21)
Net benefits paid by the employer	(11)	(13)	(4)	(3)	(15)	(16)
Other	(5)	(2)	0	(1)	(5)	(3)
Actuarial gains and losses recognized in shareholders' equity	(59)	79	(3)	6	(62)	85
Net liability/(asset) held for sale	-	2	-	-	-	2
Net liability/(asset) at end of year	264	324	46	59	310	383
Reclassification at beginning of year of unrecognized past service cost	-	7	-	(7)	-	0
Net liability/(asset) at end of year	264	331	46	52	310	383

# 18.3 VALUATION OF OBLIGATIONS AND PROVISIONS AT 31 DECEMBER

# a) Present value of benefit obligations

	Pension o	bligations	Healthcare and similar coverage	
(In millions of euros)	2013	2012	2013	2012
Present value of benefit obligations at beginning of year	602	510	52	47
Current service cost	12	12	1	1
Net interest expense	21	22	1	2
Past service cost (including curtailments)	(1)	(3)	(1)	(1)
Settlements	(1)	(5)	-	-
Plan participants' contributions	0	1	-	-
Benefits paid	(38)	(33)	(4)	(3)
Actuarial (gains) and losses	(52)	101	(3)	6
Changes in scope	-	-	-	-
Translation adjustment and other	(13)	(5)	-	-
Liabilities associated with assets held for sale	-	2	-	-
Present value of benefit obligations at end of year	530	602	46	52

# b) Change in fair value of plan assets

Plan assets are mainly located in the United States, France, the Netherlands and the United Kingdom.

	Pension obligat	ons
(In millions of euros)	2013	2012
Fair value of plan assets at beginning of year	(271)	(243)
Interest income	(10)	(14)
Settlements	1	5
Plan participants' contributions	0	(1)
Employer contributions	(14)	(21)
Benefits paid from plan assets	27	20
Actuarial (gains) and losses	(7)	(20)
Changes in scope	-	-
Translation adjustment and other	8	3
Liabilities associated with assets held for sale	-	-
Fair value of plan assets at end of year	(266)	(271)

# c) Provisions in the balance sheet

	Pension o	bligations	Healthcare and similar coverage		
(In millions of euros)	2013	2012	2013	2012	
Present value of unfunded obligations	188	193	46	52	
Present value of funded obligations	342	409	-	-	
Fair value of plan assets	(266)	(271)	-	-	
(Surplus)/Deficit of assets versus benefit obligations	264	331	46	52	
Asset ceiling	-	-	-	-	
Net balance sheet provision	264	331	46	52	
Provision recognized in liabilities	269	332	46	52	
Amount recognized in assets	(5)	(1)	-	-	

Changes in recent years in the obligation, the value of the plan assets and actuarial gains and losses are as follows:

(In millions of euros)	2013	2012	2011	2010
Obligations for pensions, healthcare and similar	576	654	547	527
coverage				
Plan assets	(266)	(271)	(243)	(235)
Net obligations	310	383	304	292
Actuarial (gains)/losses on accumulated rights				
<ul> <li>experience adjustments</li> </ul>	(3)	6	10	(1)
• effects of changes in financial assumptions	(51)	101	23	34
• effects of changes in demographic assumptions	(1)	-	(5)	(6)

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## d) Pre-tax amount recognized through equity during the valuation period

	Pension obligations		Healthcare and similar coverage		
(In millions of euros)	2013	2012	2013	2012	
Actuarial (gains) and losses generated in the period (A)	(59)	79	(3)	6	
Effect of the surplus cap and the asset ceiling (B)	-	(1)	-	-	
Total amount recognized in equity (A + B)	(59)	78	(3)	6	
Cumulative actuarial (gains) and losses recognized in equity	112	171	(24)	(21)	

### e) Composition of the investment portfolio

		Pension obligations						
	A	t 31 Deceml	ber 2013		A	t 31 Deceml	per 2012	
	France	UK	Rest of Europe	USA	France	UK	Rest of Europe	USA
Shares	1%	67%	22%	57%	-	60%	24%	57%
Bonds	14%	32%	66%	33%	-	40%	68%	33%
Property	-	-	-	10%	-	-	-	10%
Monetary/Cash assets	2%	1%	1%	-	-	-	-	-
Investment funds	-	-	-	-	-	-	-	-
Funds held by an insurance company	83%	-	9%	-	100%	-	<b>}</b> 8%	-
Other	-	-	2%	-	-	-	J	-

Pension assets are mainly invested in listed financial instruments.

## f) Actuarial assumptions

The main assumptions for pension benefit commitments and healthcare and similar obligations are:

	France	UK	Rest of Europe	USA	France	UK	Rest of Europe	USA
	2013	2013	2013	2013	2012	2012	2012	2012
Discount rate	3.20	4.50	3.20	4.85	3.00	4.00	3.00	3.75
Rate of increase in salaries	2.96-4.88	N/A	2.80-4.20	4.00	3.00-4.79	3.00	2.00-3.00	4.00

The discount rate is determined based on indexes covering bonds by AA-rated issuers, with maturities consistent with the duration of the above obligations. The rate of increase of healthcare costs has a negligible impact in the United States as a ceiling has been applied since mid-2006, and in Europe since 2008 the impact has been limited to the rate of inflation during the period over which rights vest.

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A change of plus or minus 0.50 points in the discount rate has the following effects on the present value of benefit obligations at 31 December:

Pension obligations, healthcare and similar coverage	Europe	USA
(In millions of euros)	2013	2013
Increase of 0.50	(21)	(13)
Decrease of 0.50	24	14

A change of plus or minus 0.50 points in the salary increase rate has the following effects on the present value of benefit obligations at 31 December:

Pension obligations, healthcare and similar coverage	Europe	USA
(In millions of euros)	2013	2013
Increase of 0.50	4	4
Decrease of 0.50	(5)	(4)

# g) Provisions by geographical area

2013	France	Germany	Rest of Europe	USA	Rest of the world	Total
Pension obligations	126	63	11	64	5	269
Healthcare and similar coverage	33	-	-	13	-	46

2012	France	Germany	Rest of Europe	USA	Rest of the world	Total
Pension obligations	130	66	15	115	6	332
Healthcare and similar coverage	35	-	-	17	-	52

# h) Cash flows

The contributions to be paid by the Group in 2014 for funded benefits are estimated at  $\in$ 19 million.

The benefits to be paid by the Group in 2014 in application of defined benefit plans are valued at €9 million for pension obligations, and €4 million for healthcare and similar coverage.

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# NOTE 19 OTHER PROVISIONS AND OTHER NON-CURRENT LIABILITIES

# **19.1 OTHER NON-CURRENT LIABILITIES**

Other non-current liabilities amount to €42 million at 31 December 2013 as against €46 million at 31 December 2012.

## **19.2 OTHER PROVISIONS**

(In millions of euros)	Environmental contingencies	Restructuring	Other	Total
At 1 January 2013	179	50	171	400
Increases in provisions	15	22	131	168
Reversals from provisions utilized	(19)	(21)	(111)	(151)
Reversals of unutilized provisions	(1)	(1)	(18)	(20)
Changes in scope	-	-	-	-
Translation adjustments	(3)	-	(2)	(5)
Other	-	-	5	5
At 31 December 2013	171	50	176	397
Of which less than one year	17	24	68	
Of which more than one year	154	26	108	

In addition, certain provisions are covered by non-current assets (receivables, deposits):

(In millions of euros)	Environmental contingencies	Restructuring	Other	Total
Total provisions at 31 December 2013	171	50	176	397
Portion of provisions covered by receivables or deposits	31	-	6	37
Deferred tax asset related to amounts covered by the Total indemnity	18	-	-	18
Provisions at 31 December 2013 net of non-current assets	122	50	170	342

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(In millions of euros)	Environmental contingencies	Restructuring	Other	Total
At 1 January 2012	189	72	134	395
Increases in provisions	11	9	45	65
Reclassification at 1 July 2012 of residual liabilities associated with discontinued operations <sup>(1)</sup>	-	-	66	66
Reversals from provisions utilized	(18)	(28)	(52)	(98)
Reversals of unutilized provisions	(2)	(2)	(23)	(27)
Changes in scope	-	-	2	2
Translation adjustments	(1)		(1)	(2)
Other	-		-	0
Liabilities associated with assets held for sale	-	(1)	-	(1)
At 31 December 2012	179	50	171	400
Of which less than one year	19	14	57	
Of which more than one year	160	36	114	

(1) This corresponds to the balance of provisions at 30 June 2012 related to divested businesses which were booked in the net income of discontinued operations prior to 30 June 2012. At 31 December 2012 the balance of these provisions was €39 million.

In addition, certain provisions are covered by non-current assets (receivables and deposits):

(In millions of euros)	Environmental contingencies	Restructuring	Other	Total
Total provisions at 31 December 2012	179	50	171	400
Portion of provisions covered by receivables or deposits	35	-	1	36
Deferred tax asset related to amounts covered by the Total indemnity	21	-	-	21
Provisions at 31 December 2012 net of non-current assets	123	50	170	343

# 19.3 PROVISIONS FOR ENVIRONMENTAL CONTINGENCIES

Provisions for environmental contingencies are recognized to cover expenses related to soil and water table clean-up, mainly:

- in France for €84 million (€83 million at 31 December 2012);
- in the United States for €67 million (€76 million at 31 December 2012), of which €49 million in respect of former industrial sites covered 100% by the Total group indemnity (receivable recognized in "other non-current assets" for an amount of €31 million and €18 million recognized in deferred tax assets).

## **19.4 RESTRUCTURING PROVISIONS**

Restructuring provisions are mainly in respect of restructuring measures in France for €46 million (€43 million at 31 December 2012), in Europe outside France for €2 million (€1 million at 31 December 2012) and in the United States for €2 million (€5 million at 31 December 2012).

Increases in such provisions in the year correspond to the restructuring plans described in note C4 "Other income and expenses".

## **19.5 OTHER PROVISIONS**

Other provisions amount to €176 million and mainly comprise:

- provisions for labour litigation for €39 million (€39 million at 31 December 2012);
- provisions for commercial litigation and warranties for €40 million (€56 million at 31 December 2012);
- provisions for tax litigation for €20 million (€30 million at 31 December 2012);
- provisions for other risks for €77 million (€46 million at 31 December 2012).

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# NOTE 20 LIABILITIES AND CONTINGENT LIABILITIES

#### 20.1 ENVIRONMENT

ARKEMA's business activities are subject to constantly changing local, national and international regulations on the environment and safety, which entail meeting increasingly complex and restrictive requirements. In this regard, these activities can involve a risk of ARKEMA's liability being called upon, particularly in respect of clean-up of sites and industrial safety.

Taking account of the information available, agreements signed with Total, and the provisions for environmental contingencies recognized, ARKEMA's general management considers that the environmental liabilities identified at this point are valued and recognized to the best of their knowledge in the financial statements. However if laws, regulations or government policy in respect of environmental matters were to change, ARKEMA's obligations could change, which could lead to additional costs.

#### **Clean-up of sites**

The competent authorities have made, are making or may in the future make specific demands that ARKEMA rehabilitate or control emissions at certain sites that it is currently operating, or that it operated or disposed of in the past, at neighbouring sites or at sites where ARKEMA stored or disposed of waste.

#### **20.1.1** Sites currently in operation

ARKEMA has many sites of which a certain number are probably polluted in view of their age and the range of activities that are carried out on them, or that were carried out on them in the past. As regards these sites, certain situations have been identified and ARKEMA has already carried out certain clean-up work, or otherwise developed action plans and recognized provisions in order to cover future clean-up work.

However, in the light of (i) the uncertainties over the technical means to be implemented, (ii) potential issues that are unknown, (iii) uncertainties over the actual time required for remediation compared with the estimated time (e.g. "pump and treat"), and (iv) potential changes in regulations, the possibility that the expenses that the Group will incur will be higher than the amounts covered by provisions cannot be excluded. These potential excess costs relate mainly to the sites in Calvert City (United States), Carling (France), Günzburg (Germany), Jarrie (France), Lannemezan (France), Loison (France), Mont (France), Pierre-Bénite (France), Riverview (United States), Rotterdam (the Netherlands), Saint-Auban (France), Porto Marghera (Italy) and Zaramillo (Spain) and could adversely affect the Group's business, results and financial condition.

#### Spinetta (Arkema Srl)

In late 2009, a certain number of managers and directors of Arkema Srl were named in a criminal investigation for underground water pollution at the Spinetta site and withholding information from the authorities of the true extent of existing pollution. This investigation also concerns employees of the main industrial operator on the site. After hearing all the parties, the Preliminary Hearing Judge decided in early 2012 that the only charge applicable to representatives of Arkema Srl is the failure to take remedial action against the pollution observed.

Arkema Srl considers that it is difficult to determine with certainty whether the company and/or the managers or directors cited in this new phase of the criminal investigation could be considered to have liability. The court could issue its ruling during 2014. A provision is recorded in ARKEMA's financial statements in an amount which the Group considers adequate.

#### 20.1.2 Closed industrial sites (former industrial sites)

Total directly or indirectly took over the closed industrial sites at the date of the Spin-Off of Arkema's Businesses on 10 May 2006.

Since the Spin-Off, the former Dorlyl SNC sites have been closed and sold. The Wettern site in Belgium belonging to Résil Belgium, and the Bonn site in Germany belonging to Arkema GmbH have also been closed and are currently in the process of divestment.

#### 20.1.3 Sites sold

# Saint-Fons (Arkema France)

In the sale of ARKEMA's Vinyl Products segment to the Klesch group in early July 2012, all industrial installations on the Saint-Fons site were transferred to Kem One, apart from the land, which is held under a long-term lease. The agreements for the sale stipulate that Arkema France remains liable for legacy pollution to the site.

The Prefect of the Rhône region issued a decision on 14 May 2007 concerning the Saint-Fons site, ordering Arkema France to carry out quality monitoring on underground water and propose a plan to manage the legacy pollution to the zone known as T112. Both the Lyon administrative court, in its ruling of 29 September 2011, and the Lyon Administrative Appeal Court in a decision of 11 April 2013, rejected Arkema France's petition against the initial decision. Arkema France has filed an appeal before the Council of State against the Lyon Administrative Appeal Court's decision. The Prefect of the Rhône region wanted to expand and separate the requirements concerning monitoring and management of the legacy pollution of the Saint-Fons site (T112 and other pollutants) prior to formal administrative recognition of Kem One as the new operator. He consequently issued two additional decisions against Arkema France, dated 19 June and 27 June 2012. Arkema France has petitioned the Lyon administrative court for cancellation of both decisions.

Should Arkema France lose its petition, rehabilitation of the site affected by the legacy pollution would be the company's responsibility. A provision has been established in ARKEMA's financial statements in connection with this matter.

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Following the legal action instigated by Arkema France against Rhodia Chimie, the previous operator of this site, the Bobigny commercial court declared Arkema France's action inadmissible in 2012. Arkema France has appealed this ruling.

## CECA

In 1999, the company Intradis commissioned the company Antéa to carry out a survey on a site located in France which had been used for industrial purposes and in particular by CECA (manufacture of sulphuric acid) and the company Hydro Agri (a fertilizer factory which does not belong to the Group). The survey classified the site as in category 1 (a site requiring in-depth investigations and a detailed risk assessment). After receipt of the report by the expert appointed to determine the nature and extent of the pollution affecting the land, Intradis applied to the administrative court to have the prefectoral order requiring it to take measures to protect the site cancelled. This application was rejected by the administrative court. In a judgement dated 18 October 2007, the Douai administrative appeal court overturned the previous judgement, cancelled the prefectoral order and decided that there was no need to rule on Intradis' conclusions against CECA.

No notable developments have arisen on this litigation since 2008. The judgement of the Douai administrative appeal court definitively closes the proceedings initiated by Intradis in the administrative court system. As of today, it is not possible for the Group to evaluate whether any other forms of appeal, notably through civil proceedings, may be initiated.

#### 20.2 LITIGATION, CLAIMS AND PROCEEDINGS IN PROGRESS

## 20.2.1 Labour litigation

#### a) Occupational illness (France)

In the manufacture of its products, the Group uses and has used toxic or hazardous substances. Despite the safety and monitoring procedures that have been instituted at Group level and for each production site, Group employees may have been exposed to such substances and may develop specific pathologies as a result of such exposure.

In this respect, like most industrial companies, in the past, the Group has used a variety of insulating or heat-proofing materials containing asbestos in its production facilities. Consequently, certain employees may have been exposed to such materials before they were gradually eliminated and replaced with substitute products.

At its French sites, the Group anticipated the regulatory provisions applicable to asbestos (Decrees No. 96-97 and 96-98 of 7 February 1996 and Decree No. 96-1133 of 24 December 1996). The Group made an inventory of building materials within its premises that contained asbestos, notified employees of the results of these investigations and took the collective and individual protective measures required by the applicable laws. However, claims for occupational illness related to past asbestos exposure have been filed against the Group, mostly for periods before 1980. Given the latency period of asbestos-related pathologies, a large number of claims for occupational illness are likely to be filed in the years ahead. The Group has recognized provisions to cover the risks of employer liability claims related to notified cases of occupational illness.

#### b) Prejudice related to asbestos (Arkema France)

A large number of former employees of Arkema France, who worked on sites included in the list of establishments whose workers were eligible for the early retirement system for asbestos workers, are parties to proceedings before the employee claims court, claiming compensation for the prejudice allegedly caused by the possible risk of developing a malignant condition in the future.

In a ruling of 11 May 2010, the labour chamber of the Court of Cassation recognized the existence of a prejudice of anxiety, eligible for compensation, for employees exposed to asbestos during their working life. However, it rejected the existence of an economic prejudice resulting from departure under the early retirement system.

In the cases currently in process, certain courts of first instance have ordered Arkema France to pay compensation for the prejudice of anxiety, but also for the "upheaval in living conditions". Meanwhile, the Metz appeal court ordered Arkema France to pay compensation solely for the prejudice of anxiety.

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It is likely that other former employees of Arkema France who may have been exposed to asbestos may also take action before an employee claims court to claim compensation. 1,270 claims are currently in process before the employee claims courts, seeking compensation for the prejudice of anxiety and/or the prejudice of upheaval in living conditions allegedly caused by exposure to asbestos.

A provision has been recognized in the financial statements in respect of the litigations currently in progress, for an amount that the Group considers adequate.

#### c) Break time (Arkema France)

In 2005, 260 employees and former employees of the Pierre-Bénite site made a claim for damages with the Lyon employee claims courts for alleged non-compliance with the terms of the chemicals industry branch agreement over break times. The claimants considered that, given the manner in which work is organized and structured on this site, the break granted to them does not allow them to be released from all work and to be able to freely go about their personal affairs. The claim for compensation amounts to €5.2 million. Arkema France contested these claims. A judgement issued on 24 June 2008 fully rejected all of the employees' claims. The employees appealed this decision. On 21 November 2011 the Lyon appeal court upheld the judgement of 24 June 2008 and fully rejected the appeals of all claimants. Arkema France was informed of 176 appeals. These appeals were rejected by decisions issued by the social chamber of the French supreme court (Cour de Cassation) on 13 March 2013.

#### 20.2.2 Commercial litigation and warranties

#### Antitrust litigation

The Group is involved in a number of proceedings in Europe and Asia alleging violations of antitrust laws relating to cartel behaviour. There are currently no litigations or proceedings against Arkema Inc. or Arkema France in the United States and Canada.

In a judgement of 6 February 2014, the European General Court upheld the European Commission's decision of November 2009 in the matter of heat stabilizers. Arkema France reserves the right to challenge this judgement and therefore to file an appeal before the Court of Justice of the European Union.

The hydrogen peroxide proceedings against Arkema France initiated by Cartel Damage Claim (CDC) hydrogen peroxyde SA before the Dortmund (Germany) Tribunal, and the claim concerning sodium chlorate brought before the Amsterdam court by an affiliate of CDC (CDC Project 13 S.A.), have been dropped as the plaintiffs have permanently withdrawn. In addition, it cannot be ruled out that civil suits for damages may be filed by third parties claiming to be victims of the violations in relation to which fines have been imposed by the European Commission.

To cover the risks associated with the proceedings in the United States and Europe, which arose prior to completion of the Spin-Off of Arkema's Businesses, Total S.A. and one of its subsidiaries have granted indemnities for the benefit of Arkema and Arkema Amériques SAS, the main terms of which are described in note C29 "Off-balance sheet commitments".

#### **Breach of contract (Arkema France)**

In 1995, the company Gasco brought a claim for damages against Elf Atochem (the former name of Arkema France) before the court in Ghent (Belgium) in respect of an alleged breach of contract and breach of an exclusivity agreement. At first instance, Gasco obtained a judgement against Atofina for payment of €248,000 by way of damages for breach of contract (payment of that sum has been made) but its claim for breach of the exclusivity agreement was dismissed. Appeal proceedings have been pending before the Ghent Court of Appeal since 1999, and no developments have arisen since then. Having regard to the weak basis of the allegations made against it, the defences available to the Group, and considering the lack of developments in the matter, the provision previously booked has been reversed.

#### Product conformity (Arkema France)

Arkema France supplies various products for the coating of items used in a number of European countries in the manufacture of sanitary treatment facilities. These products are subject to inspection on the part of approved laboratories which must certify their conformity with the applicable sanitary regulations. Arkema France has an interpretation of the regulations applicable in France that diverges from that of a French laboratory and the public authorities as regards regulatory clearance in France of a product, even though this product is approved in other European Union countries. The Group takes the view that this problem is essentially administrative in nature, and no provision has been recognized in the financial statements. However, the possibility that users might seek to attach liability to Arkema France as the supplier cannot be excluded. In the event that such claims were successful, the costs of replacement of the products and the damages that could be claimed could prove to be extremely high.

#### Deer Park Capacity Reservation Contract (Arkema Inc.)

On 16 July 2010, Rohm & Haas filed a petition against Arkema Inc. in Texas State Court, asserting various claims against Arkema Inc. associated with certain agreements relating to the supply of MMA. The parties have reached a final settlement in this matter, permanently ending all these claims.

# Cancelled MMA Swap Agreement with Rohm & Haas (Arkema France)

On 13 August 2010, Rohm & Haas filed a Notice of Arbitration and Statement of Claim with the American Arbitration Association in New York, asserting claims against Arkema France concerning a geographical swap agreement relating to the supply of MMA. The arbitration panel found in favour of Arkema France on 9 October 2012. On 27 December 2012, Rohm & Haas filed a petition in the United States District Court, Southern District of New York, seeking to vacate the arbitration award. On 9 April 2013, the District Court denied the petition to vacate and entered judgement for Arkema France, confirming the award in Arkema France's favour. That judgement is now final.

#### **Class action Pension Liabilities (Arkema Inc.)**

This class action lawsuit was filed in United States District Court in New Jersey on 7 February 2012, and arises out of the purchase by Arkema Inc. from Rohm & Haas of certain assets upon the dissolution in 1998 of Arkema Inc.'s Atohaas joint venture with Rohm and Haas. At that time, Arkema Inc. accepted Rohm and Haas U.S. employees into its U.S. pension plan, and incorporated the terms of the Rohm & Haas pension plan for the benefit of those employees. The Rohm & Haas pension plan permits participants to receive their pension benefit in the form of either an annuity or a lump sum. Those participants electing an annuity receive a cost of living adjustment (COLA) to their benefit each year. The plan specifically prohibits the granting of a COLA to participants who elect a lump sum. Both Lightfoot and Hone retired from Arkema Inc. in 2009 and received lump sum retirement benefits under the Rohm & Haas pension formula. Neither received the value of the Inc. COLA in their lump sum distribution. Both contend that their lump sum distributions should have included the value of the COLA. They bring claims on behalf of themselves and others similarly situated, which they estimate at being 200. The judge certified a class of both retirees and active employees, based on the parties' agreement. After the parties filed cross motions for summary judgement in November 2012, on 1 July 2013, the judge granted summary judgement in favour of the plaintiffs and held that Arkema Inc. is required to include the present value of future COLAs in the calculation of lump sum disbursements. The parties agreed to a settlement on the matter on 30 September 2013. The appropriate documents are in the process of being drafted, which then must be considered by the court, and published to the class members for comment before becoming final. A provision has been established in the financial statements.

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#### Environmental engineering activities (CECA)

The past environmental engineering activities of CECA have given rise to various claims by third parties. These claims have been transmitted to the Group's insurers. The Group has recognized provisions that it considers adequate. The possibility cannot be excluded that this activity, which has now ceased, may give rise to further claims in the future.

#### 20.2.3 Tax litigations

#### Arkema Quimica Limitada

Following a declaration as to the unconstitutional nature of certain taxes, the Brazilian subsidiary of Arkema Amériques, Arkema Quimica Limitada, offset certain tax assets and liabilities commencing in 2000. The Brazilian government contests the justification for this offset and in 2009 claimed repayment of 19.5 million reais (around €6 million).

Arkema Quimica Limitada lodged a counter-claim in mid-June 2009 for cancellation of the tax administration's claim concerning the current portion of the liability. During the first quarter of 2010 Arkema Química Limitada applied to benefit from the tax amnesty law that would allow it to pay only part of its overall tax liability. The tax authorities accepted the terms for payment of the liability subject to amnesty, and only an amount of 9.2 million reais or around €2.8 million at 31 December 2013 remains concerned by an appeal before the courts, which ARKEMA considers has reasonable chances of success. An initial decision could be made in 2014. No provision has been established in the financial statements.

#### Arkema Srl

In 2013 the Lombardy Regional Tax office (Italy) conducted a tax inspection of Arkema Srl for the 2008, 2009 and 2010 financial years after which it contested the purchase prices of products for resale and the level of commission paid to the company in intragroup transactions, and refused the deductibility of expenses with companies located in countries that were on a "blacklist" drawn up by the Italian government. The tax reassessments for 2008 amount to €11.5 million including penalties. Arkema Srl is objecting to the tax administration's conclusions concerning the main grounds for reassessment. A provision considered adequate by the Group has been established in the financial statements.

#### 20.2.4 Other litigation

#### **TGAP (Arkema France)**

Under the terms of a services agreement, Arkema France has the effluent produced by its industrial operations at Lacq and Mourenx treated by Total E&P France, which has specific authorization to inject this effluent, together with effluent it produces itself, into a cavity called Crétacé 4000.

The French customs authorities issued a tax demand of  $\in 6.7$ million to Total, covering the years 2003 to 2006, for nonpayment of the French general tax on polluting activities (*Taxe Générale sur les Activités Polluantes*, or TGAP) which, according to the authorities, should be applied to these injections of effluent. Total has appealed the court of first instance's rejection of its petition for cancellation of the tax demand which nonetheless acknowledged that Total's own effluents should be exempt from the TGAP. In February 2013 the appeal court rejected Total's appeal. Total then brought the case before the French supreme court (*Cour de Cassation*). The possibility cannot be ruled out that, at the end of this further appeal, Total may still be required to pay all or part of the TGAP assessed, of which ARKEMA could be liable for a portion. No provision has been recorded in the financial statements in connection with this matter.

#### Asbestos risk (Arkema Inc.)

In the United States, Arkema Inc. is involved in a substantial number of asbestos-related proceedings in various State courts. No notable developments have arisen in the proceedings concerning claims by third parties relating to (i) alleged exposure to asbestos on the Group's sites, or (ii) exposure to products containing asbestos and sold by former subsidiaries of the Group in the United States and elsewhere. When claims are not covered by insurance policies, provisions have been made for such claims in an amount which the Group considers sufficient. However, due to the continuing uncertainties as to the outcome of these proceedings, the Group is not, as at the date of these financial statements, in a position, having regard to the information available to it, to estimate the total amount of the claims that might finally be upheld against it by the various competent courts after the exhaustion of any avenues of appeal.

## Kem One

ARKEMA sold its vinyls activities, grouped into the Kem One group, to the Klesch group with effect from 1 July 2012.

On 27 March 2013, the Lyon commercial court opened insolvency proceedings with continuation of activities for the observation period against the company Kem One SAS. In a ruling of 20 December 2013, the Lyon commercial court designated the new owner of Kem One SAS, and put to an end the insolvency proceedings. To facilitate this takeover, ARKEMA will in particular sell (for 1 euro) all its receivables on Kem One SAS which were fully provisioned, has adjusted certain commercial services provided to Kem One SAS, and has given a commitment, under certain conditions, to ensure internal redeployment of 100 Kem One SAS employees. On top of the €125 million provisions booked in the first quarter of 2013, in the final quarter of 2013 ARKEMA recorded a net exceptional expense of €17 million.

An arbitration procedure was initiated against Arkema by Klesch in March 2013. Although it is impossible to predict the outcome of this procedure with certainty, ARKEMA considers it is unfounded and is confident it will be able to demonstrate that fact. No provision has been booked in the financial statements.

In addition, the Works Council of Kem One's Fos-sur-Mer site brought an action on 9 July 2013 before the Lyon district court against Arkema, certain Kem One SAS' entities and the Klesch group, for alleged fraudulent collusion. As part of the takeover of Kem One SAS described above, the new owner has stated that it will handle withdrawal of this action by the Works Council.

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#### Coem (Arkema France)

As there were no product supplies by Kem One SAS to the Italian company Coem, Coem issued a written complaint to Arkema France and Kem One in August 2012 that it had suffered injury through breach of commercial relations. Since then, Coem has been placed in receivership with a view to liquidation, and a composition has been signed with its creditors and was approved by Boulogne court on 18 December 2013. In view of this and the lack of any developments regarding the complaint against Arkema France, the Group considers that the risk is extremely limited. No provision has been recognized in the financial statements.

#### 20.2.5 Statutory training entitlement

The French Act of 4 May 2004 relating to professional training created a statutory training entitlement (DIF). Each employee has an entitlement to at least 20 hours' training per year (which

can be accumulated over 6 years). Use of the statutory training entitlement is at the employee's initiative, in agreement with the employer.

ARKEMA's investment in training will represent, in 2014, approximately 3% of payroll costs (2.5% of DIF-eligible expenses and 0.5% of non-eligible expenses).

In ARKEMA, nearly 35% of training initiatives in the 2014 training plan will qualify for the statutory training entitlement and will therefore be systematically proposed as a priority to employees with a statutory training entitlement.

In addition, branch agreements in the chemicals industries have enabled priority training initiatives in respect of the statutory training entitlement to be defined and, in this context, part of the teaching costs can be taken as a charge by the employee benefit body responsible for the scheme's administration. In these conditions, implementing the statutory training entitlement does not result in any additional costs for ARKEMA.

# NOTE 21 DEBT

Group net debt amounted to €923 million at 31 December 2013, taking account of cash and cash equivalents of €377 million. It is mainly denominated in euros.

#### 21.1 ANALYSIS OF NET DEBT BY CATEGORY

(In millions of euros)	31/12/2013	31/12/2012
Bonds	1,138	989
Finance lease obligations	2	3
Bank loans	53	59
Other non-current debt	14	20
Non-current debt	1,207	1,071
Finance lease obligations	0	0
Syndicated credit facility	-	-
Commercial paper	-	-
Other bank loans	65	160
Other current debt	28	29
Current debt	93	189
Debt	1,300	1,260
Cash and cash equivalents	377	360
NET DEBT	923	900

#### Bonds

 In October 2010, the Group issued a €500 million bond that will mature on 25 October 2017, with a fixed coupon of 4.00%.

At 31 December 2013 the fair value of this bond is €544 million.

 In April 2012, the Group issued a €230 million bond that will mature on 30 April 2020, with a fixed coupon of 3.85%. A further €250 million tap issue was undertaken in October 2012, bringing the total amount of this bond issue to €480 million.

At 31 December 2013 the fair value of this bond is €518 million.

 In December 2013, the Group issued a €150 million bond that will mature on 6 December 2023, with a fixed coupon of 3.125%.

This was part of the Group's €2 billion Euro Medium Term Notes (EMTN) programme introduced in October 2013.

At 31 December 2013 the fair value of this bond is €147 million.

#### Commercial paper

In April 2013 the Group introduced a French Commercial paper (*billet de trésorerie*) programme with a ceiling of €1 billion.

# 21.2 ANALYSIS OF DEBT BY CURRENCY

ARKEMA's debt is mainly denominated in euros.

Issues outstanding as part of this programme amount to nil at 31 December 2013.

#### Syndicated credit facility

On 26 July 2011, the Group put in place a multi-currency syndicated credit facility of €700 million, with a duration of five years, maturing on 26 July 2016. This credit facility is intended to finance the Group's general requirements as a substitute line for the commercial paper programme, and includes an early repayment clause in the event of certain situations including a change in control of ARKEMA. It includes: (i) standard information undertakings and commitments for this type of financing, (ii) a financial undertaking in which ARKEMA undertakes to maintain a ratio of consolidated net debt to consolidated EBITDA (tested twice a year) of less than 3; this may be raised to 3.5 in the event of acquisition(s) of asset(s) or securities, capital increase(s) or investment(s) in joint ventures. This facility can be used for a maximum of two non-consecutive test dates.

#### Securitization of sales receivables

The Group also has a securitization programme for sales receivables with no deconsolidating effect, representing a maximum financing of €120 million.

This programme was used for an amount of €2 million at 31 December 2013.

(In millions of euros)	31/12/2013	31/12/2012
Euros	1,195	1,137
US Dollars	7	11
Chinese Yuan	81	98
Other	17	14
TOTAL	1,300	1,260

## 21.3 ANALYSIS OF DEBT BY MATURITY

The breakdown of debt, including interest costs, by maturity is as follows:

(In millions of euros)	31/12/2013	31/12/2012
Less than 1 year	120	211
Between 1 and 2 years	55	49
Between 2 and 3 years	55	52
Between 3 and 4 years	557	53
Between 4 and 5 years	46	560
More than 5 years	701	575
TOTAL	1,534	1,500

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# NOTE 22 MANAGEMENT OF RISKS RELATED TO FINANCIAL ASSETS AND LIABILITIES

ARKEMA's businesses expose it to various risks, including market risks (risk of changes in exchange rates, interest rates and the prices of raw materials, energy and equities), credit risk and liquidity risk.

#### 22.1 FOREIGN CURRENCY RISK

The Group is exposed to transaction risks and translation risks related to foreign currencies.

The Group hedges the foreign currency risk mainly through spot foreign currency transactions or through forward transactions over short maturities, generally not exceeding 6 months. The fair value of the Group's forward foreign currency contracts is an asset of €1 million.

The amount of foreign exchange gains and losses recognized in recurring operating income in 2013 is a positive €4 million (positive €1 million in 2012).

The portion of foreign exchange gains and losses corresponding to the interest income/expense reflected by the difference between the spot exchange rate and the forward exchange rate is recorded in financial result. It amounts to a negative €1 million at 31 December 2013 (negative €1 million at 31 December 2012).

At 31 December 2013, the Group's balance sheet exposure in transaction currencies other than the euro was as follows:

## Group exposure to operating foreign currency risk

(In millions of euros)	USD	CNY	Other currencies
Accounts receivable	300	42	145
Accounts payable	(129)	(38)	(53)
Bank balances and loans/borrowings	1	(49)	60
Off-balance sheet commitments (forward currency hedging)	(83)	0	(56)
Net exposure	89	(45)	96

This net exposure comprises all Group companies' outstanding amounts stated in any of the above currencies, whether their accounting currency is one of those currencies or a different currency.

## 22.2 INTEREST RATE RISK

Exposure to interest rate risk is managed by the Group's central treasury department and simple derivatives are used as hedging instruments. The Group has not entered into any interest rate hedges at 31 December 2013.

An increase (decrease) of 1% (100 basis points) in interest rates would have the effect of decreasing (increasing) the interest on net debt by  $\notin 0.9$  million.

At 31 December 2013, debt is distributed between variable and fixed rates as follows:

	Variable rates	Fixed r	Fixed rates		
(In millions of euros)	overnight – 1 year	1-5 years	Beyond	Total	
Current and non-current debt	(153)	(507)	(640)	(1,300)	
Cash and cash equivalents	377	-		377	
Net exposure before hedging	224	(507)	(640)	(923)	
Hedging instruments	-	-	-	-	
Off-balance sheet items	-	-	-	-	
Net exposure after hedging	224	(507)	(640)	(923)	

## 22.3 LIQUIDITY RISK

The Group's central treasury department manages the liquidity risk associated with the Group's debt.

Liquidity risk is managed with the main objective of ensuring renewal of the Group's financing and, in the context of meeting this objective, optimizing the annual financial cost of the debt.

In almost all cases, Group companies obtain their financing from, and manage their cash with, Arkema France or other Group entities that manage cash pooling mechanisms.

The Group reduces the liquidity risk by spreading maturities, favouring long maturities and diversifying its sources of financing. The Group thus has:

- a €150 million bond maturing on 6 December 2023;
- a €230 million bond maturing on 30 April 2020, with an additional tap issue in October 2012 bringing the total nominal value to €480 million;
- a €500 million bond maturing on 25 October 2017;
- a €700 million syndicated credit facility maturing on 26 July 2016 used particularly as a substitute line for the commercial paper programme;
- a securitization programme for sales receivables, representing a maximum financing of €240 million, reduced to €120 million in November 2012.

These financing arrangements are intended to cover all the Group's financing requirements and giving it sufficient flexibility to meet its obligations. Apart from a change of control, the main circumstances in which early repayment or termination could occur concern the syndicated credit facility (see note C21 "Debt"), if the ratio of consolidated net debt to consolidated EBITDA were to become greater than 3. This ratio may be raised to 3.5 in the event of acquisition(s) of asset(s) or securities, capital increase(s) or investment(s) in joint ventures. This facility can be used for a maximum of two non-consecutive test dates.

At 31 December 2013, the Group's debt maturing in more than one year is rated BBB/Stable outlook by Standard & Poor's and Baa2/Stable outlook by Moody's.

Commercial paper issues are rated A-2 by Standard & Poor's.

The Group's net debt at 31 December 2013 amounts to  $\notin$  923 million and represents 1 time the consolidated EBITDA for the last 12 months.

At 31 December 2013, the amount of the unused syndicated credit facility is €700 million and the amount of cash and cash equivalents is €377 million.

Note C21 "Debt" provides details of the maturities of debt.

#### 22.4 CREDITRISK

The Group is potentially exposed to credit risk on its accounts receivable and as regards its banking counterparts.

Credit risk on accounts receivable is limited because of the large number of its customers and their geographical dispersion. No customer represented more than 2.5% of Group sales in 2013. The Group's general policy for managing credit risk involves assessing the solvency of each new customer before entering into business relations: each customer is allocated a credit limit, which constitutes the maximum level of outstandings (receivables plus orders) accepted by the Group, on the basis of the financial information obtained on the customer and the analysis of solvency carried out by the Group. These credit limits are revised regularly and, in any case, every time that a material change occurs in the customer's financial position. Customers who cannot obtain a credit limit because their financial position is not compatible with the Group's requirements in terms of solvency only receive deliveries when they have paid for their order.

Even though the Group has incurred very few bad debts for the last number of years, it has decided to cover its accounts receivable credit risk by putting in place a global credit insurance program. On account of the statistically low bad debt rate experienced by the Group, the rate of cover is significant. Customers with whom the Group wishes to continue commercial relations but which are not covered by this insurance are subject to specific centralized monitoring.

In addition, the Group's policy for recognizing bad debt provisions in respect of receivables not covered by credit insurance, or the portion of receivables that are not so covered, has two components: receivables are individually provided against as soon as a specific risk of loss (economic and financial difficulties of the customer in question, entry into receivership, etc.) is clearly identified. The Group may also recognize general provisions for receivables that are overdue for such a period that the Group considers that a statistical risk of loss exists. These periods are adapted depending on the Business Units and the geographical regions in question. Consolidated financial statements

At 31 December 2013, accounts receivable net of provisions are distributed as follows:

(In millions of euros)	31/12/2013	31/12/2012
Accounts receivable net of provisions	824	920
Net receivables by maturity:		
Receivables not yet due	784	842
Receivables overdue by 1-15 days	29	29
Receivables overdue by 16-30 days	10	8
Receivables overdue by more than 30 days	1	41
TOTAL NET RECEIVABLES	824	920

Banking credit risk is related to financial investments, derivatives and credit facilities granted by banks. The Group limits its exposure to credit risk by only investing in liquid securities with first-class commercial banks.

The net carrying amount of financial assets indicated in note C23 "Presentation of financial assets and liabilities" represents the maximum exposure to credit risk.

### 22.5 RISK RELATED TO RAW MATERIALS AND ENERGY

The prices of certain raw materials used by ARKEMA are highly volatile and their fluctuations lead to significant variations in the cost price of the Group's products; in addition, because of the importance of the Group's requirements in terms of energy resources resulting notably from the electrically intensive nature of certain of its manufacturing processes, ARKEMA is also sensitive to changes in the price of energy. In order to limit the impact of price volatility of the principal raw materials it uses, ARKEMA can decide to use derivatives matched with existing contracts or can negotiate fixed price contracts for limited periods. Recognition of these derivatives had no impact on the income statement at 31 December 2013 (impact of €2 million at 31 December 2012).

#### 22.6 EQUITY RISK

In 2011, the Group acquired a 19.9% investment in the listed company Canada Fluorspar Inc. for CAD 15.5 million. Apart from treasury shares, Group companies hold no other investments in listed companies.

At 31 December 2013 the Company held 226,974 of its own shares. These shares are used to cover its free share grant plans.

In compliance with IAS 32, changes in share price have no impact on the Group's consolidated net assets. The equity risk is not material for the Company.

# NOTE 23 PRESENTATION OF FINANCIAL ASSETS AND LIABILITIES

# 23.1 FINANCIAL ASSETS AND LIABILITIES BY ACCOUNTING OPTION

2013

IAS 39 category Class of instrument (In millions of euros)	Notes	Assets/liabilities measured at fair value through profit or loss	Assets/liabilities measured at fair value through shareholders' equity	Assets/liabilities measured at amortized cost	Available for sale assets	Total net carrying amount
Other investments	(C12)		-	-	52	52
Other non-current assets (loans and advances, security deposits paid)	(C13)	-	-	84	-	84
Accounts receivable	(C15)	-	-	824	-	824
Cash and cash equivalents	(C16)	377	-	-	-	377
Derivatives*	(C23.2)	2	-	-	-	2
FINANCIAL ASSETS		379	0	908	52	1,339
Current and non-current debt	(C21)	-	-	1,300	-	1,300
Accounts payable		-	-	687	-	687
Derivatives*	(C23.2)	1	-	-	-	1
FINANCIAL LIABILITIES		1	0	1,987	0	1,988

\* Derivatives are carried in the balance sheet in the captions "Other current financial assets" and "Other current financial liabilities".

# 2012

IAS 39 category Class of instrument (In millions of euros)	Notes	Assets/liabilities measured at fair value through profit or loss	Assets/liabilities measured at fair value through shareholders' equity	Assets/liabilities measured at amortized cost	Available for sale assets	Total net carrying amount
Other investments	(C12)		-	-	36	36
Other non-current assets (loans and advances, security deposits paid)	(C13)	-	-	87	-	87
Accounts receivable	(C15)	-	-	920	-	920
Cash and cash equivalents	(C16)	360	-	-	-	360
Derivatives*	(C23.2)	4	4	-	-	8
FINANCIAL ASSETS		364	4	1,007	36	1,411
Current and non-current debt	(C21)	-	-	1,260	-	1,260
Accounts payable			-	683	-	683
Derivatives*	(C23.2)	2	-	-	-	2
FINANCIAL LIABILITIES		2	0	1,943	0	1,945

\* Derivatives are carried in the balance sheet in the captions "Other current financial assets" and "Other current financial liabilities".

At 31 December 2013 as at 31 December 2012, the fair value of financial assets and liabilities except for bonds is approximately equal to their net carrying amount.

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# 23.2 DERIVATIVES

The main derivatives used by the Group are as follows:

		amount of cor 31/12/2013		Notional amount of contracts at 31/12/2012		Fair value of contracts		
(In millions of euros)	< 1 year	< 5 years and > 1 year	> 5 years	< 1 year	< 5 years and > 1 year	> 5 years	31/12/2013	31/12/2012
Forward foreign currency contracts	209	-	-	384	-	-	1	6
Commodities and energy swaps	8	-	-	10	-	-	0	0
TOTAL	217	-	-	394	-	-	1	6

## 23.3 IMPACT OF FINANCIAL INSTRUMENTS ON THE INCOME STATEMENT

The income statement includes the following items related to financial assets (liabilities):

(In millions of euros)	2013	2012
Total interest income (expenses) on financial assets and liabilities*	(42)	(37)
Impact on the income statement of valuation of derivatives at fair value	1	(2)
Impact on the income statement of the ineffective portion of cash flow hedge instruments	-	-
Impact on the income statement of valuation of available for sale assets	(3)	(3)

\* Excluding interest costs on pension obligations and the expected return on related plan assets.

The amount of foreign exchange gains and losses recognized in recurring operating income in 2013 represents income of €4 million (income of €1 million in 2012). As the foreign currency denominated assets and liabilities of Group companies are hedged with their respective functional currencies, a change in exchange rates does not have a material impact on the income statement.

#### 23.4 IMPACT OF FINANCIAL INSTRUMENTS ON SHAREHOLDERS' EQUITY

At 31 December 2013, the impact of financial instruments net of deferred taxes on the Group's shareholders' equity is below €1 million (positive €4 million at 31 December 2012).

# NOTE 24 ACCOUNTS PAYABLE, OTHER CREDITORS AND ACCRUED LIABILITIES

Accounts payable amount to €687 million at 31 December 2013 (€683 million at 31 December 2012).

Other creditors and accrued liabilities mainly comprise employeerelated liabilities for  $\leq 165$  million at 31 December 2013 ( $\leq 170$  million at 31 December 2012) and amounts owing to governments for  $\leq 38$  million at 31 December 2013 ( $\leq 34$  million at 31 December 2012), including  $\leq 14$  million of VAT.

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## NOTE 25 PERSONNEL EXPENSES

Personnel expenses, including stock options and free share grants (see note C27 "Share-based payment"), amount to €931 million in 2013 (€1,054 million in 2012 <sup>(1)</sup>).

They comprise €676 million of wages and salaries and IFRS 2 expenses (€771 million in 2012) and €255 million of social charges (€283 million in 2012 <sup>(1)</sup>).

(1) Including personnel expenses for the Vinyl Products segment up to the date of sale of the segment in early July 2012.

## NOTE 26 RELATED PARTIES

#### 26.1 TRANSACTIONS WITH NON-CONSOLIDATED OR EQUITY ACCOUNTED COMPANIES

Transactions between consolidated companies have been eliminated in the consolidation process. In addition, in the normal course of business, the Group has business relationships with certain non-consolidated companies or with companies which are accounted for under the equity method. The values involved are not significant.

### 26.2 COMPENSATION OF KEY MANAGEMENT PERSONNEL

Key management personnel of a group, as defined in IAS 24, are those persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of that entity.

The key management personnel of the Group are the directors and the members of its executive committee (Comex).

The compensation recognized in expenses by ARKEMA is as follows:

(In millions of euros)	2013	2012
Salaries and other short-term benefits	4	5
Pensions, other post-employment benefits and contract termination benefits	1	2
Other long-term benefits	-	-
Share-based payments	3	4

These expenses comprise all types of remuneration recorded, including variable amounts, bonuses, attendance fees and benefits in kind.

The Chairman and CEO is entitled to a contractual indemnity in the event of non-voluntary departure, up to a maximum of two years' total gross compensation (fixed and variable), subject to achievement of performance criteria. 4

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## NOTE 27 SHARE-BASED PAYMENTS

## 27.1 STOCK OPTIONS

The Board of Directors has decided to discontinue stock subscription and purchase options.

The main characteristics of the stock option plans granted in previous years and still outstanding at 31 December 2013 are as follows:

	2006 Plan	2007 Plan	2008 Plan	2010 Plan 1	2010 Plan 2	2011 Plan 1	2011 Plan 2	Total
Date of Annual General Meeting	10 May 2006	10 May 2006	10 May 2006	15 June 2009	15 June 2009	15 June 2009	15 June 2009	
Date of Board of Directors' meeting	4 July 2006	14 May 2007	13 May 2008	10 May 2010	10 May 2010	4 May 2011	4 May 2011	
Vesting period	2 years	2 years	2 years	2 years	5 years	2 years	4 years	
Conservation period	4 years	4 years	4 years	4 years	5 years	4 years	4 years	
Period of validity	8 years	8 years	8 years	8 years	8 years	8 years	8 years	
Exercise price	28.36	44.63	36.21	30.47	30.47	68.48	68.48	
Number of options granted	540,000	600,000	460,000	225,000	225,000	105,000	105,000	2,260,000
to corporate officers: Thierry Le Hénaff	55,000	70,000	52,500	35,000	35,000	29,250	29,250	306,000
to the 10 largest beneficiaries*	181,000	217,000	169,350	104,000	104,000	75,750	75,750	926,850
Total number of options exercised	501,300	424,002	246,645	44,485	-	-	-	1,216,432
by corporate officers	55,000	24,000	24,000	-	-	-	-	103,000
by the 10 largest beneficiaries*	181,000	169,000	66,600	40,085	-	-	-	456,685
Total number of options cancelled	15,900	22,800	18,877	7,000	7,000	-	-	71,577
NUMBER OF OPTIONS								
In circulation at 1 January 2011	308,553	579,200	442,422	225,000	225,000	-	-	1,780,175
Granted	-	-	-	-	-	105,000	105,000	210,000
Cancelled	-	2,000	1,299	5,000	5,000	-	-	13,299
Exercised	187,603	169,100	14,080	-	-	-	-	370,783
In circulation at 31 December 2011	120,950	408,100	427,043	220,000	220,000	105,000	105,000	1,606,093
In circulation at 1 January 2012	120,950	408,100	427,043	220,000	220,000	105,000	105,000	1,606,093
Granted	-	-	-	-	-	-	-	-
Cancelled	-	-	-	-	-	-	-	-
Exercised	77,092	206,802	165,216	28,515	-	-	-	477,625
In circulation at 31 December 2012	43,858	201,298	261,827	191,485	220,000	105,000	105,000	1,128,468
In circulation at 1 January 2013	43,858	201,298	261,827	191,485	220,000	105,000	105,000	1,128,468
Granted	-	-	-	-	-	-	-	-
Cancelled	-	-	-	2,000	2,000	-	-	4,000
Exercised	21,058	48,100	67,349	15,970	-	-	-	152,477
In circulation at 31 December 2013	22,800	153,198	194,478	173,515	218,000	105,000	105,000	971,991

\* Employees who are not corporate officers of Arkema S.A. or any other Group company.

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## Valuation method

The fair value of the options granted was determined using the Black & Scholes method on the basis of assumptions, of which the main ones are as follows:

	2006 Plan	2007 Plan	2008 Plan	2010 Plan 1	2010 Plan 2	2011 Plan 1	2011 Plan 2
Volatility	22%	20%	25%	35%	32%	32%	32%
Risk-free interest rate	2.82%	3.39%	4.00%	0.34%	0.34%	1.29%	1.29%
Maturity	4 years	4 years	4 years	4 years	5 years	4 years	4 years
Exercise price (in euros)	28.36	44.63	36.21	30.47	30.47	68.48	68.48
Fair value of stock options (in euros)	6.29	7.89	8.99	6.69	6.67	12.73	12.73

The volatility assumption was determined on the basis of observation of historical movements in the Arkema share since its admission to listing, restated for certain non-representative days in order to better represent the long-term trend.

The maturity adopted for the options corresponds to the period of unavailability for tax purposes.

The amount of the IFRS 2 expense recognized in respect of stock options at 31 December 2013 was €1 million (€1 million at 31 December 2012).

## 27.2 FREE SHARE GRANTS

On 6 November 2013, the Board of Directors decided to put in place a performance share award scheme for the benefit of employees, particularly employees with responsibilities whose exercise influences the Group's results.

Under this plan, the definitive grant of such performance shares will be subject to a vesting period of 4 years, with effect from the Board of Directors' grant, and subject to compliance with performance criteria expressed in terms of both ARKEMA's EBITDA for 2016, and the net debt to equity ratio, and ARKEMA's average EBITDA margin over the period 2013 to 2016 compared to the average margin of a selection of other chemicals manufacturers over the same period.

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The main characteristics of the free share grant plans in force at 31 December 2013 are as follows:

	2010 Plan 2	2011 Plan 1	2011 Plan 2	2011 Plan 3	2012 Plan 1	2012 Plan 2	2012 Plan 3	2013 Plan	Total <sup>(5)</sup>
Date of Annual General Meeting	15 June 2009	15 June 2009	15 June 2009	15 June 2009	15 June 2009	15 June 2009	15 June 2009	4 June 2013	
Date of Board of Directors' meeting	10 May 2010	4 May 2011	4 May 2011	4 May 2011	9 May 2012	9 May 2012	9 May 2012	6 November 2013	
Vesting period	4 years	2 years	3 years	4 years	2 years	3 years	4 years	4 years	
Conservation period	-	2 years	2 years	-	2 years	2 years	-	-	
Fair value (in euros per share)	27.69	58.17	54.26	55.36	48.18	42.27	45.27	51.60	
Performance condition	Yes (2)	Yes (3)	Yes (3)	Yes <sup>(3)</sup>	Yes (3)	Yes (3)	Yes (3)	Yes (4)	
Total number of free shares granted	50,795	88,305	59,380	52,315	101,860	74,805	65,335	250,000	
to corporate officers: Thierry Le Hénaff	-	8,200	8,200	-	13,000	13,000	-	26,000	
to the 10 largest beneficiaries <sup>(1)</sup>	8,100	24,450	24,450	14,850	36,100	36,100	16,400	75,400	
NUMBER OF FREE SHARES EXERCISED									
In circulation at 1 January 2011	50,157	-	-	-	-	-	-	-	337,212
Granted	-	88,305	59,380	52,315	-	-	-	-	200,000
Cancelled	1,000	455	455	125	-	-	-	-	6,875
Definitively granted	-	-	-	-	-	-	-	-	132,200
In circulation at 31 December 2011	49,157	87,850	58,925	52,19 <b>0</b>	-	-	-	-	398,137
In circulation at 1 January 2012	49,157	87,850	58,925	52,190	-	-	-	-	398,137
Granted	-	-	-	-	101,860	74,805	65,335	-	242,000
Cancelled	1,434	590	-	1,195	125	-	590	-	4,114
Definitively granted	-	100	100	-	-	-	-	-	150,035
In circulation at 31 December 2012	47,723	87,160	58,825	<b>50,995</b>	101,735	74,805	64,745	-	485,988
In circulation at 1 January 2013	47,723	87,160	58,825	50,995	101,735	74,805	64,745	-	485,988
Granted	-	-	-	-	-	-	-	250,000	250,000
Cancelled	104	100	1,000	70	1,230	1,230	105	-	3,839
Definitively granted	-	87,060	-	-	-	-	-	-	87,060
In circulation at 31 December 2013	47,619	-	57,825	50,925	100,505	73,575	64,640	250,000	645,089

(1) Employees who are not corporate officers of Arkema S.A. or any other Group company.

(2) Performance conditions do not apply to beneficiaries of less than 100 shares.

(3) Performance conditions apply only to the portion of rights in excess of 80 held under all plans, except for Comex members, all of whose rights are subject to performance criteria.

(4) Performance conditions apply only to the portion of rights in excess of 100, except for Comex members, all of whose rights are subject to performance criteria.

(5) The total includes plans dating from before 2010.

The amount of the IFRS 2 expense recognized in respect of free shares at 31 December 2013 is €7 million (€8 million at 31 December 2012).

## NOTE 28 INFORMATION ON CASH FLOWS

## Additional information on amounts received and paid as operating cash flows:

(In millions of euros)	31/12/2013	31/12/2012
Interest paid	46	32
Interest received	2	1
Income taxes paid	159	158

Details of the change in working capital are as follows:

(In millions of euros)	31/12/2013	31/12/2012
Inventories	(18)	9
Accounts receivable	62	3
Other receivables including income taxes	24	46
Accounts payable	(14)	(52)
Other liabilities including income taxes	(84)	(48)
Change in working capital	(30)	(42)

## NOTE 29 OFF-BALANCE SHEET COMMITMENTS

## 29.1 COMMITMENTS GIVEN

## 29.1.1 Off-balance sheet commitments given in the Group's operating activities

The main commitments given are summarized in the table below:

[In millions of euros]	31/12/2013	31/12/2012
Guarantees granted	81	67
Comfort letters		-
Contractual guarantees	15	20
Customs and excise guarantees	14	12
TOTAL	110	99

Guarantees granted are mainly bank guarantees in favour of local authorities and public bodies (state agencies, environmental agencies) in respect of environmental obligations or concerning classified sites.

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# 29.1.2 Contractual commitments related to the Group's operating activities

## Irrevocable purchase commitments

In the normal course of business, ARKEMA signed multi-year purchase agreements for raw materials and energy for the operational requirements of its factories, in order to guarantee the security and continuity of supply. Signature of such contracts over periods initially of 1 to 20 years is a normal practice for companies in ARKEMA's business sector in order to cover their needs. These purchase commitments were valued taking into account, on a case-by-case basis, ARKEMA's financial commitment to its suppliers, as certain of these contracts include clauses which oblige ARKEMA to take delivery of the minimum volumes as set out in the contract or, otherwise, to pay financial compensation to the supplier. Depending on the case, these commitments are reflected in the purchase agreements in the form of notice periods, indemnification to be paid to the supplier in case of early termination of the contract or "take or pay" clauses.

The total amount of the Group's financial commitments is €551 million at 31 December 2013 (see maturity schedule below).

(In millions of euros)	31/12/2013	31/12/2012
2013	-	119
2014	213	82
2015	79	71
2016	72	66
2017 until expiry of the contracts	187	182
TOTAL	551	520

## Lease commitments

In the context of its business, ARKEMA has signed lease contracts, of which the majority are operating lease agreements. Lease agreements signed by ARKEMA are mainly in respect of property rental (head offices, land) and transportation equipment (rail cars, containers).

The amounts presented in the table below correspond to the future minimum payments that will need to be made in accordance with these contracts (only the irrevocable portion of future lease payments has been valued).

	31/12	/2013	31/12/2012		
(In millions of euros)	Capitalized leases	Non- capitalized leases	Capitalized leases	Non- capitalized leases	
2013	-	-	0	22	
2014	0	20	0	20	
2015	0	19	0	19	
2016	0	17	0	16	
2017 and beyond	2	26	2	19	
NOMINAL VALUE OF FUTURE LEASE PAYMENTS	2	82	3	96	
Finance cost	0	NA	1	NA	
PRESENT VALUE	2	NA	2	NA	

### 29.1.3 Off-balance sheet commitments related to changes in the scope of consolidation

## Warranties related to sales of businesses

Sales of businesses sometimes involve the provision of warranties in respect of unrecorded liabilities to the purchaser. ARKEMA sometimes grants such warranties on the sale of businesses. In most cases these warranties are capped and granted for a limited period of time. They are also limited in terms of their coverage to certain types of expenses or litigation. In the majority of cases, they cover risks of occurrence of environmentally related expenses or litigation.

The cumulative residual amount of capped warranties in respect of unrecorded liabilities granted by ARKEMA amounted to €96 million at 31 December 2013 (€108 million at 31 December 2012). These amounts are stated net of provisions recognized in the balance sheet in respect of such warranties.

# 29.1.4 Off-balance sheet commitments related to Group financing

These commitments are described in note C21 "Debt".

## 29.2 COMMITMENTS RECEIVED

## Commitments received from Total in 2006

In connection with the Spin-Off of Arkema's Businesses, Total S.A. and certain Total companies have extended certain indemnities, or have assumed certain obligations, for the benefit of ARKEMA, relating to (i) certain antitrust litigation, (ii) certain actual or potential environmental liabilities of the Group arising from certain sites in France, Belgium and the United States, the operations on which in the majority of cases have ceased, (iii) certain tax matters, and (iv) the Spin-Off of Arkema's Businesses. These indemnities and obligations are described below.

#### 29.2.1 The Indemnities extended by Total in respect of certain antitrust litigation

In order to cover potential risks in connection with antitrust litigation relating to anti-competitive agreements in Europe and the United States and arising from facts prior to 18 May 2006 (or prior to 7 March 2006, as the case may be), Total S.A. has extended to Arkema S.A. and Elf Aquitaine, Inc. has extended to Arkema Amériques SAS, the indemnities, the principal terms of which can be described as follows.

#### Subject-matter of the Indemnities

By an agreement dated 15 March 2006 (the Arkema European Indemnity), Total S.A. agreed to indemnify Arkema S.A. for 90% of (i) any payment due by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries) pursuant to a money judgement imposed by EU antitrust authorities, or by national antitrust authorities of a Member State of the European Union, for violations of antitrust laws relating to anticompetitive agreements, (ii) any damages payable by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries) pursuant to civil proceedings arising from the same facts which form the basis of a judgement referred to in (i), and (iii) certain expenses incurred in connection with such proceedings by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries).

By an agreement dated 15 March 2006 (the "Arkema U.S. Indemnity"), Total S.A. also agreed to indemnify Arkema S.A. for 90% of (i) any payment due by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries) pursuant to a money judgement imposed by U.S. courts or antitrust authorities for violations of U.S. federal or state antitrust laws relating to anticompetitive agreements, or in respect of a settlement entered into in the context of such proceedings, (ii) any damages payable by Arkema S.A. or any of its subsidiaries) pursuant to civil proceedings arising from the same facts which form the basis of a judgement referred to in (i), and (iii) certain expenses incurred in connection with such proceedings by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries).

In connection with the sale of Arkema Delaware, Inc. shares by Elf Aquitaine, Inc. to Arkema Amériques SAS, Elf Aquitaine, Inc. agreed, in the agreement dated 7 March 2006 (the **"Arkema Delaware Indemnity"**), to indemnify Arkema Amériques SAS for 90% of (i) any payment due by Arkema Amériques SAS or any of its subsidiaries pursuant to a money judgement imposed by U.S. courts or antitrust authorities for violations occurring prior to 7 March 2006 of U.S. federal or state antitrust laws relating to anticompetitive agreements, or in respect of the settlement entered into in the context of such proceedings, (ii) any damages payable by Arkema Amériques SAS or any of its subsidiaries pursuant to civil proceedings arising from the same facts which form the basis of a judgement referred to in (i), and (iii) certain expenses incurred by Arkema Amériques SAS or any of its subsidiaries in connection with such proceedings.

Arkema Amériques SAS has benefited from an indemnification of US\$19.3 million under the Arkema Delaware Indemnity. At 31 December 2013, the residual amount covered by this indemnity amounts to US\$ 873.7 million.

Finally, Total S.A. extended to Arkema S.A. a supplemental indemnity dated 15 March 2006 (the **"Supplemental Arkema Delaware Indemnity"**) covering 90% of sums payable by Arkema Amériques SAS or any of its subsidiaries in respect of litigation relating to anticompetitive agreements in the United States in excess of the maximum amount covered by the Arkema Delaware Indemnity.

The Arkema European Indemnity, the Arkema U.S. Indemnity, the Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity are hereinafter referred to together as the Indemnities and individually as an Indemnity.

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### Liabilities not covered by the Indemnities

The following liabilities are not covered by the Indemnities:

- liabilities arising from facts occurring after 18 May 2006 in the case of the Arkema European Indemnity and the Arkema U.S. Indemnity, or after 7 March 2006 in the case of the Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity (including, in case of liabilities arising from facts occurring both before and after the relevant date, the portion of the liability relating to the period after 18 May 2006 or after 7 March 2006, as the case may be);
- liabilities arising from violations of antitrust laws other than those prohibiting anticompetitive agreements; and
- liabilities imposed by authorities outside the European Union (in the case of the Arkema European Indemnity) or the United States (in the case of the other Indemnities).

# Participation of Total in the management of litigation covered by the Indemnities

The Indemnities provide for the participation by Total S.A. or Elf Aquitaine, Inc., as the case may be, in the management of litigation covered by the Indemnities, which involves a certain number of obligations on the part of Arkema S.A. and Arkema Amériques SAS, in particular the obligation to notify Total S.A. or Elf Aquitaine, Inc., as the case may be, of certain events occurring in the context of proceedings covered by the Indemnities and act in accordance with the advice and instructions of Total S.A. or Elf Aquitaine, Inc., as the case may be, relating to such proceedings. Total S.A. and Elf Aquitaine, Inc., as the case may be, also have the right to assume sole control of the defence of the Group entity in question. Failure by Arkema S.A. or Arkema Amériques SAS to comply with these obligations can result, in certain circumstances, in the automatic termination of the Indemnity, as described below.

#### Amount of the indemnification

The Arkema European Indemnity, whose deductible of €176.5 million has been exceeded, gave rise to indemnification of €138.5 million being received from Total S.A. The Arkema U.S. Indemnity, the Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity do not have a deductible.

#### Cross-indemnities of Arkema S.A. and Arkema Inc.

Arkema S.A. and Arkema Inc. have agreed to indemnify Total S.A. in respect of any liability covered by the Indemnities but which is borne, not by a Group entity but by Total S.A. or one of its subsidiaries due to facts attributable to a Group company, whether the liability of Total S.A. or of its subsidiaries is determined to be direct or derivative, exclusive or joint and several, relative to the liability of the Group entity to which the facts are attributable.

However, this cross-indemnity by Arkema S.A. and Arkema Inc. will be reduced by the indemnity which would have been paid by Total S.A. or Elf Aquitaine, Inc., as the case may be, under the relevant Indemnity if the liability had been borne by a Group company. Consequently, if the cross-indemnity of Arkema S.A. and Arkema Inc. is triggered, Arkema S.A. or Arkema Inc., as the case may be, would only be obligated to indemnify Total S.A. for 10% of the liabilities borne by Total S.A. or one of its subsidiaries (in the case of the Arkema European Indemnity, this 10% relates to the amount, if any, that exceeds the deductible).

#### Duration of the indemnities

The Arkema European Indemnity and the Arkema U.S. Indemnity are valid for a term of 10 years from 18 May 2006. The Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity are valid for a term of 10 years from 7 March 2006.

The Arkema S.A. cross-indemnity is valid for a term of 10 years from 18 May 2006.

The Arkema Inc. cross-indemnity is valid for a term of 10 years from 7 March 2006.

### Termination of the Indemnities

Indemnities shall terminate in the event that a natural person or legal entity, acting alone or in concert with others, acquires, directly or indirectly, more than one third of the voting rights of Arkema S.A. (voting rights are subject to a ceiling of 10% – and 20% in the case of double voting rights – unless a purchaser acquires at least two thirds of the total number of Arkema S.A. shares in a public transaction targeting all Arkema S.A. shares) or if the Group transfers, directly or indirectly, in one or several times, to the same third party or to several third parties acting in concert, assets representing more than 50% of the Group's "enterprise value" (as defined in the Indemnities) at the time of the relevant transfer.

The Arkema European Indemnity and the Arkema U.S. Indemnity will terminate if Arkema S.A. loses control of Arkema France.

The Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity will terminate if Arkema S.A. loses control of Arkema Amériques SAS, or if Arkema Amériques SAS loses control of Arkema Delaware Inc.

Finally, the Indemnities will terminate in the event of a material breach by the Group of its obligations under the relevant Indemnity if such breach has remained uncured for 30 days after notice by the indemnifying party demanding its cure.

The Indemnities provide that, upon the occurrence of a termination event, the only liabilities of Group companies that will remain covered by the Indemnities are those, if any, which (i) fell due prior to the termination event and (ii) were notified to Total S.A. or to Elf Aquitaine, Inc., prior to the termination event.

## 29.2.2 Obligations and indemnities given in respect of Former Industrial Sites

In order to cover certain risks relating to certain industrial sites situated in France, Belgium and the United States in respect of which the Group is or could be held liable, and where, for the most part, operations have ceased (the Former Industrial Sites), Total S.A. companies have entered with Arkema S.A. or its subsidiaries into indemnity and service agreements the principal terms of which can be described as follows:

## Agreement relating to former industrial sites located in France

Arkema France has entered into various agreements with Total companies and in particular Retia. Pursuant to these agreements, the Total companies concerned, in consideration of a flat fee already paid by Arkema France, assume all the investigation, restoration and monitoring obligations that could be imposed on Arkema France by the competent administrative authorities in respect of industrial sites located in France the operation of which, for the most part, has ceased. To this end, the agreements provide, in particular, (i) in the majority of cases, for the transfer of ownership of the sites concerned by Arkema France to the Total companies concerned, (ii) for the Total companies concerned to be substituted for Arkema France in the capacity of last operator of those sites whenever that is possible, (iii) for the performance by the Total companies concerned of the restoration obligations of the sites in question in accordance with the applicable rules and (iv) for the indemnity by the Total companies in respect of the financial consequences of claims which could be brought against Arkema France by reason of the impact of those sites on the environment.

In most cases, Arkema France retains responsibility for the consequences concerning employees and former employees of Arkema France as well as third parties, in terms of public health or occupational pathologies, of the industrial activities formerly carried out by Arkema France and its predecessors on the sites which are the subject of the aforementioned agreements.

# Agreement relating to the former industrial site at Rieme in Belgium

On 30 December 2005, Arkema France sold all of the shares that it held in the share capital of the Belgian company Resilium Belgium to the company Septentrion Participations, a subsidiary of Total S.A.

The company Resilium Belgium is the owner of a Former Industrial Site located at Rieme in Belgium.

Having regard to the future costs that might arise from the restoration of the Former Industrial Site at Rieme, Arkema France has paid the company Septentrion Participations financial compensation. In exchange, Septentrion Participations has undertaken to assume all restoration obligations in respect of the site at Rieme and to indemnify Arkema France against all claims, actions and complaints relating to Resilium Belgium, its assets and its liabilities.

# Agreement relating to certain former industrial sites located in the United States

In March 2006, Arkema Amériques SAS completed the acquisition from Elf Aquitaine Inc. and Arkema France of Arkema Delaware Inc., a holding company of most of the Group's operations in the United States. The negotiated terms of the stock purchase agreement among Elf Aquitaine Inc., Legacy Sites Services LLC and Arkema Amériques SAS, dated 7 March 2006 (the Arkema Delaware Main SPA) required Elf Aquitaine Inc. to use \$270 million to capitalize a new subsidiary, Legacy Sites Services LLC, that will perform remediation services and indemnify the Group against the cost of environmental contamination liabilities incurred by the Group entities covered by this indemnity, and related personal injury and property damage claims associated with contamination at 35 of the Group's closed and formerly operated facilities and 24 third party sites where the Group's liability arises solely out of waste shipments from the sites other than currently operated sites. In exchange for this indemnification, Arkema Amériques SAS agreed to grant to Legacy Sites Services LLC control over remediation activities and the defence of claims relating to contamination liabilities at these facilities and sites.

The sites currently operated by the Group are excluded from this indemnity, as are sites that received waste associated with current operations of the Group and certain sites where no significant restoration work is currently underway or anticipated and other sites where the Group could be held liable for environmental pollution. These other sites include, for example, sites where remediation has been conducted in the past or where future remediation costs or liability are believed to be insignificant or non-existent based upon information available at the time when the indemnity was entered into. Arkema Amériques SAS has waived any claims against Legacy Sites Services LLC, Total S.A. or their respective subsidiaries in respect of the sites not covered by the indemnity.

The Legacy Sites Services LLC indemnity covers the costs of restoration and clean-up of the soil and groundwater, the costs of related defence and settlement costs and personal injury, property and natural resource damages. The indemnity does not cover liabilities unrelated to site remediation, in particular liabilities in respect of products manufactured on the said sites, liability arising from certain dangerous and potentially dangerous substances, particularly asbestos exposure and criminal liability.

The indemnity described above is capped at US\$ 270 million. The amount received by ARKEMA under this indemnity amounted to US\$ 77 million. At the same time as the stock purchase agreement and the indemnity described above, Legacy Site Services LLC and Arkema Inc. entered into a supplemental contamination indemnity agreement pursuant to which Legacy Site Services LLC will indemnify the liabilities of the Group in excess of US\$ 270 million, on the same terms, for the same sites and subject to the same exceptions as the indemnity described in the preceding paragraph.

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## 29.2.3 Tax indemnity granted by Total S.A.

In order to cover potential tax risks related to the business activities transferred by the Group to Total or from the reorganization in connection with the Spin-Off of Arkema's Businesses, Total S.A. has granted an indemnity to Arkema S.A., the main terms of which can be described as follows.

#### Purpose of the tax indemnity

Under the terms of an agreement dated 15 March 2006 (the "**Tax Indemnity**"), Total S.A. has undertaken to indemnify Arkema S.A. for (i) liabilities arising from any tax, customs or levies not covered by reserves, for which the Group would remain liable, when such liabilities arise from (x) activities in the petrochemicals and specialties sectors that were transferred by the Group to Total and the triggering event of which occurred prior to the date of such transfer; or (y) the reorganization undertaken for the purpose of spinning off Arkema's Businesses from Total's Chemicals sector, including, in particular, the Elf Spin-Off, the Total Spin-Off, the Merger and certain prior securities reclassification transactions; (ii) interest, fines, penalties, additional charges or other costs related thereto; and (iii) provided that Total S.A. has given its prior consent, the expenses incurred by Arkema S.A. or the relevant Group company in connection with such liabilities.

The Tax Indemnity, however, does not cover tax reassessments in connection with Arkema's Businesses (with the exception of reassessments that may affect Arkema UK, as indicated below) and is subject to the specific terms described hereafter.

# Involvement of Total S.A. in the management of litigation covered by the Tax Indemnity

The Tax Indemnity provides for a procedure pursuant to which Arkema S.A. must involve Total S.A. in the management of the tax audits or litigation relating to the tax liabilities covered by the Tax Indemnity. In particular, this procedure entails the obligation to notify Total S.A. of any event that is likely to give rise to a liability covered by the Tax Indemnity and to comply with the advice and instructions of Total S.A. in defending the interests of the relevant Group company. In the event of unresolved disagreements on the strategy, means, method or type of such defence, the final decision will be taken by Total S.A. Arkema S.A.'s failure to comply with its obligations may result in automatic termination of the Tax Indemnity.

### Amount of the indemnification

The Tax Indemnity includes no deductible, trigger threshold or cap.

In the event that a liability cannot be clearly connected to the petrochemicals and specialties sector transferred by the Group to Total in relation to Arkema's Businesses, Arkema S.A. and Total S.A. will each bear 50% of the said liability.

# Special provisions applying to certain foreign companies of the Group

Tax liabilities arising from the reorganization undertaken for purposes of separating Arkema's Businesses from Total's Chemicals sector in the Netherlands, which may have been incurred by Atotech B.V. and Atotech Nederland B.V. as a result of the Dutch tax group of which Arkema North Europe B.V. is the parent company are excluded from the Tax Indemnity. Any other tax liabilities arising from reassessments that may be applied to Atotech B.V. and Atotech Nederland B.V. as a result of the Dutch tax group will be assumed by these companies, which remain under Total S.A.'s control.

Arkema UK will benefit from a UK corporation tax indemnity covering any tax reassessments against it relating to Arkema's Businesses. This indemnity will be limited to the amount of losses generated by the Arkema Businesses that have been transferred by Arkema UK as result of the group relief instituted by Total Holdings UK for corporation tax purposes in the United Kingdom.

#### Payment of the indemnity

The liabilities covered by the Tax Indemnity will give rise to an indemnification payment only if they are definitely determined by an enforceable decision that is not subject to appeal.

#### Duration of the Tax Indemnity

The Tax Indemnity shall expire at the end of two months following the statute of limitations effectively applicable to the tax liabilities covered by the Tax Indemnity.

#### Beneficiary of the Tax Indemnity

The Tax Indemnity is only for the benefit of Arkema S.A. or, as the case may be, Arkema France, if Arkema S.A. is merged into Arkema France.

# 29.2.4 Other indemnities given in the context of the Spin-Off of Arkema's Businesses

As part of the Total Spin-Off Agreement, Total S.A. and Arkema S.A. made certain representations and warranties, some of them in connection with the separation of ARKEMA from Total.

The agreement states that Total S.A. grants no indemnities, other than the indemnities and agreements entered into by the Total entities that are described in this paragraph, particularly with respect to the assets and the business activities of all ARKEMA entities, or the liabilities or obligations associated with such entities or activities, which Arkema S.A. declares that it is aware of and for which Arkema S.A. shall be responsible, including in the case of the appearance of any item that is not known as of the date of the Total Spin-Off Agreement, or of an increase in the amount of the aforesaid liabilities or obligations. Arkema S.A. releases Total S.A. from any such claim, except in the case of New Claims as defined below.

## Representations and warranties relating to information exchanged in preparing the Spin-Off of Arkema's Businesses

Total S.A. and Arkema S.A. have made mutual representations and warranties with respect to the accuracy and completeness of the information exchanged by the two companies in preparing the Spin-Off of Arkema's Businesses.

## Representations and warranties relating to potential claims

After conducting all necessary and customary due diligence, Arkema S.A. has declared, recognized and warranted that, to its knowledge and to the knowledge of the ARKEMA entities, as of the date of the Total Spin-Off Agreement, there were no grounds for claims, actions or complaints by any ARKEMA entity or by any one of its de facto or de jure directors, corporate officers or executives against any Total entity or any one of its de facto or de jure employees, directors, corporate officers or executives (a Total Entity). The claims, actions or complaints mentioned above are hereinafter referred to as the ARKEMA Claim(s).

Consequently, Arkema S.A. has undertaken to indemnify Total S.A. and hold it harmless for the consequences of any ARKEMA Claim against any Total Entity. Arkema S.A. has waived all ARKEMA Claims other than New Claims, as defined below.

Arkema S.A.'s indemnity and the waiver mentioned in the two preceding paragraphs do not apply to any potential ARKEMA Claim that would be based on (i) events attributable to a Total Entity or (ii) grounds of which no ARKEMA entity has any knowledge as of the date of the Total Spin-Off agreement, after completing the necessary and customary due diligences, but only if and insofar as such events or grounds do not relate solely to the fact that the ARKEMA companies belonged to Total prior to 18 May 2006, or relate solely to the exercise of corporate offices or management functions by Total Entities within ARKEMA (the New Claim(s)).

At the same time, Total S.A. has declared, recognized and warranted that to its knowledge and to the knowledge of the Total entities, as of the date of the Total Spin-Off agreement, there were no grounds for claims, actions or complaints by any Total entity or by any one of its de facto or de jure directors, corporate officers or executives against any ARKEMA entity or any one of its de facto or de jure employees, directors, corporate officers or executives (the ARKEMA Entity(ies)), arising from the ownership or operation by Arkema entities of the companies or businesses acquired by Total before 18 May 2006 (the Total Claim(s)). Total S.A. has declared, recognized and warranted that it had no Total Claim(s) arising from the exercise of corporate offices or functions by ARKEMA Entities within Total, and has waived all Total Claims on its part.

Consequently, Total S.A. has agreed to indemnify and hold harmless Arkema S.A. for the consequences of any Total Claim against any ARKEMA Entity.

#### Duration of the indemnities

No indemnity given in the Total Spin-Off agreement will survive after 10 years from 18 May 2006.

In addition, the Arkema Delaware Main SPA provides that Arkema Amériques SAS, which became a subsidiary of Arkema S.A. on 18 May 2006, will indemnify Elf Aquitaine Inc., a subsidiary of Total S.A., for any taxes that may result from a breach of representations or covenants under the Arkema Delaware Main SPA or the Tax Sharing Agreement dated 1 January 2001, among Total Holdings USA, Inc. and certain of its subsidiaries, by Arkema Amériques SAS, Arkema Delaware Inc., or certain of the subsidiaries of Arkema Delaware Inc. Elf Aquitaine Inc. will likewise indemnify Arkema Amériques SAS for any taxes resulting from such breaches by Elf Aquitaine Inc. Moreover, the Arkema Delaware Main SPA provides that Elf Aguitaine Inc. and its U.S. subsidiaries, on the one hand, and Arkema Delaware Inc. with certain of its U.S. subsidiaries, on the other hand, will each be responsible for their share of U.S. federal and state income taxes before 7 March 2006, as computed under the Tax Sharing Agreement, because for this period Elf Aquitaine Inc. files a consolidated U.S. federal income tax return that includes Arkema Delaware Inc. and certain of its subsidiaries and pays the taxes due in respect of the consolidated U.S. federal income tax return. Arkema Delaware Inc. and certain of its subsidiaries will be required to pay such amounts to Elf Aquitaine Inc. For periods after 7 March 2006, Arkema Delaware, Inc. and its U.S. subsidiaries will be responsible to file income tax returns separately from Elf Aquitaine Inc. and separately to make all tax payments in respect of these returns.

With the exception of the obligations or indemnities described in this section, Total has not given to ARKEMA other material commitments or indemnities of the kind referred to in the first paragraph of this section "Commitments received from Total in 2006". Consolidated financial statements

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## NOTE 30 STATUTORY AUDITORS' FEES

	KPMG		Ernst & Young		
	Amount		Amount		
	(In millions of eu	iros)	(In millions of euros)		
	2013	2012	2013	2012	
AUDIT					
Auditing, certification, review of individual and consolidated financial statements	2	2	2.1	2.2	
Issuer	0.5	0.5	0.5	0.5	
Fully consolidated subsidiaries	1.5	1.5	1.6	1.7	
Other due diligence work and services directly related to the auditors' mission	0.1	0.5		0.6	
lssuer	-		-	-	
Fully consolidated subsidiaries	0.1	0.5	-	0.6	
SUB-TOTAL	2.1	2.5	2.1	2.8	
Other services provided by the networks to fully consolidated subsidiaries	-	-	-	-	
TOTAL	2.1	2.5	2.1	2.8	

In application of an internal rule validated by the Audit Committee, the amount of fees for other due diligence work and services directly related to the auditors' mission shall not exceed 30% of fees for the audit of the individual and consolidated financial statements.

## NOTE 31 SUBSEQUENT EVENTS

No significant event has occurred since the year-end.

## D. SCOPE OF CONSOLIDATION AT 31 DECEMBER 2013

(a) Companies deconsolidated in 2013

(b) Companies merged in 2013

(c) Companies liquidated in 2013

(d) Companies sold in 2013(e) Companies acquired in 2013

The percentage of control indicated below also corresponds to the Group's ownership interest, except for entities marked by an asterisk.

Altuglas International Denmark A/S		Denmark	100.00	FC
Altuglas International Ltd.	(c)	United Kingdom	100.00	FC
Altuglas International Mexico Inc.		United States	100.00	FC
Altuglas International SAS		France	100.00	FC
American Acryl LP		United States	50.00	PC
American Acryl NA LLC		United States	50.00	PC
Arkema		South Korea	100.00	FC
Arkema		France	100.00	FC
Arkema Afrique SAS		France	100.00	FC
Arkema Amériques SAS		France	100.00	FC
Arkema Asie SAS		France	100.00	FC
Arkema Beijing Chemical Co. Ltd.	(a) + (d)	China	100.00	FC
Arkema BV		Netherlands	100.00	FC
Arkema Canada Inc.		Canada	100.00	FC
Arkema Changshu Chemicals Co. Ltd.		China	100.00	FC
Arkema Changshu Fluorochemical Co. Ltd.		China	100.00	FC
Arkema Chemicals India Private Ltd.		India	100.00	FC
Arkema China Investment Co. Ltd.		China	100.00	FC
Arkema Coatings Resins BV	(b)	Netherlands	100.00	FC
Arkema Coatings Resins SAU		Spain	99.92	FC
Arkema Coating Resins Malaysia Sdn. Bhd.		Malaysia	100.00	FC
Arkema Coatings Resins Srl	(b)	Italy	100.00	FC
Arkema Coatings Resins UK		United Kingdom	100.00	FC
Arkema Co. Ltd.		Hong Kong	100.00	FC
Arkema Daikin Advanced Fluorochemicals Co. Ltd.		China	60.00	PC
Arkema Delaware Inc.		United States	100.00	FC
Arkema Europe		France	100.00	FC
Arkema France		France	100.00	FC
Arkema GmbH		Germany	100.00	FC
Arkema Hydrogen Peroxide Co. Ltd., Shanghai		China	66.67	FC

NB: FC: full consolidation.

PC: proportionate consolidation.

EM: consolidation by the equity method.

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Arkema Inc.		United States	100.00	FC
Arkema Insurance Ltd.		Ireland	100.00	FC
Arkema KK		Japan	100.00	FC
Arkema Ltd.	Un	ited Kingdom	100.00	FC
Arkema Mexico SA de CV		Mexico	100.00	FC
Arkema Mexico Servicios SA de CV		Mexico	100.00	FC
Arkema PEKK Inc.		United States	100.00	FC
Arkema Peroxides India Private Limited		India	100.00	FC
Arkema Pte Ltd.		Singapore	100.00	FC
Arkema Quimica Ltda.		Brazil	100.00	FC
Arkema Quimica SA		Spain	99.92	FC
Arkema Resins (Pty) Ltd.	(a)	South Africa	100.00	FC
Arkema Rotterdam BV		Netherlands	100.00	FC
Arkema (Shanghai) Distribution Co. Ltd.		China	100.00	FC
Arkema Spar NL Limited Partnership		Canada	100.00	FC
Arkema sp Z.o.o		Poland	100.00	FC
Arkema Srl		Italy	100.00	FC
Arkema Thiochemicals Sdn. Bhd.		Malaysia	86.00	FC
Arkema Vlissingen BV	(b)	Netherlands	100.00	FC
Arkema Yoshitomi Ltd.		Japan	49.00	EM
CECA Belgium		Belgium	100.00	FC
CECA Italiana Srl		Italy	100.00	FC
CECA LC		France	100.00	FC
CECA SA		France	100.00	FC
Changshu Coatex Additives Co. Ltd.		China	100.00	FC
Changshu Haike Chemicals Co. Ltd.		China	49.00	FC
CJ Bio Malaysia Sdn. Bhd.		Malaysia	14.00	EM
Coatex Asia Pacific		South Korea	100.00	FC
Coatex Central Eastern Europe sro		Slovakia	100.00	FC
Coatex Inc.		United States	100.00	FC
Coatex Latin America Industria et Comercio Ltd.		Brazil	100.00	FC
Coatex Netherlands BV		Netherlands	100.00	FC
Coatex SAS		France	100.00	FC
Daikin Arkema Refrigerants Asia Ltd.		Hong Kong	40.00	PC
Daikin Arkema Refrigerants Trading (Shanghai) Co. Ltd.		China	40.00	PC
Delaware Chemicals Corporation		United States	100.00	FC
Febex SA		Switzerland	96.77	FC
Harveys Composites South Africa	(a)	South Africa	100.00	FC
Hebei Casda Biomaterials Co. Ltd.		China	100.00	FC
Ihsedu Agrochem Private Ltd.	(e)	India	24.90	EM
Maquiladora General de Matamoros SA de CV		Mexico	100.00	FC

NB: FC: full consolidation. PC: proportionate consolidation.

EM: consolidation by the equity method.

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Meglas		Italy	33.00	EM
Michelet Finance, Inc.		United States	100.00	FC
MLPC International		France	100.00	FC
Newspar*		Canada	50.00	PC
Noble Synthetics Private Limited		India	100.00	FC
ODOR-TECH LLC		United States	100.00	FC
Oxochimie		France	50.00	PC
Ozark Mahoning Company		United States	100.00	FC
Qatar Vinyl Company Limited QSC	(d)	Qatar	12.91	EM
Sartomer Asia Limited		Hong Kong	100.00	FC
Sartomer Guangzhou Chemical Co. Ltd.		China	100.00	FC
Sartomer Shangai Distribution Company Limited		China	100.00	FC
Sartomer USA LLC		United States	100.00	FC
Seki Arkema		South Korea	51.00	FC
Shanghai Arkema Gaoyuan Chemicals Co. Ltd.		China	100.00	FC
Sunclear SA Espana (ex Plasticos Altumax SA)		Spain	99.92	FC
Sunclear (ex Sunclear France)		France	100.00	FC
Sunclear Srl (ex Altuglas International Srl)		Italy	100.00	FC
Suzhou Hipro Polymers Co. Ltd.		China	100.00	FC
Turkish Products, Inc.		United States	100.00	FC
Viking Chemical company		United States	100.00	FC

NB: FC: full consolidation.

PC: proportionate consolidation. EM: consolidation by the equity method. FINANCIAL AND ACCOUNTING INFORMATION Company's annual financial statements

## 4.4 COMPANY'S ANNUAL FINANCIAL STATEMENTS

# 4.4.1 STATUTORY AUDITORS' REPORT ON THE FINANCIAL STATEMENTS

This is a free translation into English of the statutory auditors' report on the financial statements issued in French and it is provided solely for the convenience of English-speaking users. The statutory auditors' report includes information specifically required by French law in such reports, whether modified or not. This information presented below is the audit opinion on the financial statements and includes an explanatory paragraph discussing the auditors' assessments of certain significant accounting and auditing matters. These assessments were considered for the purpose of issuing an audit opinion on the financial statements taken as a whole and not to provide separate assurance on individual account balances, transactions or disclosures. This report also includes information relating to the specific verification of information given in the management report. This report should be read in conjunction with and construed in accordance with French law and professional auditing standards applicable in France.

KPMG Audit Département de KPMG S.A. 1, cours Valmy 92923 Paris-La Défense Cedex Commissaire aux comptes Membre de la compagnie régionale de Versailles

1/2, place des Saisons
 92400 Courbevoie - Paris-La Défense 1
 S.A.S. à capital variable
 Commissaire aux comptes
 Membre de la compagnie régionale de Versailles

**ERNST & YOUNG Audit** 

## Arkema

Year ended December 31, 2013

#### Statutory auditors' report on the annual financial statements

To the Shareholders,

In compliance with the assignment entrusted to us by your annual general meetings, we hereby report to you, for the year ended December 31, 2013, on:

- the audit of the accompanying financial statements of Arkema;
- the justification of our assessments;
- the specific verifications and information required by law.

These financial statements have been approved by the Board of Directors. Our role is to express an opinion on these financial statements based on our audit.

#### I. Opinion on the annual financial statements

We conducted our audit in accordance with professional standards applicable in France; those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit involves performing procedures, using sampling techniques or other methods of selection, to obtain audit evidence about the amounts and disclosures in the financial statements. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made, as well as the overall presentation of the financial statements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

In our opinion, the financial statements give a true and fair view of the assets and liabilities and of the financial position of the company as at December 31, 2013 and of the results of its operations for the year then ended in accordance with French accounting principles.

Company's annual financial statements

## II. Justification of our assessments

In accordance with the requirements of article L. 823-9 of the French commercial code (*Code de commerce*) relating to the justification of our assessments, we bring to your attention the following matters:

- as described in note B.1 "Investments" to the financial statements the value in use of investments is assessed by reference to the share held in the investee's net assets, or by reference to an external valuation or by reference to discounted future cash flows, where these methods provide more relevant information than the share held in the investee's net assets. As part of our assessments of the accounting principles and policies used by your company, we verified that the above accounting methods were appropriate. We also verified that note D.1 "Investments, loans and financial receivables" to the financial statements provides an appropriate level of information;
- note B.7 "Provisions for pensions and similar benefits" to the financial statements describes the valuation methods used to assess provisions for pensions and similar post-employment benefits. These obligations were measured by independent actuaries. We examined the underlying data and the assumptions used. As part of our assessments, we ascertained the reasonableness of these estimates. We also verified that note D.4 "Provisions" to the financial statements provides an appropriate level of information.

These assessments were made as part of our audit of the financial statements taken as a whole, and therefore contributed to the opinion we formed which is expressed in the first part of this report.

## III. Specific verifications and information

We have also performed, in accordance with professional standards applicable in France, the specific verifications required by French law.

We have no matters to report as to the fair presentation and the consistency with the financial statements of the information given in the Board of Directors' management report and in the documents addressed to the shareholders with respect to the financial position and the financial statements.

Concerning the information given in accordance with the requirements of article L. 225-102-1 of the French commercial code (*Code de commerce*) relating to remunerations and benefits received by the directors and any other commitments made in their favor, we have verified its consistency with the financial statements, or with the underlying information used to prepare these financial statements and, where applicable, with the information obtained by your company from companies controlling your company or controlled by it. Based on this work, we attest the accuracy and fair presentation of this information.

In accordance with French law, we have verified that the required information concerning the purchase of investments and controlling interests and the identity of the shareholders has been properly disclosed in the management report.

Paris La Défense, 3 March 2014 The statutory auditors French original signed by

KPMG Audit Département de KPMG S.A.

Jacques-François Lethu

François Quédiniac

## ERNST & YOUNG Audit

Valérie Quint

Company's annual financial statements

## 4.4.2 COMPANY'S FINANCIAL STATEMENTS AT 31 DECEMBER 2013

## **BALANCE SHEET**

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(In millions of euros)			31 December 2013		31 December 2012
ASSETS	Note	Gross	Depreciation and impairment	Net	Net
Investments	D1	3,356	1,762	1,594	1,610
Other fixed assets	D1	1,145	0	1,145	992
TOTAL FIXED ASSETS		4,501	1,762	2,739	2,602
Advance		0		0	0
Trade receivables	D2	11	-	11	15
Other receivables	D2	119	-	119	99
Subsidiary current accounts	D2	76	-	76	0
Treasury shares	D2	12	-	12	16
Cash and cash equivalents		-	-	0	2
TOTAL CURRENT ASSETS		218	-	218	132
Bond premium and issuing cost	D2	4		4	4
Prepaid expenses		0	-	0	0
TOTAL ASSETS		4,724	1,762	2,961	2,738

LIABILITIES AND SHAREHOLDERS' EQUITY		31 December 2013	31 December 2012
Share capital		630	629
Paid-in surplus		869	977
Legal reserve		61	61
Retained earnings		(148)	(174)
Net income for the year		212	26
TOTAL SHAREHOLDERS' EQUITY	D3	1,624	1,519
PROVISIONS	D4	46	43
Bond	D6	1,158	1,009
Debt	D8	0	58
Trade payables	D8	8	8
Tax and employee-related liabilities	D8	6	6
Other payables	D8	119	95
TOTAL CURRENT LIABILITIES		1,291	1,176
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		2,961	2,738

Company's annual financial statements

## INCOME STATEMENT

In millions of euros	2013	2012
Services billed to related companies	13	14
Other purchases and external expenses	(9)	(12)
Taxes other than income taxes	(3)	(O)
Personnel expenses	(7)	(11)
Other operating expenses	0	0
(Allowances) and reversals of provisions	2	(9)
Operating income	(4)	(18)
Dividends from investments	203	13
Interest income	39	34
Interest expenses	(39)	(33)
Net foreign exchange gains (losses)	0	0
Impairment of investments	(16)	(122)
(Allowances) and reversals of provisions for financial risks	(O)	122
Financial result	187	14
Income before tax and exceptional items	183	(4)
(Allowances) and reversals of exceptional provisions	(6)	(3)
Other exceptional income	0	0
Income and (expenses) on capital transactions	9	(3)
Exceptional items	3	(6)
Income taxes	26	36
Net income	212	26

## CASH FLOW STATEMENT

In millions of euros	2013	2012
Net income	212	26
Changes in provisions	4	11
Changes in impairment	16	1
(Gains)/losses on sales of assets	0	0
Gross operating cash flow	232	38
Change in working capital	11	(5)
Cash flow from operating activities	243	33
Cost of acquisition of investments	0	(399)
Change in loans	(153)	(489)
Sale of investments	0	0
Cash flow from investment activities	(153)	(888)
Bond issued	149	507
Change in share capital and other equity	6	47
Distribution of dividends to shareholders	(113)	(81)
Cash flow from financing activities	42	473
Change in net debt	132	(382)
Net cash at beginning of period *	(56)	326
Net cash at end of period *	76	(56)

\* Including subsidiary current accounts.

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## DETAILED INFORMATION ON SUBSIDARIES AND INVESTMENTS

Detailed information on subsidiaries and investments		Share- holders' equity other than capital (in € millions) net income excl.	Gross value of shares owned in € millions	Net carrying amount of shares owned in € millions	Number of shares owned		Value in	Gua- rantees given by the company in € millions	Net sales of last financial year (in € millions)	Net income (loss) <sup>(1)</sup> in € millions)	in
French subsidiaries											
Arkema France 420, rue d'Estienne d'Orves 92 705 Colombes Cedex	270	(35)	2,023	277	1,584,253	99,99	1,206	1,000	2,696	(26)	-
Arkema Amériques SAS 420, rue d'Estienne d'Orves 92 705 Colombes Cedex	1,049	616	1,044	1,044	104,354,000	99,46	-		-	73	186
Arkema Europe SA 420, rue d'Estienne d'Orves 92 705 Colombes Cedex	548	59	188	188	12,370,920	34,32	-	-	-	(6)	18
Arkema Asie SAS 420, rue d'Estienne d'Orves 92 705 Colombes Cedex	120	131	71	71	39,420	59,40	-	-	-	23	-
Arkema Afrique SAS 420, rue d'Estienne d'Orves 92 705 Colombes Cedex	30	0	30	14	300,370	100,00	-	-	-	(16)	-
TOTAL INVESTMENTS			3,356	1,594			1,206	1,000	2,696	48	203

(1) Financial statements not yet approved by the shareholder's general meeting.

## 4.4.3 NOTES TO THE COMPANY'S FINANCIAL STATEMENTS AT 31 DECEMBER 2013

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## A. HIGHLIGHTS

- In December 2013, Arkema S.A. issued a €150 million bond that will mature on 6 December 2023, with a fixed coupon of 3.125%. This was part of the Group's €2 billion Euro Medium Term Notes (EMTN) programme introduced in October 2013. Arkema S.A. immediately transferred the cash to Arkema France, entity that manages cash pooling mechanism for the Group, on the basis of a loan with same maturity and same effective interest rate.
- Furthermore, in April 2013 Arkema S.A. introduced a French commercial paper ("billet de trésorerie") programme with a ceiling of €1 billion. Issues outstanding as part of this programme amount to nil at 31 December 2013.

## **B. ACCOUNTING POLICIES**

The annual financial statements of Arkema S.A. were prepared under the responsibility of the Chairman and CEO of Arkema S.A. and were approved by the Board of Directors on 3 March 2014.

The financial statements of Arkema S.A. have been prepared in accordance with French laws and regulations. It is specified that the presentation of the balance sheet and the income statement have been adapted to the holding activity exercised by the Company.

The usual French accounting conventions have been applied, in compliance with the prudence principle, in accordance with the following basic assumptions:

- going concern;
- consistency of accounting policies from one financial year to the next; and
- accruals basis of accounting and cut-off.

The basic method used to value items recorded in the accounting records is the historical cost method.

The main accounting policies used by the Company are presented below.

## 1. INVESTMENTS

Investments are stated at the lower of acquisition cost and value in use. Investment acquisition expenses are recognized in the income statement as incurred.

Value in use is assessed by reference to the share held in the investee's net assets. However, value in use may be assessed by reference to an external valuation or by reference to discounted future cash flows where these methods provide more relevant information than the share held in the investee's net assets.

## 2. COSTS OF CAPITAL INCREASES

In accordance with opinion 2000-D of the urgent issues committee of the French National Accounting Board (*Conseil National de la Comptabilité – CNC*), issued on 21 December 2000, the Company opted to recognize the costs of capital increases as a deduction from issue premiums.

## 3. RECEIVABLES

Accounts Receivables are recognized at their book value. A bad debt provision is recognized when the net realisable value is lower than the book value. Receivables denominated in foreign currencies are translated at the exchange rate at 31 December.

## 4. TREASURY SHARES

Treasury shares owned by Arkema S.A. are recognized at acquisition cost in current assets. They are valued in accordance with the FIFO (first-in first-out) method. Treasury shares are normally written down, if necessary, on the basis of the average market price on the Paris stock exchange for the last month preceding the balance sheet date. By exception, and in accordance with opinion n°2008-17 of the French National Accounting Board *(CNC)*, issued on 6 November 2008, these shares are not written down on the basis of their market value where they have been allocated to a plan, because of the commitment to make grants to employees and the provision recognized in this respect in liabilities.

Treasury shares initially allocated to cover grants to employees are reclassified into financial fixed assets into a "Treasury shares for cancellation" sub-account when a decision is taken to cancel the shares. They are then recorded at their net carrying amount at the date on which their allocation is changed.

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## 5. BOND

The bond is accounted for its nominal value in liabilities.

The bond premium (arising when the bond is issued at a price below its nominal value) and issuing costs are recognized in the balance sheet as a separate asset. However, if the bond is issued at a price higher than the nominal value, the difference between the issue price and the nominal value minus issuing costs is recognized as a liability in the heading *Bond*.

Issuing costs relate to bank charges and legal fees expensed when setting up the bond and are charged back to income statement over the duration of the bond following the method of the effective interest rate, with the corresponding amortization being recognized in the operating income.

The bond premium is also amortized over the duration of the bond following the method of effective interest rate, with the corresponding expense being recognized in financial expense. If the bond is issued at a price higher than the nominal value, the same method applies for the amortization of the difference between the issue price and the nominal value, the corresponding profit being recognized in financial income.

The effective interest rate corresponds to the interest rate which, when used to determine the discounted value of expected cash outflows till maturity date, leads to the initial book value of the bond.

## 6. STOCK OPTIONS AND FREE SHARE GRANTS

## 6.1 Stock options

Stock options are accounted for, at the date of exercise, as a capital increase for an amount corresponding to the subscription price paid by the stock option holders. The difference between the subscription price and the nominal value of the shares created, if any, represents issue premiums.

## 6.2 Free share grants

Arkema S.A. shares will be definitively granted to beneficiaries at the end of a vesting period subject to meeting the presence and, if applicable, performance conditions set by the Board of Directors.

#### 6.2.1 Issue of new shares

When a free share grant is carried out by issuing new shares, the capital increase by means of a transfer from reserves of the nominal amount of the shares created is recognized in the financial statements at the end of the vesting period.

## 6.2.2 Buybacks of existing shares

When a free share grant is carried out through buybacks of existing shares (following a decision taken by the Board of Directors in relation to the plan in question), a provision representing the obligation to deliver the shares is recognized at year end for (i) the probable purchase price, valued on the basis of the closing share price, if the shares have not yet been purchased or (ii) the net carrying amount of the treasury shares if they have already been purchased. On delivery at the end of the vesting period, the purchase price paid by the company for the shares granted is recognized in expenses and the provision previously recorded is reversed.

The provision is recognized on a time-proportion basis over the vesting period and takes into account, as applicable, the probability of meeting the presence and performance conditions set by the Board of Directors.

#### 6.3 Social security tax on stock options and free share grants

The 2008 French social security financing act (law 2007-1786 of 19 December 2007) created a new employer contribution on stock options and free share grants. This contribution is payable to the mandatory health insurance schemes to which the beneficiaries are affiliated and is paid in the month following the decision to grant stock options or free shares.

As regards stock options, the contribution is calculated, at the company's choice, either on the basis of (i) the fair value of the options as estimated in the consolidated financial statements or (ii) 25% of the value of the shares to which these options relate at the date of the Board of Directors meeting which decided to make the grant.

As regards free share grants, the contribution is calculated, at the company's choice, either on the basis of (i) the fair value of the shares as estimated in the consolidated financial statements or (ii) the value of the shares at the date of the Board of Directors meeting which decided to make the grant.

The choice of the basis to be used is made for the entire financial year.

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#### 7. PROVISIONS FOR PENSIONS AND SIMILAR BENEFITS

Arkema S.A. has granted top-up pension plans and other nonpension benefits (lump sum payments on retirement, long service awards, death and disability benefits, contributions to healthcare bodies) to certain employees.

Provisions are recognized in respect of these obligations in the financial statements.

The amount of the provision corresponds to the present value of employee's vested rights at the balance sheet date.

The valuation of obligations, under the projected unit credit method, principally takes into account:

- a discount rate which depends on the duration of the obligations (3.2% at 31/12/2013 vs. 3.0% at 31/12/2012);
- an assumption concerning the date of retirement;
- an inflation rate;
- assumptions in respect of future increases in salaries, rates of employee turnover and increases in health costs.

Actuarial gains and losses are fully recognized in the income statement.

#### 8. TAX CONSOLIDATION

The tax consolidation agreements signed between Arkema S.A. and the other companies in the tax consolidation group refer to a neutrality principle in accordance with which each consolidated subsidiary must recognize in its own financial statements, during the entire period of its consolidation within the ARKEMA tax consolidation group, a corporate income tax expense (or income), additional levies and minimum corporate tax (IFA) identical to that which it would have recognized had it not formed part of the tax consolidation group.

In its accounting records, Arkema S.A. recognizes:

- in "other receivables", with an offsetting entry to income taxes, the amount of income taxes owed by profitable companies in the tax consolidation group;
- in "other payables", with an offsetting entry to income taxes, the amount of taxes due by the tax consolidation group.

The tax consolidation agreements states that Arkema S.A. will benefit from the tax savings generated by the use of its subsidiaries' tax losses without any obligation to refund them (not even in case of subsidiaries scope out). On these basis and in accordance with the opinion 2005-G of the urgent issues committee of the French National Accounting Board (CNC), Arkema S.A. does not recognize any provision against tax benefits.

## C. SUBSEQUENT EVENTS

None.

# D. NOTES TO THE PARENT COMPANY FINANCIAL STATEMENTS

The figures presented in the notes to the parent company financial statements are expressed in millions of euros (unless otherwise indicated).

## NOTE 1 INVESTMENTS, LOANS AND FINANCIAL RECEIVABLES

## 1.1 INVESTMENTS

(in millions of euros)	31/12/2012	Increase	Decrease	31/12/2013
Gross value	3,356	-	-	3,356
Impairment	(1,746)	(16)	-	(1,762)
NET VALUE	1,610	(16)	0	1,594

The change in Investments results from a €16 million impairment of the investment in Arkema Afrique, in order to adjust the carrying value of this investment to the amount of the share held in the investee's net assets.

## **1.2 OTHER FINANCIAL ASSETS**

Arkema S.A. has transferred to its subsidiary Arkema France the cash received from the issued bonds (see note D6), on the basis of loans with same maturity and same effective interest rate.

The corresponding loans totalled €1,130 millions (accrued interest excluded) at 31 December 2013.

## NOTE 2 CURRENT ASSETS

## 2.1 RECEIVABLES

The breakdown of the Company's receivables at 31 December 2013 by maturity is as follows:

[In millions of euros]	Gross amount	Of which less than 1 year	Of which more than 1 year
Operating receivables and VAT	11	11	-
Cash advances to subsidiaries <sup>(a)</sup>	76	76	-
Other receivables <sup>(b)</sup>	131	52	79
TOTAL	218	139	79

(a) Arkema France current account.

(b) Mainly income tax receivables.

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## 2.2 TREASURY SHARES

At 31 December 2013, Arkema S.A. owns 226,974 treasury shares which are recorded at their acquisition cost of €12 million. These shares are allocated to cover the free share grant plans (see note D13 below).

Therefore no impairment was recognized in the financial statements at 31 December 2013.

## 2.3 BOND PREMIUM AND ISSUING COSTS

Following amounts are recognized in this entry:

- Bond premium : €3.1 million (relating to the bonds issued in October 2010 and in December 2013);
- Issuing costs : €3.4 million, of which 0.2 million resulting from the €150 million bond issued in December 2013.

After a €0.8 million depreciation over the period, the balance of this account amounts to €4.3 million at 31 December 2013.

## NOTE 3 SHAREHOLDERS' EQUITY

At 31 December 2013, the share capital is composed of 63,029,692 shares with a nominal value of 10 euros. Changes in shareholders' equity are as follows:

(In millions of euros)	Opening balance at 01/01/2013	Appropriation of 2012 net income	Distribution of dividend <sup>(1)</sup> + 2013 net income	Capital increase 30/06/2013 <sup>(2)</sup>	Capital increase 31/12/2013 <sup>(3)</sup>	31/12/2013 before appropriation
Share capital	629			0.7	0.8	630
Issue premium	58			2.0	2.2	63
Paid-in surplus	794		(112.8)			681
Merger surplus	125					125
Legal reserve	61					61
Other reserves	-					-
Retained earnings	(174)	26.4				(148)
2012 net income	26	(26.4)				-
2013 net income	-		212.4			212
TOTAL SHARE-HOLDERS' EQUITY	1,519	0	99	3	3	1,624

(1) The shareholders' general meeting adopted a resolution proposing to distribute a dividend of €1.80 per share, or a total amount of €112.8 million, in respect of the 2012 financial year.

(2) Capital increase resulting from the exercise of stock options between 1st January and 30 June 2013.

(3) Capital increase resulting from the exercise of stock options between 1st July and 31 December 2013.

On 30 June 2013, the Company carried out a capital increase by €0.7 million and an increase in issue premium by €2 million after stock options were exercised from 1<sup>st</sup> January to 30 June 2013.

On 31 December 2013, the Company carried out a capital increase by €0.8 million and an increase in issue premium by

€2.2 million after stock options were exercised from 1<sup>st</sup> July to 31 December 2013.

Following the completion of these transactions, Arkema S.A. share capital amounts to €630.3 million divided into 63,029,692 shares.

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## NOTE 4 PROVISIONS

Changes in provisions recognized in the Company's balance sheet are set out in the table below:

[In millions of euros]	31/12/2012	Increase	Decrease	31/12/2013
Provisions for pensions and similar benefits	28.3	1	(1.6)	27.7
Provisions for long service awards	0.4	0.1	0	0.5
Provision for free share grant	11.5	9.1 (2)	(3.4) (1) (2)	17.2
Provisions for financial risks	-	-	-	-
Provisions for other liabilities	1.7	-	(1.7) <sup>(3)</sup>	-
Provision for income tax	0.8	-	-	0.8
TOTAL	42.7	10.2	(6.7)	46.2

(1) Reversal corresponding to an effective expense relating to the free share grant under the 2011-1 plan.

(2) Allowances and reversals recognized in exceptional items.

(3) Reversal corresponding to the salary tax expensed in 2013.

## These movements split as follows:

Recognized in operating income	1.1	(3.3)
Recognized in financial result	-	-
Recognized in exceptional items	9.1	(3.4)
TOTAL	10.2	(6.7)

## NOTE 5 CONTINGENT LIABILITIES

In 2009 the Large Companies section of the French tax authorities carried out a tax audit of Arkema S.A.'s salary tax (taxe sur les salaires) for the years 2007 and 2008, resulting in notification of a €1.2 million reassessment, as it was considered that all the Company's employees had a cross-functional activity and therefore that their pay should be partially subject to this tax. Following a previous ruling by the Council of State in favour of the tax authorities' position, negotiations covering the whole

period 2007-2010 were begun with the tax authorities during their audit of Arkema S.A.'s financial statements 2008 to 2010. The provision of  $\in 1.6$  million recognized at 31 December 2012 will cover all costs related to the negotiated settlement.

In 2013 Arkema S.A. has reversed the €1.6 million provision following the notification of the relating tax relief for 2007 and 2008 fiscal years and the payment of the salary tax reassessment for the period 2009-2012.

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## NOTE 6 BOND

In this heading are recognized:

- the €500 million bond placed in October 2010 that will mature on 25 October 2017;
- the bond placed in April 2012 as well as the additional tranche placed in October 2012 bringing its total amount to €480 million, with a 30 April 2020 maturity;
- the €150 million bond placed in December 2013 that will mature on 6 December 2023, as part of Arkema S.A.

€2 billion Euro Medium Term Notes (EMTN) programme (see *Highlights* above);

- the accrued interest costs, for €16.5 million;
- the difference between the issue price and the nominal value relating to the bond placed in October 2012, initially recognized for an amount net of issuing costs of €13.7 million; after a €1.6 million depreciation over the period, the balance of this difference amounts to €11.7 million at 31 December 2013.

## NOTE 7 COMMERCIAL PAPER

In April 2013 Arkema introduced a French commercial paper ("billet de trésorerie") programme with a ceiling of €1 billion. Issues outstanding as part of this programme amount to nil at 31 December 2013.

## NOTE 8 CURRENT LIABILITIES

The breakdown of the company's payables at 31 December 2013 by maturity is as follows:

(In millions of euros)	Gross amount	Of which less than 1 year	Of which 1 to 5 years	Of which more than 5 years
Debt	1,158	28	500 (1)	630 (1)
Trade payables	8	8 (2)	-	-
Tax and employee-related liabilities	6	6	-	-
Other payables	119 (3)	57	62	-
TOTAL	1,291	99	562	630

(1) Long term bonds issued by Arkema S.A. (see note D6 Bond, above).

(2) This amount mostly consists of accruals for invoices not received at year end.

(3) Income tax payables owed to subsidiaries in the tax consolidation group.

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#### TRANSACTIONS WITH RELATED PARTIES INCLUDED NOTE 9 **IN SOME HEADINGS**

Financial fixed assets	
Investment	1,594
Financial Receivables	1,145
Receivables	
Trade receivables	
Other receivables (incl. current accounts)	70
Other receivables	118
Payables	
Financial debt	
Trade payables	(3
Other payables	118
Net sales	
Billing of management fees to subsidiaries	10
Financial expenses	
Financial income	
Income from investments	203
Interest income	
Income from loans and current accounts	37

#### NOTE 10 **FINANCIAL RESULT**

Arkema S.A. received dividends for a total amount of €203 million of which €185.7 million from Arkema Amériques SAS and €17.7 million from Arkema Europe S.A. in respect of the 2012 net income.

Interest income corresponds to the remuneration of the amounts made available to Arkema France in the context of the Group's cash pooling system.

#### NOTE 11 **INCOME TAXES**

In 2013, the application of the French tax consolidation scheme resulted in tax income (negative expense) for Arkema S.A. of €29.9 million. This amount corresponds to the income taxes of the profitable companies.

Arkema S.A. has expensed and paid the 3% additional contribution on distributed dividends in respect of the 2012 net income amounting to €3.4 million.

#### NOTE 12 **DEFERRED TAX POSITION**

Temporarily non-deductible expenses amount to €30.4 million (of which 27.6 relating to provisions for pensions and similar benefits) at 31 December 2013, i.e. a decrease by €1.7 million vs. 31 December 2012.

The tax loss of Arkema S.A. as a stand-alone company originating from the period before the adhesion to the tax consolidation scheme has been entirely used.

The tax loss carry-forward of the tax consolidation group at 31 December 2013 amounts to €1,265 million.

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## NOTE 13 STOCK OPTIONS PLANS AND FREE SHARE GRANTS

## **STOCK OPTIONS**

The Board of Directors has decided to discontinue stock subscription and purchase options.

The main characteristics of the stock option plans granted in previous years and still outstanding at 31 December 2013 are as follows:

	2006 Plan	2007 Plan	2008 Plan	2010 Plan 1	2010 Plan 2	2011 Plan 1	2011 Plan 2	Total
Date of Annual General Meeting	10 May 2006	10 May 2006	10 May 2006	15 June 2009	15 June 2009	15 June 2009	15 June 2009	
Date of Board of Directors' meeting	4 July 2006	14 May 2007	13 May 2008	10 May 2010	10 May 2010	4 May 2011	4 May 2011	
Vesting period	2 years	2 years	2 years	2 years	5 years	2 years	4 years	
Conservation period	4 years	4 years	4 years	4 years	5 years	4 years	4 years	
Period of validity	8 years	8 years	8 years	8 years	8 years	8 years	8 years	
Exercise price	28.36	44.63	36.21	30.47	30.47	68.48	68.48	
Number of options granted	540,000	600,000	460,000	225,000	225,000	105,000	105,000	2,260,000
to corporate officers: Thierry Le Hénaff	55,000	70,000	52,500	35,000	35,000	29,250	29,250	306,000
to the 10 largest beneficiaries*	181,000	217,000	169,350	104,000	104,000	75,750	75,750	926,850
Total number of options exercised	501,300	424,002	246,645	44,485	-	-	-	1,216,432
by corporate officers	55,000	24,000	24,000	-	-	-	-	103,000
by the 10 largest beneficiaries*	181,000	169,000	66,600	40,085	-		-	456,685
Total number of options cancelled	15,900	22,800	18,877	7,000	7,000	-	-	71,577
NUMBER OF OPTIONS								
In circulation at 1 January 2011	308,553	579,200	442,422	225,000	225,000	-	-	1,780,175
Granted	-	-	-	-	-	105,000	105,000	210,000
Cancelled	-	2,000	1,299	5,000	5,000	-	-	13,299
Exercised	187,603	169,100	14,080	-	-	-	-	370,783
In circulation at 31 December 2011	120,950	408,100	427,043	220,000	220,000	105,000	105,000	1,606,093
In circulation at 1 January 2012	120,950	408,100	427,043	220,000	220,000	105,000	105,000	1,606,093
Granted	-	-	-	-	-	-	-	-
Cancelled	-	-	-	-	-	-	-	-
Exercised	77,092	206,802	165,216	28,515	-	-	-	477,625
In circulation at 31 December 2012	43,858	201,298	261,827	191,485	220,000	105,000	105,000	1,128,468
In circulation at 1 January 2013	43,858	201,298	261,827	191,485	220,000	105,000	105,000	1,128,468
Granted	-	-	-	-	-	-	-	-
Cancelled	-	-	-	2,000	2,000	-	-	4,000
Exercised	21,058	48,100	67,349	15,970	-	-	-	152,477
In circulation at 31 December 2013	22,800	153,198	194,478	173,515	218,000	105,000	105,000	971,991

\* Employees who are not corporate officers of Arkema S.A. or any other Group company.

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## FREE SHARE GRANT

On 6 November 2013, the Board of Directors decided to put in place a performance share award scheme for the benefit of employees, particularly employees with responsibilities whose exercise influences the Group's results.

Under this plan, the definitive grant of such performance shares will be subject to a vesting period of 4 years, with effect from

the Board of Directors' grant, and subject to compliance with performance criteria expressed in terms of both ARKEMA's EBITDA for 2016, and the net debt to equity ratio, and ARKEMA's average EBITDA margin over the period 2013 to 2016 compared to the average margin of a selection of other chemicals manufacturers over the same period.

The main characteristics of the free share grant plans in force at 31 December 2013 are as follows:

	2010-2 Plan	2011-1 Plan	2011-2 Plan	2011-3 Plan	2012-1 Plan	2012-2 Plan	2012-3 Plan	2013 Plan	Total <sup>(5)</sup>
Date of Annual General Meeting	15 June 2009	4 June 2013							
Date of Board of Directors' meeting	10 May 2010	4 May 2011	4 May 2011	4 May 2011	9 May 2012	9 May 2012	9 May 2012	6 November 2013	
Vesting period	4 years	2 years	3 years	4 years	2 years	3 years	4 years	4 years	
Conservation period	-	2 years	2 years	-	2 years	2 years	-	-	
Performance condition	Yes <sup>(2)</sup>	Yes <sup>(3)</sup>	Yes <sup>(4)</sup>						
Total number of free shares granted	50,795	88,305	59,380	52,315	101,860	74,805	65,335	250,000	
to corporate officers: Thierry Le Hénaff	-	8,200	8,200	-	13,000	13,000	-	26,000	
to the 10 largest beneficiaries <sup>(1)</sup>	8,100	24,450	24,450	14,850	36,100	36,100	16,400	75,400	
NUMBER OF FREE SHARES EXERCISED									
In circulation at 1 January 2011	50,157	-	-	-	-	-	-	-	337,212
Granted	-	88,305	59,380	52,315	-	-	-	-	200,000
Cancelled	1,000	455	455	125	-	-	-	-	6,875
Definitively Granted	-	-	-	-	-	-	-	-	132,200
In circulation at 31 December 2011	49,157	87,850	58,925	52,190	-	-	-	-	398,137
In circulation at 1 January 2012	49,157	87,850	58,925	52,190	-	-	-	-	398,137
Granted	-	-	-	-	101,860	74,805	65,335	-	242,000
Cancelled	1,434	590	-	1,195	125	-	590	-	4,114
Definitively Granted	-	100	100	-	-	-	-	-	150,035
In circulation at 31 December 2012	47,723	87,160	58,825	50,995	101,735	74,805	64,745	-	485,988
In circulation at 1 January 2013	47,723	87,160	58,825	50,995	101,735	74,805	64,745	-	485,988
Granted	-	-	-	-	-	-	-	250,000	250,000
Cancelled	104	100	1,000	70	1,230	1,230	105	-	3,839
Definitively Granted	-	87,060	-	-	-	-	-	-	87,060
In circulation at 31 December 2013	47,619	-	57,825	50,925	100,505	73,575	64,640	250,000	645,089

(1) Employees who are not corporate officers of Arkema S.A. or any other Group company.

(2) Performance conditions do not apply to beneficiaries of less than 100 shares.

(3) Performance conditions apply only to the portion of rights in excess of 80 held under all plans, except for Comex members, all of whose rights are subject to performance criteria.

(4) Performance conditions apply only to the portion of rights in excess of 100, except for Comex members, all of whose rights are subject to performance criteria.

(5) The total includes plans dating from before 2010.

Company's annual financial statements

The delivery of performance shares relating to 2010, 2011 and 2012 plans is carried out trough acquisition of existing shares. The definitive grant of the shares relating to the 2011-1 plan was fulfilled in May 2013.

# EXPENSE IN THE FINANCIAL YEAR IN RESPECT OF THE 2010 TO 2013 PLANS

The delivery of shares in respect of the 2011-1 plan led to recognition in the 2013 exceptional items of a net expense of

€1 million (€4.4 million exceptional expense compensated for by a €3.4 million reversal of provision).

The provision for free shares grant was increased by €9.1 million (of which €0.8 million relating to the 2013 plan) bringing the amount recognized in 31 December 2013 accounts in respect of all plans to €17.2 million.

## NOTE 14 OFF-BALANCE SHEET COMMITMENTS

The information set out below concerns Arkema S.A. or certain of its subsidiaries, and is disclosed on account of Arkema S.A.'s holding company status.

## 14.1 COMMITMENTS GIVEN

On 26 July 2011, Arkema S.A. and Arkema France have signed a multi-currency syndicated credit facility in the amount of €700 million, with a duration of five years, maturing on 26 July 2016. This credit facility is intended to finance the Group's general requirements as a substitute line for the commercial paper programme, and includes an early repayment clause in the event of certain situations including a change in control of the Arkema Group. It includes:

- standard undertakings and commitments for this type of financing;
- (ii) a financial undertaking in which ARKEMA undertakes to maintain a ratio of consolidated net debt to consolidated EBITDA (tested twice a year) of less than 3; this may be raised to 3.5 in the event of acquisition(s) of assets or securities, capital increase(s) or investment(s) in joint ventures, for a maximum of two non-consecutive test dates.
- At 31 December 2013 this credit facility was not in use.

## 14.2 COMMITMENTS RECEIVED

## Commitments received from Total in 2006

In connection with the Spin-Off of Arkema's Businesses, Total S.A. and certain Total companies have extended certain indemnities, or have assumed certain obligations, for the benefit of ARKEMA, relating to (i) certain antitrust litigation, (ii) certain tax matters, and (iii) the Spin-Off of Arkema's Businesses. These indemnities and obligations are described below.

# 14.2.1 The Indemnities extended by Total in respect of certain antitrust litigation

In order to cover potential risks in connection with antitrust litigation relating to anti-competitive agreements in Europe and the United States of America and arising from facts prior to 18 May 2006 (or prior to 7 March 2006, as the case may be), Total S.A. has extended to Arkema S.A. the indemnities, the principal terms of which can be described as follows:

#### Subject-matter of the Indemnities

By an agreement dated 15 March 2006 (the « **Arkema European Indemnity** »), Total S.A. agreed to indemnify Arkema S.A. for 90% of (i) any payment due by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries) pursuant to a money judgment imposed by EU antitrust authorities, or by national antitrust authorities of a Member State of the European Union, for violations of antitrust laws relating to anticompetitive agreements, (ii) any damages payable by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries) pursuant to civil proceedings arising from the same facts which form the basis of a judgment referred to in (i), and (iii) certain expenses incurred in connection with such proceedings by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries).

By an agreement dated 15 March 2006 (the « **Arkema U.S. Indemnity** »), Total S.A. also agreed to indemnify Arkema S.A. for 90% of (i) any payment due by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries) pursuant to a money judgment imposed by U.S. courts or antitrust authorities for violations of U.S. federal or state antitrust laws relating to anticompetitive agreements, or in respect of a settlement entered into in the context of such proceedings, (ii) any damages payable by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries) pursuant to civil proceedings arising from the same facts which form the basis of a judgment referred to in (i), and (iii) certain expenses incurred in connection with such proceedings by Arkema S.A. or any of its subsidiaries (with the exception of Arkema Amériques SAS and its subsidiaries).

Company's annual financial statements

In connection with the sale of Arkema Delaware, Inc. shares by Elf Aquitaine, Inc. to Arkema Amériques SAS, Elf Aquitaine, Inc. agreed, in the agreement dated 7 March 2006 (the « **Arkema Delaware Indemnity** »), to indemnify Arkema Amériques SAS for 90% of (i) any payment due by Arkema Amériques SAS or any of its subsidiaries pursuant to a money judgment imposed by U.S. courts or antitrust authorities for violations occurring prior to 7 March 2006 of U.S. federal or state antitrust laws relating to anticompetitive agreements, or in respect of the settlement entered into in the context of such proceedings, (ii) any damages payable by Arkema Amériques SAS or any of its subsidiaries pursuant to civil proceedings arising from the same facts which form the basis of a judgment referred to in (i), and (iii) certain expenses incurred by Arkema Amériques SAS or any of its subsidiaries in connection with such proceedings.

Arkema Amériques SAS has benefited from an indemnification of US\$19.3 million under the Arkema Delaware Indemnity. At 31 December 2013, the residual amount covered by this indemnity amounts to US\$873.7 million.

Finally, Total S.A. extended to Arkema S.A. a supplemental indemnity dated 15 March 2006 (the « *Supplemental Arkema Delaware Indemnity* ») covering 90% of sums payable by Arkema Amériques SAS or any of its subsidiaries in respect of litigation relating to anticompetitive agreements in the United States in excess of the maximum amount covered by the Arkema Delaware Indemnity.

The Arkema European Indemnity, the Arkema U.S. Indemnity, the Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity are hereinafter referred to together as the « *Indemnities* » and individually as an « *Indemnity* ».

## Liabilities not covered by the Indemnities

The following liabilities are not covered by the Indemnities:

- liabilities arising from facts occurring after 18 May 2006 in the case of the Arkema European Indemnity and the Arkema U.S. Indemnity, or after 7 March 2006 in the case of the Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity (including, in case of liabilities arising from facts occurring both before and after the relevant date, the portion of the liability relating to the period after 18 May 2006 or after 7 March 2006, as the case may be);
- liabilities arising from violations of antitrust laws other than those prohibiting anticompetitive agreements; and
- liabilities imposed by authorities outside the European Union (in the case of the Arkema European Indemnity) or the United States (in the case of the other Indemnities).

#### Participation of Total in the management of litigation covered by the Indemnities

The Indemnities provide for the participation by Total S.A. or Elf Aquitaine, Inc., as the case may be, in the management of litigation covered by the Indemnities, which involves a certain number of obligations on the part of Arkema S.A. and Arkema Amériques SAS, in particular the obligation to notify Total S.A. or Elf Aquitaine, Inc., as the case may be, of certain events occurring in the context of proceedings covered by the Indemnities and act in accordance with the advice and instructions of Total S.A. or Elf Aquitaine, Inc., as the case may be, relating to such proceedings. Total S.A. and Elf Aquitaine, Inc., as the case may be, also have the right to assume sole control of the defense of the Group entity in question. Failure by Arkema S.A. or Arkema Amériques SAS to comply with these obligations can result, in certain circumstances, in the automatic termination of the Indemnity, as described below.

#### Amount of the indemnification

The Arkema European Indemnity, whose deductible of €176.5 million has been exceeded, gave rise to indemnification of €138.5 million being received from Total SA (paid directly to Arkema France S.A., the indemnities granted by Total also benefitting the subsidiaries). The Arkema U.S. Indemnity, the Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity do not have a deductible.

## Cross-indemnity of Arkema S.A.

Arkema S.A. has agreed to indemnify Total S.A. in respect of any liability covered by the Indemnities but which is borne, not by a Group entity but by Total S.A. or one of its subsidiaries due to facts attributable to a Group company, whether the liability of Total S.A. or of its subsidiaries is determined to be direct or derivative, exclusive or joint and several, relative to the liability of the Group entity to which the facts are attributable.

However, this cross-indemnity by Arkema S.A. will be reduced by the indemnity which would have been paid by Total S.A. under the relevant Indemnity if the liability had been borne by a Group company. Consequently, if the cross-indemnity of Arkema S.A. is triggered, Arkema S.A. would only be obligated to indemnify Total S.A. for 10% of the liabilities borne by Total S.A. or one of its subsidiaries (in the case of the Arkema European Indemnity, this 10% relates to the amount, if any, that exceed the deductible).

#### Term of the indemnities

The Arkema European Indemnity and the Arkema U.S. Indemnity are valid for a term of 10 years from 18 May 2006. The Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity are valid for a term of 10 years from 7 March 2006.

The Arkema S.A. cross-indemnity is valid for a term of 10 years from 18 May 2006.

Company's annual financial statements

#### **Termination of the Indemnities**

Indemnities shall terminate in the event that a natural person or legal entity, acting alone or in concert with others, acquires, directly or indirectly, more than one third of the voting rights of Arkema S.A. (voting rights are subject to a ceiling of 10% — and 20% in the case of double voting rights — unless a purchaser acquires at least two thirds of the Total number of Arkema S.A. shares in a public transaction targeting all Arkema S.A. shares) or if the Group transfers, directly or indirectly, in one or several times, to the same third party or to several third parties acting in concert, assets representing more than 50% of the Group's "enterprise value" (as defined in the Indemnities) at the time of the relevant transfer.

The Arkema European Indemnity and the Arkema U.S. Indemnity will terminate if Arkema S.A. loses control of Arkema France S.A.

The Arkema Delaware Indemnity and the Supplemental Arkema Delaware Indemnity will terminate if Arkema S.A. loses control of Arkema Amériques SAS, or if Arkema Amériques SAS loses control of Arkema Delaware Inc.

Finally, the Indemnities will terminate in the event of a material breach by the Group of its obligations under the relevant Indemnity if such breach has remained uncured for 30 days after notice by the indemnifying party demanding its cure.

The Indemnities provide that, upon the occurrence of a termination event, the only liabilities of Group companies that will remain covered by the Indemnities are those, if any, which (i) fell due prior to the termination event and (ii) were notified to Total S.A. or to Elf Aquitaine, Inc., as the case may be, prior to the termination event.

#### 14.2.2 Tax indemnity granted by Total S.A.

In order to cover potential tax risks related to the business activities transferred by the Group to TOTAL or from the reorganization in connection with the Spin-Off of Arkema's Businesses, Total S.A. has granted an indemnity to Arkema S.A., the main terms of which can be described as follows.

### Purpose of the tax indemnity

Under the terms of an agreement dated 15 March 2006 (the "**Tax Indemnity**"), Total S.A. has undertaken to indemnify Arkema S.A. for (i) liabilities arising from any tax, customs or levies not covered by provisions, for which the Group would remain liable, when such liabilities arise from (x) activities in the petrochemicals and specialties sectors that were transferred by the Group to Total and the triggering event of which occurred prior to the date of such transfer; or (y) the reorganization undertaken for the purpose of spinning off Arkema's Businesses from Total's Chemicals sector, including, in particular, the Elf Spin-Off, the Total Spin-Off, the Merger and certain prior securities reclassification transactions; (ii) interest, fines, penalties, additional charges or other costs related thereto; and (iii) provided that Total S.A. has given its prior consent, the expenses incurred by Arkema S.A. or the relevant Group company in connection with such liabilities. The Tax Indemnity, however, does not cover tax reassessments in connection with Arkema's Businesses and is subject to the terms described hereafter.

# Involvement of Total S.A. in the management of litigation covered by the Tax Indemnity

The Tax Indemnity provides for a procedure pursuant to which Arkema S.A. must involve Total S.A. in the management of the tax audits or litigation relating to the tax liabilities covered by the Tax Indemnity. In particular, this procedure entails the obligation to notify Total S.A. of any event that is likely to give rise to a liability covered by the Tax Indemnity and to comply with the advice and instructions of Total S.A. in defending the interests of the relevant Group company. In the event of unresolved disagreements on the strategy, means, method or type of such defence, the final decision will be taken by Total S.A. Arkema's failure to comply with its obligations may result in automatic termination of the Tax Indemnity.

#### Amount of the indemnity

The Tax Indemnity includes no deductible, trigger threshold or cap.

In the event that a liability cannot be clearly connected to the petrochemicals and specialties sector transferred by the Group to Total in relation to Arkema's Businesses, Arkema S.A. and Total S.A. will each bear 50% of the said liability.

#### Special provisions applying to Group companies that were included in the Total S.A. French tax group ("groupe d'intégration fiscale de Total S.A.")

The tax sharing agreements ("conventions d'intégration fiscale") between Total S.A. and the Group companies that were included in the Total S.A. French tax group provide that these companies will be required to pay to Total S.A. any additional taxes and penalties that may be due by Total S.A., as the head company of the tax group, where they relate to the taxable income of such companies during the time they were included in the tax group.

However, these companies will be exempt from such payments to Total S.A. with respect to tax liabilities relating to their taxable income for fiscal years during which they were included in the Total S.A. tax group, if such liabilities are covered by the Tax Indemnity. In exchange, these companies waive the indemnity to which they would have been entitled pursuant to the Tax Indemnity.

Furthermore, in the event of a tax reassessment of a Group company relating to Arkema's Businesses (which are not covered by the Tax Indemnity) for a fiscal year during which such company was included in the Total S.A. tax group, such company shall be liable to pay Total S.A. a contribution calculated on the basis of the net amount of the reassessment after the following allowances:

- if, following this reassessment, the Group Company has realized a profit in respect of the fiscal year to which the reassessment applies, a deductible of €3 million per company and per fiscal year;
- if, following this reassessment, the Group Company has realized a loss in respect of the fiscal year to which the reassessment applies, an allowance equal to the amount of the losses generated by such company with respect to Arkema's Businesses, as determined by Arkema S.A. and Total S.A.

#### Payment of the indemnity

The liabilities covered by the Tax Indemnity will give rise to an indemnification payment only if they are definitely determined by an enforceable decision that is not subject to appeal.

#### Duration of the Tax Indemnity

The Tax Indemnity shall expire at the end of two months following the statute of limitations effectively applicable to the tax liabilities covered by the Tax Indemnity.

### Beneficiary of the Tax Indemnity

The Tax Indemnity is only for the benefit of Arkema S.A. or, as the case may be, Arkema France, if Arkema S.A. is merged into Arkema France.

### 14.2.3 Other indemnities given in the contextof the Spin-Off of Arkema's Businesses

As part of the Total Spin-Off Agreement, Total S.A. and Arkema S.A. made certain representations and warranties, some of them in connection with the separation of ARKEMA from Total.

The agreement states that Total S.A. grants no indemnities, other than the indemnities and agreements entered into by the Total entities that are described in this paragraph, particularly with respect to the assets and the business activities of all ARKEMA entities, or the liabilities or obligations associated with such entities or activities, which ARKEMA declares that it is aware of and for which Arkema S.A. shall be responsible, including in the case of the appearance of any item that is not known as of the date of the Total Spin-Off Agreement, or of an increase in the amount of the aforesaid liabilities or obligations. ARKEMA releases Total S.A. from any such claim, except in the case of New Claims as defined below.

# Representations and warranties relating to information exchanged in preparing the Spin-off of Arkema's Businesses

Total S.A. and ARKEMA have made mutual representations and warranties with respect to the accuracy and completeness of the information exchanged by the two companies in preparing the Spin-Off of Arkema's Businesses.

#### Representations and warranties relating to potential claims

After conducting all necessary and customary due diligence, Arkema S.A. has declared, recognized and warranted that, to its knowledge and to the knowledge of the ARKEMA entities, as of the date of the Total Spin-Off Agreement, there were no grounds for claims, actions or complaints by any ARKEMA entity or by any one of its de facto or de jure directors, corporate officers or executives against any Total entity or any one of its de facto or de jure employees, directors, corporate officers or executives (a *Total Entity*). The claims, actions or complaints mentioned above are hereinafter referred to as the ARKEMA Claim(s). Consequently, Arkema S.A. has undertaken to indemnify Total S.A. and hold it harmless for the consequences of any ARKEMA Claim against any Total Entity.

Arkema S.A. has waived all ARKEMA Claims other than New Claims, as defined below.

ARKEMA's indemnity and the waiver mentioned in the two preceding paragraphs do not apply to any potential ARKEMA Claim that would be based on (i) events attributable to a Total Entity or (ii) grounds of which no ARKEMA entity has any knowledge as of the date of the Total Spin-Off agreement, after completing the necessary and customary due diligences, but only if and insofar as such events or grounds do not relate solely to the fact that the ARKEMA companies belonged to Total prior to 18 May 2006, or relate solely to the exercise of corporate offices or management functions by Total Entities within ARKEMA (the « **New Claim(s)** »).

At the same time, Total S.A. has declared, recognized and warranted that to its knowledge and to the knowledge of the Total entities, as of the date of the Total Spin-Off agreement, there were no grounds for claims, actions or complaints by any Total entity or by any one of its de facto or de jure directors, corporate officers or executives against any ARKEMA entity or any one of its de facto or de jure employees, directors, corporate officers or executives (the « **ARKEMA Entity(ies)** »), arising from the ownership or operation by Arkema entities of the companies or businesses acquired by Total before 18 May 2006 (the « **Total Claim(s)** »).

Total S.A. has declared, recognized and warranted that it had no Total Claim(s) arising from the exercise of corporate offices or functions by ARKEMA Entities within Total, and has waived all Total Claims on its part.

Consequently, Total S.A. has agreed to indemnify and hold harmless Arkema S.A. for the consequences of any Total Claim against any ARKEMA Entity.

#### Duration of the indemnities

No indemnity given in the Total Spin-Off agreement will survive after 10 years from 18 May 2006.

With the exception of the obligations or indemnities described in this section, Total has not given to ARKEMA other material commitments or indemnities of the kind referred to in the first paragraph of this section "Commitments received from Total in 2006".

Company's annual financial statements

## NOTE 15 EMPLOYEES

The average number of employees by category of personnel is as follows:

Engineers and managerial	8
Supervisors and technicians	0
Total	8

## NOTE 16 TRANSACTIONS WITH RELATED PARTIES

The compensation of directors and members of its executive committee (COMEX) recognized in expenses by Arkema S.A. is as follows:

(In millions of euros)	2013	2012
Salaries and other short-term benefits	4	5
Pensions, other post-employment benefits and contract termination benefits *	1	2
Other long term benefits		-
Share-based payments	3	4

\* Excluded actuarial gains or losses.

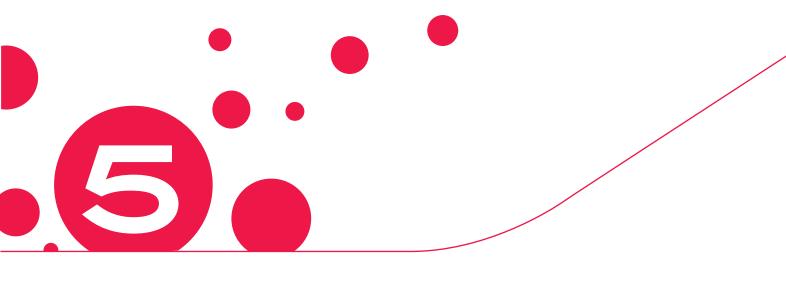
These expenses comprise all types of remuneration recorded, including variable amounts, bonuses, attendance fees and benefits in kind.

The Chairman and CEO is entitled to a contractual indemnity in the event of non-voluntary departure, up to a maximum of two years'total gross compensation (fixed and variable), subject to achievement of performance criteria. Other transactions with related parties involve subsidiaries directly or indirectly wholly owned by Arkema S.A. and do not fall within the scope of the article 1 of the Regulation n° 2010-02 of 2 September 2010 of the French National Accounting Authority (Autorité des Normes Comptables, formerly Conseil National de la Comptabilité).

# 4.4.4 RESULTS OF THE COMPANY IN THE LAST 5 YEARS (ARTICLES 133, 135 AND 148 OF THE DECREE OF MARCH 23, 1967 ON COMMERCIAL COMPANIES)

Type of disclosures					
(in millions of euros unless otherwise indicated)	2009	2010	2011	2012	2013
I - Financial position at year end					
a) Share capital	605	615	619	629	630
<b>b</b> ) Number of shares issued	60,454,973	61,493,794	61,864,577	62,877,215	63,029,692
II - Operations and results					
a) Sales (excluding VAT)	8	10	12	14	13
<ul> <li>b) Income before tax, depreciation, impairment and provisions</li> </ul>	224	8	5	2	206
c) Income taxes	48	40	31	36	26
d) Employee legal profit sharing		-			
e) Income after tax, depreciation impairment and provisions	20	42	(289)	26	212
f) Amount of dividends distributed	37	61	81	113	NC
III - Earnings per share (in euros)					
<ul> <li>a) Income after tax but before depreciation, impairment and provisions</li> </ul>	4.49	0.78	0.58	0.61	3.69
<b>b)</b> Income after tax, depreciation impairment and provisions	0.33	0.68	(4.68)	0.42	3.37
c) Net dividend per share	0.60	1.00	1.30	2	NC
IV - Employee data					
a) Number of employees	8	8	8	7	7
<b>b)</b> Total payroll	3	5	5	7	4
c) Amounts paid to employee benefit bodies in the year	1	2	2	3	3





# INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL

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INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL Legal presentation of the Group

# 5.1 LEGAL PRESENTATION OF THE GROUP

# 5.1.1 INFORMATION ABOUT THE COMPANY

The origins of the Company are rooted in the history of the chemical activities of the Elf Aquitaine and Total groups. ARKEMA was established in October 2004 from the Total group's Chemical branch to bring together Vinyl Products, Industrial Chemicals and Performance Products segments. On 18 May 2006, the Company's stock market listing marked ARKEMA's independence.

Since 2006, a number of major operations, as mentioned below, have enabled ARKEMA to strengthen its portfolio of businesses and to refocus its business on specialty chemical activities:

- acquisition in October 2007 of Coatex, a producer of rheology additives;
- acquisition in January 2010 of certain assets from The Dow Chemical Company in acrylics and emulsions in North America;
- acquisition in July 2011 of Total's coating resins (Cray Valley and Cook Composites and Polymers) and photocure resins (Sartomer);
- acquisition in February 2012 of Chinese companies Suzhou Hipro Polymers Co. Ltd. and Hebei Casda Biomaterials Co. Ltd. in specialty polyamides;
- divestment in July 2012 of vinyl activities; and
- project to acquire acrylic assets in China announced in January 2014 (creation of Sunke, joint-venture with Jurong Chemical).

Arkema is a French *société anonyme* with a share capital of 630,296,920 euros and its registered office at 420 rue d'Estienne d'Orves, 92700 Colombes (telephone: + 33 1 49 00 80 80). It is governed by French law and therefore in particular by the legislative and regulatory provisions of the French Commercial Code (*Code de commerce*).

The Company is registered with the Nanterre Trade and Companies Registry (*Registre du commerce et des sociétés*) under registration number 445 074 685. Its SIRET number is 445 074 685 00030. Its NAF code is 2016 Z.

The Company was incorporated on 31 January 2003 for a fixed period of 99 years from its date of registration at the Trade and Companies Registry, until 31 January 2102, unless the term is extended or the Company is wound up earlier.

The Company's corporate purpose (article 3 of its Articles of Association), directly or indirectly, in any country is:

- to carry out all operations directly or indirectly relating to research, production, processing, distribution and marketing of all chemical and plastic products and their derivatives, byproducts thereof and of all parachemical products;
- to acquire, hold and manage all securities, negotiable or otherwise, in French and foreign companies, through newly-created companies, contributions, limited partnerships, or by subscribing for or purchasing securities or corporate rights, or through mergers, combinations, joint venture companies or by obtaining the use of any property or rights under a lease, lease-management agreement or by dation, or otherwise; and
- more generally, to enter into all financial, commercial, industrial, real or personal property transactions that may be directly or indirectly related to any of the objects referred to above or to any other similar or connected objects, and designed to promote the Company's purpose, expansion or development.

The Company's Articles of Association, minutes of general meetings, auditors reports and other company documents may be consulted at the registered office, 420 rue d'Estienne d'Orves, 92700 Colombes, at the Group's Legal Affairs Division. Furthermore, historical financial information, regulated information, reference documents, annual and sustainable performance reports and others are available on the Company's website: www.arkema.com.

# 5.1.2 SUBSIDIARIES AND SHAREHOLDINGS OF THE COMPANY

Arkema is the Group's ultimate parent company. It is also the head of the French tax group put in place between companies subject to French corporation tax.

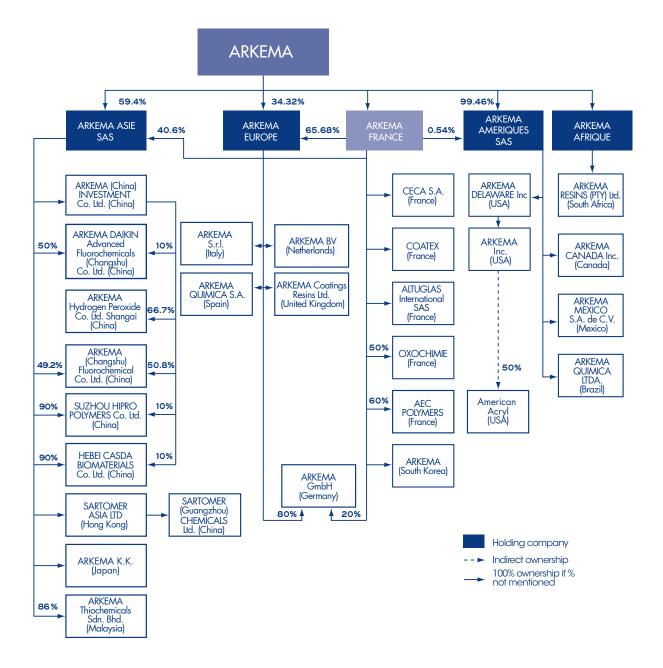
The Company is a holding company that does not have its own operational or industrial activity.

The Company indirectly holds, via French sub-holding companies, including Arkema France, French and foreign subsidiaries of the

Group, within the various geographical regions (France, America, Africa, Asia, Europe).

Arkema France is both a holding and an operating company and holds in particular all operational French companies of the Group.

As at the date of this reference document, the Company's main direct and indirect subsidiaries are shown in the following simplified organisational chart.



INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL

In 2013, the Group acquired interests in the following companies:

Share capital

- 24.9% of the share capital of Ihsedu Agrochem Pvt. Limited, on 11 October 2013; and
- a majority stake in the share capital of AEC Polymers, on 2 April 2013.

A comprehensive list of all of the Group's consolidated subsidiaries and their geographical location are given in the consolidated financial statements in paragraph 4.3.3 of this reference document.

Detailed information on the Company's main subsidiaries is also given in paragraph 4.4.2 of this reference document.

For further information on the Group's economic organisation, see sections 1.1 and 1.2 of this reference document. The results of each business segment are presented in chapter 4 of this reference document.

# 5.1.3 RELATED PARTY TRANSACTIONS

The Group's ultimate parent company having a pure holding activity, Arkema has few relations with its subsidiaries, except for the existence of administrative service contracts that are not material and are concluded under common conditions comparable to those prevailing in similar transactions with third parties.

Some of the Group's non-consolidated companies sell products or provide services to companies consolidated by the Group. In addition, certain consolidated Group companies sell products or provide services to certain non-consolidated companies. These transactions, taken separately or together, are not material. They were entered into under ordinary conditions comparable to those applicable to similar transactions with third parties.

A description of related party transactions is provided in note 26 of the notes to the consolidated financial statements in paragraph 4.3.3 of this reference document and in the statutory auditors' special report on regulated agreements and commitments which is included in chapter 6 of this reference document.

# 5.2 SHARE CAPITAL

# 5.2.1 AMOUNT OF SHARE CAPITAL

As at 31 December 2013, the Company's share capital was 630,296,920 euros divided into 63,029,692 fully paid-up shares of a single category, with a nominal value of €10 per share, against 62,877,215 shares at January 1<sup>st</sup> 2013, 226,974 of which are treasury shares.

In 2013, the capital increased by 152,477 shares through the exercise of the same amount of stock options.

# 5.2.2 HISTORY OF THE COMPANY'S SHARE CAPITAL OVER THE PAST THREE YEARS

Date	Amount of capital	Number of shares	Nature of operation
30 June 2011	€618,438,270	61,843,827	Exercise of stock options: recording of share capital increase of €3,500,330, combined with a share premium of €9,041,086.88, with the issue of 350,033 new shares
31 December 2011	€618,645,770	61,864,577	Exercise of stock options: recording of share capital increase of €207,500, combined with a share premium of €628,274, with the issue of 20,750 new shares
18 April 2012	€623,995,900	62,399,590	Increase in capital reserved for employees: increase in capital by €5,350,130, combined with a share premium of €23,813,428.63, with the issue of 535,013 new shares
30 June 2012	€625,388,180	62,538,818	Exercise of stock options: recording of share capital increase of €1,392,280, combined with a share premium of €4,004,504.62, with the issue of 139,228 new shares
31 December 2012	€628,772,150	62,877,215	Exercise of stock options: recording of share capital increase of €3,383,970, combined with a share premium of €9,486, 471.17, with the issue of 338,397 new shares
30 June 2013	€629,481,730	62,948,173	Exercise of stock options: recording of share capital increase of €709,580, combined with a share premium of €1,956,359.68, with the issue of 70,958 new shares
31 December 2013	€630,296,920	63,029,692	Exercise of stock options: recording of share capital increase of €815,190, combined with a share premium of €2,188,091.39, with the issue of 81,519 new shares

# 5.2.3 PLEDGES, GUARANTEES, SECURITIES

As at 31 December 2013, existing pledges on the Company's pure registered shares and administered registered shares respectively concerned 414 shares held by 6 shareholders, and 125 shares held by 1 shareholder, namely less than 0.01% of the share capital.

The Company has no knowledge of pledges concerning the other shares constituting its share capital.

The shares held by the Company in its subsidiaries are not subject to pledges.

# 5.2.4 TREASURY SHARES

At 31 December 2013, the Company directly held 226,974 treasury shares.

This paragraph describes (i) a review of the share buy-back program authorised in 2013, and (ii) the information that must be given in the description of the share buy-back program in accordance with article 241-2 of the Autorité des marchés financiers (AMF) general regulation (*Réglement général*) as well as information required under article L. 225-211 of the French Commercial Code (*Code de commerce*).

#### REVIEW OF SHARE BUY-BACK PROGRAM AUTHORISED ON 4 JUNE 2013 (2013 SHARE BUY-BACK PROGRAM)

The combined annual general meeting of 4 June 2013 authorised the Board of Directors to implement a share buy-back program capped at 10% of the share capital and subject to a maximum purchase price per share of €110. This authorisation, which supersedes for its unused portion, the authorisation granted by the annual general meeting of 23 May 2012, was granted for an 18-month period from the combined annual general meeting of 4 June 2013, i.e. until 4 December 2014. It is therefore still in force at the date of this reference document. INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL

The maximum amount of funds allocated to the implementation of the buy-back program may not exceed €100 million.

Share capital

Under this 2013 Share Buy-back Program, these shares may be purchased for any purpose permitted by law, notably the following:

- to implement market practices permitted by the AMF such as (i) purchasing shares of the Company to keep and subsequently tender as consideration for possible external growth operations, acquisitions, mergers, spin-offs or asset contributions up to a maximum of 5% of the share capital at the time of the transaction, or (ii) purchasing or selling shares under a liquidity agreement that complies with the Code of Conduct approved by the AMF, entered into with an investment services provider, and (iii) any market practice that might in the future be permitted by the AMF, or by law;
- to implement and honour obligations and more particularly to allot the shares upon the exercise of rights attached to securities giving immediate or future access to the share capital by whatever means, and to cover the Company's

(or one of its subsidiaries') existing obligations in connection with such securities, under the conditions permitted by the market authorities and at the times the Board of Directors or its delegated representative deems appropriate;

- to cover stock option plans granted to employees or executive officers of the Company or its Group;
- to grant free shares to employees or executive officers of the Company or its Group, in particular under the conditions set out in articles L. 225-197-1 *et seq.* of the French Commercial Code (Code de commerce);
- to propose to employees to purchase shares, directly or through a company savings plan, under the conditions set out by law and particularly articles L.3332-1 *et seq.* of the French Labour Code; and
- to reduce the Company's share capital.

The Board of Directors of 27 February 2013 decided to implement the share buy-back program subject to authorisation by the combined general meeting of 4 June 2013.

### OPERATIONS COMPLETED AS PART OF THE 2013 SHARE BUY-BACK PROGRAM

As at 4 June 2013, when the annual general meeting approved the 2013 Share Buy-back Program, the Company held, directly or indirectly, 226,974 treasury shares.

The following tables give a summary of the operations carried out as part of the 2013 share buy-back program:

#### Summary statement as at 31 January 2014

Number of shares comprising the Company's capital at 4 June 2013	62,946,113
Treasury shares held directly or indirectly at 4 June 2013	226,974
Number of shares purchased between 4 June 2013 and 31 January 2014	None
Weighted average gross price of shares purchased (in euros)	N/A
Number of treasury shares at 31 January 2014	226,974
Number of shares cancelled in the last 24 months	None
Accounting value of portfolio (in euros)	12,043,779.77
Market value of portfolio (in euros) based on closing price at 31 January 2014, i.e. €79.14	17,962,722.36

-	Aggregate gros	s movements	Open positions at 31 January 2014		
Summary of transactions carried out through the program between 4 June 2013 and 31 January 2014	Purchases	Sales/Transfers	Open buying positions	Open selling positions	
Number of shares	None	None	-	-	
Average price of transaction (in euros)	N/A	N/A	-	-	
Amounts (in euros)	N/A	N/A	-	-	

## BREAKDOWN OF THE COMPANY'S TREASURY SHARES BY OBJECTIVES

As at 31 January 2014, the Company's 226,974 treasury shares were allocated for the purpose of covering the Company's plans to grant free shares to its employees and executive officers and those of its affiliated companies.

### SHARE BUY-BACK PROGRAM RECOMMENDED TO THE ANNUAL GENERAL MEETING OF 15 MAY 2014 (2014 SHARE BUY-BACK PROGRAM)

The Company's Board of Directors wishes the Company to further have at its disposal a share buy-back program.

To this end, the Board of Directors recommends to the combined general meeting of 15 May 2014 the cancellation of the  $10^{th}$  resolution voted by the combined general meeting of 4 June 2013, for its unused portion, and the authorisation for implementation of a new share buy-back program in accordance with the provisions of European Council Regulation n° 2273/2003 dated 22 December 2003 pertaining to the terms of application of European Directive n° 2003/6/EC dated 28 January 2003.

In accordance with article 241-2 of the AMF general regulation, the following paragraphs give a description of the share buy-back program to be subject to the authorisation of the Company's next general meeting as above.

## Objectives of the 2014 Share Buy-back Program

As part of the 2014 Share Buy-back Program that will be recommended to the combined general meeting of 15 May 2014, the Company is considering repurchasing own shares or having own shares repurchased for any purpose permitted by law either now or in the future, and notably for the following purposes:

- to implement market practices permitted by the AMF such as (i) purchasing shares in the Company to keep and subsequently tender as consideration for possible external growth operations, acquisitions, mergers, spin-offs or asset contributions up to a maximum of 5% of the share capital at the time of the transaction, or (ii) purchasing or selling shares under a liquidity agreement that complies with the Code of Conduct approved by the AMF, entered into with an investment services provider, and (iii) any market practice that might in the future be permitted by the AMF or by law;
- to implement and honour obligations and more particularly to grant the shares upon the exercise of rights attached to securities giving immediate or future access to the share capital by whatever means, and to cover the Company's (or one of its subsidiaries') existing obligations in connection

with such securities, under the conditions permitted by the market authorities and at the times the Board of Directors or its delegated representative deems appropriate;

- to cover stock option plans granted to employees or executive officers of the Company or its Group;
- to grant free shares to employees or executive officers of the Company or its Group in particular under the conditions set out in articles L. 225-197-1 et seq. of the French Commercial Code (Code de commerce);
- to propose to employees to purchase shares, directly or through a company savings plan, under the conditions set out by law and particularly articles L. 3332-1 *et seq.* of the French Labour Code; and
- to cancel all or part of the shares thus repurchased with a view to reducing the Company's share capital.

Cancellation of the repurchased securities may take place as part of the eleventh resolution approved by the combined general meeting of 4 June 2013 in force until 4 June 2015.

## Maximum proportion of share capital to be repurchased and maximum number of shares that may be acquired under the 2014 Share Buy-back Program

The maximum proportion of share capital to be repurchased under the 2014 Share Buy-back Program shall be 10% of the total number of shares comprising the Company's share capital (as an indication, at 31 January 2014, the total number of shares comprising the share capital was 63,050,243).

In accordance with article L. 225-210 of the French Commercial Code (*Code de commerce*), the number of shares that the Company may hold at any time may not exceed 10% of the shares comprising the Company's share capital on the date in question.

The securities that the Company is considering acquiring are shares.

## Maximum unit purchase price authorised

The maximum purchase price would be €110 per share, it being specified that this purchase price may be adjusted to take account of the impact on the share price of transactions such as a capitalisation of share premiums, reserves or earnings giving rise either to an increase in the par value of the shares or to the issuance and distribution of shares for no consideration, a stock split or reverse stock split, or any other transaction affecting the share capital.

Accordingly, the maximum amount of cash dedicated to the 2014 Share Buy-back Program would be €100 million.



### Terms and conditions for the 2014 Share Buy-back Program

The shares may be purchased or transferred at any time, except for periods of public offers on the Company's share under the conditions and within the limits, particularly volume and price, permitted by law at the date of the transaction in question, by any and all means, including over the counter, by way of block trades or by way of derivatives traded on a regulated or overthe-counter market, under the conditions permitted by the market authorities and at the times the Board of Directors or its delegated representative deems appropriate.

### Duration of the 2014 Share Buy-back Program

In accordance with the resolution to be submitted for the approval of the combined general meeting of 15 May 2014, the 2014 Share Buy-back Program would be authorised for a period of 18 months from the date of its approval, namely until 15 November 2015.

# 5.2.5 SUMMARY OF AUTHORISATIONS AND USES

As of 31 December 2013 there were no securities other than the Company's shares giving access to the Company's capital.

A summary table of the outstanding authorisations which were conferred by the shareholders' general meeting to the Board of Directors, in particular in order to increase the share capital, as well as use of it, is set out hereafter:

Summary of purpose	Date of annual general meeting	Period of authorisation	Maximum authorised nominal value	Use made by the Board of Directors (date)
Delegation of authority granted to the Board of Directors to issue shares in the Company and/or any securities giving access to shares in the Company or one of its subsidiaries, with preferential subscription rights *	23 May 2012	26 months	€300 million €600 million (debt securities)	None
Delegation of authority granted to the Board of Directors to issue shares in the Company and/or any securities giving access to shares in the Company or one of its subsidiaries, without preferential subscription rights by way of a public offer*	23 May 2012	26 months	15% of the Company's share capital on 23 May 2012 €600 million (debt securities)	None
Authorisation granted to the Board of Directors in the event of a share capital issue with or without preferential subscription rights of existing shareholders to increase the number of shares to be issued*	23 May 2012	26 months	15% of the initial issue subject to the cap provided for by the resolution deciding the issue	None
Overall limitation of authorisations to increase the share capital immediately and/or in the future*	23 May 2012	26 months	€300 million	None
Delegation of authority granted to the Board of Directors allowing the issue of shares in the Company reserved for employees subscribing to a company savings plan*	23 May 2012	26 months	€20 million	Used as at the date of this reference document: see paragraph 5.2.7 below
Delegation of authority granted to the Board of Directors to trade in the Company's shares*	4 June 2013	18 months	€110 per share €100 million (within the limit of 10% of the share capital at any time)	Used as at 31 January 2014: see paragraph 5.2.4 of this reference document
Delegation of authority granted to the Board of Directors to allocate free shares in the Company subject to performance conditions	4 June 2013	38 months	1,250,000 shares (2% of the share capital on 4 June 2013)	Used as at 31 December 2013: allocation of 250,000 shares (6 November 2013)
Delegation of authority granted to the Board of Directors to reduce the share capital by cancelling shares	4 June 2013	24 months	10% of the share capital	Used as at 31 December 2013: None

\* New delegations of authority and authorisations, which are featured in chapter 6 of this reference document, will be submitted to the vote of the Company's combined annual general meeting on 15 May 2014.

In addition, a delegation of authority enabling the Board of Directors, for a period of 26 months, to issue shares in the Company and/or any securities giving access to shares in the Company, without preferential subscription rights by way of an offer governed by article L.411-2 II of the French Monetary and Financial Code (Code monétaire et financier), for the maximum nominal amount of 10% of the share capital of the Company as at the date of the annual general meeting will also be submitted to the vote of said annual general meeting (for further information, see paragraph 6.2.2 "Draft resolutions presented to the Combined Ordinary and Extraordinary General Meeting on 15 May 2014" of this reference document).

As at 31 December 2013, the Company's share capital, which was 630,296,920 euros, divided in 63,029,692 shares, could be increased by 971,991 shares resulting from the exercise of 971,991 options, representing a potential maximum dilution of 1.54%.

There are no other securities giving access to the Company's capital either immediately or in the future (see paragraph 5.2.6 of this reference document for a description of these options).

INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL

# 5.2.6 STOCK OPTION AND PERFORMANCE SHARE AWARD PLANS

In order to incentivise and closely involve managers and certain employees in the Group's future growth as well as its stock market performance, the Board of Directors put in place in 2006 stock option plans and free performance share allocation plans, subject to performance conditions.

Share capital

In accordance with the applicable stock-based compensation policy, the Board of Directors withdrew the practice of stock options in 2013.

As at 31 December 2013, however, the following were still in circulation:

- 370,476 stock options resulting from stock option plans put in place in the years 2006 to 2008; and
- 601,515 stock options resulting from the 2010 and 2011 stock option plans.

As at 31 December 2013, the total number of outstanding share subscription options was therefore 971,991, *i.e.* 1,54% of the Company's share capital on that date.

Furthermore, since 2007, as the coverage of the free performance share allocation plans in place has been provided by the buy-back of treasury shares as part of the Company's buy-back program, these plans result in no potential dilution for shareholders

Additional information on the stock option plans and the performance share award plans put in place by the Group is given in section 3.5 of this reference document as well as in note 27 of the notes to the consolidated financial statements at 31 December 2013 presented in paragraph 4.3.3 of this reference document.

# 5.2.7 SHARE CAPITAL INCREASE RESERVED FOR EMPLOYEES

On a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors, meeting on 27 February 2013, reaffirmed its intention to continue implementing a dynamic employee shareholding policy by regularly offering to Group employees the opportunity to subscribe for Arkema shares under advantageous conditions (20% discount, subscription capped at 1,000 shares), and in particular the allocation of free shares to employees in countries other than France taking part in the operation, in order to make the award more attractive.

Accordingly, in accordance with the delegation of authority granted by the Annual General Meeting of 23 May 2012, the Board of Directors, meeting on 3 March 2014, decided to carry out a share capital increase operation reserved for employees. This operation took place in 21 countries in which the Group is present, from 7 to 20 March 2014 inclusive. The subscription conditions were as follows:

- subscription price of 64.19 euros, corresponding to the average opening price quoted in the twenty trading days preceding 3 March 2014, to which a 20% discount is applied;
- for employees of Group companies outside France, allocation of one free share for every five subscribed, up to a maximum of twenty free shares, under the provision that definitive allocation will take place after four years, namely 7 May 2018, with no holding period required, except in Italy and Spain where definitive allocation will take place after three years, i.e.: on 7 May 2017, with a three-year holding period;
- for employees of French companies, possibility of subscribing for the share capital increase using sums paid out of the incentive scheme or the profit-sharing scheme, with the possibility of a top-up;
- possibility of spreading the payment of the shares over 24 months.

# 5.3 SHARE OWNERSHIP

# 5.3.1 BREAKDOWN OF SHARE OWNERSHIP AND VOTING RIGHTS AT 31 DECEMBER 2013

The breakdown of the share capital was established on the basis of a total number of 63,029,692 shares at 31 December 2013, carrying 67,267,606 voting rights (including double voting rights and after deduction of treasury shares), on the basis of the declarations made to the AMF of threshold crossing and of the analysis made by the Company based on TPI (*Titres au Porteur Identifiable* – identifiable bearer shares). TPI procedures were carried out at the end of 2013, 2012 and 2011.

To the best of the Company's knowledge, the breakdown of Arkema's share ownership and voting rights at 31 December 2013 was as follows:

	% of share capital	% of voting rights	% of theoretical voting rights*
Main shareholders owning at least 5% of the share capital and / or voting rights:			
Fonds Stratégique de Participations (1)	6.0	5.7	5.6
FMR LLC (Fidelity Investments)	5.4	5.1	5.0
Norges Bank	5.4	5.0	5.0
Employee shareholding** <sup>(2)</sup>	4.1	7.6	7.6
Treasury shares	0.4	0.0	0.3
Public	78.7	76.6	76.5
TOTAL	100	100	100

\* Pursuant to Article 223–11 of the AMF general regulation, the number of theoretical voting rights is calculated on the basis of all shares to which voting rights are attached, including shares without voting rights.

\*\* See details presented in paragraph 5.3.4 of this reference document.

(1) The Fonds Stratégique de Participations (FSP) is a contractual umbrella investment company with variable capital created by four major French insurance companies – BNP Paribas Cardif, CNP Assurances, Crédit Agricole Assurances through its subsidiary Predica, and Sogécap (Société Générale group) – in order to support long-term investments in listed companies. With a prospect of maintaining a long-term investment of at least 6% of the Company's share capital, the FSP has shared with the Board of Directors its intent to seek the appointment of a representative on the Board of Directors. The Board of Directors has considered this request favorably, and has decided to propose to the Annual General Meeting on 15 May 2014 the appointment of FSP as director represented by Mrs Isabelle Boccon-Gibod (see section 6.2 of this reference document).

(2) To the Company's knowledge, the Arkema Actionnariat France and the Arkema Actionnariat International FCPE held 5.9% of the Company's share capital at 31 December 2013, representing 11% of the Company's voting rights. These funds include the shareholding of employees of ARKEMA (see paragraph 5.3.4 of this reference document), of Total and of Kem One (vinyl activities divested in July 2012). In October 2013 Amundi stated on behalf of Arkema Actionnariat France FCPE that it crossed downward the 10% threshold of voting rights in the Company (see paragraph 5.3.5 of this reference document).

To the Company's knowledge, based on its register and except for the securities described in paragraph 5.2.3 of this reference document, no share of the Company has been pledged, or used as a guarantee or a surety. The Company has also put in place an ADR (American Depositary Receipt) program in the United States. In this regard it concluded a Deposit Agreement with Bank of New York Mellon on 18 May 2006. At 31 December 2013, 830,348 shares were held by Bank of New York Mellon on behalf of ADR bearers. 5 INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL Share ownership

# 5.3.2 CONTROL OF THE COMPANY

As of the date of this reference document:

- the Company is not controlled directly or indirectly by any shareholder; and
- to the best of the Company's knowledge, there is no shareholders' pact or agreement which if implemented could result in the acquisition of control over the Company.

# 5.3.3 CLAUSES LIKELY TO HAVE AN EFFECT ON THE CONTROL OF THE COMPANY

No provision of the Articles of Association can delay, defer or prevent a change of control over the Company. However there are provisions pertaining to double voting rights and limitations on voting rights in articles 17.3 and 17.4 of the Articles of Association which are presented in paragraph 5.5.2 of this reference document.

# 5.3.4 EMPLOYEE SHAREHOLDING

In accordance with the definition of employee shareholding under article L.225-102 of the French Commercial Code (*Code de Commerce*), the number of Arkema shares held by employees at 31 December 2013 amounted to 2,571,101 accounting for 4.1% of the share capital and 7.6% of the voting rights. This may be broken down as follows:

TOTAL EMPLOYEE SHAREHOLDING	2,571,101
Shares arising from the exercise of stock options and held as pure registered shares within a PEG	119,177
Pure registered shares held within a PEG Group Savings Plan (Plan d'Épargne Groupe)	149,274
Shares held by ARKEMA employees within FCPE Arkema Actionnariat International	168,122
Shares held by ARKEMA employees within FCPE Arkema Actionnariat France	2,134,528

# **5.3.5 HISTORY OF DISCLOSURES OF LEGAL THRESHOLD CROSSING IN 2013**

The following disclosures of legal shareholding threshold crossing were made to the AMF in 2013 and up to the date of this reference document:

Company	Threshold crossing date	Threshold crossed
Greenlight Capital	27 December 2012	downward the 5% threshold of voting rights
Greenlight Capital	19 February 2013	downward the 5% threshold of share capital
FMR LLC (Fidelity Investments)	14 May 2013	downward the 5% threshold of voting rights
FMR LLC (Fidelity Investments)	17 May 2013	upward the 5% threshold of voting rights
Norges Bank	21 May 2013	upward the 5% threshold of share capital
FMR LLC (Fidelity Investments)	23 May 2013	downward the 5% threshold of voting rights
Norges Bank	4 June 2013	downward the 5% threshold of share capital
Bank of America Corporation	6 June 2013	upward the 5% threshold of share capital and voting rights
Bank of America Corporation	10 June 2013	downward the 5% threshold of share capital and voting rights
Fonds Stratégique de Participations*	3 July 2013	upward the 5% threshold of share capital and voting rights
Norges Bank	9 August 2013	upward the 5% threshold of share capital
FMR LLC (Fidelity Investments)	13 August 2013	upward the 5% threshold of voting rights
Norges Bank	16 August 2013	upward the 5% threshold of voting rights
FMR LLC (Fidelity Investments)	27 August 2013	downward the 5% threshold of voting rights
FMR LLC (Fidelity Investments)	11 September 2013	upward the 5% threshold of voting rights
Amundi**	3 October 2013	downward the 10% threshold of voting rights
FMR LLC (Fidelity Investments)	20 November 2013	downward the 5% threshold of voting rights
FMR LLC (Fidelity Investments)	3 December 2013	upward the 5% threshold of voting rights
BlackRock Inc.	10 January 2014	upward the 5% threshold of share capital
FMR LLC (Fidelity Investments)	20 March 2014	downward the 5% threshold of voting rights

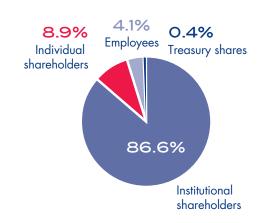
The Fonds Stratégique de Participations (FSP), a contractual umbrella investment company with variable capital created by BNP Paribas Cardif, CNP Assurances, Crédit Agricole Assurances (through its subsidiary Predica) and Sogécap (Société Générale group) has indicated that a dedicated subfund ('Compartiment Participation 2') had been set up within FSP for the purposes of acquiring and holding this shareholding. This subfund is managed by Fund Managers Edmond de Rothschild Asset Management.
 \*\* Company acting on behalf of the 'Arkema Actionnariat France' FCPE (Fonds Commun de Placement d'Entreprise – company collective investment fund) that it manages.

# 5.3.6 HISTORY OF SHARE CAPITAL AND VOTING RIGHTS BREAKDOWN

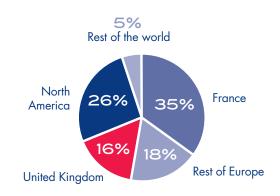
To the best of the Company's knowledge, the estimated share ownership at 31 December 2013, 2012 and 2011 was as follows:

	31 Decem	31 December 2013		31 December 2012		31 December 2011	
	% of share capital	% of voting rights	% of share capital	% of voting rights	% of share capital	% of voting rights	
Fonds Stratégique de Participations	6.0	5.7	n/a	n/a	n/a	n/a	
FMR LLC (Fidelity Investments)	5.4	5.1	5.4	5.0	n/a	n/a	
Norges Bank	5.4	5.0	n/a	n/a	n/a	n/a	
Greenlight Capital	n/a	n/a	5.3	5.0	5.5	5.0	
Groupe Bruxelles Lambert	n/a	n/a	n/a	n/a	10.0	12.5	
Other institutional shareholders	69.8	65.4	75.5	70.8	70.0	63.6	
Individual shareholders	8.9	11.2	8.4	10.7	9.4	10.9	
Employee shareholding	4.1	7.6	4.9	8.5	4.8	8.0	
Treasury shares	0.4	0.0	0.5	0.0	0.3	0.0	
TOTAL	100	100	100	100	100	100	
Number of shares/voting rights	63,029,692	67,267,606	62,877,215	67,086,290	61,864,577	68,161,755	

# 5.3.7 ESTIMATED SHARE OWNERSHIP OF ARKEMA AT 31 DECEMBER 2013



BY GEOGRAPHICAL REGION



BY SHAREHOLDER TYPE

# 5.4 STOCK MARKET

# 5.4.1 STOCK MARKET QUOTATION

The Arkema share is quoted on Euronext Paris, compartment A. It is eligible for the Deferred Settlement Service (*Système de Règlement Différé* – SRD) as well as the Personal Equity Savings Plan (*Plan d'Épargne en Actions* – PEA).

An ADR (American Depositary Receipt) program has been in place in the United States since 18 May 2006. Each ADR represents one American Depositary Share (ADS), and each ADS in turn represents one Arkema share.

## CODES

ISIN	FR0010313833
Ticker	AKE
Reuters	AKE.PA
Bloomberg	AKE FP

### PERFORMANCE OF ARKEMA SHARE IN 2013

Performance since January 1st 2013 (as at 31 December 2013)	+7%
Last closing price of the year (in euros)	€84.79
Average of last 30 closing prices of the year (in euros)	€81.30
Highest price of the year (in euros)	€87.77
Lowest price of the year (in euros)	€63.55

# INDICES

The ARKEMA share is included in the following indices:

- CAC Next 20;
- CAC Large 60;
- SBF 120;
- Euro Stoxx Chemicals; and
- MSCI.

## EVOLUTION OF ARKEMA SHARE SINCE JANUARY 1<sup>ST</sup> 2013

Month	Number of securities traded	<b>Trading volume</b> (in millions of euros)	Highest price (in euros)	Lowest price (in euros)
January 2013	5,465,061	441.74	84.90	75.76
February 2013	4,253,329	352.79	87.77	77.15
March 2013	6,992,765	524.39	78.90	68.42
April 2013	6,512,774	445.42	72.72	63.55
May 2013	6,666,422	510.11	80.60	70.00
June 2013	5,581,376	414.31	80.44	67.52
July 2013	5,029,209	373.17	78.11	69.36
August 2013	4,296,565	328.79	81.10	71.00
September 2013	4,624,493	382.21	86.26	77.09
October 2013	3,854,674	319.72	85.51	77.88
November 2013	4,054,874	332.23	84.40	79.52
December 2013	2,738,159	220.29	84.79	77.02
January 2014	4,522,396	360.61	85.13	75.51
February 2014	2,970,606	236.80	82.77	76.55



# 5.4.2 FINANCIAL COMMUNICATION

The Group regularly provides information on its activities, results and outlook to its shareholders, investors, analysts, and the financial community at large. Press releases, financial reports, presentations of the Group, and reports of shareholders meetings are available on the website www.finance.arkema.com. Every year the Group files a reference document with the AMF. This document is available on the AMF website (www.amf-france.org) as well as on the Group's website (www.finance.arkema.com). An English version of this reference document is also available on the Group's website (www.finance.arkema.com).

# 5.4.3 RELATIONS WITH INVESTORS AND FINANCIAL ANALYSTS

The Group is committed to maintaining an active and permanent dialogue with institutional investors and financial analysts, in particular through road shows and conferences. Representatives from the Group's senior management, primarily the Chairman and Chief Executive Officer and the Chief Financial Officer, regularly meet with portfolio managers and financial analysts in the main financial centres of Europe and North America. The Investor Relations team also regularly meets with the financial community. The main purpose of these various meetings is to inform the market of the Group's results and main operations, and improve understanding, by investors and analysts, of its activities, strategy and outlook.

At the time of the publication of its annual results, the Group also organises a presentation for portfolio managers and financial analysts. At the time of the publication of its quarterly and halfyear results, a conference call is hosted by the Chairman and Chief Executive Officer or by the Chief Financial Officer with the financial community.

In 2013, the Group organised some 500 meetings, and took part in ten or so conferences in Paris, London, San Francisco, Frankfurt, Venice and Lyon.

The work of the investor relations team and the commitment of the ARKEMA senior management were rewarded several times in 2013. Thierry Le Hénaff, Chairman and Chief Executive Officer, was presented with the Best Investor Relations by a CEO Award 2013 - small & mid cap. This award was presented as part of the IR Magazine Awards organised by IR Magazine to acknowledge the work carried out by companies to explain their activities and performances to the financial world. ARKEMA also received second prize in the Best Investor Relations category, All Categories, organised by the *Forum des Relations Investisseurs*, sponsored by SFAF, CLIFF, NYSE Euronext, Middlenext, AFG and IFA, which rewards the best practices and the best professionals.

# 5.4.4 RELATIONS WITH INDIVIDUAL SHAREHOLDERS

The Group aims to inform its individual shareholders of its strategy, results and activities, with an emphasis on open dialogue, exchanges and meetings.

ARKEMA meets with its individual shareholders on a regular basis, in particular at the Annual General Meeting which is a dedicated opportunity for exchanges on the Group's strategy and outlook. A number of meetings with shareholders are also organised in France every year. In 2013, ARKEMA met with its shareholders in Nancy, Bordeaux and Lille. Additionally, through its Shareholders Club, the Group offers its members various activities throughout the year allowing them to discover the world of chemistry, and the innovations and applications of chemical products in everyday life.

Presentations, interviews, reports and "Shareholder Newsletters" are available in the Individual Shareholders section of the website (www.finance.arkema.com).

# 5.4.5 REGISTERED SHARES

Arkema shares can be registered in the name of the holders. In this case, shareholders are identified by Arkema in its capacity as issuer, or by its agent BNP Paribas Securities Services which is responsible for the register of the shareholder's registered shares.

Advantages of registered shares include:

- double voting right if shares are held for two years continuously (see paragraph 5.5.2.1 of this reference document); and
- possibility of receiving directly the notice of annual general meeting.

Contact details for registered shares agent: BNP Paribas Securities Services CTS – Services aux Émetteurs Les Grands Moulins de Pantin 9, rue du Débarcadère 93761 Pantin Cedex – France Phone:

- 0 800 115 153 (within France)
- 33 (0)1 55 77 41 17 (from outside France)

Email address:

• paris\_bp2s\_arkema\_actionnaires@bnpparibas.com

# 5.4.6 DIVIDEND POLICY

In September 2012, the Group set itself a target to achieve gradually a 30% payout ratio on adjusted net income and aims not to reduce the amount of its dividend per share. With regard to 2012, the Group had in fact increased its dividend to  $\in$ 1.80 per share, representing 25% of the adjusted net income of continuing operations.

With respect to 2013, the Board of Directors, meeting on 3 March 2014, after closing the 2013 financial statements, decided to propose to the Annual General Meeting on 15 May 2014 to pay a dividend of  $\in$ 1.85 per share to reflect the Group's confidence in its medium-term outlook and in the strength of its balance sheet. The dividend represents a 32% payout ratio on the adjusted net income for the year and is perfectly in line with the Group's target.

	2013	2012	2011	2010	2009
Dividend per share (in euros)*	1.85**	1.80	1.30	1.00	0.60
Payout rate (dividend per share / adjusted net income)	32%	25%	14%	17%	n/a

\* Dividend eligible for the 40% deduction provided for in the French General Tax Code.

\*\* In 2013, amount of dividend proposed to the Annual General Meeting on 15 May 2014.

INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL Extract from the Articles of Association

# 5.5 EXTRACT FROM THE ARTICLES OF ASSOCIATION

# 5.5.1 GENERAL MEETINGS (ARTICLES 16 AND 17 OF THE ARTICLES OF ASSOCIATION)

# CONVENING - PLACE OF MEETING - ADMISSION

General meetings are called under the conditions provided by the applicable laws and regulations.

Meetings are held at the registered office or at any other place indicated in the notice of meeting.

In accordance with the applicable laws and regulations, all shareholders, regardless of the number of shares they own, have the right to attend general meetings and take part in the deliberations, or to be represented if it can be established, in legal and regulatory conditions, that the shares are registered in their name or in the name of an authorised intermediary on their behalf in application of the seventh paragraph of article L. 225-1 of the French Commercial Code (*Code de commerce*), no later than three business days prior to the annual general meeting at 0:00 a.m., Paris time, either in the registered share accounts held by the Company, or in bearer securities accounts held by the authorised intermediary.

The registration or accounting entry of the shares in bearer securities accounts held by the authorised intermediary shall be evidenced by a certificate of participation issued by the intermediary holding the account under applicable legal and regulatory conditions.

#### **EXERCISE OF VOTING RIGHTS**

As from the time the meeting is called, any shareholder may request from the Company in writing a paper absentee ballot, or, if the Board of Directors provides for this option in both the announcement and notice of meeting, an electronic absentee ballot. Such requests must be delivered to or received at the registered office of the Company no later than six days before the date of the meeting. The Board of Directors has the power to reduce or waive this period.

Paper absentee ballots must be delivered to or received by the Company at least three days before the date of the general meeting. Electronic absentee ballots may be delivered to or received by the Company until 3:00 p.m., Paris time, on the eve of the general meeting. The Board of Directors or Chairman, if so authorised by delegation, has the power to reduce or waive this period.

#### REPRESENTATION

Shareholders may be represented at general meetings by another shareholder, by their spouse, by a partner with whom they have signed a "civil solidarity pact", or by any other physical person or legal entity under the terms and conditions set forth in articles L. 225-106 *et seq.* of the French Commercial Code (*Code de commerce*).

Shareholders that are legal entities attend meetings through their legal representatives or any proxy appointed for this purpose.

Any member of the meeting who wishes to be represented by proxy shall send a proxy form to the Company, either on paper, or, if the Board of Directors provides for this option in both the announcement and convening notice, in electronic format, at least three days before the meeting. However, the Board of Directors or Chairman, if so authorised by delegation, has the power to reduce or waive such notice periods and to accept proxy forms that do not fall within this limit.

Proxies in electronic format may be filed or received by the Company until 3:00 p.m., Paris time, on the eve of the general meeting. The Board of Directors or Chairman, if so authorised by delegation, has the power to reduce or waive this period.

### USE OF TELECOMMUNICATION MEANS

The Board of Directors has the power to decide that shareholders who take part in the general meeting by videoconference or other means of telecommunication that enable them to be identified and where the nature and conditions of such means of participation are determined by the French Commercial Code (*Code de commerce*), shall be deemed present for the purposes of calculating quorum and majority.

## CHAIR OF GENERAL MEETINGS

General meetings are chaired by the Chairman of the Board of Directors or, in his absence, by a director who is appointed specifically for this purpose by the Board of Directors. Failing this, the meeting elects its own Chairman.

### **QUORUM AND MAJORITY**

General meetings, whether they are ordinary, extraordinary, combined or special, are duly constituted when they meet the quorum and majority conditions provided by applicable laws and regulations governing such meetings, and exercise the powers ascribed to them by the law.

# 5.5.2 VOTING RIGHTS

#### 5.5.2.1 VOTING RIGHTS, DOUBLE VOTING RIGHTS (ARTICLE 17.3 OF THE ARTICLES OF ASSOCIATION)

Subject to the provisions set forth below, each member of the meeting is entitled to as many voting rights and votes as the number of shares he owns or represents, providing that all payments due for such shares have been met.

However, double voting rights are conferred on all fully paid-up shares in registered form that have been registered in the name of the same shareholder for at least 2 years, under the conditions applicable by law and by regulations.

Furthermore, in the event of a capital increase by capitalisation of reserves, profits or share premiums, double voting rights are conferred, as of their issue, to shares in registered form allocated to shareholders on the basis of existing shares held by such shareholders and conferring such entitlement.

The merger or spin-off of the Company has no effect on double voting rights, which may be exercised within the beneficiary company or companies if the Articles of Association of such company or companies provide for such rights.

Any share converted to a bearer share or the ownership of which is transferred loses the double voting rights gained under the three provisions above. However, transfer resulting from inheritance, the separation of assets between spouses or a living gift to a spouse or close relative does not result in the loss of rights acquired nor interrupt the qualifying period indicated above.

#### 5.5.2.2 LIMITATIONS ON VOTING RIGHTS (ARTICLE 17.4 OF THE ARTICLES OF ASSOCIATION)

In a general meeting, no shareholder may, directly or through a proxy, express more than 10% of the total voting rights attached to the Company's shares, taking into account single voting rights attached to shares that he directly or indirectly holds and to the powers conferred to him. However, if such a shareholder also holds personally or as a proxy double voting rights, the 10% limit may be exceeded, taking into account only the additional voting rights resulting therefrom, and the combined voting rights expressed shall not exceed 20% of the total voting rights attached to the Company's shares. In application of the foregoing provisions:

- the total number of voting rights attached to the Company's shares that is taken into consideration is calculated as of the date of the general meeting and the shareholders are notified thereof at the beginning of such general meeting;
- the number of voting rights held directly and indirectly means those voting rights attached to shares to which a natural person holds title, either personally or jointly, or through a company, group, association or foundation, and those that are attached to the shares held by a company that is controlled, within the meaning of article L. 233-3 of the French Commercial Code (*Code de commerce*), by another company or by a natural person, association, group or foundation; and
- a shareholder's proxy returned to the Company without stating the name of the proxy is subject to the foregoing limitations. However, such limitations do not apply to the Chairman of a general meeting who is voting by virtue of all such proxies combined.

The limitations provided in the foregoing paragraphs have no effect in calculating the total number of voting rights, including double voting rights, attached to the Company's shares and which must be taken into account in applying the legal, regulatory or statutory provisions providing for specific obligations by reference to the number of voting rights existing in the Company or the number of shares having voting rights.

The limitations set forth above shall lapse, without any need for a new resolution by an extraordinary general meeting, whenever a natural person or a legal entity, acting separately or in concert with one or more natural persons or legal entities, should come to hold at least two thirds of the total number of shares in the Company following a public offering for all of the Company's shares. The Board of Directors then recognises that the limitations have lapsed, and carries out the related formalities to amend the Articles of Association. INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL

Extract from the Articles of Association

# 5.5.3 ALLOCATION OF PROFITS (ARTICLE 20 OF THE ARTICLES OF ASSOCIATION)

The following sums are allocated from the Company's profits for the year, less any retained losses, in the following order:

- at least 5% is allocated to the legal reserve fund; once the legal reserve fund amounts to one-tenth of the share capital, this allocation is no longer mandatory;
- any amounts that the shareholders have resolved to transfer to reserves, for which they will determine the allocation or use; and
- **3.** any amount that the general meeting shall decide to allocate to retained earnings.

Any remaining balance is paid out to the shareholders as dividends. The Board of Directors may pay interim dividends

under the conditions provided by the applicable laws and regulations.

The general meeting called to approve the accounts for the financial year may grant each shareholder the option to receive all or part of the dividends or interim dividends in cash or in shares.

The general meeting may, at any time, on the Board of Directors' recommendation, decide to distribute all or part of the amounts contained in the reserve fund accounts either in cash or in shares in the Company.

# 5.5.4 RIGHTS AND OBLIGATIONS ATTACHED TO THE SHARES (ARTICLE 9 OF THE ARTICLES OF ASSOCIATION)

In addition to the right to vote, each share gives the bearer the right of ownership of a portion of the Company's assets, its profits and winding-up dividends (*boni de liquidation*), determined proportionately to the shareholding it represents.

Ownership of one share entails compliance with the Articles of Association of the Company and with all resolutions approved by the Company's shareholders at general meetings.

Any changes to the rights attached to the shares is subject to the provisions of the law.

# 5.5.5 FORM AND TRANSFER OF SHARES (ARTICLE 7 OF THE ARTICLES OF ASSOCIATION)

Shares may be held in registered or bearer form as required by the shareholder and providing that there are no legal or regulatory stipulations to the contrary. The shares are freely negotiable. They are registered in an account and are transferred from one account to another, under the conditions of the applicable laws and regulations.

# 5.5.6 IDENTIFICATION OF SHAREHOLDERS (ARTICLE 8.1 OF THE ARTICLES OF ASSOCIATION)

The Company may at any time make use of all applicable laws and regulations to identify the holders of securities that confer immediate or future voting rights in its own general meetings.

For purposes of identifying the holders of shares in bearer form, the Company has the right, under the conditions provided by the applicable laws and regulations, to request at any time, at its own expense, that the central depository in charge of its securities issue account provide, as the case may be, the name or company name, nationality, year of birth or of incorporation and the address of the holders of securities giving immediate or future access to voting rights at its general meetings as well as the number of securities held by each and any restrictions that may apply to such securities. If such information is not received within the period of time stipulated by the applicable regulations or if the information provided by the custodian account-holder is incomplete or erroneous, the central depository may request that the President of the district court (*Président du tribunal de grande*  *instance*) order such information to be provided under financial compulsion in a summary proceeding (*en référé*).

The information obtained by the Company cannot be transferred thereby, even at no charge, subject to the criminal sanctions provided by Article 226-13 of the French Criminal Code (*Code pénal*).

Under the conditions specified by the applicable laws and regulations (particularly those concerning time limits), the intermediary registered on behalf of holders of securities in registered form who are not domiciled on the French territory is required to disclose the identity of the holders of such securities and of the number of securities held by each, at the request of the Company or of its representative, which may be submitted at any time.

As long as the Company deems that certain holders of securities in bearer form or in registered form whose identity has been communicated to the Company hold such shares on behalf of third parties, it has the right to request such holders to disclose the identity of the owners of these securities and the number of securities of each such owner under the conditions indicated above. When a person who has received a request in accordance with the foregoing provision fails to provide the information thus requested within the time specified by laws and regulations, or has provided incomplete or erroneous information either on his own capacity, or on the owners of the securities, or on the number of securities held by each, the shares or securities giving immediate or future access to the share capital and for which that person was registered shall be disqualified for voting purposes at any general meeting that may be held until the date on which all such information is made accurate, and payment of the corresponding dividend shall be postponed until such date.

Moreover, in the event that a registered person should knowingly fail to comply with the above provisions, the court having jurisdiction in the territory of the Company's registered office may, at the request of the Company or of one or more shareholders holding at least 5% of the share capital, partially or completely disqualify the questionable shares from voting and potentially from receiving the dividend, for a total of no more than 5 years.

Furthermore, without prejudice to the disclosure requirements set forth in Article 8.2 of the Articles of Association, the Company may ask any legal entity that holds shares in the Company for more than one-fortieth of the share capital or voting rights to disclose the identity of persons who directly or indirectly hold more than one-third of the share capital or of the voting rights which are liable to be exercised at general meetings of such legal entity.

# 5.5.7 CROSSING OF THRESHOLDS (ARTICLE 8.2 OF THE ARTICLES OF ASSOCIATION)

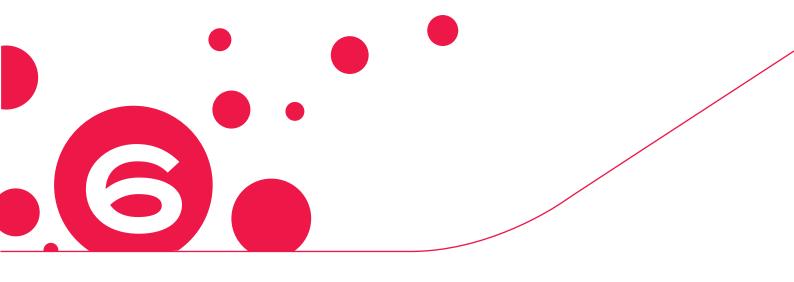
In addition to the legal obligation to notify the Company of their holding of certain percentages of the share capital or voting rights, any natural person or legal entity, acting alone or in concert, that shall come to own, within the meaning of articles L. 233-9 and L. 233-10 of the French Commercial Code (*Code de commerce*), directly or indirectly, 1% or more of the share capital or voting rights, is required to notify the Company thereof by registered letter with return receipt stating the total number of shares, voting rights and securities giving future access to the capital and of voting rights attached thereto that it holds, alone or in concert, directly or indirectly, within five trading days from the date on which it crosses this threshold.

Above this 1% threshold and up to 30%, this disclosure requirement must be fulfilled under the conditions set forth above, each time the shareholder crosses a multiple of 0.5% of the share capital or voting rights.

Failure to disclose these thresholds as set forth in the first two paragraphs above shall result in those shares that should have been disclosed being disqualified for voting purposes at general meetings, if such failure is acknowledged and if so requested at a meeting by one or more shareholders together holding at least 3% of the Company's share capital or voting rights.

All shareholders, whether natural persons or legal entities, must also notify the Company in the manner and within the time limits indicated in the first two paragraphs above, whenever their direct, indirect or joint holdings fall below any of the thresholds mentioned in the said paragraphs.





# ANNUAL GENERAL MEETING

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The different parts constituting the Annual Financial Report are identified in this content by the pictogram  $\ensuremath{\texttt{AFR}}$ 



# 6.1 SPECIAL REPORT BY THE STATUTORY AUDITORS ON REGULATED AGREEMENTS AND COMMITMENTS

This is a free translation of a report issued in the French language and is provided solely for the convenience of English-speaking users. This report should be read in conjunction with and is construed in accordance with French law and professional auditing standards applicable in France.

KPMG Audit

Département de KPMG S.A. 1, cours Valmy 92923 Paris-La Défense Cedex Commissaire aux comptes Membre de la compagnie régionale de Versailles **ERNST & YOUNG Audit** 

1/2, place des Saisons
 92400 Courbevoie – Paris-La Défense 1
 S.A.S. à capital variable
 Commissaire aux comptes
 Membre de la compagnie régionale de Versailles

## Arkema S.A.

Registered office: 420, rue d'Estienne d'Orves - 92700 Colombes Share capital: €630,296,920

### Special report by the statutory auditors on regulated agreements and commitments

Year ended 31 December 2013

To the shareholders,

Ladies and Gentlemen,

In our capacity as statutory auditors of your Company, we hereby report on the regulated agreements and commitments advised to us.

Our role is to inform you, on the basis of the information provided to us, of the terms and conditions of those agreements and commitments that were notified to us or may have come to our attention during our assignment, without being required to comment as to whether these are beneficial or appropriate, or to ascertain whether any other agreements and commitments exist. It is your responsibility, in accordance with article R. 225-31 of the French Commercial Code (*Code de commerce*), to evaluate the benefits resulting from these agreements and commitments prior to their approval.

Furthermore, we are required, where applicable, to provide you with the information set out under article R. 225-31 of the French Commercial Code (*Code de commerce*) relating to the execution, in the year ended 31 December 2013, of the agreements and commitments already approved by the annual general meeting.

We have performed the procedures that we considered necessary to comply with the professional guidance issued by the French national auditing body (*Compagnie Nationale des Commissaires aux Comptes*) relating to this assignment. These procedures consisted in verifying that the information provided to us is consistent with the documentation from which it has been extracted.

# AGREEMENTS AND COMMITMENTS REQUIRING APPROVAL BY THE ANNUAL GENERAL MEETING

We inform you that we were not advised of any agreement or commitment authorized in the year ended 31 December 2013 requiring approval by the annual general meeting in accordance with article L. 225-38 of the French Commercial Code (*Code de commerce*).

# AGREEMENTS AND COMMITMENTS ALREADY APPROVED BY THE ANNUAL GENERAL MEETING

### Without effective implementation in the year ended 31 December 2013

In accordance with article R. 225-30 of the French Commercial Code, we were advised of the continuation of the following agreements and commitments in the year ended 31 December 2013, already approved by the annual general meeting in prior years, which did not result in effective implementation in the year ended 31 December 2013.

## With Mr Thierry Le Hénaff, Chairman and Chief executive officer of your Company

a) Indemnity for non-voluntary early termination

In the event of non-voluntary early termination of contract or termination linked to a change of control of the Company or a change of strategy decided by the Board of Directors, and except in the event of serious or gross misconduct, Thierry Le Hénaff shall benefit

Special report by the statutory auditors on regulated agreements and commitments

from a redundancy payment, the amount of which shall be calculated on the basis of the fulfilment of the performance conditions by the beneficiary, with regard to the Company's performance, and shall not exceed twice his total annual gross compensation for the year in question.

The performance conditions are based on five criteria: one criterion related to safety (total recordable injury rate), one external criterion (growth in EBITDA margin compared to that of a given reference panel of chemical industry groups), and three financial criteria (working capital, EBITDA margin, return on capital employed). The reference index applicable for the calculation of the five performance criteria shall be the index corresponding to the Arkema Group data at 31 December 2005, and the value of the index at year-end applicable for the calculation of all criteria shall be the index average calculated at Group level over the two accounting periods preceding the date of early termination.

The performance conditions related to the above-mentioned five quantitative criteria are set out in detail in our special report of 16 March 2012.

### b) Supplementary pension scheme

In addition to the general pension schemes operated for employees of the Group, Mr Thierry Le Hénaff benefits from a supplementary scheme, financed by the Company and offered to certain executives of the Group, provided that the beneficiary is in the employ of the Company when he comes to retire. Your Board of Directors meeting on 4 July 2006 approved the calculation of accumulated benefits vested by the Chairman and Chief Executive Officer in 2006 as part of this supplementary scheme, whereby the Company's pension liabilities relating to the Chairman and Chief Executive Officer correspond, at 31 December 2013, to an annual retirement pension equal to 27.9% of his current annual compensation.

## With the company Arkema France S.A. (wholly owned by your Company)

a) Multi-currency syndicated credit facility for a maximum amount of €1.1 billion

The multi-currency syndicated credit facility, approved by your combined general meeting on 10 May 2006, signed between your Company and Arkema France S.A. on the one hand and a syndicate of banks including among others Calyon, BNP Paribas, ABN AMRO and Citybank International Plc on the other hand, remained current during 2013.

This credit facility is renewable and is for a maximum amount of €1.1 billion, and its purpose in particular is to finance, in the form of drawings and bank guarantees, the Arkema Group's general corporate purposes. ARKEMA reduced this credit facility before the due date to €300 million on 26 July 2011.

The agreement provides for other entities of the Arkema Group to withdraw cash on this credit facility. The credit facility provides situations for early reimbursement, including a change of control over your Company (as defined as the holding, by a person acting solely or together, of a direct or indirect ownership interest representing more than one third of the voting rights of your Company); should this clause be triggered by a lender, it could lead to early reimbursement and cancellation of the commitments to this lender.

This agreement was without effective implementation in the first quarter of 2013 and came to maturity on 31 March 2013.

b) Multi-currency syndicated credit facility for a maximum amount of €0.7 billion

The multi-currency syndicated credit facility, approved by the annual general meeting on 23 May 2012, signed by your Company and Arkema France S.A. on the one hand and a syndicate of banks on the other hand, remained current during 2013.

This multi-currency syndicated credit facility is renewable, is for a maximum amount of €0.7 billion, and its purpose is to finance, in the form of drawings and bank guarantees, the Arkema Group's general corporate purposes until 26 July 2016.

The agreement provides for other entities of the Arkema Group to withdraw cash on this credit facility.

The credit facility is subject to early reimbursement, including a change of control over your Company (as defined as the holding, by a person acting solely or together, of a direct or indirect ownership interest representing more than one third of the voting rights of your Company); should this clause be triggered by a lender, it could lead to early reimbursement and cancellation of the commitments to this lender.

This agreement was without effective implementation in the year ended 31 December 2013 and was not used at 31 December 2013.

Paris La Défense, 3 March 2014 The statutory auditors French original signed by

## **KPMG** Audit

Département de KPMG S.A.

Jacques-François Lethu

Partner

François Quédiniac Partner **ERNST & YOUNG Audit** 

Valérie Quint Partner

# 6.2 DRAFT AGENDA AND DRAFT RESOLUTIONS SUBMITTED TO THE SHAREHOLDERS' COMBINED GENERAL MEETING

# 6.2.1 DRAFT AGENDA FOR THE SHAREHOLDERS' COMBINED GENERAL MEETING TO BE HELD ON 15 MAY 2014

### RESOLUTIONS PROPOSED TO THE ORDINARY GENERAL MEETING

- Approval of the Company's annual financial statements for the financial year ended 31 December 2013.
- Approval of the consolidated financial statements for the financial year ended 31 December 2013.
- Allocation of net income for the financial year ended 31 December 2013 and setting of the dividend.
- Statutory auditors' special report on the regulated agreements and commitments referred to in articles L.225-38 *et seq.* of the French Commercial Code (*Code de commerce*).
- Reappointment of Mrs Claire Pedini as director.
- Appointment of the Fonds Stratégique de Participations as a new director.
- Reappointment of Mr Patrice Bréant\* as director representing the shareholder employees.
- Appointment of Mrs Hélène Vaudroz\* as director representing the shareholder employees.
- Setting of the total amount of attendance fees to be paid to the Directors.
- Consultation of the shareholders on the elements of compensation of Mr Thierry Le Hénaff.
- Reappointment of KPMG Audit as statutory auditor.
- Appointment of KPMG Audit IS as alternate statutory auditor.
- Authorisation to be granted to the Board of Directors to trade in the Company's shares.

# RESOLUTIONS PROPOSED TO THE EXTRAORDINARY GENERAL MEETING

- Delegation of authority to the Board of Directors to issue shares of the Company and/or negotiable securities giving access to shares of the Company, with maintenance of the shareholders' preferential subscription right.
- Delegation of authority to the Board of Directors to issue negotiable securities giving access to shares of the Company such as in particular, bonds convertible and/or exchangeable into new and/or existing shares of the Company, by offering them to the public, with cancellation of the shareholders' preferential subscription right and with a priority period.
- Delegation of authority to the Board of Directors to issue shares of the Company and/or negotiable securities giving access to shares of the Company, through an offer referred to in article L. 411-2 II of the French Monetary and Financial Code, with cancellation of the shareholders' preferential subscription right.
- Authorisation to the Board of Directors, in the event of an increase in share capital with maintenance or cancellation of the shareholders' preferential subscription right, to increase the number of securities to be issued pursuant to the three foregoing resolutions.
- Overall limitation to the authorisations to increase the share capital immediately and/or in future.
- Delegation of authority to the Board of Directors to carry out increases in capital reserved for members of an employee savings plan, with cancellation of the shareholders' preferential subscription right.
- Powers for the formalities.

\* As there is only one seat to be filled for a director representing the shareholder employees, only the candidate who has received the largest number of votes and at least the majority will be appointed.

# 6.2.2 DRAFT OF THE RESOLUTIONS PROPOSED TO THE SHAREHOLDERS' COMBINED GENERAL MEETING OF 15 MAY 2014

## RESOLUTIONS WITHIN THE COMPETENCE OF THE ORDINARY GENERAL MEETING

## First resolution

# (Approval of the Company's annual financial statements for the financial year ended 31 December 2013)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the Company's annual financial statements for the financial year ended 31 December 2013, the Board of Directors' management report and the statutory auditors' reports, approves the Company's annual financial statements for the financial year ended 31 December 2013, as presented to it, as well as the transactions reflected in these financial statements and summarised in these reports

In accordance with the provisions of article 223 *quater* of the French Tax Code (*Code général des impôts*), the ordinary general meeting formally notes that no expenses or charges referred to in article 39-4 of such Code were incurred during the past financial year.

## Second resolution

# (Approval of the consolidated financial statements for the financial year ended 31 December 2013)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the consolidated financial statements for the financial year ended 31 December 2013, the Board of Directors' management report and the statutory auditors' report on the consolidated financial statements, approves the Company's consolidated financial statements for the financial year ended 31 December 2013, as presented to it, as well as the transactions reflected in these financial statements and summarised in these reports.

### Third resolution

# (Allocation of net income for the financial year ended 31 December 2013 and setting of the dividend)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after formally noting that the Company's annual financial statements for the financial year ended 31 December 2013 show a profit of 212,407,084.54 euros and that the total amount of the distributable reserves for this financial year amounts to 868,198,222.38 euros, decides, on the proposal of the Board of Directors, to allocate the distributable profit for the financial year as follows:

Profit for the financial year	€212,407,084.54
Prior retained earnings	€(148,211,052.38)
Allocation to legal reserve	€(1,535,898.00)
Distributable profit	€62,660,134.16
Paid-in surplus	€868,198,222.38
Dividend distribution	€116,604,930.20
New Balance of Distributable Reserves	€814,253,426.34

The general meeting accordingly decides to pay with regard to the 63,029,692 shares carrying dividend rights on 1 January 2013 and existing on the date of the Board of Directors' meeting which adopts the draft resolutions, a dividend of €116,604,930.20 corresponding to a distribution of €1.85 per share, it being specified that full powers are given to the Board of Directors to record in "retained earnings" the fraction of the dividend corresponding to the Company's treasury shares.

The general meeting authorises the Board of Directors to deduct from the "paid-in surplus" account the amounts needed to pay the aforementioned dividend on the shares resulting from subscriptions or allotments carried out prior to the dividend payment date and granting entitlement to the dividend. The ex-dividend date for financial year 2013 will be 19 May 2014 and the dividend will be payable on 22 May 2014 on the positions closed in the evening of 21 May 2014.

This distribution is eligible for the 40% tax deduction to which individual French tax residents are entitled as provided for in article 158 3  $2^{\circ}$  of the French Tax Code.

It is specified that the dividend paid for the last three financial years was as follows:

Financial year	2011	2012	2013
Net dividend per share (in euro)	1.30 (1)	1.80 (1)	1.85 (1)

 Amounts eligible in full for the 40% tax deduction to which individual French tax residents are entitled as provided for in article 158 3 2° of the French Tax Code.

## Fourth resolution

## (Agreements referred to in articles L. 225-38 et seq. of the French Commercial Code)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the statutory auditors' special report provided for in article L. 225-40 of the French Commercial Code, approves such report and formally (i) records the information concerning the agreements entered into and commitments made during prior financial years and (ii) notes that no agreement or new commitment was entered into during the financial year ended 31 December 2013.

#### **Fifth resolution**

#### (Reappointment of Mrs Claire Pedini as director)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the Board of Directors' report and formally noting that the term of office of Mrs Claire Pedini as director expires on the date hereof, decides to reappoint her as a Director for a term of four (4) years which will expire at the close of the ordinary general meeting to be held in 2018 to approve the financial statements for the financial year ending 31 December 2017. ANNUAL GENERAL MEETING

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### Sixth resolution

# (Appointment of the Fonds Stratégique de Participations as a new director)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the Board of Directors' report, decides to appoint the *Fonds Stratégique de Participations* as a new director for a term of four (4) years which will expire at the close of the ordinary general meeting to be held in 2018 to approve the financial statements for the financial year ending 31 December 2017.

#### Seventh resolution\*

# (Reappointment of Mr Patrice Bréant as director representing the shareholder employees)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the Board of Directors' report, decides, pursuant to article 10.2 of the Company's Articles of Association, to reappoint Mr Patrice Bréant as a director representing the shareholder employees for a term of four (4) years which will expire at the close of the ordinary general meeting to be held in 2018 to approve the financial statements for the financial year ending 31 December 2017.

#### **Eighth resolution\***

# (Appointment of Mrs Hélène Vaudroz as director representing the shareholder employees)

#### Resolution not approved by the Board of Directors

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the Board of Directors' report, decides, pursuant to article 10.2 of the Company's Articles of Association, to appoint Mrs Hélène Vaudroz as a director representing the shareholder employees for a term of four (4) years which will expire at the close of the ordinary general meeting to be held in 2018 to approve the financial statements for the financial year ending 31 December 2017.

#### Ninth resolution

# (Setting of the total amount of attendance fees to be paid to the directors)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the Board of Directors' report, decides to increase the total annual amount of attendance fees from €470,000 to €550,000. This decision applies for the current financial year and for subsequent financial years until another decision is made by the general meeting in this respect.

#### Tenth resolution

# (Advisory vote by the shareholders on the elements of compensation of Mr Thierry Le Hénaff)

The general meeting, consulted pursuant to the recommendation in § 24.3 of the Afep-Medef Code of corporate governance of June 2013, which is the Company's reference code pursuant to article L. 225-37 of the French Commercial Code (*Code de commerce*), and voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the Board of Directors' report, issues a favourable opinion on the elements of compensation due or allocated in respect of the financial year ended 31 December 2013 to Mr Thierry Le Hénaff, the Company's Chairman and Chief Executive Officer, as set out in such report.

#### **Eleventh resolution**

(Renewal of the appointment of KPMG Audit as statutory auditor)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, notes that the appointment of KMPG Audit as statutory auditor is due to expire at the close of this general meeting, and therefore decides to reappoint it for a term of six financial years, namely until the ordinary general meeting to be held in 2020 to approve the financial statements for the financial year ending 31 December 2019.

### **Twelfth resolution**

#### (Appointment of KPMG Audit IS as alternate statutory auditor)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, notes that the appointment of Mr Jean-Marc Declety, alternate statutory auditor, is due to expire at the close of this general meeting, and therefore decides to appoint KPMG Audit IS as alternate statutory auditor for a term of six financial years, namely until the ordinary general meeting to be held in 2020 to approve the financial statements for the financial year ending 31 December 2019.

\* Resolutions 7 and 8: in accordance with article 10.2 of the Company's Articles of Association, and as only one director representing the shareholder employees is to be appointed, only the candidate having received the largest number of votes and at least the majority will be appointed.

## Thirteenth resolution

# (Authorisation to be granted to the Board of Directors for a term of 18 months to trade in the Company's shares)

The general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, after reviewing the Board of Directors' report, authorises the Board of Directors, in accordance with articles L. 225-209 *et seq.* of the French Commercial Code (*Code de commerce*), European Commission Regulation No. 2273/2003 of 22 December 2003 and Title IV of Book II of the General Regulations of the French financial markets authority (*Règlement général de l'Autorité des marchés financiers*), to buy or have others buy shares of the Company, within the limit of 10% of the total number of shares making up the share capital, at any time, it being stipulated that this 10% limit shall apply to a number of shares of the Company that will be adjusted, where applicable, to take account of transactions affecting the share capital that take place after this general meeting, under the following conditions:

 the maximum purchase price per share must not exceed 110 euros.

However, the Board of Directors will be able to adjust the aforementioned purchase price in the event of capitalisation of the paid-in surplus, reserves or profits, giving rise either to an increase in the par value of the shares, or to the creation and issue of free shares, and in the event of a stock split, reverse stock split, or any other transaction concerning shareholders' equity, to reflect the impact of such transactions on the share value;

- (ii) the maximum aggregate amount of the funds that can be used to implement this share buyback programme may not exceed €100 million;
- (iii) the acquisitions made by the Company pursuant to this authorisation cannot under any circumstances cause it to directly or indirectly hold more than 10% of the shares making up the Company's share capital;
- (iv) the shares purchased and held by the Company shall be deprived of voting rights and shall not give entitlement to payment of a dividend;
- (v) such shares can be acquired or transferred at any time, except during public offer periods with regard to the Company's shares, under the conditions and within the limits, notably with regard to volume and price, stipulated by the laws and regulations in force on the date of the transactions concerned, by any means and *inter alia* on the market or over-the-counter, including through the acquisition or sale of blocks of shares, via the use of financial derivatives or warrants traded on a regulated market or over-the-counter, under the conditions stipulated by the market authorities and at the times when the Board of Directors or the person acting on a delegation of authority from the Board of Directors shall determine.

The general meeting decides that these share purchases can be made for any purpose permitted by law whether now or in the future, and in particular with a view to:

- (i) implementing market practices allowed by the French financial markets authority such as (a) the purchase of the Company's shares in order to hold them and subsequently deliver them in exchange or as payment within the scope of any potential external growth transactions, it being specified that the shares acquired for this purpose may not exceed 5% of the Company's share capital at the time of the acquisition or (b) purchase or sales transactions within the scope of a liquidity contract entered into with an investment services provider and consistent with the code of ethics recognized by the French financial markets authority, as well as (c) any market practice subsequently permitted by the French financial markets authority or by law;
- (ii) putting in place and complying with obligations and in particular to deliver shares upon the exercise of rights attached to negotiable securities giving access by any means, whether immediately or in future, to shares of the Company, as well as carrying out any hedging transactions in respect of the Company's obligations related to such negotiable securities, under the conditions provided for by the market authorities and at the times determined by the Board of Directors or the person acting on a delegation of authority from the Board of Directors;
- (iii) covering share purchase option plans granted to employees or officers of the Company or its group;
- (iv) awarding free grants of the Company's shares to employees or officers of the Company or its group, particularly under the conditions provided for in articles L. 225-197-1 et seq. of the French Commercial Code (Code de commerce);
- (v) offering employees the right to acquire shares, whether directly or via an employee savings plan (*Plan d'Épargne Entreprise*) under the conditions provided for by law, and notably articles L. 3332-1 *et seq.* of the French Labour Code (*Code du travail*);
- (vi) cancelling all or part of the purchased shares in order to reduce the Company's share capital.

The general meeting grants full powers to the Board of Directors, with the possibility for it to delegate under the conditions provided for by law, in order to ensure the implementation of such authorisation, and in particular to set the terms and conditions thereof, carry out the share buyback programme and notably place all stock market orders, enter into any agreements, prepare and amend any documents, in particular information documents, perform all formalities, including to assign or reassign the shares purchased to the various purposes pursued, and make all declarations to the French financial markets authority and any other bodies and, in general, do whatever may be necessary.

The general meeting decides that this authorisation is given for a term of eighteen (18) months as from the date of this general meeting. It renders ineffective the unused part of any prior authorisation granted for the same purpose and in particular that given by the combined general meeting held on 4 June 2013 in its 10<sup>th</sup> resolution. ANNUAL GENERAL MEETING

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#### RESOLUTIONS WITHIN THE COMPETENCE OF THE EXTRAORDINARY GENERAL MEETING

### Fourteenth resolution

(Delegation of authority to the Board of Directors, for a term of 26 months, to issue shares of the Company and/or negotiable securities giving access to shares of the Company, with maintenance of the shareholders' preferential subscription right)

The general meeting, voting in accordance with the quorum and majority requirements for extraordinary general meetings, after reviewing the Board of Directors' report and the statutory auditors' special report, and in accordance with the provisions of the French Commercial Code, and in particular articles L. 225-129-2, L. 225-132, and L. 228-91 *et seq.*:

- (i) delegates to the Board of Directors its authority to decide on one or more increases in the share capital via the issue, in France or other countries, with maintenance of the shareholders' preferential subscription right, of shares or negotiable securities giving access by any means, immediately or in future, to existing shares or shares to be issued of the Company, including warrants, issued against payment or free of charge, which can be subscribed for either in cash or by offsetting of receivables;
- (ii) decides that the maximum nominal amount of the increase in the Company's share capital, either immediately or in future, resulting from all the issues made pursuant to this delegation is capped at three hundred and fifteen (315) million euros, which will be charged against the overall limit provided for in the 18<sup>th</sup> resolution and which may be increased, where applicable, by the additional nominal amount of the Company's shares to be issued in order to preserve the rights of holders of negotiable securities granting entitlement to shares of the Company, in accordance with law and any applicable contractual provisions;
- (iii) decides that the maximum nominal amount of debt securities that may be issued giving access immediately or in future to the Company's share capital pursuant to this resolution may not exceed six hundred (600) million euros or the equivalent of such amount in foreign currency or in a unit of account, on the date of the decision to make such issue, it being specified (a) that this amount does not include any redemption premium (s) in excess of the par value that might exist, (b) that this amount applies to all the debt securities which may be issued pursuant to the 14<sup>th</sup> to 17<sup>th</sup> resolutions submitted to this general meeting, (c) but that this amount is independent of, and separate from, the amount of the debt securities of which the Board of Directors may decide or authorise the issue in accordance with article L. 228-40 of the French Commercial Code;

- (iv) decides that the shareholders shall have, in proportion to the amount of their shares, a preferential right to subscribe for the shares and negotiable securities issued pursuant to this resolution and that the Board of Directors will be able to grant the shareholders a right to subscribe for additional shares or negotiable securities, which will be exercised in proportion to their subscription right and within the limit of their requests;
- (v) decides that, if subscriptions made by shareholders on the basis of the shares they hold and, where applicable, for additional shares or negotiable securities, have not covered the full number of shares or securities issued, the Board of Directors will be able to make use of the possibilities provided for by article L. 225-134 of the French Commercial Code or certain of them in the order it chooses;
- (vi) duly notes that this delegation automatically entails a waiver by the shareholders of their preferential right to subscribe for the Company's shares that may result from the negotiable securities giving access to the share capital which could be issued on the basis of this delegation of authority;
- (vii) gives full powers to the Board of Directors, with the possibility of sub-delegation under the conditions provided for by law, in order to *inter alia*:
  - set the amount of the issues, the issue price, the nature and characteristics of the negotiable securities to be issued, as well as the other terms and conditions of the issue thereof,
  - make the envisaged issues and, where applicable, suspend them,
  - deduct the issue costs and the costs of admission of the Company's shares or securities for trading on a regulated market from the amount of the share premiums related to such transactions and withhold from such amount the necessary sums to bring the legal reserve up to one-tenth of the new share capital after each share increase, and
  - generally, enter into any agreement, in particular in order to successfully complete the envisaged issues, take all steps and carry out all appropriate formalities for the issue, the listing and financial servicing of the shares and securities issued pursuant to this delegation of authority and the exercise of the rights attached thereto.

The general meeting decides that this delegation of authority is given to the Board of Directors for a term of twenty-six (26) months as from the date of this general meeting; it renders ineffective the unused part of any prior delegation of authority granted for the same purpose and in particular that given by the combined general meeting on 23 May 2012 in its 12<sup>th</sup> resolution.

## **Fifteenth resolution**

(Delegation of authority to the Board of Directors, for a term of 26 months, to issue negotiable securities giving access to shares of the Company, by offering them to the public, with cancellation of the shareholders' preferential subscription right and a five day priority period)

The general meeting, voting in accordance with the quorum and majority requirements for extraordinary general meetings, after reviewing the Board of Directors' report and the statutory auditors' special report, and in accordance with the provisions of the French Commercial Code, and in particular articles L. 225-129-2, L. 225-135, L. 225-136, and L. 228-91 *et seq.*:

- delegates to the Board of Directors its authority to decide on one or more increases in the share capital via the issue, with cancellation of the shareholders' preferential subscription right, by offering them to the public, in France or in other countries, of negotiable securities giving access to shares of the Company, such as in particular, bonds convertible and/ or exchangeable into new and/or existing shares (*Océane*) of the Company;
- decides to cancel the shareholders' preferential subscription right to the negotiable securities to be issued pursuant to this delegation;
- (iii) decides that the shareholders will benefit, in accordance with the provisions of article L. 225-135 of the French Commercial Code, from a priority period of five (5) days for subscription in proportion to the shares they hold and for additional subscriptions, without leading to the creation of negotiable rights; the bonds that have not been subscribed pursuant to such right may be the subject of a public placement in France or any other country, or on the international market;
- (iv) decides that the maximum nominal amount of the increase in the Company's share capital, either immediately or in future, resulting from all the issues made pursuant to this delegation is capped at 10% of the Company's share capital at the date of this general meeting, an amount which will be charged against the overall limit provided for in the 18<sup>th</sup> resolution and which may be increased, where applicable, by the additional nominal amount of the Company's shares to be issued in order to preserve the rights of holders of negotiable securities granting entitlement to shares of the Company, in accordance with law and any applicable contractual provisions;
- (v) decides that the maximum nominal amount of debt securities that may be issued giving access immediately or in future to the Company's share capital pursuant to this resolution may not exceed six hundred (600) million euros or the equivalent of such amount in foreign currency or in a unit of account, on the date of the decision to make such issue, it being specified (a) that this amount does not include any redemption premium (s) in excess of the par value that might exist, (b) that this amount will be charged against the ceiling of six hundred

(600) million euros for the issue of debt securities pursuant to the 14<sup>th</sup> to 17<sup>th</sup> resolutions submitted to this general meeting, (c) but that this amount is independent of, and separate from, the amount of the debt securities of which the Board of Directors may decide or authorise the issue in accordance with article L. 228-40 of the French Commercial Code;

- (vi) decides that if the subscriptions, including those by shareholders, where applicable, have not covered the full amount of the issue, the Board of Directors will be able to limit the amount of the transaction under the conditions provided for by article L. 225-134 of the French Commercial Code;
- (vii) duly notes that this delegation automatically entails a waiver by the shareholders of their preferential right to subscribe for the Company's shares that may result from the negotiable securities giving access to the capital which could be issued on the basis of this delegation of authority;
- (viii) decides that the issue price of the negotiable securities giving access to shares of the Company will be set in order that, on the basis of the conversion or exchange rate, the issue price of the shares which may be created by conversion, exchange or in any other manner, shall be at least equal to the minimum amount provided for by the laws and regulations in force at the time of use of this delegation of authority, after adjustment of such amount, where appropriate, to take account the difference in the entitlement date;
- (ix) gives full powers to the Board of Directors, with the possibility of sub-delegation under the conditions provided for by law, in order to *inter alia*:
  - set the amount of the issues, the issue price, the nature and characteristics of the negotiable securities to be issued, as well as the other terms and conditions of the issue thereof,
  - make the envisaged issues and, where applicable, suspend them,
  - deduct the issue costs and the costs of admission of the Company's securities for trading on a regulated market from the amount of the share premiums related to such transactions and withhold from such amount the necessary sums to bring the legal reserve up to one-tenth of the new share capital after each share increase,
  - and, generally, enter into any agreement, in particular in order to successfully complete the envisaged issues, take all steps and carry out all appropriate formalities for the issue, the listing and financial servicing of the securities issued pursuant to this delegation of authority and the exercise of the rights attached thereto.

The general meeting decides that this delegation of authority is given to the Board of Directors for a term of twenty-six (26) months as from the date of this general meeting; it renders ineffective the unused part of any prior delegation of authority granted for the same purpose and in particular that given by the combined general meeting on 23 May 2012 in its 13<sup>th</sup> resolution.

### Sixteenth resolution

(Delegation of authority to the Board of Directors, for a term of 26 months, to increase the share capital through the issue of shares and/or negotiable securities giving access to the share capital, via an offer referred to in article L. 411-2 II of the French Monetary and Financial Code, with cancellation of the shareholders' preferential subscription right).

The general meeting, voting in accordance with the quorum and majority requirements for extraordinary general meetings, after reviewing the Board of Directors' report and the statutory auditors' special report, and in accordance with the provisions of the French Commercial Code, and in particular articles L. 225-129-2, L. 225-135, L. 225-136, and L. 228-91 *et seq.*:

- (i) delegates to the Board of Directors its authority to decide on one or more increases in the share capital via the issue, in the proportion and at the times that it shall determine, subject to the provisions of article L. 233-32 of the French Commercial Code, in France or any other country, with cancellation of the shareholders' preferential subscription right, by means of an offer referred to in article L. 411-2 II of the French Monetary and Financial Code of shares of the Company or negotiable securities giving access, by any means, immediately or in future, to existing shares or shares to be issued of the Company, which may be subscribed either in cash or by offsetting receivables;
- decides that these issues may only be made in order to finance a recapitalisation operation related to an external growth transaction, or to make a convertible bond issue;
- decides to cancel the shareholders' preferential subscription right to the shares and other negotiable securities to be issued pursuant to this resolution;
- (iv) decides that the maximum nominal amount of the increases in share capital that may be carried out, either immediately or in future, pursuant to this delegation of authority is capped at 10% of the Company's share capital at the date of this general meeting, an amount which will be charged against the overall limit on the nominal amount provided for in the 18<sup>th</sup> resolution below and which may be increased, where applicable, by the additional nominal amount of the Company's shares to be issued in order to preserve the rights of holders of negotiable securities granting entitlement to shares of the Company, in accordance with law and any applicable contractual provisions;
- (v) duly notes that this delegation automatically entails a waiver by the shareholders of their preferential right to subscribe for the Company's shares that may result from the negotiable securities giving access to the capital which could be issued on the basis of this delegation of authority;
- (vi) decides that the maximum nominal amount of debt securities giving access immediately or in future to the share capital that may be issued pursuant to this resolution may not exceed six hundred (600) million euros or the equivalent of such amount in foreign currency or in a unit of account set by reference to several currencies, on the date of the issue, it

being specified (a) that this amount does not include any redemption premium (s) in excess of the par value that might exist, (b) that this amount will be charged against the ceiling of six hundred (600) million euros for the issue of debt securities pursuant to the  $14^{th}$  to  $17^{th}$  resolutions submitted to this general meeting, (c) but that this amount is independent of, and separate from, the amount of the debt securities of which the Board of Directors may decide or authorise the issue in accordance with article L. 228-40 of the French Commercial Code;

- (vii) decides that the amount payable or that may subsequently be payable to the Company for each of the shares issued pursuant to this delegation shall be at least equal to the weighted average of the trading prices for the last three trading sessions before the setting of the subscription price for the increase in capital, which may be reduced where applicable by a maximum discount of 5%;
- (viii) decides that, if the subscriptions have not covered the total amount of an issue, the Board of Directors will be able to make use of the following possibilities (a) limit the amount of the issue to the amount of subscriptions, it being specified that, in the event of an issue of shares or negotiable securities of which the primary security is a share, the amount of the subscriptions will have to amount to at least three fourth (3/4) of the issue decided in order for this limitation to be possible, or (b) freely allocate all or some of the securities that have not been subscribed;
- (ix) gives full powers to the Board of Directors, with the possibility of sub-delegation under the conditions provided for by law, to implement this delegation of authority and in order to *inter alia*:
  - decide on the increase in share capital, set the amount of the issues, the issue price, the nature and characteristics of the shares or other negotiable securities to be issued, as well as the other terms and conditions of the issue thereof,
  - make the envisaged issues and, where applicable, suspend them,
  - deduct the costs of the capital increases and the costs of admission of the Company's shares or securities for trading on a regulated market from the amount of the share premiums related to such transactions and withhold from such amount the necessary sums to bring the legal reserve up to one-tenth of the new share capital after each share increase,
  - and, generally, enter into any agreement, in particular in order to successfully complete the envisaged issues, take all steps and carry out all appropriate formalities for the issue, the listing and financial servicing of the shares and securities issued pursuant to this delegation of authority and the exercise of the rights attached thereto.

The general meeting decides that this delegation of authority is given to the Board of Directors for a term of twenty-six (26) months as from the date of this general meeting.

## Seventeenth resolution

### (Authorisation to the Board of Directors to increase the amount of the issues in the event of excess demand)

The general meeting, voting in accordance with the quorum and majority requirements for extraordinary general meetings, after reviewing the Board of Directors' report and the statutory auditors' special report and in accordance with article L. 225-135-1 of the French Commercial Code:

- (i) authorises the Board of Directors, with the possibility of sub-delegation under the conditions provided for by law, to decide, within the scope of the use of the delegations of authority which have been granted to it by the 14<sup>th</sup> to 16<sup>th</sup> resolutions set out above, within thirty days of the close of the subscription period for the initial issue, to increase the number of shares to be issued, within the limit of 15% of the initial issue and at the same price as that applied for the initial issue and subject to compliance with the ceiling provided for in the resolution in respect of which the issue is decided;
- (ii) gives full powers to the Board of Directors to implement this authorisation in accordance with the law and the regulations.

The general meeting decides that this authorisation is given to the Board of Directors for a term of twenty-six (26) months as from the date of this general meeting; it renders ineffective the unused part of any prior authorisation granted for the same purpose and in particular that given by the combined general meeting on 23 May 2012 in its 14<sup>th</sup> resolution.

### **Eighteenth resolution**

(Overall limitations to the authorisations to increase the share capital immediately and/or in the future)

The general meeting, voting in accordance with the quorum and majority requirements for extraordinary general meetings, after reviewing the Board of Directors' report, decides to set as follows the total ceiling for the delegations of authority and authorisations provided for in the 14<sup>th</sup> to 17<sup>th</sup> resolutions above, at three hundred and fifteen million (315,000,000) euros, *i.e.* 50% of the Company's share capital at the date of this general meeting, the maximum nominal amount of the capital increases that may be carried out immediately or in future pursuant to the delegations and authorisations granted by the 14<sup>th</sup> to 17<sup>th</sup> resolutions, it being specified that the nominal amount of the shares of the Company to be issued in respect of the adjustments made to protect the holders of rights attached to negotiable securities giving access to shares of the Company will be added to such nominal amount, where applicable.

#### Nineteenth resolution

(Delegation of authority to the Board of Directors to carry out increases in share capital reserved for members of an employee savings plan - cancellation of the shareholders' preferential subscription right)

The general meeting, voting in accordance with the quorum and majority requirements for extraordinary general meetings, after reviewing the Board of Directors' report and the statutory auditors' special report, and in accordance with articles L. 225-129, L. 225-129-2, L. 225-129-6, L. 228-92, L. 225-138 I and II and L. 225-138-1 of the French Commercial Code and articles L. 3332-18 *et seq.* of the French Labour Code:

- (i) delegates to the Board of Directors, with the possibility of sub-delegation under the conditions provided for by law, its authority to decide to increase the share capital on one or more occasions, in the proportions and at the times it determines, via the issue of shares or negotiable securities giving access to existing shares or shares to be issued of the Company, reserved for current and former employees of the Company and of French or foreign companies or groupings that are related to it within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labour Code, who are members of an employee savings plan (hereinafter, the "Beneficiaries");
- decides to cancel the shareholders' preferential subscription right to the shares and negotiable securities giving access to shares to be issued pursuant to this delegation and, where applicable, to the shares or other negotiable securities granted free of charge pursuant to this delegation of authority;
- (iii) duly notes that this delegation of authority automatically entails a waiver by the shareholders of their preferential right to subscribe for the Company's shares that may result from the negotiable securities giving access to the Company's capital issued on the basis of this delegation of authority;
- (iv) decides that the Board of Directors will be able to provide, within the limit of the applicable legal and regulatory provisions, for the free grant of new or existing shares or of negotiable securities giving access to existing shares or shares to be issued of the Company, pursuant to the employer's additional contribution (abondement) or where, applicable, the discount;
- (v) decides that the maximum nominal amount of the increase in capital of the Company resulting, immediately or in future, from all the issues made pursuant to this delegation of authority is capped at twelve (12) million euros, it being specified that this ceiling does not include the nominal value of the shares of the Company which will be issued, where applicable, pursuant to the adjustments made to protect the holders of rights attached to the negotiable securities giving access to shares of the Company in accordance with law and any applicable contractual provisions;

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- (vi) decides that the subscription price of the shares to be issued will be equal to the average of the opening trading prices for the Arkema share on the Euronext Paris market for the twenty trading days prior to the date of the decision setting the opening date of the subscription period, less the maximum discount provided for by law on the date of the decision of the Board of Directors; the Board of Directors will however be able, if it considers it appropriate, to reduce or eliminate the above-mentioned discount, in order to take into account, in particular, the requirements of the local laws applicable in the event of the offering of shares to members of an employee savings plan on the international market or in a foreign country;
- (vii) decides that the Board of Directors will be able to make a free grant of shares or negotiable securities giving access to shares of the Company to replace all or part of the discount mentioned above, it being understood that the total benefit resulting from this grant may not exceed the limits provided for by the laws or regulations;
- (viii) decides that the Board of Directors will be able to provide for the grant, free of charge, of existing shares or of negotiable securities giving access to existing shares of the Company, it being understood that the total benefit resulting from this grant and, where applicable, the discount mentioned above may not exceed the limits provided for by law; and on condition that, by taking into account the equivalent monetary value of the shares granted free of charge or of securities giving access to shares of the Company, assessed at the subscription price, this does not lead to the limits provided for by law being exceeded.

The general meeting decides that the Board of Directors will have, with the possibility of sub-delegation under the conditions provided for by law, full powers in order to implement this resolution and in particular to:

- decide on the characteristics, amount and terms and conditions of any issue or free grant of shares;
- determine that the subscriptions can be carried out directly by the beneficiaries or via a mutual fund or any other collective undertaking authorised by the regulations;
- establish, under the conditions required by law, the list of the companies, or groupings whose current and former employees will be able to subscribe to the shares or negotiable securities issued and, where applicable, receive the shares or negotiable securities granted free of charge;
- determine the nature and terms and conditions of the increase in the share capital, and the terms and conditions of the issue or the free grant;
- set the subscription price of the shares and the length of the subscription period;

- determine the conditions regarding length of service that must be met by the beneficiaries of the new shares or negotiable securities that will result from the increase (s) of the share capital or of the shares that are the subject of each free grant, covered by this resolution;
- determine the terms and conditions of the issues of shares or negotiable securities that will be made pursuant to this delegation of authority and, in particular, the entitlement date thereof and the terms and conditions for paying them up;
- determine the opening and closing dates of the subscription periods and receive subscriptions;
- record the completion of the increase in share capital via the issue of shares for the amount of the shares that will actually be subscribed;
- determine, where appropriate, the nature of the shares granted free of charge, as well as the terms and conditions of such grant;
- determine, where appropriate, the amount of the sums to be capitalised within the limit set above, the shareholders' equity account(s) from which they will be deducted and the date of entitlement to the shares created in this manner;
- on its decision alone and if it considers it appropriate, charge the expenses of the increases in share capital against the amount of the share premiums relating to these increases and withhold from this amount the sums necessary to bring the legal reserve up to one-tenth of the new capital after each increase;
- take any measure for final completion of the increases in share capital, carry out the formalities resulting from such increases, and in particular those concerning the listing of the shares created, and make the amendments correlative to these capital increases to the Articles of Association, and generally do whatever may be necessary.

The general meeting decides that this delegation of authority is given to the Board of Directors for a term of twenty-six (26) months as from the date of this general meeting; it renders ineffective the unused part of any prior delegation of authority granted for the same purpose and in particular that given by the combined general meeting on 23 May 2012 in its 16<sup>th</sup> resolution.

### **Twentieth resolution**

#### (Powers for the formalities)

The general meeting grants full powers to the bearer of an original, a copy or an excerpt of the minutes of this general meeting for the purposes of performing all filing, publicity or other formalities that may be required.

### Report of the Board of Directors on the resolutions proposed to the shareholders at the combined general meeting on 15 May 2014

## 6.3 REPORT OF THE BOARD OF DIRECTORS ON THE RESOLUTIONS PROPOSED TO THE SHAREHOLDERS AT THE COMBINED GENERAL MEETING ON 15 MAY 2014

The Board of Directors proposes to submit the resolutions described below to the vote of the shareholders at the combined general meeting on 15 May 2014.

#### RESOLUTIONS PROPOSED TO THE ORDINARY GENERAL MEETING

## Approval of the annual financial statements and allocation of income (1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> resolutions)

The purpose of the 1<sup>st</sup> **resolution** is to approve the Company's annual financial statements for the 2013 financial year as presented in the Board of Directors' management report, as well as all the transactions reflected by such financial statements or which are mentioned therein. We propose that you acknowledge that no expenses and charges referred to in article 39–4 of the French Tax Code were incurred during the past financial year.

It is proposed, in the  $2^{nd}$  resolution, in accordance with the provisions of article L. 225-100 of the French Commercial Code, that you approve the consolidated financial statements for the 2013 financial year as well as all the transactions reflected by such consolidated financial statements or which are mentioned therein.

Taking into account the net profit of 212,407,084.54 euros shown in the Company's annual financial statements and the existence of distributable reserves ("paid-in surplus" account) for an amount of 868,198,222.38 euros, the Board of Directors proposes, in the **3**<sup>rd</sup> **resolution**, that you allocate the profit for the 2013 financial year as follows:

Profit for the financial year	€212,407,084.54
Prior retained earnings	€(148,211,052.38)
Allocation to legal reserve	€(1,535,898.00)
Distributable profit	€62,660,134.16
Paid-in surplus	€868,198,222.38
Dividend distribution	€116,604,930.20
New balance of distributable reserves	€814,253,426.34

The payment of the dividend with regard to the 63,029,692 shares carrying dividend rights on 1<sup>st</sup> January 2013 and existing on the date of the Board of Directors' meeting which adopts the draft resolutions, amounting to 116,604,930.20 euros, would correspond to a distribution of 1.85 euro per share.

It is also proposed that you authorise the Board of Directors to deduct from the "paid-in surplus" account the amounts needed to pay the aforementioned dividend on the shares resulting from subscriptions or allotments carried out prior to the dividend payment date and granting entitlement to the dividend. The exdividend date for financial year 2013 would be 19 May 2014 and the dividend would be payable on 22 May 2014 on the positions closed in the evening of 21 May 2014.

This distribution would be eligible for the 40% tax deduction to which individual French tax residents are entitled as provided for in article  $158.3-2^{\circ}$  of the French Tax Code.

It is specified that the dividend paid for the last three financial years was as follows:

Financial year	2011	2012	2013
Net dividend per share (in euro)	1.30 (1)	1.80 (1)	1.85 (1)

 Amounts eligible in full for the 40% tax deduction to which individual French tax residents are entitled as provided for in article 158 3 2° of the French Tax Code.

If the Company holds certain of its own shares on the dividend payment date, the amount corresponding to the dividends not paid in relation to such shares would be allocated to the "retained earnings" account.

#### Approval of the agreements and commitments referred to in articles L. 225-38 *et seq.* of the French Commercial Code (4<sup>th</sup> resolution)

We propose that you approve, in the **4**<sup>th</sup> **resolution**, the agreements and commitments referred to in Articles L. 225-38 et seq. of the French Commercial Code entered into during the financial year ended 31 December 2013, as presented in the statutory auditors' special report (in section 6.1 of this reference document) which also mentions the agreements and commitments already approved by a general meeting, the performance of which continued during such financial year, it being specified that no agreement or new commitment was entered into during this financial year.

The commitments already approved by the general meeting which continued during the 2013 financial year are: (i) the pension commitment under the supplementary pension scheme for certain senior executives, including the Chairman and Chief Executive Officer, (ii) the indemnity due in the event of non-voluntary departure of the Chairman and Chief Executive Officer, (iii) the renewable multi-currency syndicated credit facility entered into in 2006 between Arkema and Arkema France on the one hand, and a certain number of banks, on the other, for a maximum amount of €1.1 billion, which expired on 31 March 2013, and (iv) the multicurrency syndicated credit facility entered into between Arkema and Arkema France on the one hand, and a certain number of banks, on the other, for a maximum amount of €700 million.

Report of the Board of Directors on the resolutions proposed to the shareholders at the combined general meeting on 15 May 2014

#### Reappointment/appointment of Directors (5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> resolutions)

#### Reappointment of Ms Claire Pedini as director

The Board of Directors proposes, in its **5<sup>th</sup> resolution**, that you reappoint Mrs Claire Pedini as a director for a term of four years expiring at the close of the general meeting of shareholders which will be held in 2018 to approve the financial statements for the financial year ending 31 December 2017. Information concerning Ms Claire Pedini is set out in paragraphs 3.2.1.2 and 3.2.1.3 of this reference document.

## Appointment of the Fonds Stratégique de Participations as director

The Board of Directors proposes, in its **6**<sup>th</sup> **resolution**, that you appoint the *Fonds Stratégique de Participations* (FSP) as a new director for a term of four years expiring at the close of the general meeting of shareholders which will be held in 2018 to approve the financial statements for the financial year ending 31 December 2017. Subject to its appointment as a director by the shareholders' general meeting on 15 May 2014, the FSP would be also appointed as a member of the Audit and Accounts Committee.

The Board of Directors considered, on the proposal of the Nominating, Compensation and Corporate Governance Committee, at the time of the review of the possible appointment as director of the Fonds Stratégique de Participations, that, in the event that the appointment of this candidate is adopted by the general meeting, the Fonds Stratégique de Participations would be qualified as an independent director in light of the criteria defined by its Internal Rules in accordance with the recommendations of the AFEP-MEDEF Code.

The FSP was created in 2012 by four major French insurance companies: BNP Paribas Cardif, CNP Assurances, Predica and Sogécap, which each holds 25% of the capital, to invest on the long-term in the capital of non-financial French listed companies. The FSP aims to provide ongoing support to the selected companies and their management in the implementation of their strategy. Accordingly, the FSP asks to be represented on such companies' governance bodies and expects clearly defined strategic objectives, discipline and a high level of financial transparency from such companies.

The FSP is an independent investment structure with its own governance. Management of the FSP has been entrusted to an entity of the Edmond de Rothschild Group (with a dedicated team within EdRAM) which is in particular in charge of relations with the permanent representatives of the FSP on companies' Boards of Directors and of the financial monitoring of such companies.

The FSP does not act in concert with other shareholders and votes independently at general meetings of the companies in which it has invested.

The permanent representative of the Fonds Stratégique de Participations would be Mrs Isabelle Boccon-Gibod, a person who is completely independent of the insurance companies that founded the FSP and the Edmond de Rothschild Group. An engineer with degrees from the École Centrale de Paris and the

University of Columbia in the United States, Mrs Isabelle Boccon-Gibod was Executive Vice-President of Arjowiggins and Executive Vice-President of Sequana group. She chaired the Copacel (*Union Française des Industries des Cartons, Papiers et Celluloses*) until the end of 2013. Mrs Isabelle Boccon-Gibod is a member of the National Orientation Board (*Conseil National d'Orientation*) of BPI France and Vice-President of the Economic Commission of the MEDEF.

Through an assignment letter, the FSP asks its permanent representative to make sure that the Company's general management reports regularly and in a satisfactory manner to its Board of Directors on the way it implements its industrial strategy and the prospects for shareholder return which have drawn the FSP's attention, namely for ARKEMA: the strategic objectives for 2016 and its ambitions for 2020. Mrs Isabelle Boccon-Gibod, the EdRAM team dedicated to the FSP and the FSP will establish a regular dialogue for this purpose and will discuss together the positions to be taken with regard to important decisions concerning the points which will be submitted to the Company's Board of Directors. Feedback on the participation of the permanent representative to Arkema's Board of Directors to the shareholders/directors of the FSP will be provided through the dedicated team within EdRAM.

Thus, alongside the other directors, Mrs Isabelle Boccon-Gibod will participate collectively in determining ARKEMA's strategic orientations and will make sure of their implementation. She will also ensure that the decisions by the Board of Directors are in line with the Company's corporate interests and the applicable regulations.

It is specified here that Mrs Isabelle Boccon-Gibod's exclusive compensation will consist of the attendance fees paid by the Company.

The appointment of Mrs Isabelle Boccon-Gibod as permanent representative of the FSP on the Board of Directors would have the effect of increasing the number of women on the Company's Board of Directors to 25%, namely three directors out of twelve, in accordance with the provisions of French Act n° 2011-103 on the balanced representation of men and women on Boards of Directors and Supervisory Boards and gender equality.

## Reappointment/appointment of a director representing the shareholder employees

As Mr Patrice Bréant's term of office as director is due to expire at the close of the general meeting, and as the Board of Directors has noted that, at 31 December 2013, employee share ownership in the Group, within the meaning of article L. 225-102 of the French Commercial Code, represented 4.1% of the Company's share capital, in accordance with article 10.2 of the Company's Articles of Association, we propose that you appoint a director representing the shareholder employees for a term of four years expiring at the close of the general meeting of shareholders to be held in 2018 to approve the financial statements for the financial year ending 31 December 2017.

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The candidates put to the vote are as follows:

- reappointment of Mr Patrice Bréant (7<sup>th</sup> resolution): Mr Patrice Bréant is a member of the Supervisory Board of the company mutual fund (Fonds Commun de Placement d'Entreprise) Arkema Actionnariat France and his candidacy is proposed by such fund. Information concerning Mr Patrice Bréant is set out in paragraphs 3.2.1.2 and 3.2.1.3 of this reference document; or
- appointment of Mrs Hélène Vaudroz (8<sup>th</sup> resolution): Mrs Hélène Vaudroz is a member of the Supervisory Board of the company mutual fund Arkema Actionnariat International since 2010 and her candidacy is proposed by that fund.

Hélène Vaudroz was born on 7 March 1963 in La Chaux-de-Fonds in Switzerland. After spending a year in German-speaking Switzerland to perfect her knowledge of that language, she obtained a federal certificate as a commercial employee with a specialisation in management that she completed by studying in London for a year. Her professional career began in 1983 in the commercial department of Basler Höhenklinik in Davos. Until 2005, she gained professional experience in various positions in commercial, accounting or assistant structures. She joined FEBEX S.A., a subsidiary of CECA S.A., in 2005 where she has since held the position of HR and Commercial assistant.

In accordance with article 10.2 of the Company's Articles of Association, the person out of the two candidates mentioned above who receives the largest number of votes from the shareholders present or represented at the general meeting will be appointed as director representing the shareholder employees, on condition that the resolution relating to his/her appointment has also obtained a majority of votes in favour.

Due to the number of shares held by the company mutual fund Arkema Actionnariat France (83% of the total number of shares held at 31 December 2013 by the employees within the meaning of article L.225-102 of the French Commercial Code), the Board **recommends reappointing Mr Patrice Bréant** as director representing the shareholder employees and approves the proposed **7<sup>th</sup> resolution**. Accordingly, the Board of Directors has not approved the 8<sup>th</sup> resolution.

#### Attendance fees (9th resolution)

In order to take account of the appointment of another Director on the Board of Directors, as submitted for your approval pursuant to the terms of the 6<sup>th</sup> resolution, and the change in the amount of the fixed and variable part of the attendance fees paid to the Directors decided by the Board of Directors on 23 January 2014, an amount which has not been revised since 2006, we propose in the **9<sup>th</sup> resolution** that you increase the annual amount of attendance fees allocated to the Board of Directors from €470,000 to €550,000. The current amount of €470,000 was set by the ordinary general meeting on 1 June 2010.

#### Advisory vote by the shareholders on the elements of compensation due or allocated, in respect of the financial year ended 31 December 2013, to each of the Company's executive officers (10<sup>th</sup> resolution)

In accordance with the recommendations of § 24.3 of the AFEP-MEDEF Code revised in June 2013, the code to which the Company refers pursuant to article L. 225-37 of the French Commercial Code, the elements of the compensation due or allocated to each of the Company's executive officers in respect of the past financial year are submitted for an advisory vote by the shareholders.

Accordingly, we propose, in the **10<sup>th</sup> resolution**, that you vote in favour of the following elements of compensation due or allocated in respect of the financial year ended 31 December 2013 to Mr Thierry Le Hénaff, Chairman and Chief executive officer, and only executive officer, of the Company:

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# ELEMENTS OF COMPENSATION DUE OR ALLOCATED TO MR THIERRY LE HÉNAFF IN RESPECT OF THE 2013 FINANCIAL YEAR PUT TO THE VOTE

Elements of compensation due or allocated for 2013	Amounts or accounting valuation submitted to the vote	Presentation
Fixed compensation	€750,000	The annual fixed part was amended on 23 May 2012 upon the renewal of the term of office of the Chairman and Chief Executive Officer so that this fixed compensation may be aligned with that of executive officers of comparable industrial companies.
		The Board of Directors meeting on 27 February 2013 maintained at €750,000 the fixed part due for 2013, which places the level of Mr Thierry Le Hénaff's annual fixed compensation below the average for his peers.
Annual variable compensation	€800,250	The amount of the variable part due for 2013, which could represent up to 150% of the annual fixed compensation, was fixed by the Board of Directors on 3 March 2014, on the basis of the quantitative and qualitative criteria set by the Board of Directors in 2013 and the fulfilment of these criteria noted on 31 December 2013, as follows:
		<ul> <li>with regard to the three quantitative targets, related to ARKEMA's financial performance (level of EBITDA, recurring cash flow, and contribution of new developments), the results achieved in 2013 have been below the objectives set for each criteria; as a consequence, the variable part allocated according to the quantitative criteria amounted to 69.4% of his fixed annual compensation; and</li> <li>with regard to qualitative targets which essentially concern the implementation of the Group's strategy, the performance was assessed as being very good with, in particular, the completion or the progress of several significant industrial projects (construction of the Thiochemicals platform in Malaysia, finalisation of the investment program in Lacq in order to secure sulfur raw material access for the next 30 years, the acrylic investment program in North America), the project of an acrylic joint-venture with Jurong Chemical in China, the strict management of fixed costs and working capital and the improvement of safety results. As a consequence, the variable part allocated according to the qualitative criteria amounted to 37.3% of his annual fixed compensation;</li> </ul>
		In total, the 2013 variable compensation as fixed by the Board of Directors amounts to 800,250 euros, 23% less than the 2012 variable compensation. It represents 106.7% of the 2013 annual fixed compensation, representing a global achievement rate of 71% (63% in respect of the quantitative criteria and 93% in respect of the qualitative criteria).
		Further detail on the criteria may be found in paragraph 3.4.3.2 of this reference document.
Deferred variable compensation	N/A	Mr Thierry Le Hénaff receives no multi-yearly variable compensation.
	N/A	Mr Thierry Le Hénaff does not benefit from any exceptional compensation.
Attendance fees	N/A	Mr Thierry Le Hénaff receives no attendance fees from Arkema.
Stock options	N/A	The Board of Directors decided at the beginning of 2013 to withdraw stock option arrangements.
Performance shares	€1,342,000	Making use of the authorisation granted by the shareholders general meeting on 4 June 2013 (12 <sup>th</sup> resolution), on a proposal by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors meeting on 6 November 2013 awarded 26,000 performance shares (i.e. 0.04% of the share capital) to Mr Thierry Le Hénaff (from a total of 250,000 shares awarded to over 750 beneficiaries).
		The definitive granting of these shares, at the end of a 4-year period, is contingent upon a presence condition in the Group and the fulfilment of two performance criteria: growth of ARKEMA's EBITDA and comparative EBITDA margin. Each criterion applies for 50% of the awarded rights.
		Further detail on the criteria may be found in paragraph 3.5.1 of this reference document.
Benefits in kind	€6,720	Mr Thierry Le Hénaff has a company car.

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## Elements of compensation due or allocated for 2013 which were already approved by the shareholders annual meeting in respect of the regulated agreements and commitments procedure

Severance compensation	No payment	Mr Thierry Le Hénaff benefits from severance compensation as part of his director's term of office, the amount of which, calculated on the basis of the fulfilment of five quantitative criteria set by the Board of Directors and approved by the shareholders general meeting (TRIR (Total Recordable Injury Frequency Rate), comparative EBITDA margin, working capital, EBITDA margin, and return on capital employed), may not exceed two years of his total annual gross compensation (fixed and variable).
		In accordance with the procedure relating to the regulated agreements and commitments, this commitment was authorised by the Board of Directors meeting on 7 March 2012 and <b>approved by the shareholders general meeting on 23 May 2012</b> (6 <sup>th</sup> resolution).
		Further detail on the conditions of the award of this compensation may be found in paragraph 3.4.3.4 of this reference document.
Non-competition compensation	N/A	Mr Thierry Le Hénaff does not benefit from non-competitive compensation.
Supplementary pension scheme	No payment	Mr Thierry Le Hénaff benefits from supplementary defined benefit pension scheme, applicable to certain senior executives of the Group receiving annual compensation exceeding eight times the social security annual ceiling, and contingent upon the fulfilment of the beneficiary completing his career in the Group. The income from this supplementary pension scheme will be deducted from the income from the defined contribution scheme applicable to certain senior executives of the Group. The Company's pension commitments for the Chairman and Chief Executive Officer corresponded, on 31 December 2013, to an annual pension, the calculation of which is based in particular on the average compensation paid over the last three years, equal to 25.7% of his current annual compensation.
		In accordance with the regulated agreements and commitments procedure, this commitment was authorised by the Board of Directors on 4 July 2006, and <b>approved by the shareholders general meeting on 5 June 2007</b> (4 <sup>th</sup> resolution).
		Further detail on this pension commitment may be found in paragraph 3.4.3.4 of this reference document.

## Reappointment/appointment of statutory auditors (11<sup>th</sup> and 12<sup>th</sup> resolutions)

The Board of Directors asks, in the **11<sup>th</sup> resolution**, that you note that the appointment of the firm of KPMG Audit, principal statutory auditor, is due to expire at the close of the general meeting and proposes that you reappoint it for a term of six fiscal years, namely until the close of the general meeting to be held in 2020 to approve the financial statements for the 2019 financial year.

The Board of Directors asks, in the **12<sup>th</sup> resolution**, that you note that the appointment of Mr Jean-Marc Declety, alternate statutory auditor, is due to expire at the close of this general meeting and proposes that you appoint KPMG Audit IS for a term of six financial years, namely until the close of the general meeting to be held in 2020 to approve the financial statements for the 2019 financial year.

#### Share buyback (13<sup>th</sup> resolution)

As the authorisation granted by the general meeting on 4 June 2013 to the Board of Directors to trade in the Company's shares is due to expire in the near future, it is proposed, in the **13<sup>th</sup> resolution**, that you give the Board of Directors another authorisation, for a period of 18 months, to buy or have others buy shares of the Company, at any time, except during public offer periods with regard to the Company's shares, at a maximum price of **110 euros** per share. This authorisation would enable the Board of Directors to acquire a number of shares of the Company **representing a maximum of 10% of the Company's share capital**, in particular with a view to:

- (i) implementing market practices allowed by the French financial markets authority such as (a) the purchase of the Company's shares in order to hold them and subsequently deliver them in exchange or as payment within the scope of any potential external growth transactions, it being specified that the shares acquired with a view to being delivered within the scope of a merger, demerger or split-up or contribution may not exceed 5% of the Company's share capital at the time of the acquisition or (b) purchase or sales transactions within the scope of a liquidity contract entered into with an investment services provider and consistent with the code of ethics recognized by the French financial markets authority, as well as (c) any market practice subsequently permitted by the French financial markets authority or by law;
- (ii) putting in place and complying with obligations and in particular to deliver shares upon the exercise of rights attached to negotiable securities giving access by any means, whether immediately or in future, to shares of the Company, as well as carrying out any hedging transactions in respect of the obligations of the Company (or of one of its subsidiaries) related to such negotiable securities, under the conditions provided for by the market authorities and at the times determined by the Board of Directors or the person acting on a delegation of authority from the Board of Directors;

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- (iii) making free grants of the Company's shares to employees or executive officers of the Company or its Group, particularly under the conditions provided for in articles L. 225-197-1 et seq. of the French Commercial Code;
- (iv) offering employees the right to acquire shares, whether directly or via an employee savings plan (*Plan d'Épargne Entreprise*) under the conditions provided for by law, and notably articles L. 3332-1 *et seq.* of the French Labour Code (*Code du travail*);
- (v) cancelling all or part of the purchased shares in order to reduce the Company's share capital.

The maximum aggregate amount of the funds intended for the implementation of this share purchase programme would be **100 million euros**.

This new authorisation would render ineffective, as from the date of this general meeting, the 10<sup>th</sup> resolution of the combined general meeting of 4 June 2013.

## RESOLUTIONS PROPOSED TO THE EXTRAORDINARY GENERAL MEETING

As the delegations of authority and authorisation granted to the Board of Directors by the general meeting on 23 May 2012 are due to expire on 23 July 2014, we propose that you renew them. If you vote in favour of the delegations of authority and authorisation which are submitted to you, they will render ineffective the delegations of authority previously granted for the same purpose as from the date of the general meeting.

The delegations and authorisation submitted to you would make it possible to carry out, pursuant to a decision of the Board of Directors, the issue of shares and/or negotiable securities giving access to shares in France, in another country and/ or on the international markets, maintaining the shareholders' preferential subscription right or cancelling it, depending on the opportunities offered by the financial markets and in the interest of the Company and its shareholders, in order to offer the Board of Directors the possibility to finance, in the most appropriate manner, recapitalisation operations related to potential external growth transactions, or a convertible bond issue.

Delegation of authority to the Board of Directors to issue shares of the Company and/or negotiable securities giving access to shares of the Company, with maintenance or cancellation of the shareholders' preferential subscription right (14<sup>th</sup>, 15<sup>th</sup> and 16<sup>th</sup> resolutions)

## Issues with maintenance of the shareholders' preferential subscription right (14th resolution)

The purpose of the 14<sup>th</sup> resolution is to grant the Board of Directors a delegation of authority in order to increase the Company's share capital through the issue, with maintenance of the shareholders' preferential subscription right, of shares of the Company or negotiable securities giving access by any means, immediately or in future, to existing shares or shares to be issued of the Company, namely, for example, convertible bonds, bonds with attached equity warrants or stock warrants issued on a standalone basis, it being specified that your decision would entail the waiver by the shareholders of their preferential subscription right to the shares that may be issued on the basis of these negotiable securities initially issued pursuant to this resolution. The **maximum nominal amount of the increases in share capital** that may be carried out pursuant to this delegation of authority would be capped at **three hundred and fifteen (315) million euros**, *i.e.* approximately 50% of the share capital on the date of this general meeting, it being specified that this maximum nominal amount would be charged against the overall limit of 315 million euros that it is proposed that you decide pursuant to the terms of the 18<sup>th</sup> resolution, against which all the issues decided pursuant to the 14<sup>th</sup> to 17<sup>th</sup> resolutions, and which we describe below, would be charged.

The **maximum nominal amount of debt securities** on the Company (giving access immediately or in future to the share capital) that may be issued pursuant to this delegation of authority would be set at **six hundred (600) million euros** or the foreign currency equivalent of this amount in the event of an issue in other currencies, it being specified that this amount would apply to all the debt securities which may be issued pursuant to the 14<sup>th</sup> to 17<sup>th</sup> resolutions submitted to your general meeting and that we describe to you below, but that it would be independent of, and separate from, the amount of the debt securities of which the Board of Directors may decide or authorise the issue in accordance with article L. 228-40 of the French Commercial Code.

This delegation of authority would be granted for a term of **twenty-six (26) months** as from the date of this general meeting.

## Issues without the shareholders' preferential subscription right (15th and 16th resolutions)

In order to be in a position to take up rapidly any financial opportunity offered, in particular, through the diversity of the financial markets in France and in any other country, the Board of Directors may be led to make issues that may be placed with investors who are interested in certain types of financial products. This means that the Board of Directors will have to be able to make these issues with cancellation of the shareholders' preferential subscription right.

Thus, **pursuant to the terms of the 15<sup>th</sup> resolution**, it is proposed that you grant the Board of Directors a delegation of authority in order to issue, with cancellation of the shareholders' preferential right, by offering them to the public, in France or in any other country negotiable securities giving access to shares of the Company such as in particular, bonds convertible and/or exchangeable into new shares and/or existing shares of the Company.

The shareholders would benefit, in accordance with the provisions of article L. 225-135 of the French Commercial Code, **from a priority period of five (5) days for subscription in proportion to the shares they hold and for additional subscriptions**, without leading to the creation of negotiable rights

The **maximum nominal amount of the increase in the share capital** of the Company, immediately or in future, resulting from all the issues made pursuant to this delegation of authority is set at **10%** of the amount of the Company's share capital at the date of this general meeting, an amount which will be charged against the total limit set by the 18<sup>th</sup> resolution.

The **maximum nominal amount of debt securities** on the Company that may be issued pursuant to this resolution may not exceed **six hundred (600) million euros** or the equivalent of such amount in foreign currency or in a unit of account, on the date of the decision with regard to the issue, it being specified that this amount would be charged against the total ceiling of six hundred

Report of the Board of Directors on the resolutions proposed to the shareholders at the combined general meeting on 15 May 2014

(600) million euros for the issue of debt securities pursuant to the 14<sup>th</sup> to 17<sup>th</sup> resolutions submitted to this general meeting, but that it would be independent of, and separate from, the amount of the debt securities of which the Board of Directors may decide or authorise the issue in accordance with article L. 228-40 of the French Commercial Code

The issue price of the negotiable securities giving access to shares of the Company would be set in order that, on the basis of the conversion or exchange rate, the issue price of the shares which may be created by conversion, exchange or in any other manner, would be at least equal to the minimum amount provided for by the laws and regulations in force at the time of use of this delegation of authority, after adjustment of such amount, where appropriate, to take account the difference in the entitlement date.

This delegation of authority would be granted for a term of **twenty-six (26) months** as from the date of this general meeting.

**Pursuant to the terms of the 16<sup>th</sup> resolution**, it is proposed that you grant the Board of Directors a delegation of authority in order to issue, with cancellation of the shareholders' preferential subscription right, in France or any other country, by means of an offer referred to in article L. 411-2 II of the French Monetary and Financial Code, shares of the Company or negotiable securities giving access by any means, immediately or in future, to existing shares or shares to be issued of the Company.

These issues could only be made in order to finance a recapitalisation operation related to an external growth transaction, or to make a convertible bond issue.

The **maximum nominal amount of the increase in share capital** of the Company, either immediately or in future, resulting from all the issues made pursuant to this delegation of authority is capped at **10% of the Company's share capital** at the date of this general meeting, an amount which will be charged against the overall limit provided for in the 18<sup>th</sup> resolution.

The **maximum nominal amount of debt securities** on the Company that may be issued pursuant to this resolution may not exceed **six hundred (600) million euros** or the equivalent of such amount in foreign currency or in a unit of account, on the date of the decision with regard to the issue, it being specified that this amount would be charged against the total ceiling of six hundred (600) million euros for the issue of debt securities pursuant to the 14<sup>th</sup> to 17<sup>th</sup> resolutions submitted to this general meeting, but that it would be independent of, and separate from, the amount of the debt securities of which the Board of Directors may decide or authorise the issue in accordance with article L. 228-40 of the French Commercial Code

The amount payable or that may subsequently be payable to the Company for each of the shares issued pursuant to this delegation of authority shall be at least equal to the weighted average of the trading prices for the last three trading sessions before the setting of the subscription price for the increase in share capital, which may be reduced, where applicable, by a **maximum discount of 5%**.

This delegation of authority would be granted for a term of **twenty-six (26) months** as from the date of this general meeting.

#### Increase in the number of shares to be issued in the event of a share capital increase with or without a preferential subscription right (green shoe) (17<sup>th</sup> resolution)

The Board of Directors proposes, in the **17**<sup>th</sup> **resolution**, that you delegate to it authority to decide, within thirty days of the close of the subscription period for the initial issue, for each of the issues that may be decided pursuant to the  $14^{th}$  to  $16^{th}$  resolutions that we have described to you above, to increase the number of shares to be issued, within the limit of 15% of the initial issue, subject to compliance with the ceiling provided for in the resolution in respect of which the issue is decided and the overall limit provided for in the  $18^{th}$  resolution, and at the same price as that applied for the initial issue.

This delegation of authority would be granted for a term of **twenty-six (26) months** as from the date of this general meeting.

#### Limit on the overall amount of the authorisations (18th resolution)

The purpose of the  $18^{th}$  resolution is to set an overall limit on the nominal amount of the increases in share capital, to be carried out immediately or in future, with or without the shareholders' preferential subscription right, that may be made by the Board of Directors pursuant to the  $14^{th}$  to $17^{th}$  resolutions that we have described above.

The nominal amount of the increase in share capital referred to in the  $14^{th}$  to  $17^{th}$  resolutions that we propose to you would be capped at **315 million euros**, *i.e.* **50% of the Company's share capital at the date of this general meeting**, it being specified that this amount may potentially be increased by the nominal amount of the additional shares to be issued in order to preserve the rights of holders of negotiable securities giving access to shares of the Company, in accordance with the legal provisions.

#### Delegation of authority to carry out increases in share capital reserved for members of an employee savings plan (19<sup>th</sup> resolution)

It is proposed, in the **19<sup>th</sup> resolution**, that you delegate to the Board of Directors the authority to make issues of shares and/or negotiable securities giving access to the capital of the Company, with cancellation of the shareholders' preferential subscription right, reserved for current and former employees of the Company and of French or foreign companies or groupings that are related to it within the meaning of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labour Code, who are members of an employee savings plan set up in the Company or its group.

The **maximum nominal amount of the increase in share capital** of the Company resulting, immediately or in future, from all the issues made pursuant to this delegation of authority would be capped at 12 million euros, *i.e.* less than 2% of the Company's share capital at the date of this general meeting.

Report of the Board of Directors on the resolutions proposed to the shareholders at the combined general meeting on 15 May 2014

The issue price of the shares to be issued would be equal to the average of the opening trading prices for the Arkema share on the Euronext Paris market for the twenty trading days prior to the date of the decision setting the opening date of the subscription period, less the maximum discount provided for by law on the date of the decision of the Board of Directors, it being specified that the Board of Directors will however be able, if it considers it appropriate, to reduce or eliminate the above-mentioned discount, in order to take into account, in particular, the requirements of the local laws applicable in the event of the offering of shares to members of an employee savings plan on the international market or in a foreign country.

This delegation of authority would be granted for a term of **twenty-six (26) months** as from the date of this general meeting.

#### Powers to perform the legal formalities

The Board of Directors proposes, pursuant to the terms of the **20<sup>th</sup> resolution**, that you grant full powers to the bearer of a copy or an excerpt of the minutes of the general meeting to perform all necessary formalities.

This report contains the main provisions of the text of draft resolutions. We ask you to vote in favour of these draft resolutions.

The Board of Directors

### Statutory auditors' report on the issuance of shares and / or negotiable securities with and without preferential subscription right

## 6.4 STATUTORY AUDITORS' REPORT ON THE ISSUANCE OF SHARES AND / OR NEGOTIABLE SECURITIES WITH AND WITHOUT PREFERENTIAL SUBSCRIPTION RIGHT

This is a free translation of a report issued in the French language and is provided solely for the convenience of English-speaking users. This report should be read in conjunction with and is construed in accordance with French law and professional auditing standards applicable in France.

KPMG Audit

Département de KPMG S.A. 1, cours Valmy 92923 Paris-La Défense Cedex Commissaire aux comptes Membre de la compagnie régionale de Versailles **ERNST & YOUNG Audit** 

1/2, place des Saisons
 92400 Courbevoie – Paris-La Défense 1
 S.A.S. à capital variable
 Commissaire aux comptes
 Membre de la compagnie régionale de Versailles

#### Arkema

Combined general meeting of May 15, 2014

Fourteenth, fifteenth, sixteenth and seventeenth resolutions

#### Statutory auditors' report on the issuance of shares and / or negotiable securities with and/or without preferential subscription right To the Shareholders.

In our capacity as statutory auditors of your Company and with the terms of engagement defined by articles L. 228-92 and L. 225-135 *et seq.* of the French commercial code (*Code de commerce*), we present below our report on the proposals of delegation of authority to the Board of Directors to issue ordinary shares and/or other financial instruments giving access to capital of the Company, operation which are submitted to your approval.

Your Board of Directors proposes to you, on the basis of its report:

- that you delegate to them, with option of sub-delegation, for a period of 26 months, the authority to decide in favour of the operations mentioned below and to definitely set the conditions of these issues and proposes to you, as need be, to cancel, where appropriate, your preferential subscription right:
  - issue, with maintaining shareholders' preferential rights, of ordinary shares in the Company or financial instruments giving access by any means, immediately or in the future, to existing shares in the Company or shares to be issued in the Company (fourteenth resolution),
  - issue, with cancellation of the shareholders' preferential subscription right, by way of public offering, of financial instruments giving
    access by any means, immediately or in the future, to existing shares in the Company or shares to be issued in the Company
    such as bonds redeemable and/or exchangeable in new and/or existing ordinary shares in the Company (fifteenth resolution),
  - issue, with cancellation of the shareholders' preferential subscription right, in France or abroad, by way of offering in compliance with article L. 411-2 II of the financial and monetary Code (*Code monétaire et financier*), of ordinary shares in the Company or financial instruments giving access by any means, immediately or in the future, to existing shares in the Company or shares to be issued in the Company (sixteenth resolution).

The maximum nominal amount of the share capital increase of the Company that may be executed, immediately or in the future, may not exceed  $\leq$ 315 million under the fourteenth resolution, and 10% of the amount of the share capital of your Company under the fifteenth and sixteenth resolutions, the total nominal amount of the share capital increases of the Company that may be executed under the fourteenth, fifteenth, sixteenth and seventeenth resolutions being set at  $\leq$  315 million (eighteenth resolution).

The maximum nominal amount of the debt securities that may be issued under the fourteenth, fifteenth and sixteenth resolutions may not exceed  $\leq 600$  million, the total nominal amount of debt securities that may be issued under the fourteenth, fifteenth, sixteenth and seventeenth resolutions being set at  $\leq 600$  million.

Statutory auditors' report on the issuance of shares and / or negotiable securities with and without preferential subscription right

These ceilings take account of the additional number of securities to be issued under the execution of the delegations of authority covered under the fourteenth, fifteenth and sixteenth resolutions, in accordance with article L. 225-135-1 of the French commercial code (*Code de commerce*), if you adopt the seventeenth resolution.

It is the responsibility of your Board of Directors to prepare a report in accordance with articles R. 225-113 *et seq.* of the French commercial code (*Code de commerce*). It is our responsibility to express an opinion on whether the information issued from the financial statements is fairly stated, on the proposal to cancel the preferential subscription right, and on various other information dealing with the issuance, provided in this report.

We performed the procedures that we considered necessary to comply with the professional guidance issued by the French national auditing body (*Compagnie nationale des commissaires aux comptes*) for this type of engagement. These procedures consisted in verifying the information provided in the Board of Directors' report relating to these operations and the methods used for determining the subscription price of the shares to be issued.

Subject to our further examination of the conditions of issues that may be decided, we have no matters to report on the methods used for determining the subscription price of the securities to be issued given in the Board of Directors' report under the fifteenth and sixteenth resolutions.

In addition, as this report does not detail the methods used for determining the subscription price of the securities to be issued under the fourteenth resolution, we do not express any opinion on the elements of the subscription price calculation.

As the share issue price has not yet been determined, we do not express any opinion on the final conditions, and, accordingly, on the proposal to cancel the shareholders' preferential subscription right under the fifteenth and sixteenth resolutions.

In accordance with article R. 225-116 of the French commercial code (*Code de commerce*), we will issue an additional report, if necessary, when your Board of Directors has exercised this authorization while issuing financial instruments giving access to shares in the Company and while issuing ordinary shares in the Company with cancellation of the preferential subscription right.

Paris La Défense, March 10, 2014 The statutory auditors French original signed by

KPMG Audit

Département de KPMG S.A.

ERNST & YOUNG Audit

Valérie Quint

Jacques-François Lethu

François Quédiniac

Statutory auditors' report on the issuance of shares or marketable securities giving access to existing shares or shares to be issued without preferential subscription right, reserved for employees subscribing to a company savings plan

### 6.5 STATUTORY AUDITORS' REPORT ON THE ISSUANCE OF SHARES OR MARKETABLE SECURITIES GIVING ACCESS TO EXISTING SHARES OR SHARES TO BE ISSUED WITHOUT PREFERENTIAL SUBSCRIPTION RIGHT, RESERVED FOR EMPLOYEES SUBSCRIBING TO A COMPANY SAVINGS PLAN

This is a free translation of a report issued in the French language and is provided solely for the convenience of English-speaking users. This report should be read in conjunction with and is construed in accordance with French law and professional auditing standards applicable in France.

#### **KPMG Audit**

Département de KPMG S.A. 1, cours Valmy 92923 Paris-La Défense Cedex Commissaire aux comptes Membre de la compagnie régionale de Versailles ERNST & YOUNG Audit

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S.A.S. à capital variable
Commissaire aux comptes
Membre de la compagnie régionale de Versailles

#### Arkema

Combined general meeting of May 15, 2014

#### Nineteenth resolution

Statutory auditors' report on the issuance of shares or marketable securities giving access to existing shares or shares to be issued without preferential subscription right, reserved for employees subscribing to a company savings plan

To the Shareholders,

In our capacity as statutory auditors of your Company and in accordance with the terms of our engagement defined by articles L. 228-92 and L. 225-135 *et seq.* of the French commercial code (*Code de commerce*), we hereby report on the proposal to authorize your Board of Directors to decide whether to proceed with a capital increase, in one or more occasions, by issuing shares or marketable securities giving access to existing shares or shares to be issued with cancellation of preferential subscription rights, reserved for employees and former employees of your Company and companies or French and foreign groups related within the meaning of the regulation, subscribing to a company savings plan, for a maximum nominal amount of  $\in 12,000,000$ , an operation upon which you are called to vote.

This capital increase is submitted to your approval in accordance with articles L. 225-129-6 of the French commercial code (*Code de commerce*) and L. 3332-18 *et seq.* of the French Labor code (*Code du travail*).

Your Board of Directors proposes, on the basis of its report, to delegate to them, for a period of twenty-six months, the authority to decide in favour of one or several capital increase operations and to cancel your preferential subscription rights to the shares or marketable securities giving access to existing shares or shares to be issued. Where applicable, the Board of Directors shall definitely set the conditions of these issues.

It is the responsibility of your Board of Directors to prepare a report in accordance with articles R. 225-113 *et seq.* of the French commercial code (*Code de commerce*). It is our responsibility to express an opinion on whether the information issued from the financial statements is fairly stated, on the proposal to cancel the preferential subscription right, and on various others information dealing with the issuance, provided in this report.

Statutory auditors' report on the issuance of shares or marketable securities giving access to existing shares or shares to be issued without preferential subscription right, reserved for employees subscribing to a company savings plan

We performed the procedures that we considered necessary to comply with the professional guidance issued by the French national auditing body (*Compagnie nationale des commissaires aux comptes*) for this type of engagement. These procedures consisted in verifying the information provided in the Board of Directors' report relating to this operation and the methods used for determining the subscription price of the shares to be issued.

Subject to our further examination of the conditions of the share capital increase that may be purposed, we have no matters to report on the methods used for determining the subscription price of the shares to be issued provided in the Board of Directors' report.

As the final conditions of the proposed share capital increase have not yet been determined, we do not express any opinion on the final conditions and, accordingly, on the proposal to cancel the shareholders' preferential subscription right.

In accordance with article R. 225-116 of the French commercial code (*Code de commerce*), we will issue an additional report, if necessary, when your Board of Directors has exercised this authorization.

Paris La Défense, March 10, 2014 The statutory auditors French original signed by

#### **KPMG** Audit

Département de KPMG S.A.

Jacques-François Lethu

François Quédiniac

ERNST & YOUNG Audit

Valérie Quint

Supplementary report on the use made of the delegation of authority granted pursuant to the 16<sup>th</sup> resolution of the combined general meeting of shareholders of 23 May 2012 (article R. 225-116 of the French Commercial Code)

### 6.6 SUPPLEMENTARY REPORT ON THE USE MADE OF THE DELEGATION OF AUTHORITY GRANTED PURSUANT TO THE 16<sup>TH</sup> RESOLUTION OF THE COMBINED GENERAL MEETING OF SHAREHOLDERS OF 23 MAY 2012 (ARTICLE R. 225-116 OF THE FRENCH COMMERCIAL CODE)

We wish to remind you that, in its sixteenth resolution, the combined general meeting of the Company's shareholders held on 23 May 2012 delegated to the Board of Directors its authority, in accordance with article L. 225-138-1 of the French Commercial Code (*Code de commerce*), to increase the share capital through the issue of shares in the capital or negotiable securities giving access to the Company's share capital, reserved for current and former employees of the Company and of companies that are related to it under the conditions of article L. 225-180 of the French Commercial Code and article L. 3344-1 of the French Labour Code, who are members of an employee savings plan.

In accordance with the provisions of article R. 225-116 of the French Commercial Code, it is the Board of Directors' responsibility to prepare an additional report defining the final conditions of the operation, the impact of this increase in share capital on the situation of a shareholder and the theoretical impact on the current stock market value of the share.

## I) Use made by the Board of Directors of the delegation of authority granted by the combined general meeting on 23 May 2012 to carry out an increase in share capital reserved for employees who are members of an employee savings plan

Making use of the above-mentioned delegation of authority, and as it wishes to continue to conduct a dynamic employee share ownership policy, the Board of Directors approved, at its meeting on 23 January 2014, the principle of an increase in share capital reserved for the employees.

Then, at its meeting on 3 March 2014, the Board of Directors:

- set the subscription price for the shares at 64.19 euros. This price corresponds to the average of the last twenty opening trading prices for the share prior to 3 March 2014, i.e. 80.23 euros per share, the average calculated in this manner being subject to a 20% discount, then rounded up to the nearest one tenth of a euro;
- set the subscription period from 7 to 20 March 2014 inclusive;
- set the maximum amount of the increase in share capital at 20 million euros; and
- delegated to the Chairman and Chief Executive Officer the powers to record the final completion of the increase in capital at the close of the subscription period, carry out the formalities resulting from such increase in capital, and in particular those related to listing of the shares created, make the correlative amendments to the Articles of Association and take all measures with a view to the final completion thereof.

Supplementary report on the use made of the delegation of authority granted pursuant to the 16<sup>th</sup> resolution of the combined general meeting of shareholders of 23 May 2012 (article R. 225-116 of the French Commercial Code)

#### II) Impact of the increase in share capital on the situation of a shareholder

The stake in the share capital held by a shareholder holding 1% of the Company's share capital prior to the issue, namely 630,297 shares with a par value of 10 euros each, and not subscribing to such issue, would evolve as follows after completion of the increase in share capital, *i.e.* on 23 April 2014:

		Stake held by the shareholder as a % of the share capital (diluted basis) <sup>(1)</sup>	Total number of shares (undiluted basis)	Total number of shares (diluted basis) <sup>(1)</sup>
Before the issue of the new shares resulting from the share capital increase	1%	0.97%	63,029,692	64,663,864
After the issue of the new shares resulting from the share capital increase <sup>(2)</sup>	0.97%	0.95%	65,029,692	66,663,864

(1) The calculations are made on the basis of all the securities issued that may give access to the capital (share subscription options or free shares granted).

(2) The calculations are made on the basis of the maximum number of shares that may be issued, namely 2,000,000.

#### III) Impact on the share of shareholders' equity of the Company and on a consolidated basis for the holder of one share

The share in consolidated shareholders' equity of a shareholder holding 1% of the share capital before the issue and holding a share of consolidated shareholders' equity of  $\leq 23,490,833.60$  (on an undiluted basis), *i.e.*  $\leq 37.27$  per share, on the basis of the accounting data at 31 December 2013, would increase to  $\leq 24,012,685.40$ , *i.e.*  $\leq 38.10$  per share after taking into account the increase in consolidated shareholders' equity.

	Share of consolidated shareholders' equity (in euros) at 31 December 2013 (undiluted basis)	Company's shareholders' equity (in euros) at 31 December 2013	Share of consolidated shareholders' equity (in euros) at 31 December 2013 (diluted basis) (1)	Share of the Company's shareholders' equity (in euros) at 31 December 2013 (diluted basis) <sup>(1)</sup>
Before the issue of the new shares resulting from the share capital increase	37.27	25.77	36.96	25.75
After the issue of the new shares resulting from the share capital increase <sup>(2)</sup>	38.10	26.95	37.78	26.90

(1) The calculations are made on the basis of all the securities issued that may give access to the capital (share subscription options or free shares granted).

(2) The calculations are made on the basis of the maximum number of shares that may be issued, namely 2,000,000.

#### IV) Theoretical impact of the increase in share capital on the stock market value of the share

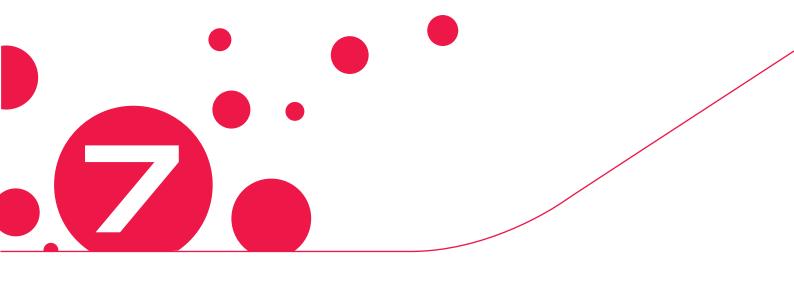
The theoretical impact of the increase in share capital on the current stock market value of the share resulting, firstly, from the average of the opening trading prices for the twenty previous trading sessions and, secondly, from the subscription price is as follows:

	Undiluted basis in euros	Diluted basis (1) in euros
After the issue of a maximum of 2,000,000 new shares	(0.49)	(0.48)

(1) The calculations are made on the basis of all the securities issued that may give access to the capital (share subscription options or free shares granted).

Colombes, 3 March 2014.

The Board of Directors



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## 7.1 PERSON RESPONSIBLE FOR THE REFERENCE DOCUMENT AND PERSONS RESPONSIBLE FOR AUDITING THE FINANCIAL STATEMENTS

### 7.1.1 PERSON RESPONSIBLE FOR THE REFERENCE DOCUMENT

Thierry Le Hénaff, Chairman and Chief Executive Officer, Arkema.

#### 7.1.2 DECLARATION BY THE PERSON RESPONSIBLE FOR THE REFERENCE DOCUMENT

"Having taken all reasonable care to ensure that such is the case, I certify that the information contained in this reference document accurately reflects, to the best of my knowledge, the facts and contains no omission that would be likely to affect its meaning.

I certify, to the best of my knowledge, that (i) the accounts have been prepared in accordance with the relevant accounting standards and give a true representation of the assets, financial situation and result of the Company and all consolidated companies, and (ii) the management report, consisting of the sections of this reference document listed in the reconciliation table given on pages 308 to 312 of this reference document, is a true reflection of the evolution of the business, the results and the financial situation of the Company and all consolidated companies as well as a description of the main risks and uncertainties facing them.

I have obtained a letter from the statutory auditors confirming that they have completed their work and indicating that they have verified the financial situation and the financial statements included in this reference document and that they have reviewed the document as a whole. This letter does not contain any comments regarding this reference document.

The consolidated financial statements for the financial year ended 31 December 2013 and the audit report from KPMG Audit and Ernst & Young Audit, statutory auditors, are included in chapter 4 of this reference document. This report is presented on pages 165 and 166 of this reference document.

The historical financial information and the related reports by the statutory auditors are incorporated by reference in this reference document.

Colombes, 27 March 2014 Thierry Le Hénaff

Chairman and Chief Executive Officer

### 7.1.3 PERSONS RESPONSIBLE FOR AUDITING THE FINANCIAL STATEMENTS

Statutory auditors	Statutory auditors
<b>KPMG Audit</b> Department of KPMG S.A.	Ernst & Young Audit
Represented by Mr Jacques-François Lethu and Mr François Quédiniac	Represented by Mrs Valérie Quint
1, cours Valmy 92923 Paris-La Défense Cedex	1/2, place des Saisons 92400 Courbevoie – Paris – La Défense 1
Appointed at the annual general meeting of 20 May 2008. Current term ends at the conclusion of the annual general meeting to be held in order to approve the financial statements for the year ending 31 December 2013.	Appointed at the annual general meeting of 23 May 2012. Current term ends at the conclusion of the annual general meeting to be held in order to approve the financial statements for the year ending 31 December 2017.

#### Alternate auditor

#### Mr Jean-Marc Decléty

1, cours Valmy

92923 Paris-La Défense Cedex

Appointed at the annual general meeting of 20 May 2008. Current term ends at the conclusion of the annual general meeting to be held in order to approve the financial statements for the year ending 31 December 2013. Alternate auditor

#### AUDITEX

1/2, place des Saisons 92400 Courbevoie – Paris – La Défense 1

Appointed at the annual general meeting of 23 May 2012. Current term ends at the conclusion of the annual general meeting to be held in order to approve the financial statements for the year ending 31 December 2017.

## 7.2 PERSON RESPONSIBLE FOR THE INFORMATION

For any question concerning ARKEMA and its business activities: **Sophie Fouillat**, Vice-President Investor Relations

#### ARKEMA

420, rue d'Estienne d'Orves 92700 Colombes (France) Telephone: +33 (0)1 49 00 74 63 **INFORMATION ON THE REFERENCE DOCUMENT** Cross-reference table and reconciliation table

## 7.3 CROSS-REFERENCE TABLE AND RECONCILIATION TABLE

### 7.3.1 CROSS-REFERENCE TABLE

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Cross-reference table and reconciliation table

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9.2.2.	Discussion of changes in net sales or revenues	4.1.4 and 4.1.5	154-156
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10.	Cash and shareholders' equity	4.1.7	159-160
10.1.	Information about the Company's capital resources (both short-and long-term)	4.1.7 and 4.1.8	159, 161
10.2.	Sources and amounts of the Company's cash flows and description of these cash flows	4.1.8	161
10.3.	Information on the Company's borrowing requirements and funding structure	4.1.7.1	159
10.4.	Information regarding any restrictions on the use of capital resources liable to have a significant effect, whether direct or indirect, on the operations of the Company	4.1.7.2	160
10.5.	Information regarding anticipated sources of funds required to honor the main planned capital expenditure and major expenses relating to the most significant property, plant and equipment items	4.1.7.3	160
11.	Research and development, patents and licenses	1.4	33
12.	Trend information	4.2	163-164
12.1.	Most significant trends in production, sales and inventory, costs and selling prices from the end of the last financial year up to the date of the reference document	4.2.1	163
12.2.	Information on any known trends, uncertainty, demands, commitments or events that are reasonably likely to have a material effect on the Company's outlook for at least the current financial year	4.2	163
13.	Profit forecasts or estimates	Nil	-
14.	Administrative, management and supervisory bodies and Executive Committee of the Company		
14.1.	Names, business addresses and functions in the issuer of the following persons and an indication of the principal activities performed by them outside that issuer where these are significant with respect to that issuer: a) members of the administrative, management or supervisory bodies; b) partners with unlimited liability, in the case of a limited partnership with a share capital; c) founders, if the issuer has been established for fewer than 5 years; and d) any member of the Executive Committee who is relevant to establishing that the issuer has the appropriate expertise and experience for the management of the issuer's business. The nature of any family relationship between any of those persons. In the case of each member of the administrative, management or supervisory bodies of the issuer and of each person mentioned in points (b) and (d) of the first subparagraph, details of that person's relevant management expertise and experience and (a) the names of all companies and partnerships of which such person has been a member of the administrative, management or supervisory bodies or partner at any time in the previous 5 years; (b) any convictions in relation to fraudulent offences for at least the previous 5 years; (c) details of any bankruptcies, receiverships or liquidations for at least the previous 5 years; (d) details of any official public incrimination and/or sanctions of such person by statutory or regulatory authorities and whether such person has ever been disqualified by a court from acting as a member of the administrative, management or supervisory bodies of an issuer or from acting in the management or conduct of the affairs of any issuer for at least the previous 5 years.	3.2.1.2	115
14.2.	Conflicts of interest, undertakings related to appointments, restrictions on the sale of interests in the Company's share capital	3.2.1.1 and 3.2.3	113, 122

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15.2.	Total amounts covered by provisions or recorded elsewhere by the Company and its subsidiaries for purposes of paying pension, retirement or other benefits	3.4.1 and 3.4.2 note 18 of notes to consolidated financial statements	130, 132, 196
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16.3.	Information on the Company's Audit Committee and Compensation Committee	3.3.3.1 and 3.3.3.2	126, 128
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17.	Employees	2.5	88-101
17.1	Number of employees at the end of each period covered by the historical financial information and breakdown of employees by main category of activity and by location	2.5.1.1	89
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17.3.	Description of any arrangements for involving employees in the capital of the Company	2.5.1.3 and 5.2.7	92, 262
18.	Major shareholders	5.3	263-266
18.1.	The name of any person other than a member of the administrative, management or supervisory bodies who, directly or indirectly, has an interest in the Company's capital or voting rights which is notifiable under the issuer's national law, together with the amount of each such person's interest or, if there are no such persons, an appropriate negative statement	5.3.1	263
18.2.	Different voting rights or an appropriate negative statement	5.3.3	264
18.3.	Direct or indirect control over the Company	5.3.2	264
18.4.	A description of any arrangements, known to the Company, the operation of which may at a subsequent date result in a change in control of the Company	5.3.2	264
19.	Related party transactions	5.1.3	256
20.	Financial information concerning the assets, financial condition and results of the Company	4.3 and 4.4	165, 230
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20.2.	Pro forma financial information	Nil	
20.3.	Financial statements	4.3.2 and 4.4.2	167, 232
20.4.	Auditing of historical annual financial information	4.3.1 and 4.4.1	165, 230
20.4.1.	Declaration that the historical financial information has been audited	4.3.1 and 4.4.1	165, 230
20.4.2.	Other information in the reference document which has been audited by the statutory auditors	Nil	-
	Where financial data in the registration document is not extracted from the Company's audited financial statements, state the source of the data and state that the data is unaudited	Nil	-
20.5.	Date of the latest audited financial information	4.3.2 and 4.4.2	167, 232
20.6.	Interim and other financial information	Nil	-
20.6.1.	Quarterly or half yearly financial information published since the last financial statements and, where appropriate, the audit or review report	Nil	-
20.6.2.	Interim financial information, which may be unaudited, covering at least the first six months of the financial year if the reference document is dated more than nine months after the last audited financial year	Nil	-
20.7.	Dividend policy	5.4.6	269

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In accordance with Annex I of EC regulation n° 809/2004 of 29 April 2004		Reference document	
N°	Heading	Reference	Page(s)
20.7.1.	Dividend per share	5.4.6	269
20.8.	Legal and arbitration proceedings	1.7.2.4 and note 20.2 of notes to consolidated financial statements	54, 205
20.9.	Significant change in the issuer's financial or trading position	Nil	-
21.	Additional information	Chapter 5	253-273
21.1.	Share capital	5.2.1	256
21.1.1.	The amount of issued capital, the number of shares authorised, the number of shares issued and fully paid, the number of shares issued but not fully paid, the par value per share and a reconciliation of the number of shares in issue at the beginning and end of the year	5.2.1	256
21.1.2.	Shares not representing capital	Nil	
21.1.3.	The number, book value and par value of shares in the Company held by or on behalf of the issuer itself or by subsidiaries of the issuer	5.2.4	257
21.1.4.	Convertible securities, exchangeable securities or securities with warrants	5.2.6	262
21.1.5.	Information about and terms of any acquisition rights and/or obligations over authorised but unissued capital or an undertaking to increase the capital	Nil	-
21.1.6.	Information about any capital of any member of the Group which is under option or agreed conditionally or unconditionally to be put under option	Nil	-
21.1.7.	History of share capital for the period covered by the historical financial information	5.2.2	257
21.2.	Memorandum and Articles of Association	5.1 and 5.5	
21.2.1.	Company purpose	5.1.1	254
21.2.2.	A brief description of any provision of the Company's Articles of Association, statutes, charter or bylaws concerning the members of administrative, management and supervisory bodies	3.2 and 3.3	113, 123
21.2.3.	A description of the rights, preferences and restrictions attaching to each class of the existing shares	5.5.4	272
21.2.4.	A description of what action is necessary to change the rights of holders of the shares	5.5.2	271
21.2.5.	A description of the conditions governing the manner in which annual general meetings and extraordinary general meetings of shareholders are called, including the conditions of admission	5.5.1	270
21.2.6.	A brief description of any provision of the Company's Articles of Association, statutes, charter or bylaws that would have an effect of delaying, deferring or preventing a change in control of the issuer	5.5.2.2	271
21.2.7.	An indication of the Articles of Association, statutes, charter or bylaw provisions, if any, governing the ownership threshold above which shareholder ownership must be disclosed	5.5.6 and 5.5.7	272, 273
21.2.8.	A description of the conditions imposed by the memorandum and Articles of Association statutes, charter or bylaw governing changes in the capital, where such conditions are more stringent than is required by law	Nil	-
22.	Significant contracts	1.5	37
23.	Third party information and statement by experts and declarations of any interest	Nil	
24.	Documents available to the public	5.1.1	254
25.	Information on shares held by the Company	4.3.2, 4.4.2 and 5.1.2	167, 232, 255

Cross-reference table and reconciliation table

### 7.3.2 RECONCILIATION TABLE

This reference document features all the elements of the Company's management report as required under articles L225-100 *et seq.*, L.232-1 II, L. 233-16, L. 233-26 and R.225-102 of the French Commercial Code (*Code de commerce*) (I). It also features all information from the annual financial report referred to under article L.451-1-2 of the French Monetary and Financial Code (*Code monétaire et financier*) and article 222-3 of the general regulation of the Autorité des marchés financiers (II).

In order to facilitate reading of the management report and the annual financial report mentioned above, the following reconciliation table has been prepared to help identify the sections constituting these reports. However, some sections of this reference document which also constitute sections of the management report by the Board of Directors, have been completed since 3 March 2014, the date at which this report was reviewed by the Board of Directors. It concerns mainly section 1.7.2.

Additionally, in accordance with AMF recommendation  $n^{\circ}$  2010-13, the reconciliation table is designed to help identify social and environmental responsibility data required to be disclosed pursuant to articles R. 225-105 and R. 225-105-1 of the French Commercial Code (Code de commerce) (III). The reconciliation table also helps identify the information required in the Chairman's report pursuant to article L. 225-37 of the French Commercial Code (Code de Commerce) approved by the Board of Directors on 3 March 2014 (IV).

Finally, the reconciliation table also lists the other reports by the Board of Directors and the reports by the statutory auditors (V).

N°	Information	Reference
I I	MANAGEMENT REPORT	
1	Situation and activity of the Company during the past year and, where applicable, its subsidiaries and the companies under its control	1.2 and 1.3
2	Results of the activity of the Company, its subsidiaries and the companies under its control	4.1.5
3	Key financial performance indicators	ARKEMA 2013 highlights
4	Analysis of evolution of the business, the results and the financial situation	4.1 and 4.2
5	Progress achieved or problems encountered	4.2.1
6	Description of main risks and uncertainties facing the Company (including the Company's exposure to financial risks)	1.7.2
7	Indications on the use of financial instruments, and the Company's objectives and policy in terms of financial risk management	1.7.2.5
8	Significant events that have occurred since the accounts closing date	Note 31 of notes to the consolidated financial statements
9	Foreseeable evolution and outlook of the Company	4.2
10	Research and development activities	1.4
11	List of terms of office and duties held in any company by each director in the year ended	3.2.1.2
12	Total compensation and employee benefits of any kind paid to each director in the year ended $^{\left( 1 ight) }$	3.4.1, 3.4.3 and 3.4.4
13	Undertakings of any kind made by the Company for the benefit of its executive officers, corresponding to items of compensation, indemnities or benefits due or expected to be due as a result of the commencement or termination of these duties or to changes in these duties, or post- duties	3.4.2, 3.4.3 and 3.4.4
14	Operations conducted by the directors and members of the Executive Committee on the Company's securities	3.4.5
15	Information regarding social and environmental responsibility	See III of Reconciliation table
16	Shareholdings in companies headquartered in France and representing over 1/20, 1/10, 1/5, 1/3, 1/2 or 2/3 of these companies' capital or voting rights	5.1.2 Annex D to the consolidated financial statements
17	Transfer or disposal of shares undertaken to regularize cross shareholdings	Not applicable
18	Natural persons or corporate bodies holding directly or indirectly over 1/20, 1/10, 3/20, 1/5, 1/4, 1/3, 1/2, 2/3, 18/20 or 19/20 of the Company's share capital or voting rights at annual general meetings	5.3.1, 5.3.2 and 5.3.6

Cross-reference table and reconciliation table

N°	Information	Reference
19	Injunctions or financial penalties in respect of anticompetitive practices	1.7.2.1 and 1.7.2.4 and note 20.2.2 of notes to consolidated financial statements
20	Items that may have an incidence in the event of a public offering:	
	Structure of the Company's capital	5.2.1 and 5.3.1
	Restrictions under the Articles of Association on the exercising of voting rights and the transfer of shares, clauses of the agreements notified to the Company pursuant to article L233-11 of the French Commercial Code	5.5.2
	Direct or indirect shareholdings in the Company's capital of which it is aware under articles L.233-7 and L.233-12 of the French Commercial Code	5.3.1 and 5.3.2
	List of bearers of any securities entailing special controlling rights and description thereof	Not applicable
	Control mechanisms in place for personnel shareholding scheme, if applicable, where controlling rights are not exercised by the latter	Not applicable
	Agreements between shareholders of which the Company is aware and which can entail restrictions on the transfer of shares and on the exercising of voting rights	Not applicable
	Rules applicable to the nomination and replacement of members of the Board of Directors, and to amendments to the Company's Articles of Association	3.2.1, 3.2.3 and 3.3.2.2
	Powers of the Board of Directors, in particular regarding share issuance and buy-back	3.3.1, 3.3.2.1 and 5.2.5
	Agreements reached by the Company and which are amended or lapse in the event of a change of control $\ensuremath{^{(2)}}$	1.5.4, 4.1.7.1 and note 29.2 of notes to the consolidated financial statements <sup>(3)</sup>
	Agreements providing indemnities to members of the Board of Directors or to employees who resign or are made redundant without any real or serious reason or if their job is made redundant as a result of a public offering	3.4.3.4
21	Company management mode (only in the event of amendments)	Not applicable
22	Items of calculation and results of adjustment of conversion bases or of exercising of securities giving access to capital and of stock options	5.2.6
23	Information on share buy-back programs	5.2.4
24	Summary table of outstanding delegations regarding share capital increase	5.2.5
25	Table of results of the Company in the last 5 years	4.4.4
26	Amount of dividends distributed in the last 3 years and dividends eligible for the 40% tax rebate	5.4.6
27	Details of suppliers debts (article D.441-4 of the French Commercial Code)	Note D 7 to the annual financial statements
11	ANNUAL FINANCIAL REPORT	
1	Annual accounts	4.4.2 and 4.4.3
2	Consolidated accounts	4.3.2 and 4.3.3
3	Report by statutory auditors on annual accounts	4.4.1
4	Report by statutory auditors on consolidated accounts	4.3.1
5	Management report featuring at least the information mentioned under articles L.225-100, L.225- 100-2, L.225-100-3 and L.225-211 paragraph 2 of the French Commercial Code	Please see I of this table above, and in particular headings 4, 5, 7, 8, 15, 17, 20 and 21
6	Declaration by the people accepting responsibility for the management report	7.1.2
7	Statutory auditors' fees	Note 30 of notes to the consolidated financial statements
8	Report by the Chairman on the conditions for preparing and organising the Board of Directors' work as well as the internal control procedures implemented by the Company	See IV of this table
9	Report by the statutory auditors prepared pursuant to article L 225-35 of the French Commercial Code	3.6

Cross-reference table and reconciliation table

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-	CROSS-REFERENCE TABLE FOR PERSONNEL AND ENVIRONMENTAL INFORMATION	
1	Key environmental and social indicators	2.2, 2.6 and 2.7
2	Personnel information	
	Employment	
	<ul> <li>Total headcount and breakdown of employees by sex, age and geographical region</li> <li>New recruits, redundancies</li> </ul>	2.5.1.1 2.5.1.2
	Compensation and compensation trends	2.5.1.3
	Organisation of work (I)	
	Organisation of working week	2.5.3.
	Social relations	
	<ul> <li>Organisation of dialogue with social partners, in particular personnel information and consultation as well as negotiation procedures</li> </ul>	2.5.4.
	Review of collective agreements	2.5.4.3 and 2.5.5.3
	Health and safety (I)	
	<ul> <li>Health and safety at work</li> <li>Review of agreements signed with trade unions or personnel representatives on matters of occupational health</li> </ul>	2.5.5.1 2.5.5.3
	Training	
	Policies implemented for training	2.5.2.
	Total number of training hours	2.5.2.
	Equal opportunities – equal treatment	
	<ul> <li>Measures taken for the employment and integration of disabled people</li> </ul>	2.5.6.
	Measures taken for gender equality	2.5.6.
	Anti-discrimination policy	2.5.6.3
	Organisation of work (II)	
	• Absenteeism	2.5.3.2
	Health and safety (II)	
	<ul> <li>Occupational accidents, in particular their frequency and severity, as well as occupational illnesses</li> </ul>	2.1.2 and 2.5.5.4
	Promotion and compliance with the provisions of the core conventions of the International Labour Organisation regarding	
	<ul> <li>Respect for freedom of association and right to collective bargaining</li> <li>Elimination of discrimination on matters of employment and profession</li> <li>Elimination of forced or compulsory labour</li> </ul>	2.5.7. 2.5.7. 2.5.7.
3	Effective abolition of child labour     Environmental information	2.5.7.3
•		
	General environmental policy (I)	
	<ul> <li>Organisation of the Company to address environmental issues, and, where applicable, environmental evaluation or certification initiatives</li> </ul>	2.1.1 and 2.2.1.
	Employee training and information regarding environmental protection	2.1.1.2 and 2.5.2.
	Resources allocated to the prevention of environmental risks and pollutions	2.1.1.2 and 2.2.
	Pollution and waste management	
	<ul> <li>Measures for the prevention, reduction or remediation of emissions to air, water and soil with a serious impact on the environment</li> <li>Measures for the prevention, recycling and disposal of wastes</li> </ul>	2.2.1.
	<ul> <li>Addressing noise pollution and all other forms of pollution specific to an activity</li> </ul>	2.2.1.
	Climate change <ul> <li>Greenhouse gas emissions</li> </ul>	2.2.1.4

Cross-reference table and reconciliation table

N°	Information	Reference
	Sustainable use of resources (I)	
	<ul> <li>Consumption of water and water supply based on local constraints</li> <li>Consumption of raw materials and measures taken to improve their efficient use</li> <li>Consumption of energy and measures taken to improve energy efficiency and the use of renewable energies</li> </ul>	2.2.1.3 2.2.1.3 2.2.1.3
	Protection of biodiversity	
	Measures taken to protect or develop biodiversity	2.2.1.5
	General environmental policy (II)	
	Amount of provisions and guarantees for environmental risks	2.2.1.6 and note 19.3 of notes to the consolidated financial statements
	Sustainable use of resources (II)	
	Usage of soils	2.2.1.3
	Climate change (II)	
	Adaptation to the consequences of climate change	2.2.1.4
	Information on technological accident risk prevention, the Company's ability to cover its civil liability in terms of property and people due to classified facilities, and resources provided to oversee the processing of victim compensation in the event of a technological accident for which the Company bears responsibility	1.7.2.3 and 2.1
4	Societal information in favour of sustainable development	
	Territorial, economic and social impact of the Company's activity	
	<ul><li>On employment and regional development</li><li>On local or neighbouring populations</li></ul>	2.4.1 2.4.1
	Relations with the people and organisations interested in the Company's activity, in particular employment associations, educational establishments, environmental associations, consumer associations and local communities	
	<ul><li>Conditions of dialogue with these people or organisations</li><li>Partnership and sponsorship actions</li></ul>	2.4.2.1 2.4.2.2
	Subcontracting and suppliers (I)	
	<ul> <li>Social and environmental issues in the procurement policy</li> </ul>	2.4.4
	Subcontracting and suppliers (II)	
	<ul> <li>Importance of subcontracting, and social and environmental issues in relations with suppliers and subcontractors</li> </ul>	2.4.4
	Fair practices	
	Actions undertaken to prevent corruption	2.4.3
	<ul> <li>Measures taken to protect the health and safety of consumers</li> </ul>	2.2.2.2
	<ul> <li>Other actions undertaken to protect human rights</li> </ul>	2.5.7
V	REPORT BY THE CHAIRMAN ON THE WORK OF THE BOARD AND THE INTERNAL CONTROL PROCEDU	JRES
1	Composition of the Board, and application of balanced gender representation within the Board	3.2.1.1
2	Conditions for the preparation and organisation of the work of the Board	3.3.2 and 3.3.3
3	Internal control and risk management procedures put in place by the Company, detailing in particular those relating to the preparation and treatment of accounting and financial information for the corporate financial statements and, where applicable, the consolidated financial statements	1.7.1
4	Potential limitations imposed by the Board on the powers of the CEO	3.3.1
5	Where a company voluntarily applies a corporate governance code drawn up by business organisations: provisions that were discarded, and the reasons why they were discarded, as well as the place where the code may be consulted	3.1 and 3.4.2
6	Where applicable, the reasons why the Company decided not to apply any of the provisions of a corporate governance code and the rules followed in addition to the requirements of the law	Not applicable

Cross-reference table and reconciliation table

N°	Information	Reference
7	Specific conditions for shareholder participation in general meetings or referral to the provisions of the Articles of Association that provide for these conditions	5.5.1 and 5.5.2
8	Principles and rules laid down by the Board of Directors to determine the compensation and benefits in all kind awarded to corporate officers	3.4
9	Reference to the publication of information provided for under article L. 225-100-3 of the French Commercial Code	See I.20 of this reconciliation table
V	OTHER DOCUMENTS	
1	Statutory auditors' report prepared pursuant to article L. 225-235 of the French Commercial Code	3.6
2	Special report by statutory auditors on regulated agreements and commitments	6.1
3	Draft agenda of the combined general meeting on 15 May 2014	6.2.1
4	Draft resolutions proposed to the combined general meeting on 15 May 2014	6.2.2
5	Report by the Board of Directors to the combined general meeting on 15 May 2014	6.3
6	Statutory auditors' report on the issuance of shares and / or negotiable securities with and without preferential subscription right	6.4
7	Statutory auditors' report on the issuance of shares or marketable securities giving access to existing shares or shares to be issued without preferential subscription right, reserved for employees subscribing to a company savings plan	6.5
8	Supplementary report on the use made of the delegation of authority granted pursuant to the 16 <sup>th</sup> resolution of the Combined General Meeting of shareholders of 23 May 2012 (article R. 225-116 of French Commercial Code)	6.6
9	Fairness opinion of an independent third party pursuant to article L.225-102-1 of the French Commercial Code	2.8

(1) This includes compensations and employee benefits granted by the Company and its subsidiaries, including in the form of allocation of equity securities, debt securities, or securities giving access to equity. A distinction should be made between the fixed, variable and exceptional components making up these compensations and employee benefits, as well as the criteria used to calculate them or the circumstances on the basis of which they have been established.

(2) Except if this disclosure, excluding cases of lawful disclosure, were to violate the Company's interests.

(3) The significant contracts will need to be reviewed to establish whether they feature or otherwise clauses on change of control.

# GLOSSARY

Term	Definition
Acrylic acid	An acid derived from propylene and mainly used as an intermediate in the preparation of superabsorbents and derivatives used in the manufacture of paints, inks and adhesives.
Acrylic esters	Acrylic acid esters.
Activated carbon	Processed charcoal used for its properties as an adsorption agent (i.e. the retention of molecules of a gas or a substance in solution or suspension on the surface of a solid).
Adsorption	The retention of molecules of a gas or a substance in solution or suspension on the surface of a solid.
Amines	A compound obtained by substituting monovalent hydrocarbon radicals for one of the hydrogen atoms of ammonia.
Carbon nanotubes	Cylindrical structure consisting of coils of one to tens of graphite planes, with a diameter ranging from 10 to 100 nanometers, and a few microns in length.
Chloromethane	A molecule obtained by substituting one atom of chlorine for one of the hydrogen atoms of methane. It is used mainly in the manufacture of fluorinated derivatives and silicones.
CO <sub>2</sub>	Carbon dioxide.
COD	Chemical oxygen demand. A parameter for measuring water pollution by organic compounds, whose decomposition consumes oxygen.
Copolyamide	A polyamide obtained from two or more types of monomer.
Crosslinking	The modification of a linear polymer into a three-dimensional polymer by creating crosslinks.
Debottlenecking	A modification made to an industrial installation in order to increase production capacity.
Diatomites	Unicellular micro-organisms used in their fossil state (diatomites) by the chemical industry for their properties as filter aid.
DMAEA	Abbreviation for dimethylaminoethyl acrylate.
DMDS	Abbreviation for dimethyldisulfide.
Dioctylphthalate or DOP	An ester made from phthalic anhydride and mainly used as a plasticiser.
EDA	Refers to copolymers and terpolymers made from ethylene and acrylic esters.
EFPI (Environmental Footprint Performance Indicator)	Intensive indicator used by ARKEMA to neutralise the impact of changes to the business base or the production volume, and to follow up the evolution of its environmental performance relative to its 2020 targets.
Emulsions	Binders for paints, adhesives or varnishes produced by polymerisation of monomers (acrylic, vinyl, and others), and forming a stable dispersion in water of polymer particles which, when coated and dry, form a continuous film.
Extensive indicator	Indicator expressed in absolute value (in tonnes of emissions, in Mm <sup>3</sup> or TWh of consumptions).
Functional polyolefins	Ethylene-derived polymers used as binding agents in multilayer food packaging and other industrial applications.
GHGs	Greenhouse gases.
GWP (Global Warming Potential)	Index measuring the impact of a given mass of gas estimated to contribute to global warming, expressed in relation to carbon dioxide.
H <sub>2</sub> S	Hydrogen sulfide.
HCFCs	Hydrochlorofluorocarbons.
Heat stabilizers	Additives used to improve a polymer's resistance to heat.



HF	Hydrofluoric acid.
HFCs	Hydrofluorocarbons. Hydrogen-, carbon- and fluorine-based products that are mainly used in refrigeration as substitutes to CFCs (chlorofluorocarbons), following the introduction of the Montreal Protocol.
Hotmelts	Thermoplastic adhesives.
Hydrazine hydrate	A nitrogen-, hydrogen- and water-based product used as an intermediate in agrochemicals, pharmaceuticals, chemical synthesis, water treatment and blowing agents for plastics and elastomers.
ICCA	International Council of Chemical Associations.
IDEEL	Instituts des Énergies Décarbonées et Écotechnologies de Lyon. Interdisciplinary platforms in the field of low- carbon energies in France.
Impact modifiers	Additives introduced into certain products, in particular PVC, to make them more impact-resistant.
Initiators	Products used to initiate chemical reactions.
Intensive indicator	Intensity indicator relative to production volumes.
Interface agents	Products used in the formulation of additives.
IRT	Instituts de Recherche Technologique. Interdisciplinary technological research platforms in France.
ISO 14001	An international standard that defines the criteria for introducing an environmental management system in companies.
Kyoto Protocol	An international agreement between 84 countries on 11 December 1997 in Kyoto (Japan), which is complementary to the Convention on Climate Change of May 1992 within the framework of the United Nations (known as UNFCCC – United Nations Framework Convention on Climate Change). The Kyoto Protocol came into force on 16 February 2005.
Latex	Binders for paints, adhesives and varnishes produced by polymerisation of monomers (acrylic, vinyl and others) and forming a stable dispersion in water of polymer particles which, coated and dried, form a continuous film.
Mercaptans	Thio-alcohols and phenols.
Methyl methacrylate (MMA)	An essential raw material in the manufacture of polymethyl methacrylate (PMMA) for the automotive, construction and equipment industries. Methyl methacrylate is used not only in the manufacture of PMMA, but also in the fields of acrylic emulsions and plastic additives.
MIS	Refers to organic materials in suspension. These are solid particles present in water that can be retained by physical or mechanical means (filtration and sedimentation).
Molecular sieves	Synthesised mineral products used to purify liquids and gases by the selective adsorption of molecules.
NOx	Nitrogen oxides.
ODP (Ozone Depletion Potential)	Index measuring the impact of a given mass of gas estimated to contribute to the depletion of the ozone layer expressed in relation to the impact of a chlorofluorocarbon.
Organic peroxides	Oxidising organic products used as initiators for polymerisation and as crosslinking agents.
Oxo-alcohols	Alcohols derived from propylene and used as synthesis intermediates.
Oxygenated solvents	Substances such as alcohols, ketones and ethers that contain oxygen atoms and have the ability to dissolve other substances without modifying them chemically.
Perlite	A natural silicate of volcanic origin used in industry for its properties as a filter aid.
Photocure resins	Synthetic resins that harden under the effect of ultraviolet light.
Phthalic anhydride	An orthoxylene derivative mainly used in the manufacture of plasticisers and as a synthesis intermediate.
PMMA	The ISO code for polymethyl methacrylate.

#### GLOSSARY

Polyamide 10 (PA10), Polyamide 11 (PA 11) and Polyamide 12 (PA 12)	Thermoplastic polyamides, whose monomers have 10, 11 and 12 carbon atoms, respectively.
Polyethylene	A plastic obtained by the polymerisation of ethylene.
Polymerisation	The union of several molecules of one or more compounds (monomers) to form a large molecule.
Polymers	Products made by polymerisation.
Polyphthalamide (PPA)	A thermoplastic material from the polyamide family, obtained by polymerisation of aromatic diacides and aliphatic diamines, and characterised by high melting point and high mechanical rigidity.
Polystyrene	A plastic obtained by the polymerisation of styrene, an aromatic compound.
Processing agents	Products that facilitate the conversion of polymers by molding or extrusion.
Product life cycle	Refers to the various processing stages of a material, from raw material extraction through to management of end-of-life.
PTFE	The ISO code for polytetrafluoroethylene.
PVC	The ISO code for vinyl polychloride or polyvinyl chloride.
PVDF	The ISO code for polyvinylidene fluoride.
REACH (Registration, Evaluation and Authorisation of Chemicals)	The European regulation n° 1907/2006 of the Parliament and the Council dated 18 December 2006, concerning the registration, evaluation and authorisation of chemical substances, that came into force on 1 June 2007.
RCMS	The Responsible Care® Management System.
Responsible Care®	A voluntary initiative by the world chemical industry to achieve continuous progress in safety, health and environment, managed in France by the UIC under the name of " <i>Engagement de progrès®</i> " ("Commitment to Progress").
Sebacic acid	Diacid derived from castor oil, used as an intermediate in the manufacture of bio-sourced polymers, plastics, lubricants, and anti-corrosion agents.
SO <sub>2</sub>	Sulfur dioxide.
Sodium chlorate	Sodium salt used in the treatment of paper pulp, as a herbicide, or as a synthesis intermediate.
Sodium perchlorate	Sodium salt used as a synthesis intermediate.
SOx	Sulfur oxides.
Stabilizers	Additives used to preserve a given composition of a product.
Surfactant	An agent that causes an increase in a liquid's flow and wetting properties by lowering its surface tension.
The Spin-Off of ARKEMA's Businesses	Refers to the transaction, the subject of the prospectus that received the Autorité des marchés financiers visa n° 06-106 dated 5 April 2006.
UIC	Union des Industries Chimiques (Union of Chemical Industries). The professional body of the chemical industry in France.
Unsaturated polyesters	Esters with high molecular weights produced by the linking of numerous ester molecules that have double bonds between carbon atoms.
VF2	The PVDF monomer.
Vinyl acetate	An ester derived from methanol and mainly used as raw material for EVAs (functional polyolefins).
voc	Volatile Organic Compounds.



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