REFERENCE DOCUMENT 2016

INCLUDING THE ANNUAL FINANCIAL REPORT

ARKEMA
INNOVATIVE CHEMISTRY

ARKEMA AT A GLANCE 2

1 OVERVIEW AND RISK FACTORS 13

1.1 A global player in specialty chemicals and advanced materials 14
1.2 Overview of the Group's divisions AFR 20
1.3 Capital expenditure AFR 32
1.4 R&D strategy and innovation AFR 34
1.5 Material contracts AFR 41
1.6 Operational excellence strategy 44
1.7 Risk factors AFR 46
1.8 Selected financial information AFR 67

2 CORPORATE SOCIAL RESPONSIBILITY 69

2.1 Arkema's social responsibility approach AFR 70
2.2 CSR governance 75
2.3 Health and safety information AFR 76
2.4 Environmental information AFR 87
2.5 Innovation information AFR 101
2.6 Social information AFR 104
2.7 Societal information AFR 124
2.8 Reporting methodology 132

3 CORPORATE GOVERNANCE 149

3.1 Compliance with the corporate governance system AFR 150
3.2 Composition of administrative and management bodies AFR 151
3.3 Operating procedures of administrative and management bodies AFR 163
3.4 Compensation and benefits awarded to executives and directors AFR 171
3.5 Stock-based compensation 184
3.6 Statutory auditors' report in accordance with Article L. 225-235 of the French Commercial Code AFR 190

4 FINANCIAL AND ACCOUNTING INFORMATION AFR 193

4.1 Comments and analysis on consolidated financial statements 194
4.2 Trends and outlook 205
4.3 Consolidated financial statements 207
4.4 Company's annual financial statements 271

5 INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL AFR 291

5.1 Legal presentation of the Group 292
5.2 Share capital 294
5.3 Share ownership 301
5.4 Stock market 305
5.5 Extract from the Articles of Association 309

6 ANNUAL GENERAL MEETING AFR 313

6.1 Statutory auditors' special report on related-party agreements and commitments 314
6.2 Proposed agenda and proposed resolutions submitted to the annual general meeting 316
6.3 Board of Directors' report on the resolutions submitted to the annual general meeting of 23 May 2017 320
6.4 Statutory auditors' report on the authorization to reduce the share capital by canceling shares 323

7 INFORMATION ABOUT THE REFERENCE DOCUMENT 325

7.1 Person responsible for the reference document and persons responsible for auditing the financial statements AFR 326
7.2 Person responsible for the information 327
7.3 Concordance and cross-reference tables 328

GLOSSARY 337

The different parts constituting the annual financial report are identified in the table of contents by the pictogram AFR

ARKEMA

REFERENCE DOCUMENT

including the annual financial report

2016

AUTORITÉ DES MARCHÉS FINANCIERS

AMF

This document is a free translation of the French language reference document that was filed with the French Financial Markets Authority (*Autorité des marchés financiers - AMF*) on 30 march 2017, in accordance with Article 212-13 of its general regulations. It may be used to support a financial operation only if supplemented by a transaction note approved by the AMF. This document was drafted by the issuer and is binding for its signatories.

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 the Group 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.

LETTER

from Thierry Le Hénaff

Chairman and Chief Executive Officer

Ladies and Gentlemen,

The Group once again delivered a record financial performance in 2016. In a business environment marked by an overall moderate global growth and an increase in raw material prices at year-end, EBITDA reached €1,189 million, a significant increase of 12.5% compared with an already very robust 2015. Free cash flow was very high, at €426 million, as was the case in 2015, and adjusted net income rose by 34% over the year. Arkema also confirmed its high ambition, announced in 2014, of achieving €1.3 billion EBITDA in 2017.

Beyond these figures, this performance reflects the success of our targeted growth strategy, which is aimed at strengthening our leadership positions in our main markets and developing innovative and high value-added products for our customers. Since its stock market listing ten years ago, Arkema has profoundly transformed itself and is now a major player in specialty chemicals and advanced materials. The Group's substantial and regular cash flow generation together with its very solid balance sheet, its balanced geographic footprint that enables it to take advantage of the faster growing economies and the large majority share of specialty businesses offering more resilient performance, constitute the strengths of the new Arkema.

This transformation could not have been achieved without the commitment and motivation of our 20,000 employees. Around the world, each at their own level, inspired by a shared culture of working together and meeting the highest standards, they have helped to drive the success of the many projects that have positioned Arkema on a favorable long-term trajectory.

One of the major factors has been the 2015 acquisition of Bostik, a leader in the growing adhesives and sealants market, whose financial performance and growth since joining Arkema have exceeded our expectations. Bostik met the target of 30% growth in EBITDA set at the time of its acquisition a year ahead of schedule, confirming the rationale of adding this product line to our portfolio. In the still fragmented adhesives market, Bostik's strategy is to double its future organic growth by making targeted acquisitions. The acquisition, in late 2016, of Den Braven in the high performance sealants segment, is fully consistent with this strategy.

Over the years, the Group has also considerably expanded its range of advanced materials solutions. Marketed under widely-recognized brands such as Rilsan®, Orgasol®, Pebax® and Kynar®, these products are ideally positioned to meet the major challenges of offering lighter materials, developing new energies and improving access to drinking water. They have also enjoyed wide-ranging market success in recent years, led by their major, dedicated innovation programs and the investments made by the Group to build a strong presence in Asia. This capacity for innovation was recognized, for the sixth year in a row, by our inclusion in Clarivate Analytics' list of the Top 100 Global Innovators. In response to the strong growth in our specialty polymers business, we are gradually increasing production capacity, as evidenced by our recent announcements in specialty polyamides and PVDF in Asia, and the project to build a world-class unit in the United States in 2018 to produce PEKK, our "extreme polymer" with properties comparable to certain metals.

Lastly, we have considerably expanded our Thiochemicals business, consolidating our position as the global market leader based on top-ranking partnerships and tailor-made services to our customers. The start-up in 2015 of the new industrial complex in Malaysia, for an investment representing more than €200 million, and its very fast ramp-up together represent another major step in the growth of this product line, in addition to our American and French positions.

All of our projects have been carried out while maintaining very strict financial discipline. While EBITDA has improved from €355 million to nearly €1.2 billion over the past ten years, our net debt has remained tightly under control, with the 35% gearing ratio at end 2016 comparable to the figure at the time of our stock market listing.

Lastly, Arkema has made significant progress in the area of corporate social responsibility. Thanks to our very high priority focus on safety and our teams' efforts in this area, our safety performance has improved considerably and now ranks among the best in the industry. We have also set ambitious targets to reduce our environmental footprint, while our technologies and solutions are helping customers to address the major sustainable development challenges of our time. As well, last year we broadened our CSR commitment with two new objectives to increase the percentage of women and non-French nationals in our executive teams.

Along with our various capital expenditure and business development projects, these commitments will help to drive Arkema's sustainable and responsible growth. They are supporting our ambition to continue creating value for all our stakeholders, and particularly our shareholders. Over the past ten years, our share price has increased by 3.5 times, including a 44% gain in 2016. In addition to this share price appreciation, shareholders have benefited from our dividend policy aiming at paying each year a dividend that is the same or higher than the prior year's. The Board of Directors has therefore recommended the payment of a dividend of €2.05 per share in respect of 2016, an increase of 8% compared with 2015.

The tenth anniversary in 2016 of our stock market listing is only a milestone. In the years ahead, Arkema will continue to deploy its transformation project. We have great ambitions for growth as this new chapter begins, and we are convinced that Arkema's geographic and technological positioning, its entrepreneurial, customer-focused culture, the many growth catalysts now in place, its very robust balance sheet and its high-quality management teams offer unmatched competitive strengths to continue creating value over the long term.

Thierry Le Hénaff

HIGHLIGHTS

2016

Organic growth

APRIL
Bostik: increase in cement-based mortars and adhesives production capacities in the Philippines

MAY
Bostik: increase in cement-based mortars and adhesives production capacities in Malaysia

JULY
Bostik: increase in production capacities of cement-based construction products in Sweden

SEPTEMBER
Technical Polymers: announcement of specialty polyamide production capacity increases in the United States and China for 2017

OCTOBER
Coating resins: announcement of the construction of a polyester powder resin facility in India in 2018

Technical Polymers: announcement of a 25% PVDF Kynar® production capacity increase in China in 2017

Innovation

- Pierre Potier prize for a new Kynar® fluorinated polymer for water ultrafiltration
- Opening of an innovation center in South Korea based within the HanYang University in Seoul
- Ranked among the 100 most innovative companies in the world by Clarivate Analytics for the 6th time in a row

Portfolio management

MAY
Acrylics: agreement for a 50/50 split in capacity rights in the Taixing Sunke Chemical joint venture in China

NOVEMBER
Performance Additives: divestment of the activated carbon and filter aids business (€93 m sales and €145 m enterprise value)

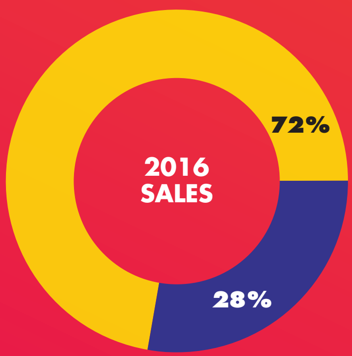
DECEMBER
Bostik: acquisition of Den Braven, a European leader in high performance sealants (€345 m sales and €485 m enterprise value)

Corporate Social Responsibility

Arkema strengthens its long-term Corporate Social Responsibility targets, setting itself ambitious new objectives for 2025 in the areas of safety and the environment, with a particular focus on greenhouse gas, volatile organic compound and chemical oxygen demand emission reduction as well as on the reduction of its energy purchases

A SIGNIFICANT STEP-UP IN THE GROUP'S PROFILE

A portfolio refocused on more resilient and higher value added specialty businesses



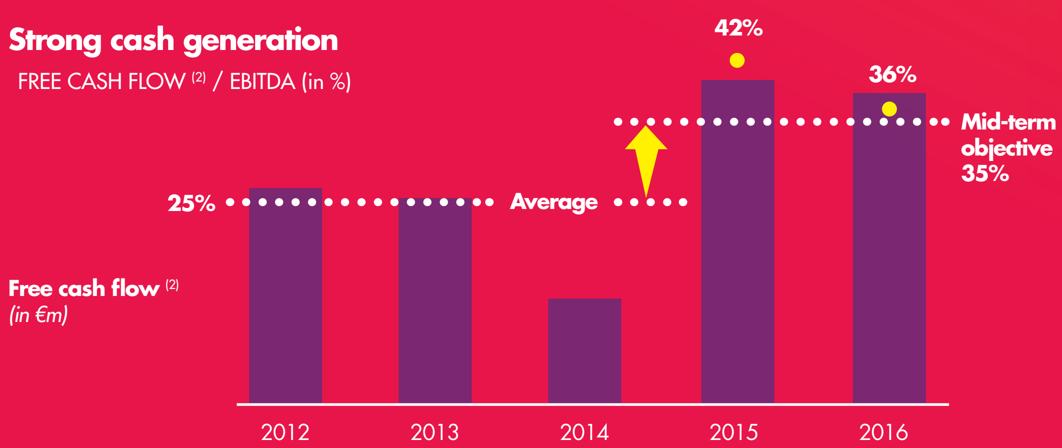
A rebalanced geographic footprint

Leadership positions in 90% of the Group's portfolio of businesses

- **#1** SPECIALTY POLYAMIDES
- **#1** PVDF
- **#2** ORGANIC PEROXIDES
- **#3** ADHESIVES
- **#1** THIOCHEMICALS
- **#2** PMMA
- **#3** FLUOROGASES
- **#3** HYDROGEN PEROXIDE
- **#2** ACRYLIC MONOMERS
- **#3** COATING RESINS

Strong cash generation

FREE CASH FLOW [2] / EBITDA (in %)



(1) Acrylics, Fluorogases and PMMA.

(2) Free cash flow excluding M&A, exceptional capex, dividend and cost of hybrid.

KEY FIGURES

2016

€7,535 M
Sales

€1,189 M
EBITDA

15.8%
EBITDA margin

Adjusted net income per share
€5.56

Free cash flow [1]
€426 M

Dividend per share [2]
€2.05

Net debt
€1,482 M

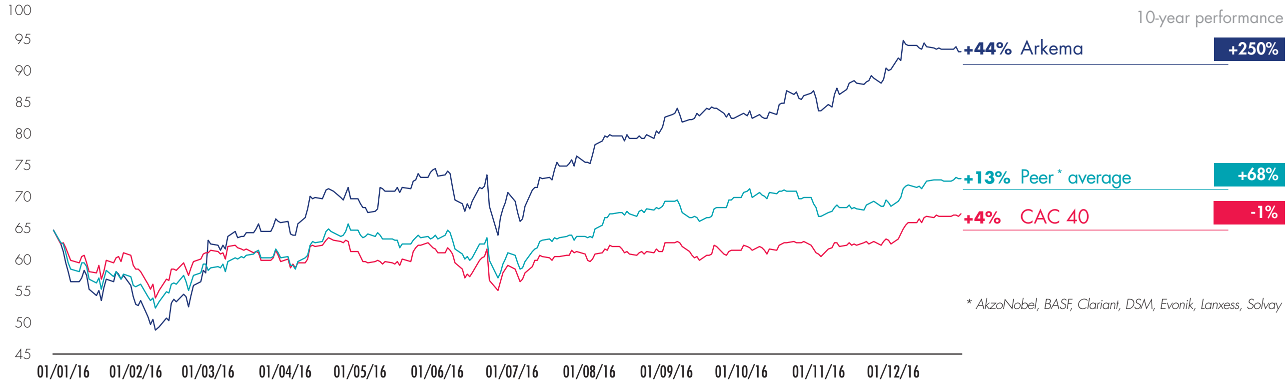
Capital expenditure [3]
€423 M

Number of employees
19,637

Number of industrial sites
133

Share price in 2016

(in euros)



(1) Free cash flow excluding M&A, exceptional capex, dividend and cost of hybrid.
(2) Dividend proposed to the shareholders' annual general meeting of 23 May 2017.
(3) Excluding reallocation of assets without any impact on net debt.

A VALUE-CREATING STRATEGY AND CATALYSTS OF FUTURE GROWTH WELL IN PLACE

5 CATALYSTS

Specialty Adhesives

A strong ambition for Bostik with an EBITDA target of around €300 m in 2020

Innovative materials

Pursue developments in lightweight materials, new energies, 3D printing and water treatment

Molecular sieves

Ramp up the new Honfleur unit in France to meet growing demand for synthetic textiles and PET bottles in Asia and the Middle East

Downstream acrylics

Offer our customers environmentally friendly solutions to support them in their development across the world

Thiochemicals

Support the growth of our customers in the animal nutrition, refining and petrochemicals markets

5 STRATEGIC PRIORITIES

- Innovate in sustainable development
- Accelerate growth in High Performance Materials
- Complete the geographic rebalancing
- Maintain the emphasis on operational excellence
- Strengthen the business portfolio through bolt-on acquisitions





OUR BUSINESSES

HIGH PERFORMANCE MATERIALS

High value added and innovative solutions to address sustainable development megatrends

KEY FIGURES *(in €m)*	**2016**	2015
Sales	**3,422**	3,358
EBITDA	**570**	506
EBITDA margin	**16.7%**	15.1%
Recurring operating income	**416**	354

INDUSTRIAL SPECIALTIES

Leadership positions in integrated industrial niches with high profitability

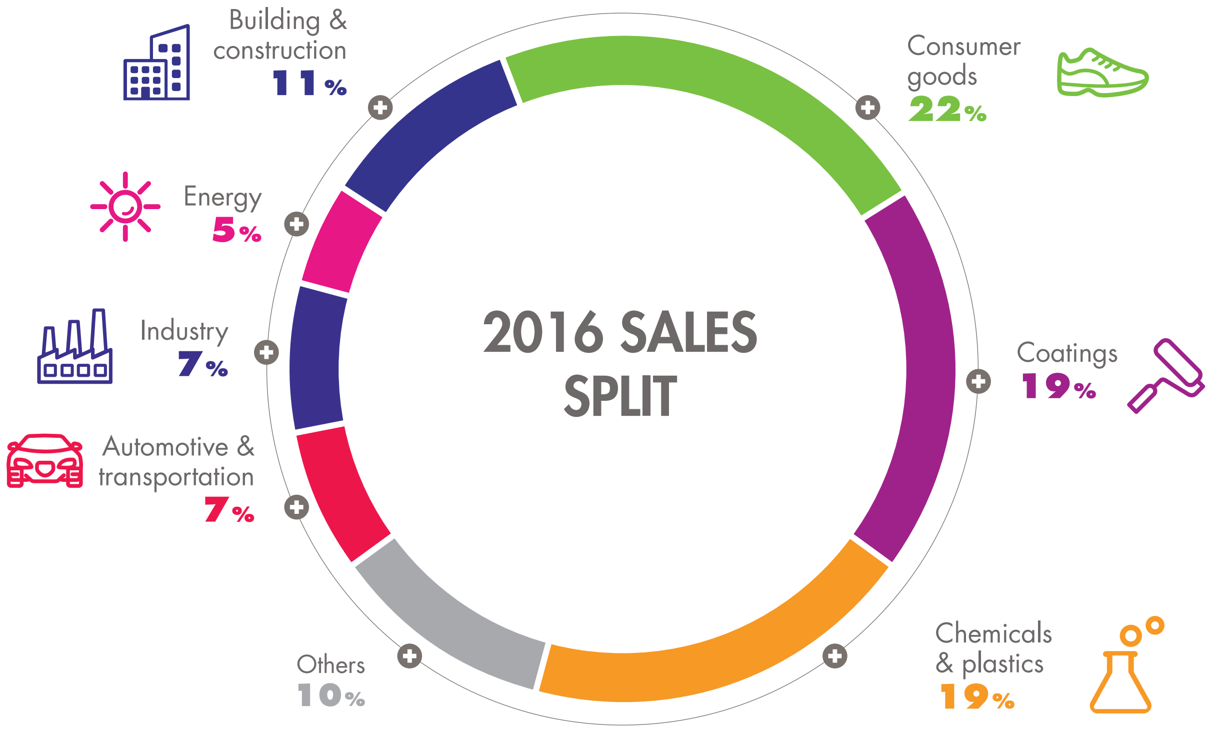
KEY FIGURES *(in €m)*	**2016**	2015
Sales	**2,316**	2,450
EBITDA	**473**	418
EBITDA margin	**20.4%**	17.1%
Recurring operating income	**300**	237

COATING SOLUTIONS

Solutions for decorative paints, industrial coatings and steadily growing acrylic applications

KEY FIGURES *(in €m)*	**2016**	2015
Sales	**1,771**	1,849
EBITDA	**208**	190
EBITDA margin	**11.7%**	10.3%
Recurring operating income	**83**	72

DIVERSIFIED AND GROWING END MARKETS



CORPORATE
SOCIAL RESPONSIBILITY

2016 KEY FIGURES

Safety
0 accidents
81% of Group sites reported zero accidents in 2016

Environment
230 GWh
Total energy savings achieved by the Group in 2016, representing the equivalent of the annual energy consumption of 50,000 French households

Innovation
116 patents
Number of patent applications filed by the Group in 2016 in sustainable development

Stakeholders
25 material topics
Stakeholders confirmed the importance of the 25 CSR topics during the first materiality assessment carried out in 2016. Focused initiatives will be put in place in these areas

Human resources
2 new targets
Increase the number of women and non-French nationals in executive positions

INNOVATION

More than **1,500** researchers

2.9% of Group sales dedicated to R&D

196 priority patent applications

FOCUS

PEKK: an innovation for the future

The Poly-Ether-Ketone-Ketone (PEKK) marketed under the brand name Kepstan® is a polymer offering very high resistance to temperature and pressure. Much lighter than metal, it is the material of choice for the most demanding applications.

In early 2017, Arkema announced a two-fold increase of its PEKK production capacities in France and confirmed the construction of a world-scale unit at its Mobile site (Alabama) in the United States, which is due to come on stream in the second half of 2018.


3D PRINTING


AEROSPACE


OFFSHORE OIL AND GAS

BOARD OF DIRECTORS

(COMPOSITION AT THE DATE OF THIS REFERENCE DOCUMENT)

13 directors

82%
independence rate*

8 meetings in 2016

95%
attendance rate

* *In accordance with the criteria of the AFEP-MEDEF Code.*

Chaired by Thierry Le Hénaff, Chairman and CEO

- 5 women
- 1 senior independent director
- 1 director representing employees
- 1 director representing shareholder employees


Thierry **Le Hénaff**


Patrice **Bréant**


Marie-José **Donsion**


François **Enaud**


Bernard **Kasriel**


Victoire **de Margerie**


Laurent **Mignon**


Hélène **Moreau-Leroy**


Thierry **Morin**


Nathalie **Muracciole**


Marc **Pandraud**


Philippe **Vassor**


Isabelle **Boccon-Gibod**

SPECIALIZED COMMITTEES

2
specialized committees
largely made up of independent directors

AUDIT AND ACCOUNTS COMMITTEE

6 meetings in 2016

100%
attendance rate

NOMINATING, COMPENSATION AND CORPORATE GOVERNANCE COMMITTEE

3 meetings in 2016

100%
attendance rate

1
annual seminar
of the Board dedicated to the Group's strategy with an attendance rate of 100%

EXECUTIVE COMMITTEE

A RECOGNIZED TEAM FULLY COMMITTED TO THE GROUP'S SUCCESS


Thierry Le Hénaff,
Chairman
and CEO


Marc Schuller,
Industrial
Specialties and
Coating Solutions


Vincent Legros,
Specialty
Adhesives


Christophe André,
Technical Polymers
and Performance
Additives


Luc Benoit-Cattin,
Industry


Thierry Lemonnier,
Finance


Bernard Boyer,
Strategy


Michel Delaborde,
Human Resources
and Communication

GENERAL COMMENTS

In this document:

- the terms "Arkema" or "Company" refer to the company named Arkema, whose shares are traded on the regulated market of Euronext Paris;
- the terms "Group" or "Arkema Group" refer to the group composed of the Company and all the subsidiaries and shareholdings it holds directly or indirectly; and
- the term "Bostik" refers to the Bostik group.

This document contains forward-looking statements about the Group's targets and outlook, in particular in section 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 business activities and its ability to meet its targets may be affected if certain of the risks described in section 1.7 of this document were to materialize. Furthermore, achievement of the targets implies the success of the strategy presented in paragraph 1.1.2 of this document.

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

Investors are urged to pay careful attention to the risk factors described in section 1.7 of this document. The materialization of 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 document also contains information on the markets in which the Group operates. This information is derived in particular from research produced by external organizations. 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 document.

For 2016, the Company has prepared annual financial statements and consolidated financial statements for the period between 1 January and 31 December. These financial statements are presented in chapter 4 of this document.

Chapter 4 of this document provides a comparative analysis between the 2016 consolidated financial statements and the 2015 consolidated financial statements.

A glossary defining the technical terms used in this document can be found on pages 337 to 340 of this document.

BUSINESS OVERVIEW AND RISK FACTORS

1

1.1	**A GLOBAL PLAYER IN SPECIALTY CHEMICALS AND ADVANCED MATERIALS**	**14**
1.1.1	General overview	14
1.1.2	Strategy and competitive strengths	18
1.2	**OVERVIEW OF THE GROUP'S DIVISIONS** AFR	**20**
1.2.1	High Performance Materials	20
1.2.2	Industrial Specialties	25
1.2.3	Coating Solutions	29
1.3	**CAPITAL EXPENDITURE** AFR	**32**
1.3.1	Overview of the Group's main capital expenditure projects over the past three years	32
1.3.2	Overview of the main capital expenditure projects in progress	33
1.3.3	Future capital expenditure	33
1.3.4	Property, plant and equipment	33
1.4	**R&D STRATEGY AND INNOVATION** AFR	**34**
1.4.1	R&D objectives	34
1.4.2	R&D resources	34
1.4.3	Patent and trademark management	36
1.4.4	The incubator and the six innovation platforms	37
1.5	**MATERIAL CONTRACTS** AFR	**41**
1.5.1	Raw material and energy supply contracts	41
1.5.2	Industrial agreements	42
1.5.3	Multi-year sales contracts	43
1.5.4	Guarantees and commitments made by the Total group as part of the 2006 Spin-Off	43
1.6	**OPERATIONAL EXCELLENCE STRATEGY**	**44**
1.6.1	The Group's commitments	44
1.6.2	The Group's operational excellence program	45
1.7	**RISK FACTORS** AFR	**46**
1.7.1	Comprehensive internal control and risk management procedures	46
1.7.2	Main risks	53
1.8	**SELECTED FINANCIAL INFORMATION** AFR	**67**

The different parts constituting the annual financial report are identified in the table of contents by the pictogram AFR

1.1 A GLOBAL PLAYER IN SPECIALTY CHEMICALS AND ADVANCED MATERIALS

All figures contained in this chapter are provided on a consolidated basis and reflect the Arkema Group's organization into three business divisions: High Performance Materials, Industrial Specialties and Coating Solutions.

1.1.1 General overview

1.1.1.1 OVERVIEW OF THE GROUP'S BUSINESS SECTOR

The Group is a significant player in the global chemical industry.

Its business sector, which is known as the "industry of industries", manufactures a wide range of products for other major industries, including the construction, chemical, automotive, coatings, electronics, energy, food and pharmaceutical industries.

The chemical industry focuses primarily on processing, in one or more stages, raw materials such as petroleum products, gas, minerals and other natural products into more or less complex chemical products, or into plastics via polymerization.

At one end of this wide spectrum are commodities, which are characterized by few processing stages, large volumes and cyclical prices and unit margins, and include olefins and polyolefins, ammonia, methanol and caustic soda. At the other end are sophisticated products like pharmaceuticals and agrochemical derivatives. Between the two extremes lies a large number of chemical intermediates, polymers, fine chemical products and specialty chemicals. Generally defined as a solution for a particular application, specialty chemicals consist mainly of high performance materials or formulations such as adhesives, paints, inks and cosmetics.

With estimated sales of some €3,534 billion worldwide in 2015, the chemical industry operates on a global scale in three main regions: Europe (around 17% of world production in value terms), North America (around 17%) and Asia Pacific (around 61%) [1]. Trade in chemicals between these three main production regions is increasing regularly.

Overall, the chemical industry is highly fragmented, be it in terms of products (several tens of thousands), end markets (almost all industrial sectors are consumers) and industry players (the top ten competitors have no more than a 20% share of the global market [2]).

1.1.1.2 GROUP OVERVIEW

A major player in specialty chemicals, the Group operates in the chemical industry with a business portfolio focused on three divisions: High Performance Materials, Industrial Specialties and Coating Solutions. The Group reported sales of €7.54 billion in 2016, making it one of the industry's leading players worldwide.

Present in 50 countries with 19,637 employees at 31 December 2016, the Group operates on a global scale, with production sites in Europe, North America and Asia (133 production centers), subsidiaries and sales offices in a large number of countries.

The Group ranks among the leading players worldwide in its main product lines, which account for some 90% of its sales and are positioned in niche markets characterized by limited size, few major competitors and complex technologies.

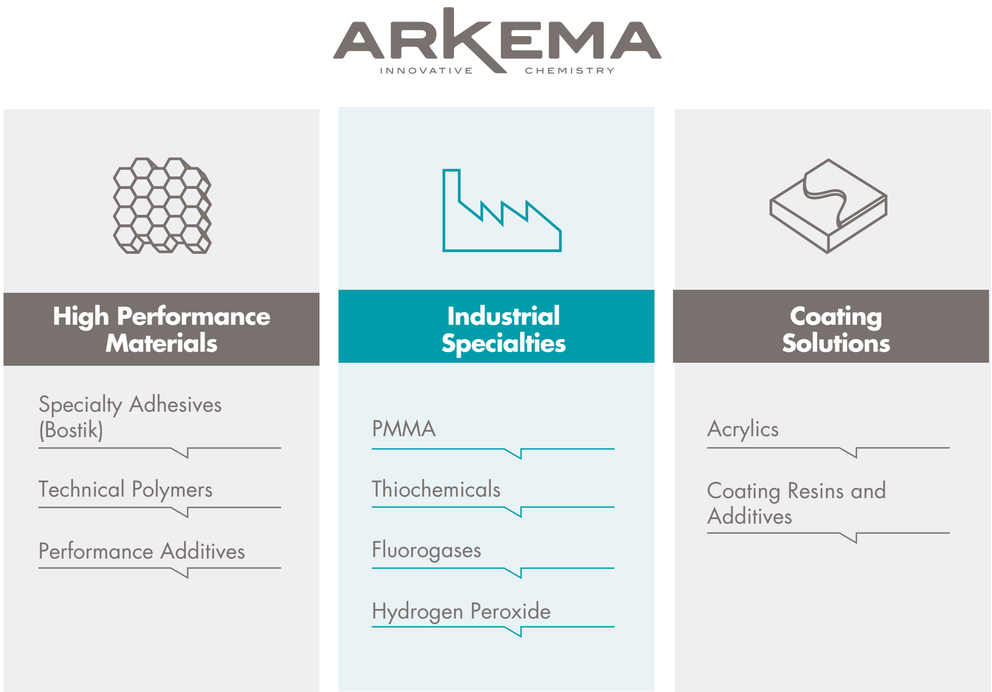
In 2016, the Group had 13 research and development (R&D) centers spread across three regional research and innovation hubs, and employed more than 1,500 researchers, with R&D expenditure representing around 2.9% of sales. The Group draws on six research platforms focusing on current and future global sustainable development megatrends, specifically bio-based products, new energies, water management, electronics solutions, lightweight materials and design, and home efficiency and insulation. The Group has also set up a dedicated unit named the incubator to facilitate their development, as described in section 1.4.4.1 of this document.

(1) Source: Cefic Facts and Figures 2016. The rest of the world accounts for approximately 5% of world production.

(2) Source: Arkema Group internal estimates.

At 31 December 2016, the Group had nine Business Lines [1], organized into three divisions according to the similarity of their activities. These are the High Performance Materials division for predominantly application-oriented activities, the Industrial Specialties division comprising various chemical intermediate activities, and the Coating Solutions division, which combines coating-related activities, such as decorative paints and industrial coatings, with upstream integration in acrylic monomers. These Business Lines may group together several businesses, which are responsible for their own results, cash flows (working capital, capital expenditure, etc.), production management, research, sales, marketing and customer relations. The managing directors of the Business Lines or businesses each report to an operational executive Vice-President who is also a member of the Executive Committee, with the exception of the Bostik Executive Vice-President, who is a member of the Executive Committee and, as such, reports directly to the Chairman and Chief Executive Officer (see section 3.2.2.2 of this document).

The simplified organization chart below, effective at 31 December 2016, shows the Business Lines in each division.



(1) The Business Lines correspond to businesses or groups of businesses.

The corporate departments provide continuous support to the Group's divisions, mainly in the areas of accounting, taxation, legal affairs, IT, human resources and communication.

Under the authority of the Executive Committee and in particular the corporate executive Vice-Presidents (see section 3.2.2.2 of this document), the corporate departments are responsible for ensuring the overall coherence and control of the Group.

More specifically, they coordinate procurement and logistics and maintain expertise in such key areas as safety, environment, R&D and process engineering. Some of the corporate departments work for the Group as a whole. This is notably the case for Internal Audit and Internal Control, External Communication, Investor Relations, Accounting and Management Control, and Legal Affairs.

The simplified organization chart below shows the Group's corporate departments at 31 December 2016.

ARKEMA
INNOVATIVE CHEMISTRY

Human Resources & Communication
- HR Development & Internal Communication
- Labor Relations and Remuneration Systems
- Institutional Relations
- External Communication

Industry
- Sustainable Development
- Safety, Environment & Industry
- Technical / Construction
- Logistics
- Purchasing of Goods & Services
- Process
- Operational Excellence
- Customer Supply Chain

Finance
- Accounting / Controlling
- Financing / Treasury / Taxation
- Legal Affairs
- Information Systems & Telecommunications Systems
- Investor Relations

Strategy
- Acquisitions / Divestitures
- Planning / Economic Studies
- Internal Audit / Internal Control
- Insurance
- Business Development

As an exception to the general organizational principles governing the corporate departments, the Raw Materials and Energy Procurement department reports directly to one of the three operational executive Vice-Presidents. Similarly, the R&D department reports directly to the Chairman and Chief Executive Officer.

Breakdown of sales by division

(In billions of euros)	2016		2015		2014	
High Performance Materials	3.4	46%	3.4	44%	1.7	29%
Industrial Specialties	2.3	30%	2.5	32%	2.3	38%
Coating Solutions	1.8	24%	1.8	24%	1.9	33%
TOTAL	**7.5**	**100%**	**7.7**	**100%**	**6.0**	**100%**

Summary of the Group's main products in 2016 and their areas of application by Business Line

High Performance Materials

Specialty Adhesives (Bostik) — Adhesives and sealants used in industry, hygiene products (non-woven), construction and consumer products.

Technical Polymers — Technical Polymers include two activities:

- specialty polyamides used in the automotive, aerospace, aeronautics, oil and gas and electronics industries, and in consumer goods (sports and cosmetics); and
- polyvinylidene fluoride (PVDF) used in chemical engineering, paint and anti-corrosive coating production, oil and gas extraction, photovoltaic panels, lithium-ion batteries and water treatment membranes.

Performance Additives — Performance Additives comprise three activities:

- filtration and adsorption, which includes both specialty surfactants and molecular sieves used for gas and liquid separation;
- organic peroxides, which are used as polymerization initiators for polyethylene, PVC and polystyrene and as crosslinking agents. This business also includes glass coating additives; and
- photocure resins (Sartomer), which harden under ultraviolet light and are used in metal, plastic and wood coatings and in optics, graphic art and electronics.

Industrial Specialties

PMMA — The PMMA Business Line encompasses two activities:

- PMMA used in the construction and automotive industries as well as for billboards, decorations, the production of sanitaryware, and LED televisions; and
- functional polyolefins used in adhesives, packaging, photovoltaics and the electric, electronics and automotive industries.

Thiochemicals — Chemical intermediates for animal feed, petrochemicals and refining, natural gas odorization, polymerization agents, agrochemicals and pharmaceuticals.

Fluorogases — Gases used in refrigeration, air-conditioning, foam and solvents, and as feedstock for fluoropolymers.

Hydrogen Peroxide — Hydrogen peroxide (used in pulp and paper bleaching, water treatment, disinfection, electronics and textiles) and sodium chlorate.

Coating Solutions

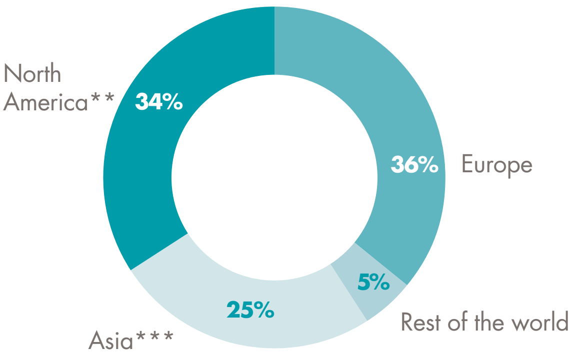
Acrylics — Acrylic monomers used in the production of resins and emulsions for adhesives, paints, coatings and superabsorbents as well as in water treatment and enhanced oil and gas recovery.

Coating Resins and Additives — The Coating Resins and Additives Business Line includes two activities:

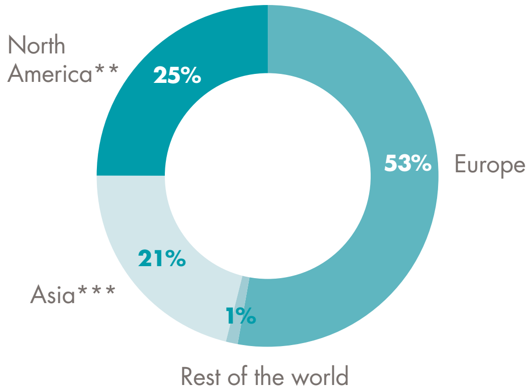
- coating resins, which comprise waterborne, solventborne and powder resins used for decorative paints and industrial coatings, as well as inks, sealants, varnishes and dyes for wood, road paints, adhesives, construction materials, etc. This business also encompasses impact modifiers and processing aids for PVC; and
- rheology additives (Coatex) are specialty acrylic polymers used as rheology modifiers such as dispersants and thickeners in paper, paints and industrial coatings.

Information by region

2016 SALES* BY REGION (1)



CAPITAL EMPLOYED IN 2016 BY REGION (2)



In Europe, the Group generated 8% of total sales in France, 4% in the United Kingdom and 6% in Southern Europe (Greece, Italy, Portugal and Spain).

In Asia, sales in China represented 10% of the Group's total sales.

The breakdown of Group employees by region is given in section 2.6 of this document.

* *Based on the geographic location of customers.*

** *United States, Canada and Mexico.*

*** *Asia and the Middle East.*

1.1.2 Strategy and competitive strengths

1.1.2.1 COMPETITIVE STRENGTHS

The Group's many competitive strengths include:

- leading commercial and manufacturing positions, with the Group ranking among the world's top players in most of its businesses. This is particularly true for adhesives, acrylics, coating resins, photocure resins, polymethyl methacrylate (PMMA), fluorogases, PVDF, hydrogen peroxide, thiochemicals, specialty polyamides (polyamides 10, 11 and 12), PVC impact modifiers and processing aids, glass coating additives, molecular sieves and organic peroxides;
- a strong manufacturing footprint in Europe, North America and Asia, enabling the Group to efficiently and effectively meet customer demand. The Group's technical knowledge of products and manufacturing processes enables it to leverage its existing production facilities and gain a key advantage when entering new markets. It also allows the Group to carry out complex investment projects in a timely, cost-effective and technically efficient manner. In addition, the Group also has extensive R&D skills, which it leverages to launch innovative new products on the market, provide its customers with the technical support they need and further improve the efficiency of its manufacturing processes (see section 1.4 of this document);
- a solid balance sheet, with Group net debt of €1,482 million (or 1.2 times annual EBITDA) at 31 December 2016, compared with shareholders' equity of €4,249 million, representing a gearing ratio of 35%; and
- committed, high-performing teams who have proved their ability to build a world-class chemical company in just ten years as well as to handle complex industrial projects and to address the challenges brought about by the economic environment. The Group can also count on its employees recognized loyalty, professionalism and experience.

(1) In 2015, Group sales by region broke down as follows: 38% Europe, 34% North America, 24% Asia and 4% rest of the world. In 2014, they broke down as follows: 41% Europe, 35% North America, 20% Asia and 4% rest of the world.

(2) In 2015, Group capital employed by region broke down as follows: 51% Europe, 26% North America, 22% Asia and 1% rest of the world. In 2014, it broke down as follows: 48% Europe, 26% North America, 25% Asia and 1% rest of the world.

1.1.2.2 STRATEGY

Over the past ten years, the Group has actively strengthened its business portfolio by increasing the share of higher value-added activities with strong development potential. Alongside this internal overhaul, the Group has also rebalanced its geographic positioning by significantly developing business in North America and in emerging economies, primarily in Asia.

The Group is actively pursuing this transformation with the aim of becoming one of the world leaders in advanced materials and specialty chemicals. The Group presented its medium- and long-term strategy and targets at its Capital Markets Day on 29 June 2015. These targets are described in section 4.2 "Trends and outlook" of this document.

The Group continues to implement a targeted growth strategy, supported by a stronger presence in fast-growing economies, a close-to-the-customer approach, technological innovation, targeted acquisitions and increased industrial investment in its activities offering the highest growth potential.

This strategy is built around six priorities:

- stepping up the development of the High Performance Materials division, which should account for around 50% of Group sales by 2020, by:
  - achieving the ambitious goal of doubling the 2014 EBITDA of Bostik (Specialty Adhesives) to around €300 million by 2020,
  - continuing major innovation efforts to address the challenges of sustainable development, notably in the areas of lightweight materials and composites, new energy sources and water treatment, and
  - making targeted bolt-on acquisitions;
- pursuing selective growth in Industrial Specialties, by leveraging the thiochemicals complex in Malaysia, for example;
- strengthening downstream acrylic activities through innovation and bolt-on acquisitions;
- completing the Group's geographic rebalancing, with the long-term goal of achieving a sales split evenly spread across Europe, North America and Asia/rest of the world;
- continuing the program to divest non-core businesses, which should represent a total of around €700 million in sales between 2014 and 2017; and
- maintaining the focus on improving operational excellence as described in section 1.6 of this document.

Over the medium- to long-term, the Group intends to continue making bolt-on acquisitions for a total of between €1 billion and €1.5 billion in additional sales. Priority will be given to advanced materials, adhesives and downstream acrylics. These acquisitions will be carried out while maintaining a solid balance sheet with a gearing target of 40%.

In terms of portfolio management, the Group has:

- negotiated a 50/50 split in capacity rights in the first half of 2016 as part of the Taixing Sunke Chemicals acrylics joint venture in China, giving the Group access to an additional capacity of 80,000 tonnes of acrylic acid per year (see section 1.2.3.3 of this document);
- finalized the sale of the activated carbon and filter aid business in early November 2016. Formerly part of the Performance Additives Business Line, this business generated sales of around €93 million (see section 1.2.1.3 of this document);
- completed the acquisition of Den Braven on 1 December 2016. A leader in high performance sealants for construction and insulation applications in Europe, Den Braven reported sales of some €345 million in 2016 (see section 1.2.1.3 of this document). This transaction is in line with the Group's strategy of strengthening its High Performance Materials division, and particularly the Specialty Adhesives Business Line; and
- completed in March 2017 the sale to INEOS of its 50% stake in Oxochimie, their oxo alcohol manufacturing joint venture, along with the associated business assets (see section 1.2.3.3 of this document).

Having completed this operation and the divestments of Sunclear in November 2015 and of the activated carbon and filter aid business in November 2016, the Group should further divest some non-core businesses representing a total of around €350 million in sales.

As part of this strategy, in addition to the acquisitions and divestments mentioned above, the Group announced the following projects in 2016 and early 2017:

- in Fluorogases, plans to shut down the R134a fluorogas unit at the Pierre-Bénite site in France (see section 1.2.2.3 of this document);
- in Technical Polymers, an increase in the global production capacity of specialty polyamides in China and the United States, and an expansion in PVDF capacity at the Changshu site in China (see section 1.2.1.3 of this document);
- in Adhesives, the start-up of new production units in Sweden, Malaysia and the Philippines (see section 1.2.1.3 of this document);
- in Acrylics, the project to upgrade older production units at the Clear Lake site in the United States (see section 1.2.3.3 of this document); and
- in Coating Resins, the construction of a new polyester powder resin production unit in India (see section 1.2.3.3 of this document).

The Group's strategic priorities are set out by division in section 1.2 of this document.

1.2 OVERVIEW OF THE GROUP'S DIVISIONS

The Group is organized into three divisions:

- High Performance Materials, which comprises Specialty Adhesives, Technical Polymers and Performance Additives;
- Industrial Specialties, which comprises Thiochemicals, Fluorogases, PMMA and Hydrogen Peroxide; and
- Coating Solutions, which comprises Acrylics, and Coating Resins and Additives.

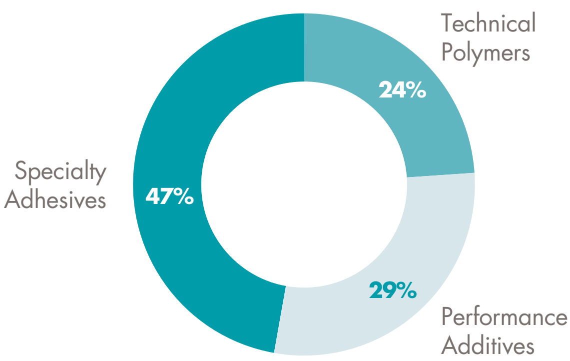
1.2.1 High Performance Materials

1.2.1.1 KEY FIGURES

(In millions of euros)	2016	2015	2014*
Sales	3,422	3,358	1,730
EBITDA	570	506	314
Recurring operating income	416	354	213
Capital expenditure	173	167	112

* *2014 figures have been restated in accordance with the new reporting structure presented at the Capital Markets Day on 29 June 2015. The new structure is described in section 1.1.1.1 of the 2015 reference document.*

1.2.1.2 BREAKDOWN OF DIVISION SALES BY BUSINESS LINE (2016) (1)



1.2.1.3 OVERVIEW OF THE DIVISION'S BUSINESS

The High Performance Materials division comprises three Business Lines: Specialty Adhesives, Technical Polymers and Performance Additives.

These businesses share the same objective of serving their various niche markets with innovative, high value-added technical solutions that meet their customers' needs.

The Group holds leadership positions in most of these markets, notably for adhesives, polyamides 10, 11 and 12, PVDF, molecular sieves and organic peroxides, and sells many of its products under widely recognized brands.

The Group also services these markets worldwide thanks to an industrial footprint on three continents.

The Business Lines within the High Performance Materials division offer a certain degree of integration with the Industrial Specialties division. This is the case, for example, of the precursors for PVDF and polyamide 10 and of hydrogen peroxide, which is used as a feedstock for organic peroxides.

(1) In 2015, division sales by Business Line broke down as follows: 22% Technical Polymers, 33% Performance Additives and 45% Specialty Adhesives.

The key success factors for the High Performance Materials division include brand recognition (Bostik®, Kynar® and Rilsan®), quality relationships with customers, and the ability to offer innovative solutions from R&D, to develop new, high value-added products and to leverage the potential offered by growing local markets, particularly in Asia, where the Group has expanded significantly in the past few years.

The Group is reaffirming its objective to accelerate development in High Performance Materials. In the long-term, the division is expected to account for around half of Group sales and to offer resilient growth and steady cash flow generation, supported by first-class assets. Further strengthening of the division will be supported by organic investment projects and bolt-on acquisitions. Development projects will focus in particular on innovative, sustainable development-oriented solutions and ongoing expansion in faster-growing economies. Going forward, development priority will be given to adhesives and ultra-high performance polymers, such as specialty polyamides, PVDF and PEKK.

Specialty Adhesives (Bostik) (21% of Group sales in 2016)

Products and markets

Bostik manufactures and markets adhesives and sealants worldwide, with 56 production units in Europe, North America and Asia, operations in 40 countries, and three regional R&D centers.

For several years now, Bostik has been working to strengthen its global Bostik® Smart Adhesives brand. The Company also has a number of more local yet well-known brands that help secure customer loyalty in the construction and consumer goods industries, with examples including Sader®, Quelyd®, Evo-Stik®, Mem®, and Fortaleza®. These brands are supplemented by Den Braven's Hercuseal®, Zwaluw® and Den Braven® brands.

Demand for adhesives and sealants worldwide is estimated at some €50 billion [1], spread across:

- the industry, which accounts for 58% of global demand and includes a wide range of end markets such as assembly, tapes and labels, packaging, transportation, non-woven for the hygiene and personal care industries and electronics;
- the construction, which represents 34% of global demand and includes wall and floor surface preparation products, adhesives for tiles, walls and ceilings, and sealing solutions; and
- consumer goods, which makes up 8% of global demand and encompasses adhesive solutions for a wide variety of applications, such as repair work, attachment, assembly, decoration and renovation.

Geographically, demand breaks down as follows [1]:

- North America represents around 28% of global demand, with average annual growth over the coming years expected to be between 2.5% and 3%;
- Europe accounts for around 31%, with expected average annual growth of 1.5% to 2%; and
- Asia and the rest of the world make up around 41%, with expected average annual growth of between 4% and 5%.

Overall, the global adhesives market is expected to grow by between 3% and 3.5% a year on average over the next few years. This trend is likely to be driven by the replacement of traditional mechanical assembly systems and by new solutions that reduce the weight of materials, improve energy efficiency in buildings and contribute to the development of new energies. Other factors driving the market include significant growth in adhesives for the non-woven fabric used to make baby diapers, feminine hygiene products and adult incontinence products, and the strong momentum in emerging economies, where consumption of adhesives per capita is currently much lower than in Europe or the United States. Lastly, technology and experience are key in this market, which is characterized by high barriers to entry such as customer relations built on proximity and trust, and a portfolio of well-known brands.

In addition to Bostik, which is the world number three in adhesives [1], the main players in the market are Henkel, Sika and HB Fuller. However, the industry is still very fragmented with a large number of local players, offering numerous opportunities for consolidation through small bolt-on and accretive acquisitions.

Bostik holds leadership positions in several end markets, including:

- non-woven for hygiene and personal care products: in this global market characterized by a limited number of players, Bostik is estimated to be number two worldwide and the leader for specialty products thanks to its technological expertise. Its main competitors are Henkel and HB Fuller;
- industry: thanks in particular to its three main high-growth technology platforms, Bostik is estimated to rank number three worldwide in this more regional market. Its main competitors are Henkel, HB Fuller and Sika but it also has a number of local competitors, particularly in emerging economies; and

(1) Source: Arkema Group internal estimates and IHS Specialty Chemicals Update Program – Adhesives and Sealants, July 2016.

- construction and consumer goods: in these local markets, Bostik ranks among the top three players in the main countries in which it operates. Bostik can leverage its brand portfolio and position in growth regions such as South-East Asia and China to expand its business in these still fragmented markets. Its main competitors are Henkel, Sika and Mapei.

Strategy and highlights

Bostik has the potential to significantly improve its profitability. The Group intends to largely develop this business over the coming years, with the target of practically doubling Bostik's EBITDA to some €300 million by 2020, compared with €158 million in 2014. This ambitious goal is based on the following targets:

- increasing Bostik's EBITDA by 30% between 2014 and 2017. This target was achieved in 2016; and
- generating an EBITDA margin of 15% in 2020 with recurring capital expenditure of between 2.5% and 3% of sales, thereby gradually achieving the same average results as its main competitors, Henkel, HB Fuller and Sika. Initially set at between 14% and 15%, this target was revised upward following the announcement of the Den Braven acquisition.

This sharp improvement will be driven primarily by the acceleration of Bostik's development strategy, which includes:

- ongoing development in fast-growing regions, in line with Bostik's 2020 target of generating some 30% of sales in emerging economies (China, India, South-East Asia, Latin America, Eastern Europe and the Middle East), compared with around 24% in 2014;
- bolt-on acquisitions;
- ongoing rationalization of the brand portfolio by promoting the global Bostik® Smart Adhesives brand while narrowing the focus on a few well-known local brands;
- capitalization of the benefits of increased R&D investment, which is expected to gradually raise sales from products less than three years old to around 18% of total sales by 2020, compared with some 15% in 2014 and 8% in 2010; and
- ongoing day-to-day efforts to improve operational excellence.

In the two years since Bostik was acquired, it has significantly improved its results ahead of schedule, confirming the rationale of the acquisition and the strategy implemented.

In addition, Bostik has also made the following announcements as part of its strategy:

- in 2016, the start-up of new production units serving construction markets in Malaysia, the Philippines and Sweden. Bostik had announced in 2015 that it was increasing hot melt pressure sensitive adhesive (HMPSA) production capacity in Bangalore, India and in Mexico in order to more effectively serve disposable hygiene product customers throughout the world. In 2015, Bostik also opened a new production site and a training center in Dallas, United States; and
- on 1 December 2016, the completion of the acquisition of Den Braven, a European leader in sealants for construction and insulation applications. Given Bostik's successful integration and the significant improvement in its results, the Group decided to seize this unique opportunity to consolidate its share in the high performance sealants market in 2016. The transaction will strengthen Bostik's insulation and construction offering and speed up its growth thanks to the excellent entry point which these product ranges represent when entering emerging markets, particularly in Asia. With 2016 sales of around €345 million, Den Braven employs some 1,000 people and boasts world-class industrial facilities, with eight production sites around the world. The acquisition will create substantial value and was made on the basis of an enterprise value of €485 million, or 11 times 2016 EBITDA. It offers significant annual synergies assessed at €30 million at least to be fully achieved within five years, reducing the multiple to around 6.5 times EBITDA. The acquisition is expected to be accretive on Group's net earnings per share and cash position as from the first year.

In 2016, the Group continued to benefit from Bostik integration synergies. In 2017, it expects to see the initial benefits of synergies relating to the Den Braven acquisition. These synergies comprise well identified cost synergies, which will be realized primarily in certain corporate functions and from purchases of raw materials, goods and services and logistics, and the reinforcement of operational excellence programs. In the longer term, the Group is also working to achieve development synergies by setting up two new technology platforms: one for acrylic-based adhesives, which will partially rely on upstream integration with acrylics, and the other for structural adhesives. These development synergies will capitalize on the unique alliance between a specialty chemicals company and an adhesives formulator. The Group should also benefit from Bostik and Den Braven's highly complementary geographical, technological and commercial strengths.

Technical Polymers
(11% of Group sales in 2016)

The Group's growth is supported by fast-paced innovation in the area of materials, particularly in Technical Polymers.

Technical Polymers comprises two main product lines: specialty polyamides and polyvinylidene fluoride (PVDF). These are sold under well-known brand names such as Rilsan®, Rilsamid®, Orgasol® and Pebax® for specialty polyamides and Kynar® for PVDF.

Products and markets

SPECIALTY POLYAMIDES

Specialty polyamides encompass polyamides 10, 11 and 12. The Group is a market leader for these products and the only manufacturer of bio-based polyamide 11, made from castor oil. Its main competitors are Evonik and EMS for polyamide 10, which is also bio-based, and Evonik, EMS and Ube for polyamide 12.

Specialty polyamides are primarily used in the transportation, oil and gas, new energies and electronics industries. In the automotive industry, growth is supported by metal replacement to reduce vehicle weight, while in oil and gas, the main driver is deep offshore extraction. In addition, polyamides 10 and 11 are benefiting from rising demand for bio-based polymers.

The Group's product line also includes Orgasol®, an ultrafine powder used in cosmetics and paints, Pebax®, a polyether block amide used in sports equipment, and copolyamides, which are used in textiles.

Growth in specialty polyamides end markets over the coming years could average 4% to 5% a year [1].

POLYVINYLIDENE FLUORIDE (PVDF)

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

Demand is primarily being driven by growth in the architectural coatings sector in Asia, the development of deep offshore oil extraction and new energies like lithium-ion batteries, and the rising need for drinking water and water treatment solutions.

The Group is the world leader in PVDF polymers [2], with Solvay as its main competitor. In the coming years, end markets could grow by an average annual 7% [1].

Strategy and highlights

In anticipation of an increase in global demand over the coming years and in line with its strategy to step up growth in the High Performance Materials division, the Group has announced the following:

- in September 2016, an increase in specialty polyamide production capacity in China and the United States. At the Zhangjiagang bio-based specialty polyamides site in China's Jiangsu Province, the Group is increasing compounding capacity and will start up two new production lines in 2017 to expand the range of specialty polyamides produced on the site. Thanks to these developments and the €10 million invested in the site over the past years, the Group will be able to significantly reinforce both its bio-based polyamides offering and the flexibility of its industrial facilities in Asia. In the United States, additional investment in the Birdsboro site in Pennsylvania will enable the Group to produce new grades of bio-based Pebax® for the sporting goods and electronics markets; and
- in October 2016, a 25% increase in Kynar® PVDF capacity at the Changshu complex (China) to serve fast-growing demand, notably for new energy and water treatment applications.

The Group has also actively pursued a policy of research and innovation to enable it to offer groundbreaking solutions for high-growth applications. For example, the Group entered the electronics market with a new product range focused primarily on specialty polyamides. It has also stepped up development in the battery market through the increased use of its PVDF in electric vehicles and lithium-ion batteries for electronic devices like tablets and smartphones. The Group is consolidating its presence in the aerospace market with the Kynar® foam range, which can be used to replace certain metal aircraft parts, such as window frames and air-conditioning conducts, in order to reduce airliner weight by the equivalent of one passenger, thereby meeting demand for lightweight materials. And it is pursuing the development of water treatment technologies. To this end, the Group announced in May 2014 that it was joining forces with Polymem, a French SME specialized in hollow-fiber membrane filtration modules, to develop new hydrophilic ultrafiltration membrane technology that consistently produces excellent quality water. By harnessing a new grade of nanostructured Kynar® PVDF, this technology improves the effectiveness and energy efficiency of membrane-based water treatment systems. Based on the excellent results, Polymem decided to use this new technology to build its first industrial-scale production line for these membranes.

Performance Additives (14% of Group sales in 2016)

Performance Additives comprise three businesses: filtration and adsorption, organic peroxides, and photocure resins (Sartomer). The epoxides business was transferred to the Hydrogen Peroxide Business Line on 1 January 2016.

Products and markets

FILTRATION AND ADSORPTION

The filtration and adsorption business, which at the date of this document is operated by the CECA subsidiary, is organized into two areas: surfactants and interface agents, and adsorption.

The surfactants and interface agents activity mainly includes specialty chemicals produced downstream from fatty acids. The wide variety of resulting products are used as additives in such highly diverse areas as oil and gas production, bitumen, fertilizers, corrosion inhibitors, antistatics and emulsifiers.

(1) Source: Arkema Group internal estimates.

(2) Source: IHS Chemical Economics Handbook – Fluoropolymers, April 2016.

The second activity encompasses molecular sieves, for which the Group is the world number two [1]. Featuring excellent adsorption and dehydration properties, these products are mainly used for industrial gas separation in certain petrochemical units and medical oxygen in healthcare as well as in the construction and pharmaceutical packaging industries.

ORGANIC PEROXIDES

The organic peroxides business comprises two product lines: organic peroxides and glass coating additives.

Organic peroxides are initiators used in a variety of fields including commodity polymers (reaction initiators for low-density polyethylene, PVC and polystyrene), acrylic polymers, unsaturated polyesters and rubber crosslinking. The Group estimates that it ranks number two worldwide in this sector [1]. Its main competitors are AkzoNobel and United Initiators.

In the coatings sector, the Group markets products for flat glass and glass bottles, for which it ranks among the leading companies worldwide.

PHOTOCURE RESINS (SARTOMER)

Sartomer offers unique technologies to supply customers with high tech, high value-added products and applications. Its photocure resins deliver excellent technical performance properties, particularly in terms of stain, impact and scratch resistance, and offer almost instant crosslinking. Made from 100% dry-content, these innovative resins are also environmentally friendly and comply with European volatile organic compound (VOC) standards, strengthening the Group's strategy to develop new, environmentally sustainable materials.

The photocure resins business operates globally with two sites in the United States, one in Europe and another in Asia in Nansha, south of Guangzhou, China.

Photocure resins are used in a wide range of markets, including graphic art (inks and varnishes), industrial coatings, optics (fiber, DVD and Blu-Ray technologies), electronics (printed circuits), and wood coatings. Global growth in photocure resin end markets over the coming years could be as high as 5% a year [1]. The Group's main competitors are Allnex, Eternal and Miwon.

Strategy and highlights

The Group has taken the following initiatives to support its customers' growth:

- in June 2015, the Group announced a project to double its specialty molecular sieve capacity to allow it to match the market's average annual growth rate of 6% to 7%[1], driven mainly by Asia and the Middle East, and in particular to serve its petrochemicals customers supplying the synthetic textile and PET bottle end markets. This capacity expansion represents an investment of some €60 million at the Honfleur site in France, with the new facilities now operational. It will enable the Group to produce adsorbents for use in the petrochemicals industry when separating aromatics, including Arkema's latest generation, ultra-high performance Siliporite® SPX 5003 sieve;
- since 2015, the Group has operated an oil additive blending and storage facility in Saudi Arabia though a joint venture between CECA and Saudi-based Watan Industrial Investment; and
- in January 2016, the Group started up a new organic peroxide production line in Changshu, China that doubles the site's production capacity. Thanks to this investment, the Group can support the strong growth of its customers in Asia, in particular in the plastics markets for the construction, packaging and automotive industries.

As part of the strategy to refocus its portfolio on its core businesses, in November 2016 the Group finalized the sale of its activated carbon and filter aid business, which was part of the filtration and adsorption business, for an enterprise value of €145 million, or 9.5 times 2015 EBITDA. The business represents sales of around €93 million and has 300 employees spread across six European industrial sites in France and Italy.

Following this sale, the Group announced plans to integrate CECA into Arkema France. As a result, the Performance Additives Business Line will be organized into four activities: specialty surfactants, molecular sieves, organic peroxides and photocure resins (Sartomer).

On 2 March 2015, the Group acquired Italy-based Oxido to take advantage of the 6% [1] annual average growth in the global bis-peroxide market, in which it is the world leader. A European player in the formulation of organic peroxides used primarily to crosslink synthetic rubbers, Oxido generates sales of around €20 million. The acquisition offers significant potential for synergies and strengthens the downstream integration in Europe of organic peroxides, particularly bis-peroxide.

(1) Source: Arkema Group internal estimates.

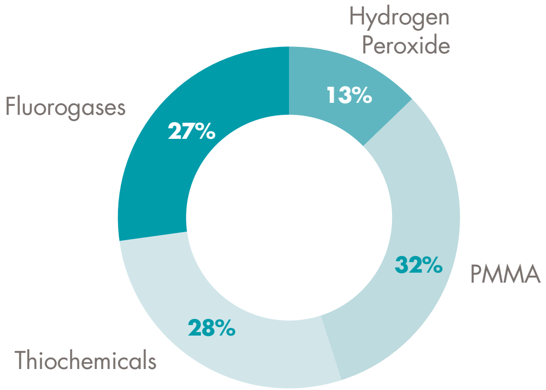
1.2.2 Industrial Specialties

1.2.2.1 KEY FIGURES

(In millions of euros)	2016	2015	2014*
Sales	2,316	2,450	2,269
EBITDA	473	418	312
Recurring operating income	300	237	169
Capital expenditure	175	183	268

* *2014 figures have been restated in accordance with the new reporting structure presented at the Capital Markets Day on 29 June 2015. The new structure is described in section 1.1.1.1 of the 2015 reference document.*

1.2.2.2 BREAKDOWN OF DIVISION SALES BY BUSINESS LINE (2016) (1)



1.2.2.3 OVERVIEW OF THE DIVISION'S BUSINESS

The Industrial Specialties division comprises four Business Lines: PMMA, Thiochemicals, Fluorogases and Hydrogen Peroxide.

The Business Lines in this division share a number of characteristics, including the use of complex manufacturing processes for chemical intermediates and the existence of global markets with strong growth prospects, particularly in Asia.

The Group is a leading industry player worldwide and has production units in Europe, North America and Asia.

The Industrial Specialties division aims to selectively pursue the development of its activities, strengthen its positions worldwide and implement cooperation projects with its main partners. The Group also intends to increase the share of specialty products in its portfolio in order to take advantage of the superior growth rates in these higher value-added niche markets. Industrial Specialties is actively pursuing efforts to improve operational excellence and thereby maintain competitiveness and technological leadership in its markets. Finally, it also continues its work to secure a competitive long-term supply of strategic raw materials.

PMMA
(9% of Group sales in 2016)

Products and markets

The PMMA Business Line is organized into two areas.

The first is an integrated production chain from methyl methacrylate to polymethyl methacrylate (PMMA). Operating on three continents, this global activity has facilities in the United States, Mexico, Europe and South Korea. Its main brand names Plexiglas® on the American continent and Altuglas® elsewhere have a strong reputation. Its main products include granules for molding, and cast and extruded sheets for forming.

The global PMMA market is estimated at around 1.9 million tonnes (2) and primarily serves the construction, automotive, sanitaryware, commercial display, electronics and household

(1) In 2015, division sales by Business Line broke down as follows: 36% PMMA, 28% Thiochemicals, 25% Fluorogases and 11% Hydrogen Peroxide.
(2) Source: IHS Chemical Economics Handbook – Acrylic Resins and Plastics, May 2016.

goods markets. In the automotive market, alongside traditional PMMA applications like rear lights, new applications are also emerging such as Altuglas® ShieldUp panoramic roofs, which help reduce vehicle weight. In the signs and display market, growth is being driven by an increase in advertising expenditure and improved living standards in emerging economies. In PMMA end markets as a whole, annual global growth over the coming years could be close to 1.5% [(1)]. The Group is one of the world's leading PMMA producers [(2)]. Its main competitors are Mitsubishi Rayon, Evonik, Chi Mei Corporation and Sumitomo Chemical.

The second area is functional polyolefins, which are used primarily in adhesives, packaging, photovoltaics, and the electrical, electronics and automotive industries.

Strategy and highlights

To enhance competitiveness, the Group shut down operations at the extruded PMMA sheet site in Bernouville, France in November 2015, resulting in the loss of 39 positions.

In November 2015, the Group sold its plastic and aluminum sheet distribution business, Sunclear, for an enterprise value of €105 million as part of its strategy to refocus its portfolio on core businesses. Sunclear represented sales of around €180 million and had 354 employees based in Europe.

In 2014, under the Elium® brand, the Group launched its first range of thermoplastic resins for composite parts made using the same equipment and processes as thermoset composites. In addition to displaying similar mechanical properties to thermoset parts, the resulting composite parts have greater thermoformability and recyclability and offer new assembly possibilities thanks to their thermoplasticity. The resins can be used to make structural parts in a range of applications, such as cars and other means of transportation, wind turbines, sports equipment and construction. They can also be used to make body parts, such as shaped parts for trucks, body panels for buses and hoods for agricultural equipment.

Thiochemicals
(9% of Group sales in 2016)

Products and markets

The Thiochemicals Business Line is mainly focused on sulfur chemistry, but also includes amines, oxygenated solvents, hydrazine hydrate and rubber additives, with the latter being produced by French subsidiary MLPC International.

The Business Line operates worldwide, with production sites in the United States and Europe and a new complex in Malaysia started in early 2015.

The size of the global thiochemical market is estimated at 0.8 million tonnes [(1)].

The main markets for thiochemicals are animal feed, refining and petrochemicals, natural gas odorization, solvents, pharmaceuticals and cosmetics. In the animal feed market, the Group markets a sulfur-based intermediate that is used to synthesize methionine, an amino acid that serves as a poultry feed supplement. Demand in this sector is being supported by increasing poultry consumption, particularly in emerging economies. In the oil and gas industry, demand is driven by the growing use of natural gas and by stricter sulfur content standards for automotive fuel (gasoline and diesel). New applications have also been developed, for example in soil fumigation.

Global thiochemical end markets are expected to grow by around 4% a year on average in the coming years [(1)].

The Group is currently the world number one in this sector [(1)]. Its main competitor is Chevron Phillips Chemical, with additional competition from local players for some products.

Strategy and highlights

The Group started operations at its thiochemicals complex in Kerteh, Malaysia in early 2015. To carry through this project, two joint ventures were set up with CJ CheilJedang (CJ). The first, in which the Group holds an 86% interest and CJ a 14% interest, produces thiochemicals (methyl mercaptan, DMDS and heavy mercaptans) primarily for the animal feed, refining, petrochemicals, soil fumigation and polymers markets. The second joint venture, in which CJ has an 86% stake and the Group holds the remaining 14%, was created to produce bio-methionine for animal feed using methyl mercaptan manufactured by the Group at the same complex and based on CJ's innovative and highly competitive new industrial bio-fermentation process, which uses bio-based raw materials to produce L-methionine. The project represented an overall investment of around €200 million and has enabled the Group to strengthen its global position with production units in Europe, the United States and now Asia. Given the strong demand from animal feed markets in Asia, this investment was ramped up faster than the Group initially planned.

(1) Source: Arkema Group internal estimates.

(2) Source: IHS Chemical Economics Handbook – Acrylic Resins and Plastics, May 2016.

Fluorogases
(8% of Group sales in 2016)

Products and markets

The Fluorogases Business Line manufactures and markets a range of hydrochlorofluorocarbon (HCFC) and hydrofluorocarbon (HFC) products under the Forane® brand. This is a worldwide business for the Group with production sites in France, the United States and China. The Business Line also develops fourth-generation HFO blowing agents with zero ozone depletion potential (ODP) and low global warming potential (GWP).

These products are primarily used in two sectors:

- refrigeration and air-conditioning (notably in construction, automotive and distribution) and foams (blowing agents for polyurethane foam, for example). These emissive applications are subject to regulatory changes and are expected to grow by an annual average of 2% to 3% over the coming years [(1)], driven primarily by the development of air-conditioning equipment in emerging countries; and
- fluoropolymers such as polytetrafluoroethylene (PTFE), and polyvinylidene fluoride (PVDF), which is produced by the Group as part of the Technical Polymers Business Line. Going forward, average annual growth in these markets is expected to reach between 4% and 5% [(2)], driven notably by the development of new energies, as some fluoropolymers like PVDF are used in both photovoltaic solar panels and lithium-ion batteries.

The size of the global fluorogas market is estimated at 1.7 million tonnes [(3)].

The Group is the world number three in fluorogases [(1)], with its main competitors being Chemours, Dongyue, Honeywell, and several Chinese players.

With regard to emissive applications, the implementation of the Montreal and Kyoto Protocols has led to a change in fluorogas regulations in a certain number of countries. For this reason, the transition from old generations (HCFCs) to existing generations (HFC) or new generations (HFO) of products is taking place progressively at different paces depending on the region, application and product.

For HCFCs, regulatory changes in developed countries, notably regarding HCFC-22, have led to their use being phased down in emissive applications. Regulations vary from region to region, with Europe implementing a total ban and North America permitting regulated sale for maintenance use only as part of a quota allowance system, which significantly tightens the balance between supply and demand. Under this quota allowance system, which is scheduled to continue until the start of 2020, the Fluorogases Business Line generates an important share of its results in the region from the sale of HCFC-22, a situation which has continued after allowance quotas were revised downward for the period 2015 to 2019. For new equipment and foam expansion, HCFCs are being replaced by HFCs. However, as per Article 5 of the Montreal Protocol, developing countries are still authorized to use HCFCs, albeit with quotas in some cases.

HFCs have also been the object of recent regulatory changes. For example, the European F-Gas regulation, applicable since 1 January 2015, introduces a quota system that gradually phases down the use of such fluorogases in certain applications. And the European directive on mobile air-conditioning systems (MACs) bans the use of refrigerant gases with a global warming potential higher than 150 in new vehicle platforms after 1 January 2013 and in all new vehicles sold in Europe after 1 January 2017. More generally, the October 2016 Kigali Amendment to the Montreal Protocol aims to gradually phase down the use of HFC fluorogases.

To comply with these regulations, and the HCFC regulations first and foremost, the Fluorogases Business Line has developed HFC blends (32, 125, 134a, 143a, etc.) and new substitutes for foams. Together with HFC-32, HFC-125 is an essential component of refrigerant blends of current generation fluorogases. Among these blends is R-410A, which replaces HCFC-22 in air-conditioning equipment in construction. The Group has an HFC-32 production unit in Calvert City, United States, and an HFC-125 production unit in Changshu, China.

The Fluorogases Business Line also includes the sebacic acid business, which has a production site in China's Hebei Province. Derived from castor oil, sebacic acid is notably used in the production of polyamide 10.

Strategy and highlights

Between 2013 and 2014, the Fluorogases Business Line was impacted by increased competitive pressure from certain Chinese producers and by a less favorable product mix, which negatively affected prices and margins. Consequently, EBITDA for the business decreased by €100 million between mid-2013 and mid-2014 compared with the level of the prior 12 months.

(1) Source: Arkema Group internal estimates.

(2) Source: IHS Chemical Economics Handbook – Fluoropolymers, April 2016.

(3) Source: IHS Chemical Economics Handbook – Fluorocarbons, February 2014 and Arkema Group internal estimates.

The Group has made a priority of fully offsetting this decline between 2015 and 2018 and returning the Business Line to historical levels of profitability, with half of the improvement coming from internal measures to optimize fixed and variable costs, and the other half from the assumption of gradually improving market conditions supported notably by regulatory changes. At the end of 2016, the Group was completely on track with its plan to improve the profitability of its fluorogas activities.

Internal measures primarily include actions to improve the competitiveness of fluorogas sites in Europe, find new customers or grow business with certain existing customers and partners, and increase the proportion of specialty applications in the product portfolio.

Concerning competitiveness, the Group announced plans in September 2016 to shut down the R134a fluorogas unit and reorganize the Pierre-Bénite site in France in response to the expected decline in demand for 134a in Europe following the 1 January 2017 application of the European MAC directive, which bans the use of the gas in all new vehicles sold within Europe. The shutdown of the unit took place at the end of first quarter 2017 and resulted in the loss of 38 jobs. The Group also stopped fluorogas production at the Zaramillo site in Spain in the second quarter of 2015.

Regarding gradually improving market conditions, the assumption is based on several factors in Europe and the United States, including (i) the definition of the R-22 quota allowances in the United States for the period 2015 to 2019, which was announced in October 2014 and whose impact has already been seen since 2015, (ii) the 1 January 2015 entry into force of the European F-Gas regulation, which introduces a quota system for HFC gases in Europe, and (iii) several claims requesting the application of antidumping duties in the United States.

In addition to taking actions to expand its presence in specialty applications, the Group aims to participate in the development of HFOs, the low-GWP next generation of fluorogases. The Group has thus developed its own technology for producing 1234yf, which is the standard set for replacing 134a in car air-conditioning. However, the right to sell this fluorogas in this market is currently patent-protected by US-based company Honeywell. The Group considers that these patents are based on weak claims and hinder fair competition. For this reason, the Group and other industry players have launched legal actions against Honeywell to have the patents declared null and void and with the European Commission to obtain a fair, reasonable and non-discriminatory (FRAND) license to market the product. These proceedings are ongoing at the date of this document, but the Group remains confident on a positive outcome in the medium term. As a precautionary measure, the Group has not included any contribution from 1234yf in its 2017 and 2020 targets. The Group has, however, built a production unit at its Changshu site in China to ensure it can immediately supply its customers once it will be in a position to do so.

The Group is also pursuing the development of the new low-GWP Forane® 1233zd, which serves as a blowing agent for polyurethane foams used in the production of domestic refrigerators and freezers, commercial refrigeration, spray foam, polyurethane insulating boards for buildings, and other construction applications.

With regard to upstream integration in fluorspar, the Group has entered into a long-term fluorspar purchasing agreement with Canada Fluorspar Inc. (CFI). The two companies were partners in the Newspar joint venture until the Group sold its stake to CFI in April 2016.

Hydrogen Peroxide (4% of Group sales in 2016)

Products and markets

The Hydrogen Peroxide Business Line includes hydrogen peroxide, sodium chlorate and sodium perchlorate. The epoxides business was transferred to the Hydrogen Peroxide Business Line on 1 January 2016.

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

Hydrogen peroxide is primarily used in paper pulp, chemical products (including organic peroxides in the case of the Group), water treatment, disinfection of food packaging, cleaning of electronic components, and textiles. Its intrinsic properties, particularly its environmental safeness, offer good prospects, with estimates for global long-term growth at 3% to 4% annually [(1)]. Energy is a major component of the business's production costs.

The Group is ranked third worldwide in terms of hydrogen peroxide production [(2)]. Its main competitors are Solvay, Evonik, EKA (AkzoNobel) and PeroxyChem. The size of the global hydrogen peroxide market is estimated at 3.7 million tonnes [(1)].

Strategy and highlights

In September 2016, the Group and PROMES, a laboratory run by French national research agency CNRS, inaugurated the "MicroSol-R" micro solar power plant in the French Pyrénées. The plant operates using Jarysol heat-transfer fluid specially developed by the Group at the Jarrie site.

(1) Source: Arkema Group internal estimates.

(2) Source: IHS Chemical Economics Handbook – Hydrogen Peroxide, September 2014 and Arkema Group internal estimates.

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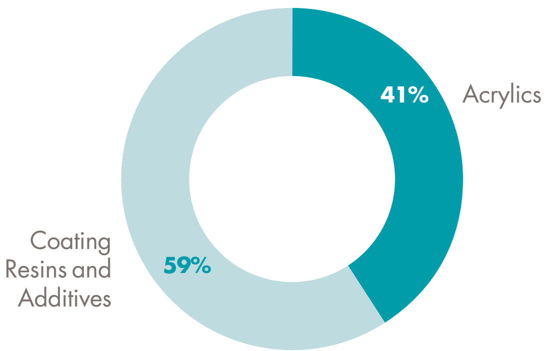
1.2.3 Coating Solutions

1.2.3.1 KEY FIGURES

(In millions of euros)	2016	2015	2014*
Sales	1,771	1,849	1,930
EBITDA	208	190	203
Recurring operating income	83	72	112
Capital expenditure	82	137	86

* *2014 figures have been restated in accordance with the new reporting structure presented at the Capital Markets Day on 29 June 2015. The new structure is described in section 1.1.1.1 of the 2015 reference document.*

1.2.3.2 BREAKDOWN OF DIVISION SALES BY BUSINESS LINE (2016) [(1)]



1.2.3.3 OVERVIEW OF THE DIVISION'S BUSINESS

The Coating Solutions division comprises the Acrylics and Coating Resins and Additives Business Lines.

Since its stock market listing, the Group has strengthened its acrylics activities by securing competitive upstream acrylic monomers in Europe, North America and Asia, by developing downstream integration of its acrylic monomers and by building an integrated production chain in the coatings sector. This strategy has been supported by various acquisitions. In 2007, the Group acquired rheology additives specialist Coatex. In 2010, it purchased certain acrylics assets from the Dow Chemical Company in North America, including its Clear Lake, United States monomers site and downstream emulsions activities. In July 2011, it bought the coating and photocure resins business from the Total group. And in 2014, it acquired a stake in acrylics in China.

The Coating Solutions division is built around a coherent set of activities, with a downstream segment focused on the coatings market (decorative paints and industrial coatings), and a competitive upstream segment in acrylic monomers supplying the coatings market and higher-growth markets like superabsorbents and water treatment. Building on an industrial footprint in three continents and the market's most comprehensive product range, the Coating Solutions division is implementing a strategy based on:

- pursuing the downstream integration of acrylic monomer activities, with the target of achieving around 45% integration including long-term partnerships by 2020, compared with around 37% in 2016. Downstream acrylics will be strengthened through long-term partnerships with industry leaders, geographic expansion into higher-growth regions, innovation focused on the development of more environmentally friendly solutions and bolt-on acquisitions; and
- improving the competitiveness of the upstream segment by maintaining genuine technological leadership and enhancing operational efficiency.

The main purpose of this strategy is to increase the division's resilience and to reduce its cyclicality.

Acrylics
(10% of Group sales in 2016)

Products and markets

The main products of the Acrylics Business Line are acrylic acid and derivatives (esters) and oxo alcohols.

(1) In 2015, division sales by Business Line broke down as follows: 41% Acrylics and 59% Coating Resins and Additives.

The primary raw material used by the Acrylics Business Line is propylene, making supply security a critical factor for the Group. The Group's main supplier in France is Total Petrochemicals France. In the United States, the Group has a supply agreement with Enterprise. For more details on both agreements, see section 1.5 of this document.

The main Acrylics production sites are located in Carling, France, Bayport and Clear Lake, United States and Taixing, China.

The size of the global acrylic acid market is estimated at 5.5 million tonnes [1].

The main markets for Acrylics are coatings (such as decorative paints, industrial coatings and photocure resins), superabsorbents, plastic additives, water treatment, paper, adhesives, and enhanced oil and gas recovery. In coming years, growth in coatings, especially paints, is expected to be supported by the development of the construction market in emerging countries, by the increasing use of high performance formulations in paints, and by the gradual recovery of the construction industry in the United States. Demand for superabsorbents is expected to benefit from the growing use of diapers in emerging countries like China and India, and from the aging population in more mature markets. Water treatment is also expected to enjoy buoyant growth thanks to industrialization in emerging economies and stricter environmental regulations on municipal and industrial water treatment. Over the next few years, acrylics end markets may grow by an average of 4% annually [2]. Growth in Asia should average an annual 5% [2]. In mature markets, growth is expected to be more moderate, at an annual average of close to 3% in North America and 2% in Europe [2].

The Group is the second largest acrylics producer worldwide [3]. Its main competitors are BASF, the Dow Chemical Company and Nippon Shokubai.

Strategy and highlights

To keep pace with growth in its end markets and reinforce its geographic presence in Acrylics, the Group has taken the following steps:

- in January 2014, the Group announced a project to set up Taixing Sunke Chemicals (Sunke), a joint venture with Jurong Chemical, which owns and operates acrylic acid and butyl acrylate production units at the Taixing site in China. Under the agreement, the Group:
  - initially had access to 160,000 tonnes of annual capacity for an investment of US$240 million,
  - had an option to increase its stake in Sunke and access a total capacity of 320,000 tonnes per year for an additional amount of around US$235 million, and
  - had until early 2020 to exercise a further option to acquire the remaining third of the acrylic acid production capacities and to fully own Sunke for US$165 million.

  The first phase of the project was finalized on 20 October 2014.

  In early 2016, the Group decided not to exercise its option to double its capacity rights because the financial terms of the option no longer reflected the Asian acrylic monomers market, where conditions had been very challenging since late 2014. Instead, the Group negotiated a 50/50 split in capacity rights with its partner, Jurong Chemical, giving the Group access to an additional capacity of 80,000 tonnes of acrylic acid per year for a limited cash outflow;
- in 2014, the Group finalized a US$110 million investment plan to develop, upgrade and improve reliability at the Clear Lake and Bayport sites in the United States, as part of a drive to strengthen its position in the US acrylics market. Further to this, in July 2014, the Group started up a 45,000-tonne unit at its Clear Lake site to produce methyl acrylate, which is notably used to manufacture elastomers and polymers for water treatment. It also increased the site's acrylic acid capacity to some 270,000 tonnes a year; and
- in January 2017, the Group announced plans to replace two end-of-life acrylic-acid reactors with annual capacities of 45,000 tonnes each at its Clear Lake site in the United States with a single new reactor with an annual capacity of 90,000 tonnes. The US$90 million investment will make Clear Lake one of the most competitive acrylics sites in North America while supporting growing demand in the region.

The Group has also taken the following measures to improve the competitiveness of the Acrylics Business Line and the Coating Solutions division in general:

- in August 2014, the Group announced the signature of an agreement to purchase propylene in the United States with Enterprise Products Partners LP, one of the leading US energy service players. The agreement is in line with the Group's strategy to secure supply of strategic raw materials, and will account for a significant share of its propylene supply;
- in early 2014, the Group stopped production of industrial chemical intermediates – used primarily to manufacture plasticized PVC, polyester resins and alkyd resins for paint – at the Chauny industrial site in France. In doing so, the Group ceased production of diethylhexyl phthalate (DEHP), which was subject to an authorization process under REACH regulations; and

(1) Source: IHS Chemical Handbook - Acrylic Acid and Esters, June 2014.

(2) Source: Arkema Group internal estimates.

(3) Source: IHS Chemical Economics Handbook – Acrylic Acid and Esters, June 2014 and Arkema Group internal estimates.

- in March 2017, the Group completed the sale to INEOS of its 50% interest in Oxochimie, an oxo alcohol production joint venture owned with INEOS, along with the associated business assets. Produced at the Lavéra site, these products were in part used to manufacture the Group's acrylic esters in Europe. They are also sold on the open market, representing for the Group annual third-party sales of some €40 million. INEOS will continue to supply the Group's acrylic ester units.

Coating Resins and Additives (14% of Group sales in 2016)

The Coating Resins and Additives Business Line comprises two businesses: coating resins and rheology additives (Coatex).

Products and markets

COATING RESINS

The Group is a major supplier to the paint and coating industry, with a comprehensive range of technologies and far-reaching geographic coverage. The Group's extensive, innovative range breaks down as follows:

- liquid resins: these include emulsions, alkyd resins, acrylic resins and polyester resins and serve the decorative paint and industrial coating markets as well as the adhesive and sealant, ink and road paint markets;
- powder resins for the metal coatings market: by eliminating the need for solvents, these 100% dry-content solutions comply with European requirements for the production of low-VOC coatings; and
- rheology additives for aqueous formulations.

The coating resins business operates worldwide, with sites in the United States, Europe, Asia and South America.

Growth in the business'end markets could average up to 3% annually over the coming years [(1)].

The Group ranks among the world's leading companies in the coating materials market. Its main competitors are BASF, the Dow Chemical Company, Allnex, Synthomer and DSM.

Thanks to its various R&D centers, the Group is able to assist its global customers in their search for innovative and environmentally friendly formulations. This is the case, for example, of the alkyd emulsions developed to comply with environmental regulations on solvents.

Since 2015, the coating resins business also includes PVC additives, which are acrylic-acid derivatives that include impact modifiers and processing agents. The Group is one of the leading players worldwide for this application, with production sites in Europe and North America.

RHEOLOGY ADDITIVES (COATEX)

The rheology additives business manufactures primarily acrylic-based polymers that are used as dispersants and thickeners. The main applications for these high-growth specialty chemical activities are in the paper, paint, water treatment, cosmetics, textile and concrete industries. Coatex has industrial sites and storage facilities in Europe, the United States, Asia and Latin America.

Strategy and highlights

The Group has taken the following steps to sustain development in coating resins:

- in September 2016, the Group announced plans to expand its resin manufacturing complex in Navi Mumbai, Maharashtra, India by building a polyester powder resin production unit with operations scheduled to start in 2018. Representing an investment of some US$15 million, the project comprises a new production unit and a new laboratory dedicated to application development and technical assistance. The new facilities will enable the Group to more effectively serve customers in the fast-growing powder coating market;
- in 2015, the Group achieved a 60% increase in its acrylic resin production capacity at the Araçariguama site in Brazil by starting up a new reactor. Thanks to this addition, the Group can manufacture specialty chemicals that were previously unavailable in the region; and
- the Group has also continued to innovate with the development of several innovative solutions, including Celocor®, an additive that potentially reduces the cost of paint by partially replacing titanium dioxide.

The coating resins business has also made progress in improving profitability and refocusing its businesses by:

- shutting down coating resin production at the Villers-Saint-Paul site in France in late 2015, a decision that resulted in the loss of 26 positions;
- divesting the two South African subsidiaries, Arkema Resins Proprietary Limited and Harveys Composites Proprietary Limited, in August 2014, which represented sales of some €45 million; and
- shutting down coating resin production at the Stallingborough site in the United Kingdom in July 2014, leading to the loss of 58 positions.

Coatex is pursuing its strategy of end-market diversification and geographic expansion. In 2014, it inaugurated a new development and application technical center in Brazil to support its future growth and the development of coating resins in South America.

(1) Source: Arkema Group internal estimates.

1.3 CAPITAL EXPENDITURE

1.3.1 Overview of the Group's main capital expenditure projects over the past three years

The Arkema Group's capital expenditure on property, plant and equipment and intangible assets amounted to €423 million in 2016 [(1)] (5.6% of Group sales), €431 million in 2015 [(1)] (5.6% of Group sales), and €470 million in 2014 (7.9% of Group sales). Over the past three years, the Group has invested some €441 million a year on average.

Capital expenditure in the past three years has been focused on (i) facility maintenance, safety, environmental protection and information technology, accounting for approximately 58% of the total, and (ii) development projects, in the form of either major projects or productivity improvements to existing facilities, accounting for approximately 42%.

Over the period, 34% of capital expenditure was made in the High Performance Materials division, 46% in the Industrial Specialties division, 19% in the Coating Solutions division, and 1% on Corporate projects. The breakdown of capital expenditure by region was 48% in Europe, 25% in North America, 26% in Asia and 1% in the rest of the world.

The Group's main development expenditure projects over the past three years were:

2014	Acrylics	Start-up of a methyl acrylate unit at the Clear Lake site in the United States.
	Thiochemicals	Construction of a thiochemicals production complex in Kerteh, Malaysia starting in early 2015, combined with a project to produce bio-methionine in partnership with CJ CheilJedang.
2015	Performance Additives	Two-fold increase in organic peroxide production capacity at the Changshu site in China started in early 2016.
2016	Fluorogases	Construction of a 1234yf refrigerant fluorogas unit at the Changshu site in China.
	Performance Additives	Two-fold increase in specialty molecular sieve production capacity at the Honfleur site in France, with phase one started in 2016 and phase two in early 2017.
	Incubator	Increase in PEKK production capacity in France started in early 2017.
2014-2016	IT	Deployment of IT systems as part of customer supply chain optimization, scheduled for completion in 2017.

(1) Excluding capital expenditure related to portfolio management operations. In 2016, excluding €20 million corresponding to fixed assets that were reassigned with no impact on net debt. For further details, see section 4.1.9 of this document.

1.3.2 Overview of the main capital expenditure projects in progress

At the date of this document, the Group had the following main capital expenditure projects in progress:

Coating Resins and Additives	Construction of a polyester powder resin unit in Navi Mumbai, India, scheduled to come on stream in 2018.
Technical Polymers	25% increase in PVDF fluoropolymer production capacity at the Changshu site in China, with production launch planned for 2017.
Acrylics	Replacement of old acrylic acid production units at the Clear Lake site in the United States, with start-up of the new facility scheduled in 2019.
IT	Ongoing rollout of IT systems as part of customer supply chain optimization in Europe and in Asia, with completion planned for late 2017.

Capital expenditure is primarily funded by the cash resources that the Group generates during the year. In addition, the Group may also use the credit resources detailed in section 4.1.8 of this document.

1.3.3 Future capital expenditure

The Group aims to further reduce its capital intensity. In the long term, it has set the target of achieving average annual capital expenditure of approximately 5.5% of Group sales, of which around 3% for maintenance and 2.5% for development.

In 2017, the Group expects capital expenditure of some €450 million.

The Group believes that its current cash situation and financing resources (see section 4.1.8 of this document) are sufficient to finance its future capital expenditure projects, in particular those mentioned in sections 1.3.2 and 1.3.3 of this document.

1.3.4 Property, plant and equipment

The Group has a policy of owning the industrial facilities that it uses. By way of exception, the Group sometimes leases offices and warehouses from third party lessors. Lease commitments are included in the off balance sheet commitments described in note 30 to the consolidated financial statements in section 4.3.3 of this document.

The net book value of the Group's property, plant and equipment was €2,652 million at 31 December 2016. This figure includes transportation equipment and pipelines owned by the Group (see note 11 to the consolidated financial statements in section 4.3.3 of this document).

1.4 R&D STRATEGY AND INNOVATION

1.4.1 R&D objectives

Research and development (R&D) is one of the key drivers in the Group's growth strategy.

R&D is focused on four primary goals:

- contributing to the Group's operational excellence by making innovative improvements to production facilities, thereby enabling the Group to produce safely and competitively with the smallest environmental footprint possible;
- developing the Group's products by continuously improving their performance in existing markets and by systematically exploring new markets;
- anticipating technological and market changes and developing products today that meet society's needs in the coming years; and
- introducing disruptive innovations that secure the Group's technological positioning in the medium term.

In a constantly changing world, achieving these last two goals is largely contingent on the Group's ability to anticipate the main challenges of tomorrow. For this reason, the Group takes ongoing measures to identify the main megatrends shaping society, a strategy that has led it to define and leverage research platforms in the six following areas:

- bio-based products;
- new energies;
- water management;
- lightweight materials and design;
- electronics solutions; and
- home efficiency and insulation.

The R&D department is also responsible for preparing the Group for future changes by developing disruptive innovations, be they new products or new technologies. To do so, it relies on a dedicated unit called the "incubator", which supports these innovations until they are ready to be brought to market. When the products or technologies have reached an appropriate level of maturity, they are transferred to the relevant businesses for commercial development.

In 2016, the Group was listed as one of the world's 100 most innovative companies for the sixth year in a row in the "Top 100 Global Innovators" survey by Clarivate Analytics, formerly Thomson Reuters.

1.4.2 R&D resources

1.4.2.1 QUANTITATIVE INFORMATION

R&D expenditure represented around 2.9% of Group sales in 2016, and the Group's R&D teams comprised more than 1,500 researchers, spread across three regional research and innovation hubs in Europe, Asia and North America.

R&D efforts break down among the Group's three divisions and its corporate research program as follows:

- the High Performance Materials division accounts for 52% of the Group's R&D expenses, with a particular focus on the materials of tomorrow. Innovations combining performance with sustainable development include materials made from renewable feedstocks, materials and adhesives with a low environmental impact, lightweight materials for transportation, structural adhesives used to assemble these materials, and functional adhesives for the construction and manufacturing industries. High Performance Materials fuels its growth by expanding its product range and by adapting the performance and functions of its products to new market demands. The division's technical excellence is reflected in the strong reputation of brands such as Rilsan®, Pebax®, Luperox® and Bostik®, and in the widespread consumer awareness of retail brands like Sader® and Quelyd®;
- the Industrial Specialties division represents 20% of the Group's R&D expenses, with an emphasis on ensuring the division's processes are competitive and finding new applications and end markets for its products. One of its primary objectives is to continuously improve its main processes, such as those used for fluorochemicals, thiochemicals and hydrogen peroxide, in order to make them safer, more reliable, more productive and therefore more competitive, while minimizing their environmental impact. To this end, R&D teams study the benefits of new raw materials, test new catalysts and reactor types and develop new synthesis pathways. They also contribute to the development of new products such as the new HFO low global warming potential (GWP) refrigerants;

- the Coating Solutions division accounts for 18% of the Group's R&D expenses, with its main priority being to develop innovative solutions for the coatings market while combining technical performance with sustainable development. In addition to working closely with customers to provide responsive technical support, the division's R&D teams also carry out process research, which enables them to optimize production costs and produce new formulas at an industrial scale; and
- the corporate research program represents 10% of the Group's R&D expenses. Defined by the R&D department and subject to the approval of the Group's Executive Committee, the program aims to prepare the innovations of tomorrow.

1.4.2.2 ORGANIZATION

The R&D department reports directly to the Chairman and Chief Executive Officer. It coordinates all of the Group's research programs worldwide, the development of research platforms and the implementation of partnerships.

To steer and coordinate initiatives, the R&D department relies on a scientific committee made up of the Group's scientific directors, who are specialized in either a major scientific field or a region, the global R&D managers for the businesses, and the head of intellectual property. Outside experts may also be invited to take part to this committee.

The R&D department ensures that all projects funded by the various businesses are scientifically and technologically relevant and in line with the Group's overall strategy, notably in terms of sustainable development. It also creates and steers corporate R&D programs, identifies development opportunities and new research areas and manages open innovation tools.

To do this, it leverages the following resources:

- research centers spread across the three regional hubs in Europe, North America and Asia;
- the Intellectual Property department, which directs patent filing Group-wide and coordinates the management of intellectual property, a fundamental part of the Group's asset base (see section 1.4.3 of this document); and
- the "incubator", which develops the Group's disruptive innovations until they are ready to be brought to market.

This organization is supplemented by R&D partnerships, which sometimes extend to shared laboratories (see section 1.4.2.3 below).

1.4.2.3 COLLABORATIVE RESEARCH

The R&D department implements an ambitious strategy based on partnership and open innovation. By collaborating with partners around the world, the Group can keep up to date with the latest scientific innovations, refine its technology watch, more effectively monitor social, industrial and technological megatrends and therefore more accurately define its research priorities.

Partnerships

Partnerships are a fundamental prerequisite for research excellence.

Research partnerships may take the form of upstream partnerships with scientific bodies, research contracts, for example with doctoral or postdoctoral students, and original and innovative structures. In France, for example, the Group takes part in industrial endowment programs, such as the Industrial Organic Electronics Chair in Bordeaux. It has also formed special partnerships as part of major strategic research programs, such as with the laboratory of the ESPCI physics and chemistry engineering college in Paris, France.

The Group also forms downstream partnerships with industrial partners as part of joint research programs with customers, suppliers and even competitors to develop new products and technologies. As part of this, the Group establishes many research partnerships with customers in order to better understand market demand and to accelerate the development and time-to-market of innovative technical solutions.

Numerous structuring tools have been put in place both nationally and internationally to encourage the implementation of collaborative research programs. The Group has made the use of these tools a key priority in its research policy. Many collaborative programs have been undertaken with the European Commission, such as Horizon 2020, and with various French bodies like the national research agency ANR, the environment and energy management agency ADEME, and the interministerial fund. These partnerships allow the Group's R&D to benefit from joint funding with the public sector and from active collaboration with multiple partners. In France, the Group has been particularly active in the various aspects of the French government's *Investissements d'Avenir* investment program by taking part in both collaborative research projects and multidisciplinary bodies such as technological research institutes. In 2015, the Group became a partner of the "Raw Materials" Knowledge Innovation Community (KIC) in Europe, which aims to address the problem of European access to critical raw materials and to develop projects in the areas of mineral extraction, recycling and rare product substitution.

FOCUS

In Asia, the Group has completed its research footprint by opening an innovation center in South Korea. Located on the campus of the Hanyang University in Seoul, the new laboratory is the result of a long-standing partnership between the Group and the university. Its integration into the campus reflects the Group's vision of partner-based research as a bridge between industry and academia. The center will specialize in high performance polymers and renewable energies, two areas in which the university excels.

Open innovation

In addition to research-contract partnerships, the Group has implemented a dynamic policy on open innovation.

Two examples of this policy are outlined below:

1. The R&D department has set up several shared laboratories that team Group employees with staff from another organization, most frequently on the latter's premises. Examples of partners include:
   - French atomic energy agency CEA, with the creation of three shared laboratories within the following organizations:
     - French solar energy institute INES, with the aim of improving polymer performance in photovoltaic applications,
     - IT electronics laboratory LETI for organic electronics and micro-electronics, and
     - new energy technology innovation laboratory LITEN for new energies and new materials;
   - the Lorraine-based *Pôle de Plasturgie de l'Est* (PPE) for the development of thermoplastic composites; and
   - Hydro-Québec, Canada's largest electricity producer, which in 2015 set up a shared energy storage R&D laboratory with the Group at Arkema's Lacq Research Center in France. The laboratory will primarily work on developing the next generations of materials used to make lithium-ion batteries.
2. The R&D department has a technology acquisition policy that involves targeting high value-added SMEs and startups and supporting them through the development process, allowing them to grow in an application-oriented environment thanks to the Group's resources and expert staff. These equity interests enable the Group to position itself in the ultra-innovative product and high-tech markets.

1.4.3 Patent and trademark management

The Group attaches great importance to industrial property rights in respect of both trademarks and patents in order to protect the innovations that result from its R&D and to promote its products among customers. Together, the Group's patents and trademarks represent a key asset for its business.

1.4.3.1 PATENTS

Protecting the Group's technologies, products and processes with patents is key in optimally managing its business.

Consequently, the Group files patent applications in its main markets in order to protect new chemical compounds, new high technical performance materials, new synthesis processes for major industrial products and new product applications.

The number of patents granted and the number of patent applications filed annually are good indicators of how much a company invests in R&D, and how promising the results are. In 2016, the Group filed 196 priority patent applications. At 31 December 2016, it held 7,678 patents and had 5,031 patent applications pending [(1)]. The high ratio of pending patent applications to patents filed per year is due to the lengthy examination process.

Patent protection in countries where the Group seeks it is typically granted for the maximum legal duration of twenty years, calculated from the application date. The level of protection varies from one country to another, depending on the patent type and scope. The Group seeks patent protection in many countries and regions, primarily in Europe, China, Japan, South Korea, North America, India and South America.

To actively protect its markets, the Group monitors competitors and takes legal action against any third-party infringements of its patents. The Group also challenges third-party patents that are granted without justification and takes legal action to have them declared null and void.

The expiration of a basic patent for a product or process can lead to increased competition as other companies bring new products to market. In some cases, however, the Group may continue to benefit commercially from a patent after its expiration by leveraging expertise related to a product or process or by filing for application or improvement patents.

The Group also has a policy of obtaining and granting patent licenses to meet operating requirements. For inventions by employees, the Group continues to use the system that it implemented in 1989, whereby it grants additional compensation to employees whose inventions have given rise to a commercially exploited patent.

(1) All patent applications filed as part of a centralized process – with the World Intellectual Property Organization (WIPO), for example – are counted as a single application, even though the application may result in several patents being granted depending on the number of countries subsequently selected.

1.4.3.2 TRADEMARKS

Trademark protection varies from country to country. While in most countries, trademark rights are the result of registration, in some, they may be based on usage regardless of registration. Trademark rights are obtained by registering the trademark nationally, internationally or even supra-nationally in the case of EU trademarks. Registrations are usually granted for a ten-year term and can be renewed indefinitely.

The Group implements a centralized, dynamic trademark registration policy that draws on a worldwide network of intellectual property advisors.

In particular, the Group holds the trademark rights to its main products. Examples from the Group's flagship brands include Pebax®, Rilsan®, Forane®, Altuglas® and Plexiglas®, which is used exclusively on the American continent. The Group has also trademark protected the names of its latest innovations, such as Kepstan®, Nanostrength® and Apolhya®. The Group further expanded its brand portfolio with the Bostik acquisition in February 2015, adding well-known trademarks such as Bostik®, Sader® and Quelyd®.

Mindful of the importance of its brand portfolio, the Group monitors trademark registrations by competitors in similar business sectors and has a policy of taking legal action against infringements.

1.4.4 The incubator and the six innovation platforms

1.4.4.1 THE INCUBATOR

The incubator was set up to develop disruptive innovations. Since its creation, it has notably developed piezoelectric polymers via the Piezotech subsidiary, a new PEKK polymer capable of withstanding ultra-high temperatures, and nanostructured PMMA for automotive glazing under the Altuglas® ShieldUp brand.

The incubator was also behind the 2016 launch of the Group's commercial thermoplastic composites line, which includes:

- the Elium® range of solutions for infusion molding and resin transfer molding (RTM) technologies; and
- the Polystrand® range of continuous fiber-reinforced thermoplastic solutions in tape or sheet form, for thermo compression, thermo-stamping and lamination technologies.

1.4.4.2 INNOVATION PLATFORMS

The Group has six innovation platforms: bio-based products, new energies, water management, electronics solutions, lightweight materials and design, and home efficiency and insulation. Their purpose is to keep the Group's R&D in line with the megatrends shaping our world now and in the future.

"Bio-based products" platform

Mindful of the need to reduce the use of non-renewable fossil resources, the Group has long been involved in the development of bio-based products such as bio-based polyamides.

- **Bio-based Rilsan® and Pebax® polyamides**

The Group has developed a wide range of bio-based polyamides derived from the castor oil plant, which is mainly cultivated in water-scarce regions of India. These unique products are used in a wide variety of markets, including the automotive, energy, optics and electronics markets.

The Group's portfolio of bio-based polyamides has expanded considerably since 1947, when polyamide 11 entered mass production. With the Pebax® Rnew range, for example, the Group has developed thermoplastic elastomers that combine blocks of polyamide 11 with blocks of flexible material. Boasting outstanding energy return, lightness, shock resistance and durability as well as a broad spectrum of flexibility, this range of polymers has become the standard for ski boots and sport shoe soles.

FOCUS: PARTNERSHIP WITH MIZUNO RUNNING

Mizuno, a major sportswear player and long-standing Group partner, once again confirmed its trust in the Group by using Pebax® for its latest-generation running shoe.

The Group has also leveraged its expertise in bio-based technology to develop the flexible yet temperature-resistant Rilsan® HT range. These polyamides offer outstanding performance enabling them to replace metal automotive parts, thereby helping to lighten vehicles and, by extension, reduce vehicle emissions.

The highly transparent Rilsan® Clear Rnew polyamides offer another, equally renewable-based variation of this range, with notable applications in the eyewear industry.

Lastly, the Group has developed a range of new, highly rigid materials under the Rilsan® XD brand for the production of numerous small parts found in telephones, computers and tablets.

The castor oil production channel is not, however, limited to polyamides. 2-octanol, for example, is obtained from castor oil as a co-product of the polyamide synthesis process. It is used to synthesize 2-octanol acrylate, a new, largely bio-based product currently undergoing customer evaluation.

- Bio-methionine development partnership

Together with South Korea-based CJ CheilJedang, the Group participated in the technical development of L-methionine, wich is also partly based on the use of renewable raw materials.

Currently, virtually all methionine worldwide is produced from a chemical pathway using propylene. CJ CheilJedang has developed a completely different pathway that produces methionine from renewable sources by replacing the use of propylene with a unique bio-fermentation process, for which the Group developed a special sulfur-based intermediate.

Implemented in the Kerteh facility in Malaysia, this highly innovative process has given rise to a number of patents. Its remarkable results have also led the Group to study biocatalysis as a synthesis process for other products in its portfolio.

"Lightweight materials and design" platform

Lightweight materials, particularly for transportation applications, can reduce fuel consumption while increasing vehicle speed and autonomy. The strong trend toward their development offers benefits for both users and society as a whole.

Polymers developed by the Group are ideally positioned to support this trend, be they high-temperature polyamides designed to replace certain metal components in car engines (Rilsan® HT), structural adhesives that substitute for metal attachment systems, or composite materials.

The development of thermoplastic composite materials is a good illustration of the research platform's work. Current carbon- or glass-fiber-based composites make heavy use of thermoset polymers, for which the crosslinking process is irreversible. Examples include polyester and epoxy resins, which present two limitations: they cannot be recycled and their production cycle time makes them difficult to use in high throughput industries such as automotive.

To address this challenge, the Group has developed thermoplastic-polymer-based composites by adapting its high-level chemical expertise in areas such as acrylics and polyamides to the specific needs of various markets. The Elium® resin, for example, is used in applications in the automotive and wind turbine industries. In the wind turbine market, where this resin's recyclability represents a major advantage, 25-meter-long Elium® blades have been installed on a demonstration turbine for qualification tests. The Group has also developed, in partnership with IRT M2P, an industrial demonstration pilot showcasing fast resin transfer molding (RTM) technology that uses Elium® resin. With the help of its partners, the Group hopes to quickly reduce cycle time to under two minutes, thereby fulfilling a highly important criteria for automotive applications. In terms of performance, replacing steel parts with Elium® substitutes is expected to deliver weight savings of between 30% and 50%.

The "Lightweight materials and design" platform places particular emphasis on fast manufacturing technologies, such as 3D printing. The Group regularly expands its product range with a view to becoming a key player in this fast-growing market, where strong demand is being driven by the aerospace, electronics, automotive and healthcare industries. The Group has significantly diversified its product range over the past years and now caters to the demands of most additive manufacturing technologies. The Rilsan® and Orgasol® polyamide powders in the Invent® range, for example, are used in selective laser sintering (SLS), offering such benefits as an excellent finish, ease of use and superior mechanical properties. The ultra-high performance Kepstan® PEKK makes it possible to obtain particularly hard-wearing and flame-retardant parts that meet the stringent specifications of the aerospace industry. And the Group's range of UV-curing acrylic resins developed through the Sartomer subsidiary have been specially designed for PolyJet and stereolithography technologies, which are widely used in the 3D printing industry. In 2016, Sartomer launched the new NextDimension™ range of high performance solutions to meet this market's growing requirements for mechanical performance and esthetics.

"New energies" platform

The development of new energies is a far-reaching social megatrend driven by the world transition to a less fossil-fuel-dependent economy. Innovative polymer materials and chemicals are used to varying degrees in all available new energy solutions, including rechargeable batteries, supercapacitators, solar photovoltaic (PV) panels, wind turbines and heat pumps. Thanks to its technological expertise, the Group can offer these various markets a number of innovative solutions, including:

- Materials for rechargeable batteries

The Group's main material in this field is the Kynar® resin, a fluoropolymer used in lithium-ion batteries for several applications, such as the binder for the active phase and the membrane separating the electrodes. These products play a very important role in the battery's lifespan and performance. For this reason, innovative research is constantly being undertaken to improve their adhesion, chemical resistance, ease of use and other properties.

The Group also develops lithium salts, which move lithium ions from one electrode to the other in lithium-ion batteries. Battery manufacturers need lithium salts that can withstand the increasingly challenging conditions in which their products are used, including high temperatures and rising electrochemical potential. The Group has developed a synthesis process for innovative salts in its laboratories, in partnership, for example, with one of the world's industry leaders, Hydro-Québec. Following the success of these laboratory tests, the process is now being extrapolated to the pilot phase prior to commercial-scale production.

- Materials for photovoltaic cells

Photovoltaic cells are made up of a number of highly technical organic materials that protect the silicon from outside elements. The Group has harnessed its performance materials expertise to bring this market a large number of innovations, such as:

- the Apolhya® grafted polyefins, which are used for their high transmittance and UV resistance. Apolhya® nanostructured copolymers were used for the first time in 2014 in backsheets for PV cells;
- highly effective fluoropolymers for backsheet applications, and in particular the Kynar® resin films, which offer excellent UV resistance, chemical stability and mechanical performance. In 2014, the Group brought to market the new Kynar® SLM200 film which, thanks to its innovative formulation, provides effective protection for the backs of solar modules while offering customers competitive price in this highly competitive industry; and
- Bostik Vitel® polyester adhesives, which are used for binding photovoltaic backsheets (PVDF on PET).

The Group's research also benefits wind turbines, supercapacitators and many other fields related to new energies. In addition, Group R&D is also attentive to future industry developments, such as lithium-sulfur and lithium-air batteries.

"Water management" platform

An important part of the Group's technological research into process improvement is aimed at decreasing discharges to water. To this end, a global water management project, known as "Optim'O", has been launched within the Group (for more details, see section 2.4.2.3 of this document).

In terms of its product range, the Group develops innovative solutions for water treatment, transportation and filtration.

Acrylic acid, for example, serves to manufacture polyacrylates that are used in water treatment plants to ensure the flocculation of suspended solids. The Group is also pursuing its developments to use more hydrogen peroxide to disinfect cooling systems. Unlike the chlorinated products typically used, this solution avoids chlorinated water discharges.

In terms of water transportation, the Group has launched a Kynar® PVDF grade that is suitable for multi-layered pipes used to transport drinking water and can be implemented without additives. Thanks to its purity, this solution delays the growth of thin layers of bacteria. The grade has received KTW certification from the German water and gas agency. Similarly, Rilsan® fine powders have been chosen by many cities to coat their drinking-water pipe networks and wastewater treatment plant equipment because of their strength, durability and flow properties.

However, the Group deploys its main water management innovations in the area of filtration. Filtration membranes for waste and drinking water treatment are typically based on fluoropolymers, notably PVDF. Kynar® resin delivers outstanding performance in this market. When implementing water filtration systems, one of the key factors to monitor is the gradual clogging of the membranes by biofilms. With this in mind, the Group and Polymem, a French SME specialized in hollow-fiber membrane filtration modules, jointly developed new, more efficient and less energy-intensive hydrophilic ultrafiltration membrane technology that consistently produces excellent quality water.

"Electronics solutions" platform

With its range of technical polymers (specialty polyamides and fluoropolymers), the Group brings innovative solutions to the electronics market, which is currently experiencing strong growth in the smartphone and tablet segments, among others.

The Group markets materials designed to meet the most exacting specifications, be it for electronic devices' internal structural parts, which are required to be increasingly fine and made using the same simple injection molding process as well as offering ultra-high rigidity, or for external parts such as the casing, cables and stylus, which need to be stain and shock resistant. Thanks to the Group's global network and the close collaboration between teams in research centers in France, the United States and Asia, new technical solutions are constantly being developed to meet the needs of the main manufacturers.

A new polyphthalamide, for example, was successfully launched on the portable devices market in 2014, opening up new design possibilities thanks to its exceptional rigidity, dimensional stability and fatigue resistance. In addition, the Pebax® MH and MV range delivers a full spectrum of antistatic additive solutions, particularly for electronics packaging.

One of this platform's most ambitious projects concerns directed self-assembly (DSA), where block copolymers are used for nanoscale semiconductor etching.

Traditionally, lithography has been used to etch the structure of microprocessor and memory chips onto silicon wafers. The lithography process uses UV light to project a pattern of the structure onto the substrate, meaning that performance is governed by the laws of optics. However, this process has today reached its limits due to the use of extremely small patterns of just some dozen micrometers that are much smaller than the wavelengths of visible and UV light.

DSA lithography is a major breakthrough, converting lithography from an optical technology to a molecular one by harnessing polymer-phase separation to trace the desired structure. With this process, a 50/50 block copolymer will form nanometric lamellar structures whereas a 30/70 block copolymer will form cylinders. These forms are correctly aligned thanks to precise control of the surface energies, enabling patterns to be etched onto the surface of the silicon substrate before being transformed into electrical contacts.

In November 2015, the Group, which owns proprietary technology for the synthesis of ultra-pure block copolymers with perfectly defined structures, formed a special partnership with Brewer Science, a major industry player. Numerous other partnerships have since been developed with major semiconductor players to assess this technology and, if possible, launch production by 2018.

"Home efficiency and insulation" platform

Energy efficiency, health, comfort and environmental footprint are key concerns in the development of the building of the future, with consumer demand in the field regularly becoming greater and more complex. This trend is likely to continue over the long term. Against this backdrop and following the expansion of the Group's building material and home comfort product portfolio due to the acquisition of Bostik in 2015, the Group has decided to make home efficiency and insulation a key focus of its R&D strategy and set up a sixth innovation platform in this area.

The Group offers solutions for the thermal insulation of buildings, which is achieved by combining vacuums or air, which have low thermal conductivity, with materials that provide mechanical strength, such as glass, metal and wood. In particular, the Group markets a range of high-performance adhesives and sealants, such as adhesives for making double-glazed windows and adhesives for constructing doors and insulation panels.

This expertise continues to be actively developed within Bostik, where it forms a significant R&D focus. Particular attention is paid to formulations, where the Company proactively limits the use of additives with unfavorable toxicity profiles. For example, the most recent range of floor covering adhesives, Mipaflix 800, are phthalate- and solvent-free and have sufficiently low volatile organic compound (VOC) emissions to obtain an A+ rating as well as EC1 Plus, LEED and BREEAM certification.

The coating resins business also contributes to the development of healthier, more environmentally friendly homes. Most new grades of acrylic and alkyd emulsions, which are developed by this business, can be used without the addition of a coalescing agent, enabling customers to prepare very low-VOC coatings. Some grades also capture formaldehyde. In addition, the new binders for exterior paints offered by the Group have a high water content, enhanced dust resistance and excellent stability with regard to environmental conditions. Thanks to these improvements, consumers can use the coatings for a number of years, thereby reducing the environmental impact of maintenance and replacement works.

The innovation platform also benefits from the development of the Smart House by Arkema, which was inaugurated at the Venette R&D site in France in 2015. This one-of-a-kind house-laboratory was designed to bring together players in construction to cooperate on innovation and sustainable development. The purpose of the concept house is to test, develop and approve new solutions to major challenges facing the construction industry, particularly energy efficiency, environmental footprint and the health and comfort of building occupants. One year after launching the Smart House, the Group is already benefiting from the first tangible results and has opened up a dialogue with a diverse range of players on the challenges and opportunities created by the shift toward sustainable housing. Be it with economists, rental companies, architects, customers, universities or suppliers, these discussions make it possible to come to a better understanding of future needs and propose tailored solutions.

1

1.5 MATERIAL CONTRACTS

In order to conduct its business, the Group has concluded a number of contracts that are of major importance either because they enable the Group to secure access to raw materials or energy resources or to ensure operating procedures at its production sites, or because they represent material financial income.

1.5.1 Raw material and energy supply contracts

The agreements described in this section represent major raw material or energy supply contracts that cover several years. For confidentiality reasons, the Group cannot disclose the terms and conditions of certain contracts, including those governing the Group's supply of hydrofluoric acid (HF), which is used as a main raw material for its fluorochemicals activities, of cyclododecatriene (CDT), which is used to manufacture PA 12, and of oxo alcohols, which are a feedstock for acrylics.

CONTRACT WITH ENTERPRISE PRODUCTS PARTNERS L.P. ("ENTERPRISE") FOR THE SUPPLY OF PROPYLENE IN THE UNITED STATES

Arkema Inc. concluded a contract for the supply of propylene in the United States with Enterprise, one of the leaders in the US energy industry. The contract takes advantage of the development of shale gas in the United States and secures a long-term supply (more than ten years) of propylene produced by propane dehydrogenation (PDH). The first deliveries are expected upon completion of the construction phase of Enterprise's Mont Belvieu production unit in Texas, United States.

CONTRACT WITH TOTAL PETROCHEMICALS FRANCE (TPF) FOR THE SUPPLY OF PROPYLENE (C_3) FOR ARKEMA FRANCE'S CARLING SITE

Following the shutdown of the TPF steam cracker in 2015, the terms under which Arkema France's Carling site was supplied with propylene were reviewed to ensure the long-term viability of its operations. Under the terms of a new propylene supply contract, entered into on 3 September 2015 and terminating on 30 April 2021, TPF has agreed to sell and deliver propylene to Arkema France, for use at its Carling site (Acrylics).

INDUSTRIAL AGREEMENT WITH EDF SIGNED ON 21 DECEMBER 1995

Arkema France secured electricity supplies from EDF for its industrial sites for a 25-year period (1996-2020) in return for payment to EDF of a sum corresponding to a drawing right. The quantities of electricity reserved at the signing of the agreement covered the electrical consumption of Arkema France's and its subsidiaries' non-chlorine producing sites. This contract was split between Total Petrochemicals France and Arkema France by an amendment dated 23 September 2005 specifying the rights and obligations of each party for the 15 years remaining on the agreement.

CONDITIONS OF ELECTRICITY SUPPLY FROM EXELTIUM

Arkema France, together with six other electro-intensive industrial companies, is a founding member of Exeltium, from which it continues to source a significant part of its energy needs. Under an agreement, signed in July 2014 between EDF and Exeltium, the price paid for electricity supplies will be decreased initially, before being increased as a counterpart on the basis of changes in the market price for electricity. This mechanism makes the contract more flexible without compromising its overall economic balance.

With respect to Arkema France, the supply period extends to 2030, with an option for the Group to opt out of the agreement as from 2020.

1.5.2 Industrial agreements

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

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 future industrial activities on the Induslacq complex in Lacq, France, beyond 2013. It specifies three components: (i) the ongoing production of gas to supply the Group's thiochemicals units with hydrogen sulfide (H_2S) and Sobegi's steam furnaces with fuel, (ii) the construction of new gas treatment units and their connection to existing facilities, and (iii) the modification of thiochemicals units to operate with new H_2S specifications.

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

TPF owns the Carling site's production line 41, which mainly produces EDA for Arkema France, and can also produce polyethylene for TPF. Under the terms of the line 41 EDA toll-processing contract, Arkema France is responsible for the procurement of the main raw materials, the EDA production process and the financing of related investments. In return, TPF processes the main raw materials to produce EDA on Arkema France's behalf on line 41, and provides secondary raw materials and associated services.

Following the shutdown of the Carling steam cracker in 2015, TPF now supplies ethylene from other sources.

CONTRACT FOR THE PRODUCTION OF HYDROFLUORIC ACID AND FORANE® F22 FOR DAIKIN AT THE CHANGSHU SITE IN CHINA

In 2002, the Group started production of Forane® F22 at its Changshu site near Shanghai, China. The production of Forane® F22 is backed up by the upstream production of hydrofluoric acid (HF). The Group shares the production of Forane® F22 with the Japanese company Daikin pursuant to a heads of agreement document signed on 30 July 1998, which also provides for Daikin to have reserve capacity and access to hydrofluoric acid for its own supply requirements. Following an amendment to the contract in 2009, the amounts payable by Daikin are calculated on the basis of a Forane® F22 market price, and depreciation recognized to cover Daikin's share of the investment in the facilities.

MMA CAPACITY RESERVATION AGREEMENT WITH DOW IN THE UNITED STATES

In October 2000, the Group signed methyl methacrylate (MMA) capacity reservation agreements with the Dow Chemical company (formerly Rohm and Haas) in the United States. Under the terms of these agreements, the Dow Chemical company supplies the Group with significant quantities of MMA, representing the Group's only source of MMA supply in the United States.

1.5.3 Multi-year sales contracts

The contracts described in this section, which represent material sales for the Group, are related to specific acquisition and investment transactions.

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

On 1 October 2007, the Group acquired Coatex, one of the world's leading producers of rheology additives for aqueous formulations. At that time, a long-term contract was agreed between Coatex and the Omya group (a former Coatex shareholder) for the supply of dispersant agents. This contract was subsequently revised as part of a new contract dated 18 April 2013, which will terminate on 31 December 2017. The sales under this contract represent a material part of Coatex's overall revenues. A new contract is currently being negotiated for the coming years.

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

Joint-venture agreements were signed between the Group and the South Korean group CJ CheilJedang (CJ) on 12 March 2012. Under the terms of these agreements, since the beginning of 2015, Arkema Thiochemicals Sdn. Bhd. (86%-owned by the Group and 14%-owned by CJ) supplies methyl mercaptan (MeSH) from its Kerteh complex in Malaysia to CJ Bio Malaysia Sdn. Bhd. (86%-owned by CJ and 14%-owned by the Group) in volumes sufficient to cover all of the needs of CJ Bio Malaysia Sdn. Bhd. with respect to the manufacture of methionine at its production unit on the same industrial site.

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

Arkema Inc. signed a long-term contract with Novus International Inc. on 1 January 2002 for the production of 3-methylthiopropionaldehyde (MMP), an intermediate in the manufacture of methionine, at its site in Beaumont in the 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 raw materials from Arkema Inc. This contract represents material sales for the Group.

Other types of sales agreements have also been signed, such as framework agreements and key supplier agreements. These have the particularity of being global in scope and being able to cover multiple products across several Group businesses.

1.5.4 Guarantees and commitments made by the Total group as part of the 2006 Spin-Off

In connection with the Spin-Off of Arkema's Businesses in 2006, Total S.A. and certain Total group's companies have made certain guarantees or commitments for the benefit of the Group relating to (i) antitrust litigation, (ii) actual or potential environmental liabilities of the Group arising from certain sites in France, Belgium and the United States, on which operations have ceased in the majority of cases, (iii) certain tax matters, and (iv) the Spin-Off of Arkema's Businesses. The guarantees and commitments relating to antitrust litigation expired in 2016. They are described in note 30 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document. Moreover, as part of the Contribution Agreement, Total, Total S.A. and Arkema made certain representations and warranties, some of which were in connection with the separation of the Group from Total, which expired in 2016.

1.6 OPERATIONAL EXCELLENCE STRATEGY

1.6.1 The Group's commitments

For the Group, reinforcing operational excellence in order to position itself as one of the top global industrial leaders is both a priority and one of the main drivers of the strategy implemented by the Group as part of its ambitions for 2017 and 2020.

The Group has consequently set out the following commitments:

- **being a top-quartile performer in safety in the chemical industry**

In order to further improve its safety performance, the Group has set out 2025 targets detailed in section 2.3 of this document. Implementing the necessary actions to achieve these targets will also help enhance the reliability of the Group's sites.

In particular, the Group aims to reduce the total recordable injury rate (TRIR) to below 1.2 by 2025, compared with 1.5 in 2016. The Group also seeks to put greater emphasis on the human factor, notably by extending its peer observation program to all its sites (56% of sites in 2016). The peer observation program is used to identify best practices and best-practice deviations, and so helps to significantly reduce unsafe situations and, ultimately, the number of occupational accidents. In addition, the Group aims to audit 100% of its sites based on the Arkema Integrated Management System (AIMS), which combines all the Group's safety, environment and quality audits in a single audit, by 2025 (63% in 2016). These audits are conducted jointly by the Group auditors and a third-party certifying body, and contribute to meeting the requirements of standards such as ISO 9001, ISO 14001 and OHSAS 18001. The Group, which is ISO 50001-certified, has incorporated in 2015 the requirements of this standard in its integrated AIMS standard;

- **positioning its main production sites in the top quartile in terms of competitiveness**

Since its stock market listing, the Group has continuously increased the competitiveness and reliability of its main production sites, thereby constantly improving its industrial facilities and streamlining its cost structure. The Group has undertaken various reorganization and optimization programs to reduce the fixed and variable costs of its different business activities. As part of this, in 2015 the Group shut down production activities for fluorogases at the Zaramillo site in Spain, coating resins at the Villers-Saint-Paul site in France, and extruded PMMA sheets at its Bernouville site in France. Taking into account the expected decline in demand for 134a in Europe from 1 January 2017 due to regulatory changes in car air-conditioning, the Group decided to shut down the R134a fluorogas unit at the Pierre-Bénite site in France at the end of the first quarter 2017. In addition, the Group pursued the modernization of Bostik industrial sites in Sweden and Australia. In South America, the Group concentrated the hot melt production of certain countries in its new unit in Monterrey in Mexico.

The Group's program to reduce variable costs is based in particular on optimizing its processes – an initiative sustained by the Group's continuous innovation efforts – and enhancing the reliability of its processes and equipment. These measures help optimize raw material consumption and energy efficiency on the Group's production sites. To this end, the Group makes targeted development or productivity investments, such as those made as part of its Arkenergy program to increase energy efficiency throughout all its business activities, as described in section 2.4.2.2 of this document.

When designing new production units or complexes, the Group leverages the recognized know-how of its technical and R&D teams in order to implement the latest technological processes developed by the Group, and to develop ever more competitive units in terms of cost and operations. In this respect, the most important recent projects notably concerned the two-fold increase in production capacity for specialty molecular sieves at the Honfleur site in France and the construction of a 1234yf production unit at Changshu in China. In addition, in 2017, as part of its operational excellence program, the Group announced that it will replace two 45,000 tonnes per year acrylic acid reactors at the end of their life with a single 90,000 tonnes per year reactor at its Clear Lake site in the United States. With this investment, Clear Lake will have a modern, competitive reactor using the latest production technologies available and will thus be positioned among the most competitive acrylics sites in North America.

Lastly, the Group carries out various investment projects to enhance the competitiveness of its main production units;

- **improving the quality of customer service through an optimized supply chain**

With its "Ambition" program, the Group has been upgrading and reorganizing its IT systems in order to optimize its supply chain and therefore improve the quality of customer service and satisfaction. The program will also help enhance control over the Group's various businesses' working capital, and further optimize inventory levels and working capital turnover.

Several phases of this rollout have been successfully completed, with the implementation of the new IT system within the coating resins and photocure resins (Sartomer) businesses in 2014, the Thiochemicals and Fluorogases Business Lines in 2015, and the Technical Polymers, PMMA and Hyrdogen Peroxide Business Lines and the organic peroxides business in 2016. The rollout of the program will end in 2017 once it has been deployed in all the Group's businesses and in particular in the filtration and adsorption business; and

- **optimizing the procurement of goods and services**

In line with actions undertaken to improve the procurement of raw materials and energy, the Group is enhancing the globalization and professionalism of its goods and services procurement and maximizing synergies through its strategic Global Procurement project. These efforts should enable it to reduce the total budget allocated to goods and services procurement and to optimize investment performance as well as to strictly manage its working capital while controlling quality, lead-time and safety risks.

1.6.2 The Group's operational excellence program

To achieve its operational excellence ambitions, the Group's executive management has launched a program involving all Group businesses and subsidiaries that could represent €100 million of annual savings by 2017, compared with the baseline year of 2014. Operational excellence will therefore partly offset the impact of inflation on fixed costs and, alongside geographic expansion and innovation, contribute to reaching the 2017 EBITDA organic growth targets.

The program, rolled out and monitored at individual business level, involves the industrial managers and site managers for all operating lines, and requires the commitment of all Group employees.

The continuous improvement process involves:

- assessing the improvement potential of each Group business. After reviewing the main areas for improvement at every production site within the various Business Lines, safety, reliability, productivity and raw material and energy consumption objectives are set for each Business Line and translated into quantified fixed and variable cost-savings targets;
- improving the monitoring of certain key indicators and the achievement of Business Line objectives by using reporting scoreboards, particularly for total recordable injury rates, the optimization of raw material, energy and logistics costs, the optimization of industrial working capital, etc.;
- identifying best practices within the Group, the chemical industry, and other industrial sectors;
- capitalizing on feedback by implementing best practice reference frameworks that are gradually shared by all of the Group's production sites;
- involving all employees in the process of improving production-unit performance. In line with this goal, the SMART project is gradually being rolled out across all Group industrial sites at a pace of 15 to 20 sites per year. The project enables all employees to actively foster continuous improvement in their workplace by giving them the means to contribute at their level, be it in terms of improving operational performance or solving problems that they encounter; and
- strengthening employee training, particularly regarding safety, through the training programs detailed in section 2.3.2.1 of this document.

Implementing these various human and technical resources should help the Group achieve the operational excellence objectives it has set itself for 2017.

1.7 RISK FACTORS

1.7.1 Comprehensive internal control and risk management procedures

1.7.1.1 GENERAL ORGANIZATION: OBJECTIVES AND SCOPE OF INTERNAL CONTROL AND RISK MANAGEMENT

Objectives

The Group applies the Reference Framework of the French financial markets authority (*Autorité des marchés financiers* – AMF), published in 2007 and subsequently reviewed and expanded in 2010, which it has adapted to its business activities, size and organization.

Internal control is a Group-wide process defined and implemented by executive management, management and employees. Its objective is to ensure:

- compliance with current laws and regulations;
- compliance with the instructions and guidelines issued by executive management;
- the smooth operation of internal processes, notably those serving to protect assets; and
- the reliability of financial information.

Generally, internal control contributes to the management of the Group's activities, the effectiveness of its operations, and the efficient use of resources.

However, no internal control process can provide absolute assurance that these goals are met. Despite the processes and controls in place, it cannot guarantee that all Group employees will constantly comply with the internal control guidelines and apply all the defined procedures.

The Group has also implemented a risk management system that enables the Executive Committee to ensure that risks are at a level that it deems acceptable. This system contributes to:

- creating and protecting the Group's value, assets and reputation;
- securing the Group's decision-making and other processes so that objectives may be achieved more easily;
- ensuring consistency between Group values and actions; and
- rallying Group employees around a common vision of the main risks.

Scope

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

- the three divisions, each comprising Business Lines, which are responsible for their respective performance and the implementation of internal control procedures (see section 1.1.1.2 of this document);
- the corporate departments (or support functions), which assist the divisions and the businesses in their area of competence, such as accounting, human resources, legal affairs and IT, to ensure the coherence and optimization of the Group as a whole (see section 1.1.1.2 of this document); and
- the subsidiaries, in which the Group performs its business activities (see section 5.1.2 of this document).

These internal control and risk management procedures apply to all fully consolidated Group companies. Internal control is not limited to procedures that improve the reliability of financial and accounting information.

1.7.1.2 PERSONS INVOLVED IN INTERNAL CONTROL AND RISK MANAGEMENT

Board of Directors and committees

The Board of Directors, the two committees in place (the Audit and Accounts Committee and the Nominating, Compensation and Corporate Governance Committee), and their members, through their experience and expertise, contribute to the promotion of an internal control and risk management culture adapted 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 the internal auditors and the results of their work.

Executive Committee

The Executive Committee implements the internal control process and ensures compliance by:

- defining the internal control framework and the rules for delegating responsibility;

- setting targets for each business, corporate department and subsidiary, and providing the resources for these targets to be met;
- supervising the implementation of the control procedures that help achieve the targets it has set;
- assessing the risks specific to each project submitted to the Executive Committee; and
- carrying out a review (annually and as deemed necessary) of the Group's major risks, based on the work of the Risk Review Committee and its risk mapping presentation. The Executive Committee relies on the Internal Audit and Internal Control department and the expertise of all its own members to help in its implementation and operation.

Each member of the Executive Committee is responsible for ensuring that the Internal Control Framework's Group-wide rules and principles are observed in the entities and, in particular, the businesses that he or she supervises.

Risk Review Committee

A Risk Review Committee was set up in October 2007 to strengthen the formal framework of risk identification, analysis and management, and to regularly monitor the development of risk factors. It is made up of the Strategy Executive Vice-President (committee chairman), the Industry Executive Vice-President, the Chief Financial Officer, the Legal Affairs Vice-President, the Sustainable Development Vice-President, the Group Safety and Environment Vice-President, the Insurance Vice-President and the Internal Audit and Internal Control Vice-President (committee secretary).

Every six months or more often in response to specific events, the committee convenes under the chairmanship of the Group's Strategy Executive Vice-President to review:

- summaries of audits and assessments carried out by the Internal Audit and Internal Control, the Safety, Environment and Quality and the Insurance departments;
- reports on fraud or attempted fraud prepared by the anti-fraud unit;
- a summary and progress report of ongoing disputes presented by the Legal department;
- assessments of commercial intermediaries made by the commercial intermediaries review commission;
- a list of risks identified in the surveys carried out by the Internal Audit and Internal Control, Legal, and Accounting and Management Control departments;
- a risk map prepared by the Internal Audit and Internal Control department; and
- the monitoring of corrective measures in all of these areas.

Following its review, the Risk Review Committee can decide on further corrective measures or request additional information, and can also request updates to the risk map.

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

Upon completion of the process, the Executive Committee may decide whether or not to update the main risks described in section 1.7.2 of this document.

The Risk Review Committee met twice in 2016.

Internal Audit and Internal Control department

The Internal Audit and Internal Control department is made up of the Internal Audit sub-department and the Internal Control sub-department, both of which are independent functions under the responsibility of the Strategy Executive Vice-President.

The role of Internal Audit is principally to improve and develop controls in the Group's management systems and processes and, more broadly, to ensure that the Group's operating procedures comply with the Internal Control Framework.

All processes and management systems may be subject to an internal audit. The Internal Audit department discusses and agrees its findings with the audited entities before presenting them with a set of recommendations and related action plans that the entities commit to implementing.

An internal committee consisting of the Chief Financial Officer, the Strategy Executive Vice-President and the Internal Audit and Internal Control Vice-President regularly ensures that the recommendations have been followed.

The Internal Audit and Internal Control department defines a draft program for the audit plan based on:

- risk identification initiatives;
- interviews with the Group's operational and corporate departments; and
- a selection of priorities from the various proposals gathered.

The final program is validated by the Executive Committee, and then approved by the Audit and Accounts Committee. In 2015 in particular, a decision was made to adjust the number of internal auditors to ensure adequate coverage of companies included in Bostik's scope of consolidation.

In 2016, the Internal Audit department carried out the following 30 audits:

- 11 audits of industrial sites and 1 audit of a research center for Arkema France, Arkema Inc., Arkema Srl, Bostik France and Altuglas International SAS;
- 10 audits of subsidiaries in Europe, Asia, North America and South America;
- 3 process audits in Europe and North America; and
- 5 audits of businesses in Europe and North America.

The primary mission of Internal Control is to strengthen the Group's internal control systems. Its initiatives are communicated and implemented, at subsidiary level, by a network of correspondents within the subsidiaries' Finance and IT departments.

Internal Control is involved in the analysis and formal implementation of processes that impact financial information, for which key controls have been defined.

The methodology consists in:

- analyzing the main risks of error, omission or fraud in processes or sub-processes, which could have a material impact on the Group's consolidated financial statements;
- identifying and implementing control procedures to minimize any risk of error, omission or fraud;
- periodically checking the existence and effective operation of these controls, carried out by the Internal Control correspondents based in the subsidiaries (self-audit) or by the Internal Audit department; and
- defining corrective measures in the event of shortcomings and overseeing their implementation.

The list of procedures covered by this methodology is based on the 14 procedures of the AMF Reference Framework application guide published in 2007 and updated in 2010. It is tailored to the specific features and size of the subsidiaries.

Virtually all subsidiaries were covered by the internal control system in 2016, with the exception of the new Den Braven entities acquired on 1 December 2016. The internal control system implemented by Total in the companies included in Bostik's scope of consolidation is based on a detailed annual self-assessment questionnaire. These companies will gradually switch to the Group system according to a multi-year rollout plan, which started in 2015 and will finish in 2017. At end-2016, a total of 60% of Bostik's entities, representing 83% of Bostik sales, had been integrated into the Group's internal control system.

Divisions, Business Lines, corporate departments and subsidiaries

The Group is organized into divisions as described in section 1.2 of this document. The divisions are made up of Business Lines, which coordinate the use of resources allocated to them by the Executive Committee to meet the targets set in their respective areas. Each business is responsible for its own performance and for implementing suitable control procedures and processes, in accordance with the principles and procedures mainly defined in the Group's Internal Control Framework, Code of Conduct and Business Ethics, charters and guidelines.

The corporate departments ensure that the Group's organization is consistent and optimized.

Each subsidiary is placed under the responsibility of a local executive who is responsible for employing the resources defined with the businesses and the support functions to meet the subsidiary's 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 core principles:

- clear definition of responsibilities and delegations of authority, observing rules governing the segregation of duties (in particular distinguishing between those who perform actions and those who approve them), to ensure that any person who makes commitments to third parties on behalf of the Group has the authority to do so;
- the identification, analysis and management of risks; and
- regular reviews, notably via annual internal control assessments and the internal audit program, to ensure internal control and risk management systems operate correctly.

The Group's Internal Control Framework defines its organization and the guiding principles behind its operating procedures. Approved by the Executive Committee and available to all employees, notably via the intranet, it is based on the Safety, Health, Environment and Quality Charter, the Users' Guide for IT and Electronic Communication Resources, and the Code of Conduct and Business Ethics put in place by the Group. In line with the AMF Reference Framework published in 2007 and updated in 2010, the Internal Control Framework is based on five components:

- control environment;
- risk management (detailed in section 1.7.1.4 of this document);
- control activities;
- information and communication; and
- continuous assessment of internal control systems.

Control environment

The control environment is the basis for the other components of internal control and refers primarily to the organizational principles of the Group, the Group's values as set out in the Code of Conduct and Business Ethics and the level of awareness among employees.

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

The Group has put in place a compliance program, which mainly covers antitrust, export control and anti-corruption legislation. Each area is the subject of various procedures and/ or guides, which are provided to employees. To ensure that the compliance program has been followed, the Legal department sends a declaration of compliance each year to the heads of the businesses, the corporate departments and the main subsidiaries and sites, which they must sign and return to show that they are aware of the compliance program, that they have acted in accordance with it over the past year, and that they undertake to continue to do so in the coming year. These heads are then responsible for obtaining an identical declaration, signed by the employees concerned within their business, corporate department, subsidiary or site.

A fraud prevention procedure was put in place from 2008 onward to record and centralize situations of fraud and therefore improve their handling and prevention.

In general, the roles and duties of every operational and corporate manager are set out in a job description. Their objectives, 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 employees' skills are continuously adapted, and to maintain a high level of individual engagement and motivation.

Control activities

Control activities involve applying the standards and procedures that help ensure that Group management directives are implemented at every level of the Group.

To this end, a set of regulations has been formally documented in the Internal Control Framework, and general principles applicable to all Group entities have been defined in order to be able to control the application of the operating procedures defined by the Executive Committee. For example, delegations of authority and investment management are the subject of specific notes.

- Businesses and subsidiaries are responsible for operational processes and therefore for internal control.
- Corporate departments are responsible for defining and communicating policy and best practice guidelines relating to their area of expertise and ensuring that they are correctly applied, particularly in the following fields:
  - compliance with laws and regulations;
  - safety and environmental protection; and
  - the reliability of financial information.
- Controlling access to IT systems forms a key part of internal control and is subject to a formal management process, which involves both the departments using the systems and the IT and Telecommunications department.

The Internal Audit team conducts assessments of the Group's compliance with its Internal Control Framework in accordance with the audit plan validated annually by the Executive Committee and approved by the Audit and Accounts Committee.

Information and communication

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

Mindful of the opportunities and risks related to the use of information technologies, the Group has set up an IT management structure to control risks while creating value and improving performance.

This approach consists in deploying Group-wide, and as part of its IT systems security policy, the ten IT management practices drawn up formally by the French IT association for major companies, CIGREF (*Club informatique des grandes entreprises françaises*). For further details, see section 1.7.2.6 of this document.

Additionally:

- the Group has a highly detailed financial reporting system, an essential management tool used by executive management;
- the main internal control documents are available on the Group's intranet; and
- each support function develops professional best practices and communicates them throughout the Group via the intranet.

Continuous assessment of internal control systems

The internal control system is assessed on an ongoing basis. The Executive Committee is responsible for the overall internal control system, its performance and its oversight. However, each entity is 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 the Internal Audit department on completion of its audits 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 engagement, the statutory auditors may alert the Group (represented by the Finance department and the Internal Audit and Internal Control department) and the Group's Audit and Accounts Committee regarding any weaknesses that they may 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 decentralized, risk assessment and management is the responsibility of the businesses, corporate departments and subsidiaries. Each of these entities has a duty to reduce the risks inherent in their activities.

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

- every month, each business presents its results and indicators to its operational executive Vice-President, who also sits on the Executive Committee, and the Executive Committee reviews the results of the divisions and their respective businesses;
- the Accounting and Controlling department organizes a quarterly review of risks and legal disputes that may have to be reported in the Group's financial statements. The businesses, corporate departments and subsidiaries report on their entity's risks, which are analyzed and addressed at quarterly meetings with the Chief Financial Officer, the Accounting 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 amongst the Group's main entities, namely the businesses, corporate departments and subsidiaries. The risks are identified and analyzed and the most significant risks are positioned on a risk map, which is presented to the Risk Review Committee. The Risk Review Committee then assesses the need to update the risk map and puts forward suitable action plans where necessary. The Committee's conclusions 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 map and the need to cover the Group's scope of activity on a regular basis. Material risks known to the Group are allocated to a member of the Executive Committee. They are also examined by the Audit and Accounts Committee and presented to the Board of Directors. The main risks are set out in section 1.7.2 of this document, where they have been classified into the following sections:
  - economic and business risks,
  - supply chain risks,
  - industrial safety, environmental and climate change risks,
  - regulatory and legal risks,
  - financial risks,
  - IT risks,
  - strategic projects risks, and
  - insurance cover default risks.

1.7.1.5 ACCOUNTING AND FINANCIAL INTERNAL CONTROL PROCEDURES

Operational and corporate managers' control and understanding of their business' financial performance represent one of the key factors in the Group's financial control system.

Organization of the finance function

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

- functions under his direct supervision, in particular:
  - the production of consolidated financial and accounting information, falling within the remit of the Accounting and Controlling department, which is responsible for ensuring the reliability of the data constituting the Group's financial information and for providing management analyses common to the Group's different entities, thereby facilitating the management of each entity,
  - cash management and optimization of Group 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 publish financial information once it has been approved by the Company's Board of Directors;
- delegated functions:
  - each business has its own management control team, which monitors and analyzes the business' performance monthly, and
  - each subsidiary is responsible for its own monthly accounts and for its half-year and full-year financial information.

Accounting reporting and management control

The fundamental financial reporting principles are set out in the financial reporting manual and the Group's management framework. These reference documents are updated annually by the Accounting and Controlling department, following approval by the Chief Financial Officer or the Executive Committee, depending on the type of amendment and its significance.

One of the main purposes of accounting-related reporting is to analyze actual performance compared with forecasts and prior periods based on the processes described below.

Medium-term plan

Every year, the Strategy department draws up a five-year medium-term plan, which is reviewed by the Executive Committee. It enables the Executive Committee to understand the financial consequences of the Group's major strategic choices and the main threats identified in the environment under consideration.

Budget

The budget sets out the financial performance targets for the following year in line with the medium-term plan approved by the Executive Committee.

The budget is the main benchmark to measure the actual performance of the three divisions, their respective businesses, the corporate departments, the subsidiaries and the Group overall.

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

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

The budget of each business and each corporate department is then submitted to the Executive Committee.

The process is completed when the budget is approved by the Company's Board of Directors.

Year-end forecasts

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 Accounting and Controlling department, quarter-end and year-end forecasts are prepared by the businesses and corporate departments.

Monthly reporting

Every month, the Accounting and Controlling department prepares detailed consolidated reports by division and business for the Executive Committee.

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

The Executive Committee analyzes these reports in detail at one of its monthly meetings.

Consolidated financial statements

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

The half-year financial statements to 30 June are subject to a review by the statutory auditors, while full-year financial statements are fully audited.

As part of the closing of each accounting period, the Accounting and Controlling department identifies the specific closing issues during preparatory meetings with the support functions and businesses. Similar meetings are also organized at least once a year with the Group's main legal entities.

Each quarter, the Accounting and Controlling department receives a risk report from each business, corporate department and subsidiary.

Additionally, each entity is responsible for identifying, compiling and monitoring its off-balance-sheet commitments. The Financing and Treasury department consolidates all these commitments every six months as part of the half-yearly and annual financial statement preparation process.

The Accounting and Controlling department is also responsible for monitoring changes in accounting regulations and issues technical notes on points of specific relevance to the Group.

Parent Company financial statements

The preparation of the Company's financial statements is part of the Accounting and Controlling department's general process for the preparation of annual financial information. Furthermore, the Company submits management forecast documents to the Board of Directors in compliance with the appropriate regulations.

IT systems

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

The Group is continuing its transformation program using SAP integrated software. In particular, the financial system that has been rolled out in Europe is now being extended to Asia. The customer supply chain has also started to be upgraded, and is being deployed business by business. It represents a major step in SAP integration. These developments are helping to improve the control environment of the Group, particularly through procedure review, improved automated checks, and the removal of interfaces.

Bostik has also started a program to transition its systems to SAP.

Representation letters

Each year, the Group issues a representation letter attesting in particular to the accuracy and consistency of the consolidated financial statements. This letter is then signed by the Chairman and Chief Executive Officer and the Chief Financial Officer and addressed to the Group's statutory auditors. In support of this representation letter, the operational and financial heads 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 representation letter to the Group's Chairman and Chief Executive Officer, the Chief Financial Officer and the statutory auditors.

Following the same procedure, the Group's half-yearly representation letter is based on the main subsidiaries' half-yearly letters of representation, which certify that the subsidiaries' half-yearly consolidated financial statements have 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 relevant units of the Finance department, and then by the statutory auditors and the Company's Audit and Accounts Committee. The Company's Board of Directors approves the final text.

1.7.1.6 THE GROUP'S INSURANCE POLICY

The Group implements an insurance cover strategy that combines a prevention policy designed 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 centralize its insurance against risks relating to the production, transportation and marketing of its products worldwide. The Group uses international insurance brokers to optimize its cover of all Group companies. As a general rule, the Group's insurance cover limits apply either to each claim, or to each claim and each year, and vary according to the risks covered. In most cases, cover is limited both by certain exclusions standard to these kinds of contracts and by deductibles that are reasonable given the size of the Group.

For the financial year ended 31 December 2016, total premiums paid by the Group, and relating to the Group's insurance policies presented here below, amounted to less than 1% of its sales for the period.

The Group's insurance policies are drawn up to cover current risks while also accommodating any new acquisitions or disposals that may take place during the year. In this respect, all Den Braven companies were incorporated into the Group's centralized insurance policies on the acquisition closing date.

The Group retains a certain level of risk through the deductibles on its insurance policies, and centrally through a captive insurance company that is active only in property insurance. The objective of the captive company is to optimize the Group's external insurance costs.

Descriptions of the Group's insurance policies are provided below to a level of detail that enables it to comply with confidentiality requirements and protect the Group's interests and competitiveness.

The Group believes that its insurance policies are consistent with those currently available on the insurance market for groups of similar size and involved in similar business activities.

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

Furthermore, developments in the insurance market could result in unfavorable changes to the Group's insurance policies and an increase in policy premiums, which could adversely affect the Group's business, financial position or results.

The Group's insurers, under certain conditions deemed customary in the insurance industry for the particular contract type, can prematurely terminate insurance policies in the event of a major claim. In such an event, the Group nevertheless remains covered throughout the notice period, which may vary from policy to policy.

Civil liability

The Group has contracted civil liability insurance policies with leading insurance companies. The civil liability policies are subject to applicable exclusions but cover the Group worldwide against the financial consequences of civil liability claims in the context of its business activities and in respect of physical, material or non-material damages or losses caused to third parties. These policies provide cover of up to approximately €900 million for the Group. Deductibles vary, particularly depending on the subsidiaries' location.

Property damage

The Group's sites are covered by leading insurance companies against material damage and any resulting business interruption. This cover is intended to avoid any significant financial loss and to ensure the resumption of operations in the event of property damage. However, certain property and types of damage can be excluded from the insurance policy's cover depending on the country in which the loss occurs.

The cover includes a "direct damage" component and a "business interruption" component (including sub-limits for machinery breakdowns, natural disasters and terrorism), with the compensation period for the latter limited to either 24 or 36 months, depending on the site. Deductibles vary depending on the size of the site concerned. The maximum total retention in the event of a major claim is between €22 million and €26 million.

The combined cover limit of the policies in place for direct damage and business interruption can amount to €630 million.

Transportation

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 per shipment. The policy includes a deductible and several exclusions that are standard for this kind of agreement.

Environmental risks

The Group has entered into two environmental insurance programs with leading insurance companies. For production sites located in the United States, the dedicated program is limited to US$50 million. For production sites outside the United States, the program is limited to €50 million.

These programs cover, under certain conditions, environmental liabilities linked to the production sites of the Group. They include in particular damages suffered by third parties as a result of pollution generated either on Group production sites or as a result of transporting Group products.

Cyber risks

In September 2016, the Group decided to purchase and implement a cyber insurance program covering all subsidiaries worldwide, within the limits of an annual coverage ceiling of €40 million and subject to a per-claim deductible of €2 million. Coverage is effective from the first quarter of 2017.

1.7.2 Main risks

The Group carries out its business activities in a rapidly changing environment, which creates risks that may be beyond its control. The items described below do not constitute a comprehensive list of the risks and uncertainties that the Group currently faces or may face in the future. Other risks and uncertainties of which the Group is currently unaware or that it deems not to be significant at the date of this document could also adversely affect its business activities, financial position, results or future prospects. The means implemented by the Group to assess and manage risks, particularly its regularly updated risk map, are generally outlined in section 1.7.1 of this document and described in more detail below, for each of the risks to which the Group is exposed.

The occurrence of one or more of the risks described below could have a material adverse impact on the Group's business activities, financial position, results or future prospects and, in certain cases, negatively affect the Group's image or reputation.

1.7.2.1 ECONOMIC AND BUSINESS RISKS

The Group has identified three main types of risks related to the economic and business environment: risks related to fluctuations in supply and demand, country-related risks and competition-related risks.

Risks related to fluctuations in supply and demand

The Group's results could be directly or indirectly affected by changes 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 the decorative paints, automotive, construction and energy markets.

Upstream of its activities, the Group uses raw materials and energy resources as part of its manufacturing processes. Some of these materials and resources, such as propylene and butadiene, are indirectly linked to the price of crude oil, while others, such as sulfur, castor oil and fluorspar, are only minimally connected or not at all. Regardless of their link to the price of crude, the prices of these raw materials can be highly volatile, with any fluctuation leading to significant variations in the cost price of the Group's products.

External factors over which the Group has no control, such as economic conditions, competitors' activities or international situations and events, can also lead to volatility in demand and hence changes in the sales volumes and prices of products manufactured and marketed by the Group. This may have a material adverse impact on the Group's business activities, financial position, results or future prospects.

Risk management

The Group seeks to secure its raw material and energy supplies and to optimize their cost by diversifying its sources of supply. In some cases, it may also use derivatives such as futures, forwards, swaps and options, on both exchange and over-the-counter markets. These derivatives are matched with existing contracts (see notes 23.5 and 24 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document).

The Group also seeks to pass on to its sales prices any increases in the cost of the raw materials used to manufacture its products. Thanks to its diversified portfolio of application-oriented products and markets, and its balanced global presence, the Group manages to limit the risks and adverse effects of demand volatility. These advantages also enable it to mitigate the risk related to worsening economic conditions in any one of its end markets.

The Group is also continuing to consolidate its positioning in higher value-added niche markets, a strategy that allows it to offset potential slowdowns in its main end markets.

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

Country-related risks

The Group operates on the global market with production facilities mainly located in Europe, North America and Asia. Many of its main customers and suppliers also operate internationally, with a presence in various countries and regions. Consequently, the Group's business and financial results are likely to be directly or indirectly impacted by any adverse changes to the economic and political environment in the countries in which the Group operates.

The direct and indirect consequences of conflicts, terrorist activities, political instability or the emergence of health risks in countries where the Group is active or markets its products could impact the Group's financial position or future prospects, in particular by causing delays or losses in raw material and product delivery or supply, and increased safety costs, insurance premiums or other expenses needed to ensure the continuity of the operations concerned.

The Group's international operations expose it to a multitude of local business risks. Its global success depends in particular on its ability to adapt to economic, social and political changes in each of its host countries, and to develop and implement effective policies and strategies in each of its foreign operations.

Risk management

In most countries in which it has industrial and commercial operations, the Group relies on subsidiaries, which are placed under the responsibility of a regional Vice-President. This organization helps the Group maintain relations with local authorities and economic players, defend its interests, and better anticipate changes in the local political and economic environment.

Furthermore, with its balanced geographic presence in Europe, North America and Asia, the Group is able to minimize the overall impact of variations in the economic and political environment in a given region, and to benefit from higher growth areas, particularly in Asia.

Risks related to competition

The Group faces strong competition in each of its businesses.

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

The economic emergence of certain countries, notably China, has been accompanied by the rise of local competitors and, subsequently, growing competition on certain product lines, such as fluorogases and acrylics. This could intensify in the future or extend to other products and, consequently, put lasting downward pressure on the price of these products.

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

Risk management

Since it was created, the Group has implemented a policy of operational excellence and cost optimization to enhance the competitive advantages that it enjoys in its various product lines and to guarantee the quality and performance of the products offered to its customers.

The Group invests heavily in R&D, particularly in the High Performance Materials division, which has enabled it to bring to market a large number of innovative new products (see section 1.4 of this document).

The Group has also built its strategy around the development of customer and supplier partnerships with leaders in their respective fields, allowing it to build strong business relationships with its main partners.

1.7.2.2 SUPPLY CHAIN RISKS

Risks related to transportation

The Group has various hazardous, toxic or flammable materials transported by road, rail, sea and air, particularly as part of shipments to customers in countries where it operates, giving rise to the risk of accidents. Any such accidents could result in claims against the Group, in particular in its role as the shipper.

Furthermore, due to (i) stricter regulations on the transportation of hazardous materials, (ii) the temporary or permanent lack of transportation means for certain toxic or hazardous products to certain destinations, (iii) the market dominance of a single supplier, and (iv) job action affecting transportation, the Group may face the following problems:

- delays in delivery or even refusal by its carriers to collect shipments;
- difficulties in meeting certain customer demands;
- increases in certain shipping costs or shipping equipment rental costs; and
- reductions in certain shipments, unless geographical swaps are set up with other manufacturers.

The Group also owns or uses a small number of pipelines to transport hazardous chemical products. Despite the safety measures that the Group has put in place for the operation of these pipelines, the possibility of an accident can never be ruled out. In addition to the environmental impact, such an accident would adversely affect the operation of certain units at its industrial sites and could therefore have a material adverse impact on the Group's business activities, financial position, results or future prospects.

Risk management

In order to prevent or minimize the risks related to transportation, the Group endeavors to:

- diversify its service providers and share its product movements between several carriers where possible;
- use transportation methods that are deemed less dangerous (barge, pipeline, road-rail or rail), when technical and financial conditions permit;
- strictly select suppliers based on the Safety and Quality Assessment System (SQAS), which was established under the aegis of the European Chemical Industry Council (CEFIC) by a consortium of European chemical manufacturers whose activities extend to the Middle East and Asia;
- assess the quality and safety performance of the carriers used;
- ensure regular maintenance of the transportation equipment that it owns, hires or leases (freight cars, ISO containers, tankers and pipelines);
- carry out systemic risk assessment studies when a modal shift is required; and

- implement a variety of operational risk assessment measures, including vetting bulk charter vessels and having the transportation safety management system maintained by the Transportation Safety team, which reports to the Group Safety and Environment department.

For pipelines, the Group notably carries out hazard studies and develops compensatory measures to minimize risks where necessary, defines monitoring and response plans, and carries out drills with the emergency services.

Risks related to storage

The Group uses many storage and warehousing facilities located on its industrial sites and elsewhere that may present risks to the environment or to public health and safety. The Group could be held liable for accidents occurring in the storage and warehousing facilities that it uses.

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

Risk management

To anticipate and minimize the above-mentioned risks related to storage, the Group endeavors to:

- diversify its service providers where possible;
- develop alternative emergency solutions combining transportation plans and distribution schemes, with a lag time for implementation;
- select suppliers based strictly on the SQAS Warehouse and CDIT (Chemical Distribution Institute – Terminals) guidelines; and
- conduct storage audits prior to signing contracts – repeated every three years for warehouse facilities hosting hazardous materials – under the responsibility of the relevant business management.

Risks related to dependence on suppliers

The Group has developed a policy of spreading supplier risk at product-line level and at geographic exposure level for its supplies of raw materials, energy and gas, services and some equipment. However, in the case of certain raw materials or equipment that are essential to its business, the Group is significantly dependent on a limited number of suppliers and, in some cases, one single supplier. For example, some of the Group's operational units in France – in the acrylic acid, oxo alcohols and functional polyolefins segments – were built downstream of steam crackers. These units present a particularly high level of physical integration with the production capacities supplying the raw materials.

Furthermore, the Group has entered into long-term agreements featuring minimum supply commitments with a number of its raw materials suppliers. In the event of failure to fulfill these contractual commitments or of early termination of the agreements by the Group, these suppliers could claim compensation or penalties.

Other events that could have an adverse impact on the Group's industrial and financial performance include failure to perform by a major supplier, the non-renewal of supply contracts for certain raw materials or their renewal on less favorable terms, and significant price increases.

The Group's main contracts are described in section 1.5 of this document.

Risk management

One of the aims of the Group's centralized procurement policy for raw materials and goods and services is to analyze and comprehensively address the Group's exposure to the risk of significant dependence on supplies and suppliers.

This policy is based on the following principles:

- diversification of sources of supply when technical conditions permit;
- the development of long-term partnerships and contracts for supply situations that are subject to severe structural constraints due to the supply and demand balance or the limited number of suppliers;
- careful management of the duration of contractual commitments;
- supply chain and inventory management adapted to both business and industrial requirements, particularly for strategic products;
- a thorough assessment of suppliers based on the following criteria: position in the relevant market, industrial performance, financial strength and development; and
- participation in certain investments or development projects.

With regard to the supply of propylene for the Acrylics business at the Carling site in France following the shutdown by Total Petrochemicals France of its steam cracker in Carling, a new agreement was signed on 3 September 2015 with the Total group. The Group is working with the Total group on the supply of propylene to the site beyond the end of the current agreement.

The Group has also included the risk of failure to perform by one of its suppliers in its insurance policies.

Risks related to dependence on customers

The Group has entered into agreements representing significant financial income with certain customers. It cannot be ruled out that these contracts may not be renewed, 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 makes less than 25% of its sales to its top 30 customers. No customer represented more than 2.5% of Group sales in 2016.

Furthermore, the Group's business policy is based on developing alliances or partnerships with customers in order to establish solid, long-term relationships.

However, in some exceptional cases, when the customer breaches its contractual commitments, the Group may initiate legal proceedings or arbitration to enforce its rights.

Lastly, the Group hedges its customer risk with a global credit insurance program that, given the quality of its customer portfolio and low claim rate, allows it to cover a significant proportion of its accounts receivable.

1.7.2.3 INDUSTRIAL SAFETY, ENVIRONMENTAL AND CLIMATE CHANGE RISKS

The Group's business activities are subject to frequently changing international and national laws and regulations in the areas of environmental protection and health and safety. These laws and regulations impose increasingly strict obligations, particularly concerning industrial safety, emissions and discharges to air, water and land of toxic or hazardous substances (including waste), the use, labeling, traceability, handling, transportation, storage and disposal of toxic or hazardous substances and exposure thereto, the clean-up of past industrial sites, and soil and groundwater remediation.

Risks related to the operation of industrial facilities

The Group's facilities may be subject to risks of accidents, fires, explosions and pollution due to the very nature of their operations and to the level of hazard, toxicity or flammability of certain raw materials, finished products and production or supply processes. Any accident, regardless of whether it occurs at one of the Group's production sites or during the transportation 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 product liability, as appropriate.

Furthermore, the Group's production facilities may experience extended shutdowns, particularly as a result of problems with raw material or energy resource supplies, reliability of major equipment or even job action.

In addition, the Group operates many industrial facilities, including 33 sites in Europe classified as "Seveso" establishments as per directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances, which amended and subsequently repealed Council directive 96/82/EC, known as the "Seveso III directive". It also operates facilities outside Europe that have been given a similar classification due to their use, production or storage of hazardous substances that may present significant risks to the health or safety of neighboring communities and to the environment. In this respect, the Group could be held liable (i) following injury or damage to property or people, notably due to exposure to hazardous substances being used, produced or destroyed by the Group or present on its sites, or (ii) for having caused damage to natural resources.

Created by French Act no. 2003-699 of 30 July 2003 on the prevention of technological and natural risks and compensation for damages, Technological Risk Prevention Plans (PPRTs) form part of the Group's risk management policy for areas hosting high-risk industrial sites corresponding to "upper-tier Seveso" establishments. The Group has completed studies for the 16 relevant French sites and is implementing the appropriate additional resources, working alongside the local authorities to further secure the facilities in compliance with the regulatory processes. The Group has estimated the cost of all measures that it is responsible for implementing in the coming years, and set aside provisions to this end. Currently, one PPRT is still pending approval.

These risks, over and above any liability issue, could have an impact on the Group's results, financial position or business activities.

Risk management

All the Group's facilities and activities worldwide are covered by a Group-wide safety management program adapted to the risks that each may face.

Developed in line with the Health, Safety, Environment and Quality Charter, the program is based on taking action at three priority levels:

- at the technical level, for example when designing or improving production units (process safety and ergonomics), or drawing up specifications for hazardous material transportation equipment;
- at the organizational level, by ensuring that each entity's management system complies with the Group's safety requirements, which are also adapted to the level of risk at each site. These requirements are reflected in the Arkema Integrated Management System (AIMS), which combines all the Group's safety, environment and quality audits in a single audit; and
- at the human level, by developing social dialogue and a safety culture that raises everyone's awareness of their individual responsibility and of the importance of their behavior.

These points are detailed in section 2.3 of this document.

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

Risks related to security

The Group may suffer the consequences of possible malicious acts against its facilities or its employees, including theft and pilferage risks particularly in the fields of research and technology and the growing threat of cybercrime.

Risk management

Security directives are regularly updated in line with recommendations from the public authorities in order to strengthen the security of the Group's industrial facilities.

The Group's upper-tier (*"seuil haut"*) Seveso sites in France have undergone security audits by the French authorities, with no evidence found of significant deviations from standards. The audits highlighted the Group's high levels of security, and led to adjustments being made where necessary.

In addition, the Group has raised security levels at its industrial facilities and R&D centers since 2015 in response to the terrorist attacks in Paris that year. It has also taken additional security measures in response to deliberate acts of violence at other industrial companies in Isère and Étang de Berre, France.

The Group's action plan also covers cybersecurity and protection from cyber attacks (see section 1.7.2.6 on IT risks). The Group has notably begun working more closely with French IT security agency ANSSI in France and developed a specific strategy to enhance cyber security.

Risks related to health

The Group uses and has used in the past toxic or hazardous substances to manufacture its products. Employees and former employees of the Group and, in some cases, employees of external companies and service providers, Group customers and people living near the Group's industrial sites, may have been exposed or may still be exposed to these substances and, as a result, may have developed or may develop specific illnesses from such exposure. In addition, for certain substances currently regarded as risk-free, chronic toxicity, even at very low concentrations or exposures, could be discovered in the future.

Certain products may also be used directly or indirectly in sensitive applications, particularly medical and food applications.

Furthermore, several types of serious government-declared health crises could result in the shutdown of facilities, research centers, and even head offices and other facilities. Serious health crises of this sort notably include:

- major epidemics or pandemics;
- crises related to contaminated or polluted medicines, food or vaccines;
- health crises related to climate or weather events, such as heat waves, droughts, tornadoes, cyclones and exceptional flooding; and
- the consequences of long-term, chronic exposure to a hazardous contaminant.

Risk management

The Group has put in place safety and monitoring procedures at the Group level and at individual production sites. 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 2.3.2 of this document.

The Group may also be forced to withdraw certain products, particularly in certain sensitive markets.

In the event of a serious health emergency, crisis units managed by trained employees are set up in the facilities, in the countries and at the Group level, to define the standards that guarantee high levels of health protection and the rules governing certain activities in order to achieve the lowest possible risk level, and to put in place response plans to address health emergencies and exceptional situations. Additionally, in the specific event of epidemics or pandemics, most Group sites around the world have set out business continuity plans with actions on two levels:

- health and organization measures to limit the transmission of viruses and protect the health of employees and subcontractors working on the sites by (i) informing all employees about health measures, raising awareness and providing alcohol-based hand sanitizers and protective masks, (ii) issuing instructions on how to contain isolated cases, (iii) reducing the number of meetings and business trips, and (iv) implementing teleworking solutions; and
- measures to adapt business activities to the level of absenteeism by creating a structure that enables a site to continue operating despite the absence of significant numbers of employees and, in extreme cases, to ensure safety and environmental protection in the absence of a very large number of employees.

Risks related to the environment

The Group has activities in business areas that entail significant environmental liability risks.

While the Group has secured insurance policies from leading insurance companies to cover environmental risks (see section 1.7.1.6 of this document), it cannot rule out the possibility that claims will be made in connection with its operations or products, seeking to hold it liable for uninsured events or for amounts exceeding the cover limits. Furthermore, any accident, regardless of whether it occurs at one of the Group's production sites or during the transportation 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 product liability, as appropriate.

Should the Group be held liable for environmental claims, the amounts covered by provisions or included in the Group's investment plans could prove to be insufficient due to the intrinsic uncertainties involved in projecting expenditure and liabilities relating to health, safety and the environment. 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, the technical, hydrological or geological constraints of environmental remediation or the identification of as yet unknown pollutants.

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 21 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

Risk management

Environmental risk is managed by the implementation of a policy defined and monitored by the Environmental Remediation team within the Group Safety and Environment department and rolled out within the Group's various businesses under the responsibility of the industrial Vice-Presidents. The components of this policy are detailed in section 2.4 of this document.

The Group also benefits from guarantees from subsidiaries of Total S.A. with respect to former industrial sites, which were granted prior to Arkema's stock market listing. A description of these guarantees can be found in note 30 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

Risks related to climate change

Due to their geographic location, some Group industrial sites (35 sites) are exposed to seismic and/or climate risks such as floods, droughts and storms, the extent and frequency of which may evolve as a result of climate change. In 2016, a total of 22 sites (versus 21 in 2015) were identified as currently being exposed to climate risks. However, the Group has no data enabling it to estimate how the exposure of these or other sites may evolve in the future as a result of climate change.

The Group monitors developments in international, European and national regulations on greenhouse gas (GHG) emissions reduction, notably as concerns CO_2 quota systems. The tightening of such regulations could have a negative impact on the Group's business activities, operating costs or profitability.

Risk management

The Group pays close attention to the publication of any works that will enable it to assess the medium- and long-term impact of climate change on its industrial operations and supply chain.

At the same time, it implements a range of Group-wide initiatives to anticipate the effects of climate change as effectively as possible. In 2016, for example, an internal carbon pricing system was introduced to steer investment toward low-carbon solutions. And in the same year, the Group implemented the "Optim'O" water management plan in a drive to further improve water management at its sites and in its production processes. For further details on these initiatives, see section 2.4.2.3 of this document.

Lastly, Fluorogases have been identified as the products that have been most exposed to regulatory developments for many years. Accordingly, the Group is already anticipating the relevant regulatory changes by developing new blends or substitutes.

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

In the course of its business, the Group uses both technologies that it owns and a certain number of technologies under license from third parties. Furthermore, in some cases, the Group's activities rely on technologies that require specific skills from its employees. The Group also invests in new industrial units and is exposed to the risk of disclosure of confidential documents and of copying of processes or technologies that are critical to its production and to maintaining its international competitiveness.

If the Group were no longer able to use these technologies, it could have an adverse impact on its business activities, financial position, results or future prospects.

Risk management

The Group implements a technological development policy for its processes, in particular as part of its R&D programs, to give it direct ownership over the technologies that it uses in its major activities, and to help reduce its level of technological exposure to third parties.

The Group also has an employee retention policy (see section 2.6 of this document), and ensures that skills in certain sensitive technologies are shared by a sufficient number of employees.

Furthermore, the Group only subcontracts equipment essential to its critical processes to specific companies bound by confidentiality agreements. Files and technical manuals are managed by a restricted number of individuals, specifically the business process officers and technical center engineers.

The Group has decided to strengthen its security policy and to improve the documentation to be applied in its sites worldwide, by drawing on services provided by the French State in France and on feedback from other regions. This strategy resulted in updates and improvements to application guides and procedures, particularly to take into account IT risks, the protection of sensitive data, the protection of sites and the protection of employees working in high-risk countries. The documentation includes security audit guides, vulnerability analysis guides and the classification of documents containing sensitive data.

The Group continues to strengthen employee training and awareness initiatives in this area.

Risks related to land that the Group does not own

While the Group owns most of the land on which its industrial sites are built, some industrial facilities around the world are located on land that belongs to third parties, either due to local regulations or for technical or strategic reasons. In such cases, the Group occupies the land under the terms of leases or similar agreements.

If these agreements were to be terminated or not renewed, or if a site were to be expropriated, it could adversely impact the Group's business activities, results or financial position.

Risk management

When negotiating contracts, the Group secures its right to occupy land by implementing sufficiently long terms and lengthy notice periods. Contractual expiration dates are monitored regularly to anticipate any problems regarding renewals.

1.7.2.4 REGULATORY AND LEGAL RISKS

The Group is subject to complex and constantly changing local, national and international laws and regulations that differ depending on the countries in which the Group operates. These laws and regulations encompass a large number of fields, including safety, environmental protection, antitrust law, company law, commercial law, patent protection, labor law, tax law and customs regulations.

The Group's corporate and regional units and subsidiaries ensure regulatory watch in their respective fields of expertise in order to maintain a high level of knowledge and anticipate possible future changes.

Risks related to product regulations

If existing regulations were to be amended to become more restrictive for the Group or if new regulations were adopted, it 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, institute costly emissions control or reduction systems or exclude the Group from certain markets if it could not develop substitute products.

A large number of these regulations, described in section 2.3.4 of this document, require chemical products to be recorded in lists, called inventories, and accompanied by files of varying degrees of complexity.

Risk management

To ensure that its products are marketed in accordance with local, national or international regulations, the Group employs regulatory experts supported by a global network of correspondents based in the industrial sites, businesses and subsidiaries, and experts in physicochemistry, toxicology and ecotoxicology who work to improve 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 and have access to databases allowing them to follow scientific developments 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 that monitor proposed regulatory changes at the state or agency level, thus helping the Group to anticipate regulatory changes and prepare accordingly.

In cases where product regulation changes lead to 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 the Group's successful development of resins for paint formulations that meet the latest VOC requirements, such as alkyds in emulsions, VAE emulsions, powder resins and high solid resins.

Finally, in the particular case of the Registration, Evaluation and Authorization of Chemicals (REACH) regulation and local legislation described in chapter 2 of this document, the Group has put in place a specific organization to optimize the implementation of these regulations.

Risks related to industrial property

The Group's patents and trademarks represent an asset that is essential for its business activities. For this reason, the Group attaches great importance to industrial property rights in respect of its trademarks and patents, in order to protect the innovations coming out of R&D. The Group is also attentive to the risk of direct and indirect patent infringement as well as all types of trademark infringements.

Patent infringement can occur when a third party uses products or industrial processes patented by the Group. Trademark infringement, on the other hand, can occur when a third party unlawfully seeks to take advantage of the investments or reputation of Group brands in a given market. These actions have an instantly negative impact on the Group's sales and results and can harm the reputation and the perceived quality of the products concerned as well as the image of the Company.

Patent infringement can also occur involuntarily because of the Group, particularly given the risk related to the time during which patent applications are not made public. Patent applications filed by third parties and made public only on publication could impact ongoing developments or even products recently brought to market. This situation would oblige the Group to change the product, thereby increasing the related R&D costs, or to negotiate a license to use the patented component. In either case, there would be an impact on the project's profit margins.

Inadequate protection of the innovations resulting from its research or trademarks could therefore have a material adverse impact on the Group's business activities, results, financial position or future prospects.

Risk management

The Group has developed an assertive policy to protect its innovations and know-how (registration of patents and trademarks), particularly with the support of a global network of industrial property consultants (for further details on the Group's industrial property protection policy, see section 1.4.3 of this document). The Group is also attentive to any infringements of the rights conferred by its patents and trademarks. If, therefore, products on the market suggest that protected products or technologies or trademarks have been infringed, the Group can take what action it deems necessary to notify, end and sanction the infringement of its intellectual property rights.

This risk is managed by the Intellectual Property department, which reports to the R&D department for patent matters and to the Legal department for trademark and design matters. The role of these departments is to apply in practice the principle of respect for intellectual and industrial property rights enshrined in the Code of Conduct and Business Ethics. They go about this by ensuring customers are only offered products that are not covered by valid, third-party patents, based on the best knowledge that can be obtained by regularly reviewing competitors' patents all throughout the development of new products. In addition, the role of the Legal department is to constitute trademark rights for certain product ranges and, where appropriate, protect them via designs. To this end, it carries out research for prior user rights before trademark and/or design applications are filed, to the greatest extent allowed by resource availability and information accessibility, in order to identify any prior third-party rights that may form an obstacle to a new project.

Risks related to business practices

The Group operates in many countries and, for this reason, is subject to a range of antitrust and anti-corruption laws as well as export control regulations in certain countries. Non-compliance with any of these laws or regulations may result in significant fines being levied on the Group or civil or criminal charges being brought against it and/or its employees.

Risk management

The Group has put in place a "Business compliance and ethics program", which notably covers antitrust, export control and anti-corruption legislation. Procedures and/or guides have been issued on each of these topics. Training is also given within the Group to prevent risky behavior and maintain a suitable level of awareness in these areas. For further details on this program, see section 2.7.3 of this document.

The Group also exercises particular caution with regard to:

- planned export sales to countries subject to economic sanctions or other restrictive measures. In such situations, in-depth reviews are carried out to avoid any risk of violating the export control regulations; and
- the choice of commercial intermediaries used in order to minimize the risk of corruption.

Risks related to current or potential litigation

In the normal course of its business, the Group is 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, such as violating antitrust laws relating to cartel behavior, full or partial failure to fulfill contractual obligations, termination of established commercial relationships, pollution, or non-conformity of products.

A description of the most significant current or potential litigation is given in note 21 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document. To the best of the Group's knowledge, there are no other administrative, legal or arbitration proceedings currently underway, or with which the Company or the Group are threatened, that are likely to have or have had over the course of the past twelve months a material adverse impact on the results or financial position 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 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document). However, the resulting provisions, and in particular those relating to large claims, can prove insufficient, which could have material adverse consequences on the Group's business activities, financial position, results or future prospects.

In addition, it generally cannot be ruled out that, in the future, new proceedings, related or unrelated to existing proceedings, could be initiated against a Group entity. Should such proceedings have an unfavorable outcome, they could adversely impact the Group's business activities, financial position or results.

Risk management

All legal risks related to current or potential litigation are subject to a quarterly review. On the first day of the last month of every quarter, each business, corporate department and subsidiary must provide the Group's Accounting and Controlling department and Legal department with a written summary of any legal risks or proceedings that affect the Group's business activities, results or financial position or are likely to do so. Representatives from the Accounting and Controlling department and the Legal department meet to analyze the risks and legal proceedings that were identified and to determine, in conjunction with the businesses, corporate departments and subsidiaries, the amount of the provisions relating to such risks and legal proceedings based on the rules described in note B. "Accounting policies" to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

1.7.2.5 FINANCIAL RISKS

The Group is exposed to various types of financial risks, such as liquidity risk, foreign exchange 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 that, by nature, may prove to be inaccurate, particularly with respect to changes in exchange rates and interest rates, and the Group's exposure to the associated risks.

Liquidity risk

The Group uses bond issues and loans from banking institutions to finance its day-to-day operating requirements and development. However, unforeseen needs may also arise, resulting in particular from an increase in working capital requirement or unfavorable market conditions. Additionally, market conditions may make it difficult to refinance bonds at maturity, or 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 significantly reduce the Group's access to financing under equivalent terms.

For further details on borrowing terms and in particular on early repayment clauses, see section 4.1.8.1 and notes 22 and 23 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

Risk management

The Group's financing policy, implemented by the Financing and Treasury department, 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 principles:

- having the Group's long-term credit rated by two rating agencies, and maintaining the ratings at least at their current level;
- having a gearing ratio of around 40%;
- maintaining cash reserves in excess of €500 million;
- maintaining average maturity at over three years; and
- diversifying its sources of financing.

At 31 December 2016, the Group had a strong financial profile, with:

- a gearing ratio of 35%;
- cash reserves of around €800 million; and
- a Euro Medium Term Note (EMTN) program, representing a maximum amount of €2.5 billion, to facilitate access to bond markets.

At the date of this document:

- without taking into account the issue of perpetual hybrid bonds classified as equity, completed on 29 October 2014, the average maturity of the Group's financial resources is around four and a half years; and
- the Group's long-term credit ratings are BBB (stable outlook) according to Standard & Poor's and Baa2 (stable outlook) according to Moody's.

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

Foreign currency risk

Given its international operations, the Group is exposed to various types of currency risks:

- transaction risks related to the Group's day-to-day operations and development projects;
- translation risks related to the consolidation in euros of Group subsidiary accounts in currencies other than the euro. Fluctuations in the exchange rates of these currencies, particularly the US dollar-to-euro exchange rate, have had in the past and may have in the future a material impact on the Group's financial position and operating income. For an indication of the impact of the translation effect on the Group's income statement and balance sheet, especially with regard to the US dollar-to-euro exchange rate, see sections 4.1.5 and 4.1.9 of this document; and
- competition risk related to the fact that, proportionately, in the euro zone, the Group incurs more operating expenses in euros than it generates sales in the currency owing to the fact that it is an export-focused company. 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, compared with its competitors positioned 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 minimize the impact of exchange rate fluctuations on its results and financial position.

Transactional risks are systematically hedged when recorded in the accounts. Group companies hedge their foreign currency assets and liabilities against their respective functional currencies. Revenues and costs in foreign currencies are hedged essentially by spot foreign exchange transactions and sometimes by forward transactions.

Foreign exchange risk linked to future flows, such as capital expenditure or sales flows, particularly export sales, may also be hedged. The Executive Committee is responsible for deciding whether such hedging is necessary, while implementation is carried out by the Financing and Treasury department using simple derivatives.

For further details, see notes 23 and 24 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

Competition risk has gradually decreased following the implementation of a more balanced Group development and geographic expansion strategy.

Translation risk is not hedged as the Group considers that it is inherent to its worldwide operations. However, the Group reduces its balance sheet risk through a policy of allowing its companies to contract debt only in their functional currencies, except when a foreign-currency loan is backed by a commercial risk in the same currency.

Interest rate risk

The Group is exposed to interest rate fluctuations.

At 31 December 2016, the Group's debt stood at €2,105 million, which mainly included a €500 million bond issue with a 4% fixed rate, a €480 million bond issue with a 3.85% fixed rate, a €150 million bond issue with a 3.125% fixed rate and a €700 million bond issue with a 1.50% fixed rate. Neither the revolving multi-currency credit line nor the commercial paper program had been used at 31 December 2016. The terms of this financing are described in section 4.1.8.1 of this document.

Given the Group's net debt and the distribution of net debt between fixed rate and variable rate borrowings, a 1% increase in interest rates would reduce the cost of the debt by around €3 million.

Risk management

The Group's policy is to minimize the impact of interest rate fluctuations on its financing costs.

- Interest rate risk exposure is managed by the Group's Financing and Treasury department and is hedged using simple derivatives.
- The Group gives priority to fixed-rate borrowing due to the historically low rates. However, the Group regularly re-assesses its position based on market developments, and could enter into rate swaps on its bonds in order to reduce the cost of its debt.

For further details, see note 23 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

Credit risk

- Accounts receivable and other debtors

The Group fosters relations with a large number of counterparties, most of which are its customers. At 31 December 2016, accounts receivable net of provisions amounted to €1,150 million. These accounts receivable are detailed by due date in note 23.4 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this 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 uninsured share of the customer's debt to the Group.

Risk management

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

- The Group has a highly diversified customer base and makes less than 25% of its sales to its top 30 customers.
- There is no geographical concentration of credit risk as the Group makes significant sales in a large number of countries.
- The Group hedges most of its customer risk with a global credit insurance program which, at the date of this document, does not yet cover the recently acquired Den Braven entities. Given the quality of the Group's customer portfolio and low claim rate, this program allows it to cover a significant proportion of its accounts receivable. The Group strives to further minimize this risk through a specific credit risk management policy that consists in regularly assessing the solvency of each of its uninsured customers. Uninsured customers whose financial situation does not meet the Group's solvency requirements are only supplied after payment.

For further details, see note 23 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document. The policy concerning provisions for doubtful accounts on fully or partially uninsured accounts receivable is also detailed in note 23.

- Investments

Investment risk is related to financial investments with financial institutions. The Group is indebted overall, but at times may be required to invest cash, in particular to maintain a certain level of liquidity, to comply with local regulations or to manage cash lags. At 31 December 2016, the amount of cash invested with banking institutions or money market funds amounted to €623 million. Default by any one of these counterparties is likely to lead to a financial loss limited to the amount invested with the defaulting counterparty and therefore to an adverse impact on the Group's results.

Risk management

The Group's objective is to minimize this risk by centralizing the management of its financing 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 and Treasury department.
- The Group minimizes its exposure to credit risk by investing only in highly secure assets with leading diversified counterparties.

For further details, see note 23 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

Risks related to pension funding

The Group has obligations to its employees for pension benefits and other post-employment benefits in most countries where it operates (see section 2.6 of this document). These obligations could:

- exceed its related provisions if the actuarial assumptions used were inaccurate or if regulations changed; or
- result in asset shortfalls in certain countries where the Group operates, particularly the United States and the United Kingdom, in the event of an adverse trend in the financial markets.

Risk management

The Group's objective is to minimize this risk by opting for defined contribution plans wherever possible. Thus:

- the main defined benefit plans have been closed to new entrants for a number of years, or more recently in the case of the Bostik plans in the United Kingdom. In some cases, the plans have also been closed to further accrual;
- certain plans have been the subject of a transfer of pension rights to insurance institutions, in particular in France and the Netherlands; and
- the management of assets allocated to cover employee pension benefit obligations in some host countries, when such requirements exist, is outsourced to qualified professionals and controlled by independent trustees who themselves use the services of recognized professionals.

For further details, see note 19 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

Tax and customs risks

Changes in tax or customs duty laws or regulations or amendments in the interpretation of case law, international treaties or administrative doctrine in any one of the many countries in which the Group operates could adversely impact its business activities, financial position or results.

Furthermore, the Group benefits from 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, it could adversely impact the Group's financial position or results.

Similarly, certain customs procedures may be reviewed by the customs administration on account of different practices in place in different countries or changes to regulations, which could adversely impact the Group's business activities, financial position or results.

Risk management

The Group's objective is to comply with the tax and customs regulations in all the countries in which it operates, while minimizing its tax burden.

The tax function is overseen by a team within the Financing and Treasury department that is made up of specialists supported by local employees and that uses the services of major external consultants whenever necessary. The Central Tax department is responsible for regularly updating the Group's transfer pricing policy. Tax audits are overseen by the tax department, which ensures corrective measures are implemented when required.

In addition, the Group has a dedicated "customs" team that centralizes all key issues, with the help of an internal and external network of customs specialists and purpose-designed IT systems.

For further details on the financial impact of tax disputes, see note 21 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

1.7.2.6 IT RISKS

Industrial and management processes, and communication between employees and third parties, are highly dependent on information technology systems based on complex and ever-changing technical environments. Their failure could have a material impact on the Group's business activities, results or financial position. These threats also apply to the industrial businesses' production unit control systems. The main cyber and other risks related to IT systems are as follows:

- technical risk of an interruption in the operation of critical applications or the loss of sensitive data, resulting in the shutdown or serious disruption of the operation of all or part of an industrial unit or department; and
- risk of intrusion or malicious use of the IT systems, particularly to steal information, misappropriate money, disrupt the operation of industrial facilities or impede the Group's business activities.

Risk management

The IT and Telecommunications department aims to provide systems access to authorized users while ensuring the integrity and confidentiality of sensitive data.

Accordingly, the Group has adopted an IT Systems Security Policy that sets out the objectives and rules to be applied to guarantee the reliability of its IT systems based on the three criteria of availability, integrity and confidentiality mentioned above. The Group has also defined and implemented an internal directive to bolster the security of its industrial networks, as well as a regular compliance audit plan at its production sites.

The Group's IT Systems Security Policy is currently being implemented by Bostik as part of its migration to the standards of the Group IT and Telecommunications department.

Pursuant to this policy, the IT and Telecommunications department implements a variety of initiatives, including technical measures (network protection, high-availability architectures with data replication, redundant data centers, standard workstation architecture with up-to-date antivirus software, segregation of industrial networks, etc.) and organizational measures (remote access for key employees, IT systems monitoring, enhanced ID and access-right security management, regularly tested business recovery plans, formal classification of information, user awareness-raising, annual reviews of IT risks, security patch management policy, etc.). Strict version management procedures that include non-regression testing are also in place to minimize any incidents brought about by the rollout of new versions of software or hardware.

The Group has also helped to boost the overall level of IT security by setting up a Security Operations Center, thereby increasing its surveillance and response capabilities in the event of a security breach of its IT systems.

The regular review of the Group's IT Systems Security Policy, particularly with regard to industrial systems, and closer collaboration with government security bodies enables the Group to deal with threats to its management systems and to the operations of its industrial units (see section 1.7.2.3 on industrial safety, environmental and climate change risks). The Group also adapts its security policy in line with regulatory developments on personal data protection (European General Data Protection Regulation) and network and information system security (European NIS directive).

Lastly, the Group has set up an internal control system consisting of a number of general IT controls to ensure the reliability of the Group's critical processes and compliance with security rules. The effectiveness of these measures is assessed every year and action plans are put in place to address any identified weaknesses.

1.7.2.7 STRATEGIC PROJECTS RISKS

Risks related to innovation

Innovation is a key part of the Group's strategy. 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. Furthermore, the Group invests in new industrial units and is exposed to the risk of disclosure of confidential documents and of copying of a process or technology that is critical to its production and to maintaining its international competitiveness.

Risk management

Each year, the Group invests heavily in R&D to develop new products and processes. In the High Performance Materials and Coating Solutions divisions, the regular introduction of innovative new products is a key success factor. Similarly, in Industrial Specialties, process performance is a major driver of competitiveness. The Group focuses its R&D efforts on fast-growing markets such as new energies, water treatment, 3D printing and lightweight materials to replace metal and glass.

This major focus on innovation also enables the Group to adapt to regulatory trends.

Furthermore, the Group only subcontracts the manufacture of equipment essential for critical processes to specific companies bound by confidentiality agreements. Files and technical manuals are managed by a restricted number of individuals, specifically the business process officers and technical center engineers.

Risks related to mergers, acquisitions and disposals

As the Group implements its strategy, it may provide a number of guarantees to third parties when disposing of businesses. It cannot be ruled out that when some of these guarantees are invoked, the compensation claims could exceed the provisions made by the Group and therefore have an adverse impact on its results or financial position.

The Group has also carried out several acquisitions in recent years that may expose it to various risks and in particular potential liabilities or responsibilities related to these activities. Should the assumptions on which these acquisitions were made fail to materialize, the development prospects of these activities may not be achieved. This could consequently impact the valuation of goodwill and have a material adverse impact on the Group's business activities, results or financial position.

Risk management

The Group endeavors, before entering into any external growth transaction, to take all necessary precautions when identifying targets, in particular by conducting in-depth evaluations of the activities and companies concerned and the various liabilities related to the business being sold, and by negotiating appropriate guarantees from the sellers with the advice of external consultants with expert industry knowledge. Furthermore, acquisitions are carried out by teams of qualified experts under the responsibility of the Strategy department.

The Group's policy in terms of business disposals is to limit its liability with respect to guarantees to the buyers.

Risks related to joint ventures

The Group is subject to risks related to the non-controlling interests that it holds in companies, some of which are major suppliers or customers of the Group. The joint ventures included in the Group's scope of consolidation are described in the notes to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this 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 deadlock between the partners in these joint ventures. In certain cases that are beyond the Group's control, these joint ventures could also make decisions that go against the Group's interests. Lastly, despite all the precautions taken when choosing partners, the Group cannot rule out the possibility that one of its partners could file for bankruptcy.

Investment decisions made within these joint ventures, whether as part of general operations or pursuant to specific agreements with the partners in these companies, may require the Group to incur additional expenses, to invest further or to purchase or sell certain companies.

Risk management

The Group has a small number of non-controlling or joint-controlling interests in joint ventures, and accordingly protects its interests by introducing, where possible, contractual terms designed to resolve deadlocks and maintain the Group's decision-making powers. The contracts or agreements relating to joint ventures that the Group considers material are described in section 1.5 of this document.

1.7.2.8 INSURANCE COVER DEFAULT RISKS

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

At the date of this document, the Group believes that the limits of cover described in said section take into account the type of risks incurred by the Group and are consistent with those currently available on the insurance market for groups of similar size and involved in similar business activities.

However, in some cases, the possibility that the Group could be required to pay substantial compensation for claims that are not covered by the existing insurance program, 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 offers property insurance levels that cover any probable maximum claims, this is not the case with respect to civil liability, where the potential maximum claims exceed what the insurance market can offer on acceptable terms for the Group.

For a description of the various types of insurance contracts subscribed by the Group, see section 1.7.1.6 of this document.

1.8 SELECTED FINANCIAL INFORMATION

(In millions of euros unless otherwise mentioned)	**2016**	**2015**	**2014**
Sales	7,535	7,683	5,952
EBITDA	1,189	1,057	784
EBITDA margin	15.8%	13.8%	13.2%
Recurring operating income	734	604	447
Operating income	717	488	364
Net income – Group share	417	285	167
Net income per share (*euros*)	5.68	3.87	2.53
Adjusted net income per share (1) (*euros*)	5.56	4.23	3.72
Dividend per share (*euros*)	2.05 (2)	1.90	1.85
Shareholders' equity	4,249	3,949	3,573
Net debt	1,482	1,379	154
Gearing	35%	35%	4%
Capital employed	6,829	6,466	4,565
Working capital on sales	14.5% (3)	14.6% (3)	16.1%
Net provisions (4)	863	907	751
Cash flow from operating activities	821	858	507
Cash flow from investing activities	(664)	(1,635)	(670)
Cash flow from financing activities	(256)	371	928
Free cash flow (5)	426	442	21
Capital expenditure	423 (6)	431 (6)	470
Capital intensity (capital expenditure/sales)	5.6%	5.6%	7.9%
Employees (31 December)	19,637	18,912	14,280

(1) Adjusted net income excludes unrealized foreign exchange results on the financing in foreign currencies of non-recurring investments. 2014 adjusted net income has been restated accordingly.
(2) Dividend proposed at the annual general meeting on 23 May 2017.
(3) Working capital on sales as defined in section 4.1.9 of this document.
(4) Provisions net of non-current assets as defined in section 4.1.9 of this document.
(5) Cash flow from operations and investments excluding the impact of portfolio management.
(6) Capital expenditure as defined in section 4.1.7 of this document.

CORPORATE SOCIAL RESPONSIBILITY

2

2.1 ARKEMA'S SOCIAL RESPONSIBILITY APPROACH AFR **70**

- **2.1.1** Introduction 70
- **2.1.2** Stakeholders and materiality assessment 71
- **2.1.3** CSR strategy and commitments 73
- **2.1.4** CSR key performance indicators 74

2.2 CSR GOVERNANCE **75**

- **2.2.1** CSR actors 75
- **2.2.2** CSR reporting organization 75

2.3 HEALTH AND SAFETY INFORMATION AFR **76**

- **2.3.1** Safety management 76
- **2.3.2** Employee safety and health 76
- **2.3.3** Process safety 81
- **2.3.4** Audits 82
- **2.3.5** Responsible product stewardship 84

2.4 ENVIRONMENTAL INFORMATION AFR **87**

- **2.4.1** Environmental management 87
- **2.4.2** Resources 90
- **2.4.3** Land and biodiversity 92
- **2.4.4** Emissions 93
- **2.4.5** Products and services 99

2.5 INNOVATION INFORMATION AFR **101**

- **2.5.1** Managing innovation to support sustainable development 101
- **2.5.2** Innovations to address sustainable development challenges 102
- **2.5.3** R&D organization and outcomes 103

2.6 SOCIAL INFORMATION AFR **104**

- **2.6.1** Social management 104
- **2.6.2** Employment 105
- **2.6.3** Training and personal development 117
- **2.6.4** Social dialogue 120
- **2.6.5** Diversity, equal opportunity and equal treatment 122

2.7 SOCIETAL INFORMATION AFR **124**

- **2.7.1** Societal management 124
- **2.7.2** Institutional initiatives 124
- **2.7.3** Compliance and ethics 125
- **2.7.4** Procurement, suppliers and subcontracting 126
- **2.7.5** Direct and indirect socio-economic impact 128
- **2.7.6** Corporate citizenship and philanthropy 129

2.8 REPORTING METHODOLOGY **132**

- **2.8.1** Methodological note on environmental and safety indicators 132
- **2.8.2** Note on methodology used for employment, social and R&D information/indicators 135
- **2.8.3** Indicators 137
- **2.8.4** Grenelle II, GRI-G4 and SDG concordance table 141
- **2.8.5** Independent third-party opinion pursuant to Article L. 225-102-1 of the French Commercial Code 145
- **2.8.6** Contacts 148

The different parts constituting the annual financial report are identified in the table of contents by the pictogram AFR

2.1 ARKEMA'S SOCIAL RESPONSIBILITY APPROACH

2.1.1 Introduction

In a world facing numerous economic, environmental and social challenges, the Group's ambition, as a global leader in specialty chemicals and advanced materials, is to act as a responsible chemicals producer by reducing its environmental footprint and offering its customers innovative, sustainable solutions. In this way, the Group aims to drive sustainable, responsible growth in its business, while effectively responding to the planet's social and environmental challenges. This corporate social responsibility (CSR) approach engages all of its stakeholders, particularly customers, employees and suppliers.

In line with this approach and its endorsement of the ten principles of the Global Compact and the Responsible Care® program, the Group's CSR policy has been structured around five core commitments:

1. Being a top quartile performer in safety in the chemical industry;
2. Reducing the environmental footprint of its operations;
3. Placing solutions for sustainable development at the heart of its approach to innovation and product range;
4. Promoting the individual and collective development of all its employees; and
5. Encouraging open dialogue with all its stakeholders.

In addition to regular dialogue with its stakeholders, the Group conducted in 2016 an initial materiality assessment in order to improve its CSR approach in partnership with its stakeholders. The results of this structured stakeholder engagement and consultation process are presented in paragraph 2.1.2 of this chapter.

The Group's CSR approach is regularly assessed by external stakeholders, particularly customers or SRI rating agencies such as CDP, Ecovadis, Vigeo, Oekom, Sustainalytics and RobecoSAM. In addition, Arkema's inclusion in the FTSE4Good index attests to its solid performance in this field.

VALUE CHAIN

As described in detail in paragraph 1.1.1.1 of this document, the Group's value chain, as a global chemicals manufacturer, comprises a very diverse array of suppliers and customers applying widely varying CSR processes. The Group has consequently designed a robust CSR strategy to create value both for itself and across its entire value chain.

The Group supports its customers in developing their potential, improving their performance and becoming more competitive with innovative new solutions derived from its applications-driven research and development.

The Group is striving to build lasting relationships with its suppliers and has issued a Supplier Code of Conduct for this purpose. By becoming a member of the Together for Sustainability program, the Group has demonstrated its commitment to a responsible supply chain, as explained in paragraph 2.7.4 of this chapter.

KEY SOCIAL RESPONSIBILITY IMPACTS, RISKS AND OPPORTUNITIES

Aware of its impact on society and the environment, the Group is undertaking a continuous improvement process by attenuating the risks incurred in its chemicals business, as described in section 1.7.2 of this document.

At the same time, the Group is leveraging its innovation capabilities and expertise to develop new products and unique solutions to address society's growing expectations concerning sustainable development challenges. This innovation strategy, which is designed to respond to societal challenges and is based on six innovation platforms, is presented in detail in section 2.5 of this chapter.

2.1.2 Stakeholders and materiality assessment

In 2016, the Group conducted a formal process of exchange with stakeholders on CSR topics in the form of a materiality assessment. The resulting materiality map was used to determine how well the Group's CSR approach is meeting stakeholder expectations and to suggest pathways for improvement.

The assessment was conducted in two phases, as follows:

1. A preparatory phase, during which key stakeholders were mapped and the 25 most material CSR topics were identified.

   Map of the key stakeholders

   The map covers internal stakeholders within the main corporate functions and representatives of the key regions in which the Group operates. In this way, the process involved representatives of the regional businesses, the Business Lines, the production division and the Health, Safety and Environment department, as well as plant managers, purchasing managers, R&D representatives, corporate services representatives (finance, ethics and compliance, human resources, communication and institutional relations) and employee representatives.

   External stakeholders include customers, suppliers, investors, public authorities, NGOs, academics, rating agencies and the media.

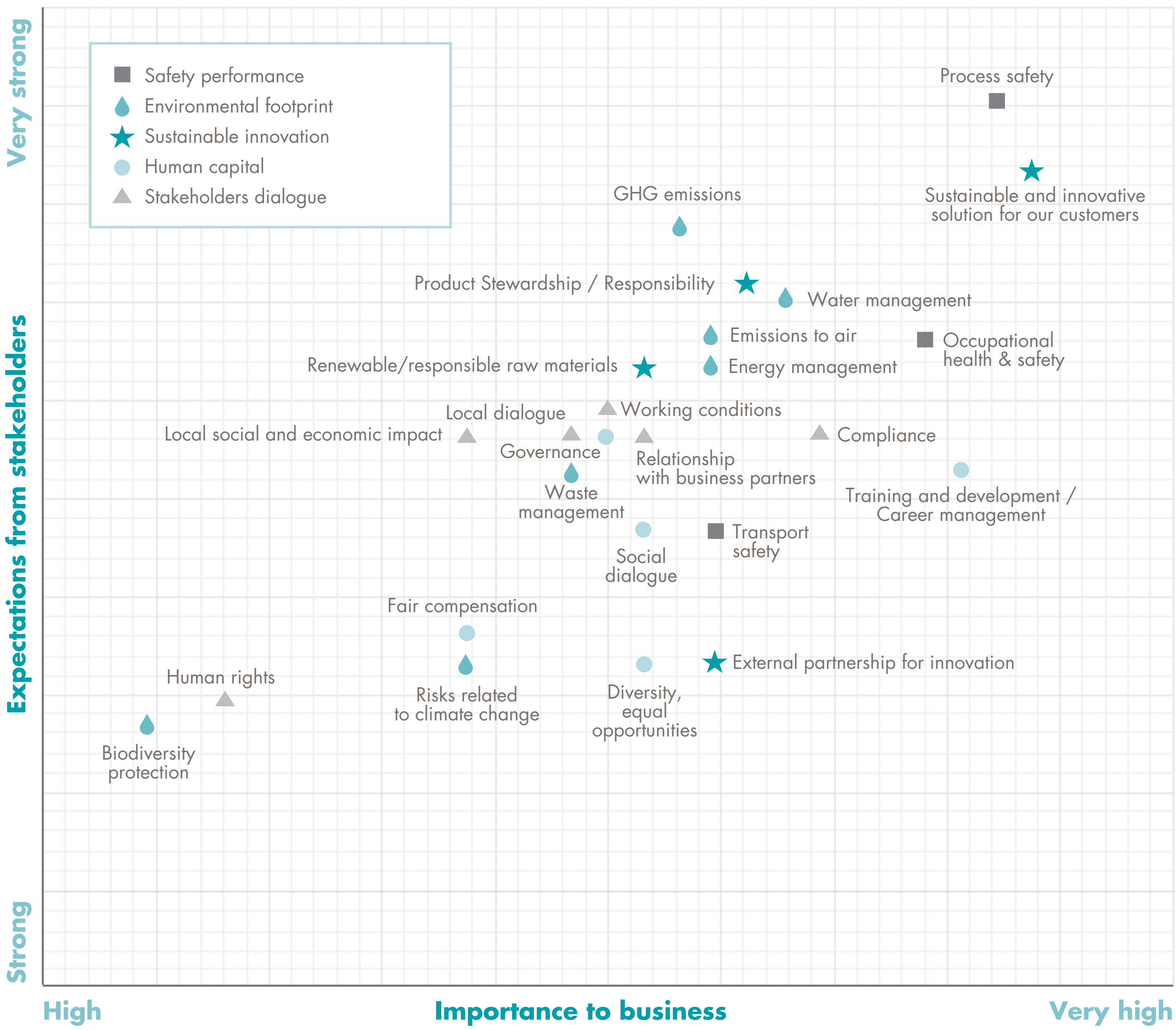
   Identified material CSR topics

   The preliminary list of the 25 most material CSR topics was prepared based on the knowledge of the Group's CSR experts, recognized international standards, a detailed literature review and benchmarking against industry peers. The topics were consolidated into the following categories: safety, environment, innovation, human capital and society.

2. A survey phase, in which each participating stakeholder validated and prioritized the identified CSR topics and also, in a few cases, suggested other topics to be addressed.

The survey findings were analyzed in order to rank each topic according to two criteria, as shown in the matrix below:

- its importance to the Group, as seen by internal stakeholders, and
- its importance to external stakeholders, as measured by their expectations.



The materiality map was analyzed by the CSR Steering Committee, whose composition is described in paragraph 2.2.1 of this chapter. The position of the CSR topics in the matrix reveals a strong correlation between the materiality assessments of both internal and external stakeholders. Therefore, the CSR strategy that was implemented in 2012, based on the Group's five commitments, and the importance of the 25 selected topics were largely validated by stakeholders. The CSR Steering Committee consolidated the topics into the Group's five commitments and ranked them into three categories, by order of priority, as follows:

	Safety	Environment	Innovation	Social	Societal
Priority topics	• **Safety of people and process**	• **Resources management**	• **Sustainable and innovative solutions** • **Product stewardship and responsibility**	• **Diversity and equal opportunities** • **Training and individual development**	
Important topics	• Transport safety	• Climate change • Direct environmental impact of operations	• Renewable / responsible raw materials	• Working conditions	• Compliance • Local dialogue • Relationships with business partners • Governance
Permanent topics		• Biodiversity protection	• Open innovation	• Social dialogue • Fair compensation	• Local, social and economic impact • Human rights

Priority topics were chosen from the 25 material topics based on their importance to the Group and to stakeholders.

In conclusion, based on the findings of this materiality assessment, the Group is continuing to deploy its CSR strategy, as will be presented in the following sections, encouraged by the confirmation that its five commitments are both material and aligned with stakeholder expectations. The findings also confirmed that safety and the environment are priority topics and that more specific expectations are emerging in the areas of innovation and human capital.

Given that safety and the environment are already covered by ambitious objectives, the Group has decided to strengthen its other CSR commitments. On social development, two objectives concerning diversity were defined in 2016 for 2025, as described in section 2.6 of this chapter.

2025 SOCIAL TARGETS

- 23% to 25% of senior management and executive positions to be held by women; and
- 42% to 45% of senior management and executive positions to be held by non-French nationals.

This process has been validated by the Executive Committee.

2.1.3 CSR strategy and commitments

As confirmed by the 2016 materiality assessment, the Group's five commitments are the foundation for its sustainable, responsible growth while addressing the expectations of its stakeholders.

THE GROUP'S FIVE CSR COMMITMENTS

1. Safety: being a top quartile performer in safety in the chemical industry

The Group's industrial safety initiative has been rolled out around the world and comprises complementary technical, organizational and human aspects. By introducing a Group-wide safety culture and making safety a priority, the Group has continuously improved its safety performance since its stock market listing.

The Group also takes care that neither people's health or safety, nor the environment, are impacted by its products.

2. Environment: reducing the environmental footprint of its operations

All employees share the objective of reducing the Group's environmental footprint, by pursuing three types of actions: limiting emissions from operating activities, reducing the use of natural resources and developing the use of renewable resources.

3. Innovation: placing sustainable development solutions at the heart of its approach to innovation and product range

The Group uses its product R&D and marketing teams to support sustainable development and address the challenges facing the planet. To this end, it creates innovative solutions in support of new energies, lightweight materials, the fight against climate change, access to water, and the use of bio-based raw materials. R&D policies are described in section 1.4 of this document.

4. Social: promoting the individual and collective development of all its employees

While unique in their know-how, capabilities, nationality, role and personality, together, the Group's employees make up a community. Employment policies around the world focus on two aspects: the individual development of employees and social development through actions that aim to improve working conditions for all.

5. Societal: encouraging open dialogue with all its stakeholders

The Group invites dialogue on its activities and products with all stakeholders, through programs such as the Common Ground® (*Terrains d'Entente*®) initiative, developed to build mutual understanding and trust-based relationships with local residents, associations and schools. With its suppliers, the Group also adopts responsible behavior based on the desire to develop balanced, long-term, trust-based relationships.

2.1.4 CSR key performance indicators

The following table summarizes the Group's key CSR performance indicators. Tracking and analyzing these KPIs enables the Group to validate, year after year, the performance of its CSR process, as detailed in the following sections.

The Group's 2025 targets attest to the strength of its commitment to sustainability and social responsibility. Based on the materiality assessment carried out in 2016, additional targets have been set for social development. Objectives related to innovation and societal issues are currently under study.

	2025 Targets	2016	2015	2014*
Safety				
Total recordable injury rate (TRIR)	<1,2	1.5	1.5	1.9
Percentage of sites having implemented peer observation in the last three years	100%	56%	57%	77%
Percentage of AIMS audited sites	100%	63%	61%	78%
Environment (EFPI compared with 2012)				
Greenhouse gas emissions	0.50	0.60	0.62	0.70
Volatile organic compound emissions	0.67	0.80	0.83	0.79
Chemical oxygen demand	0.80	0.78	0.93	1.03
Net energy purchases	0.85	0.92	0.98	0.99
Innovation				
Number of patent applications filed during the year relating to sustainable development		116	121	128
Percentage of sales from products made from renewable raw materials		10%	N/A	13%
Social				
Percentage of women in senior management and executive positions	23 to 25%	18%	17%	17%
Percentage of non-French nationals in senior management and executive positions	42 to 45%	39%	N/A	N/A
Average number of training hours per employee		27	27	26
Societal				
Percentage of plants taking part in the Common Ground® program		86%	82%	90%

* *Excluding Bostik.*

2.2 CSR GOVERNANCE

2.2.1 CSR actors

To fulfill its ambitious CSR approach, the Group created in 2012 a Sustainable Development department, comprising the Product Safety and Environment department and the Sustainable Development department. It reports directly to the Industry Executive Vice-President, who is a member of the Executive Committee.

In addition, a CSR Steering Committee was formed in late 2012 under the leadership of the Industry Executive Vice-President. Its members include the Human Resources and Communication Executive Vice-President and a number of corporate Vice-Presidents, all of whom are actively involved in the CSR process. Meeting twice a year, the Committee oversees CSR initiatives and defines proposed CSR projects before they are submitted to the Executive Committee.

The Group's CSR ambition, the related initiatives (both proposed and in progress), the main KPIs and the safety and environmental targets are defined and validated by the Executive Committee and presented once a year to the Board of Directors.

The Group's governance of the CSR process is integrated into the Group's corporate governance. In particular, every year the Sustainable Development Vice-President reports to the Audit and Accounts Committee, presenting the scope of the CSR data audit and the findings of the independent third-party auditor. These findings appear in the auditor's opinion issued to the annual general meeting along with the Board of Director's report, which also includes a variety of social and environmental information. In addition, the Group's environmental, safety and human resources situation is reviewed by the Board of Directors as part of its activities (see paragraph 3.3.2.3 of this document). Each year, the Industry Executive Vice-President presents to the Board the progress made on CSR topics.

All of the 2016 CSR indicators were reviewed by the independent third-party auditor, as indicated in its limited assurance statement in section 2.8 of this chapter.

2.2.2 CSR reporting organization

The CSR reporting organization is designed to enable the Group to manage and measure the effectiveness of its social responsibility process.

REPORTING ORGANIZATION AND PROTOCOL

The Group has defined directives governing the reporting of safety, environmental, employee and social data for every facility. Data are generally reported once a year, but for certain specific issues, interim data are reported quarterly so as to identify trends and implement required corrective measures on a timely basis. These interim data are not published.

REPORTING SCOPE AND PERIOD

The scope of reporting for social, environmental and societal data is described in detail in the methodological note in section 2.8 of this chapter. To optimize the organization, coordination and integration of the financial and CSR reports, these data are reported on a calendar year basis.

COMPLIANCE AND STANDARDS

Social, environmental and societal information has been released since 2012 in compliance with Articles L. 225-102-1, R. 225-105 and R. 225-105-1 of the French Commercial Code (*Code du commerce*) and in accordance with the recommendations of ISO 26000. In compliance with the above articles, this information is reviewed by an independent third-party auditor, with reports issued since 2012, attesting to the completeness and fairness of CSR information.

In 2016, the Global Reporting Initiative Guidelines (GRI G4) were applied for the first time. The concordance table can be found in paragraph 2.8.4 of this chapter.

2.3 HEALTH AND SAFETY INFORMATION

BEING A TOP QUARTILE PERFORMER IN SAFETY IN THE CHEMICAL INDUSTRY

2.3.1 Safety management

Safety and protecting health and the environment are core priorities in the management of the Group's business and manufacturing operations, and a major focus of its CSR policies. This focus is shown by the Group involvment in the Responsible Care® program, a voluntary initiative undertaken by the chemical industry to responsibly manage its operations and products, based on a continuous improvement process.

The Group's safety policy is structured around three areas: prevention of risks (related to safety, the environment and pollution), management guidelines, and a culture of safety and sustainability. It reflects prevailing legislation and the Group's own requirements, which have been formally defined in a Safety, Health, Environment and Quality Charter and in a global standard, the Health, Safety and Environment (HSE) manual. The Charter and manual form the basis of HSE management systems in all Group entities.

The materiality assessment performed in 2016 and presented in section 2.1 of this chapter confirmed that employee and process safety was one of the major aspects of the Group's CSR approach.

The Group's commitment to safety has been materialized in three targets for 2025, which reflect the Group's willingness to continuously improve its performance in this area.

2025 TARGETS

- Reduce the total recordable injury rate (TRIR) to less than 1.2;
- Extend the peer observation program to every Group site; and
- Audit every Group site in accordance with the Arkema Integrated Management System (AIMS).

These policies are being implemented worldwide by the Group Safety and Environment department, with the support of safety and environmental experts in each region.

2.3.2 Employee safety and health

The Group considers the health and safety of its own employees as well as of its sub-contractors to be a priority and believes that every occupational accident is preventable.

As part of a prevention and continuous improvement process, the Group is committed to ensuring a good working environment for everyone, in particular by analyzing workstation health and safety risks and studying accident typologies.

Regarding safety, the Group has the same level of expectation for sub-contractors working on its industrial sites as for its employees.

In particular, all of them systematically take part in awareness initiatives designed to develop a safety culture and in the Group's safety processes and programs. In addition, the injury rates for both employees and sub-contractors are tracked as part of the safety performance management system.

Another priority concerns the attenuation of arduous working conditions, with the deployment of a dedicated program comprising, since many years, workstation ergonomics and other remedial actions. Workplace well-being and the quality of work life are also important factors in protecting employee health.

2.3.2.1 EMPLOYEE SAFETY

Instilling a culture of safety through employee training, awareness-building, and industrial safety and environment systems

Behavior plays a critical role in managing and preventing risks. That is why a core aspect of the Group's safety process is the development of a common safety culture that raises everyone's awareness of his or her responsibility and the importance of his or her personal behavior. To develop a shared safety culture across the organization, the Group uses a variety of programs and initiatives, including:

- general training in health, safety and the environment for new hires;
- the "Safety in Action" and "Essentials" programs;
- field initiatives, such as peer observations, flash audits, scheduled general inspections, safety tours and field safety audits;
- dedicated training courses, such as "SafeStart®", "Human and organizational Safety Factors", "Safety Culture and Leadership" and "Crisis Management"; and
- the Arkema Safety Academy, whose courses are enabling every employee to share the Group's safety challenges, policies and tools.

Some of these tools are covered in more detail below.

Safety training effort

In 2016, safety training [1] totalled 180,790 hours (*i.e.* 14 hours per year per employee trained), and the number of employees who attended at least one safety training session totalled 12,862 (71% of the Group headcount) [1].

In addition, 4,479 people (25% of the Group headcount) took e-learning courses on safety in 2016 [1].

FOCUS: DEFENSIVE DRIVING

To expand the Group's safety process beyond just the in-plant initiatives, an e-learning-based defensive driving course was introduced in 2016. More than 350 employees worldwide took part in the course.

The "Safety in Action" and "Essentials" programs

The "Safety in Action" and "Essentials" programs which concern both employees and outside contractors working on Group sites are deployed worldwide. "Safety in Action" is designed to promote and deepen everyone's safety culture, while the "Essentials" define a set of rules that must be applied without compromise in every situation.

Peer observation

Peer observation aims at raising risk awareness in ways that help to reduce the number of occupational accidents. It capitalizes on positive experiences and a joint search for solutions to improve practices. Using a structured observation process, each site implements the method taking into account its own specific features (risks, operations). Employees with similar qualifications are then encouraged to observe each other while carrying out their duties.

As of today, peer observation programs have already been successfully deployed in the United States and are now being rolled out in Asia and main European countries. **The target is to extend them to every Group site by 2025.**

In 2016, 56% of the sites had put in place peer observation practices to improve safety, compared with 57% in 2015. The slight decrease reflected the disposal, in November 2016, of the activated carbon and filter aids business, whose plants had all implemented the peer observation program.

As part of this same process, the Group has put in place a number of specific programs, such as Smart Zone and SafeStart®:

- **Smart Zone: identifying and rectifying shortfalls**

Bostik has developed a monitoring system to identify in-field non-compliance or shortfalls against best safety practices. Employees detecting such an incident can record it in a "Smart Zone" table. After immediate corrective action is taken, further measures can be discussed between the employee and the Smart Zone table manager. Implementation of the corrective solution is tracked in the Smart Zone through to completion, for fast, effective incident follow-up.

- **SafeStart® to make safety everyone's business**

To encourage the shift from a compliance to a commitment-based safety culture, the Group has rolled out the SafeStart® initiative, which is based on observing oneself and other people to identify critical states, such as rushing, frustration, fatigue and overconfidence, that can lead to critical errors (eyes not on task, line of fire, mind not on task, loss of balance, traction or grip) which in turn transform minor risks into major ones. Techniques to reduce the incidence of critical errors in turn help to drive a continuous improvement in the prevention of accidents.

(1) In entities at least 50%-owned and employing more than 30 people.

Getting stakeholders involved in safety

In France, many entities organize Safety Days once or twice a year with their sub-contractors, which are attended by local HSE employees, the Group contract manager and the contractor's sales manager. During these days, the Group is represented by local executives, business executives and representatives from the Group Procurement and Safety and Environment departments. These events provide an opportunity to share best workplace health and safety practices.

Now that these programs are implemented, the Group is preparing for the deployment of a system to assess the engagement and safety culture of employees. In 2016, the coating resins business gauged the effectiveness of these programs by conducting a worldwide employee satisfaction survey, with a particular focus on safety information, safety culture and employee participation in safety programs and initiatives. The platform in Changshu, China also measured the safety culture awareness of its employees.

Injury rates

The Group's safety performance ranks among the best in the global chemical industry, confirming the clear improvement dynamic underway for several years, driven largely by the deep implication of every employee.

2025 TARGET

To further improve, the Group has set a target to achieve a total recordable injury rate (TRIR) of less than 1.2 in 2025.

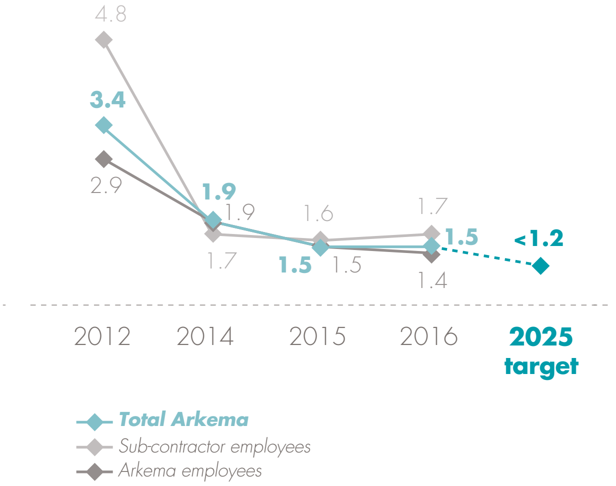
After several years of sharp improvement, the Group consolidated its safety performance in 2016 with a very good TRIR of 1.5, unchanged from an excellent 2015.

The following charts show consolidated injury rates for the 2014 to 2016 period, in number of incidents per million hours worked, calculated according to the method described in section 2.8 of this chapter. It also shows data for 2012, the baseline year used to set the Group's long-term CSR objectives.

Incident severity is expressed by the number of days lost per incident. An average 24 days were lost per incident in 2016 across all Group and sub-contractor employees working onsite. This was down significantly from 48 days in 2015, primarily as a result of the prevention initiatives being led on every site. No fatal accident has been recorded since 2013.

LOST-TIME INJURY RATE (LTIR) (1)

TOTAL RECORDABLE INJURY RATE (TRIR)



(1) *A lost-time incident refers to any incident causing bodily harm or psychological trauma to an employee in the course of his or her duties and resulting in time off work.*

In 2016, a total of 49 Group employees were victims of reported incidents recorded in the TRIR for the year, of which 32 resulted in lost time, out of a total worldwide workforce of 19,637 people. The rate also reflected the 15 incidents involving contractor employees reported during the year. Analysis of prior-year data shows a decrease in the number of serious and very serious incidents, which account for a very small proportion of the total. In the years ahead, the Group's ambition remains to further reduce this number.

2.3.2.2 OCCUPATIONAL ILLNESSES

Toxic or hazardous substances have been and continue to be used in the manufacture of the Group's products. Despite the safety and monitoring procedures in place Group-wide and in each production facility, employees may have been exposed to such substances and may develop illnesses arising from such exposure.

In this respect, like most manufacturers, the Group has used a variety of asbestos-based insulating or heat-proofing materials at its production facilities in the past. Consequently, certain employees may have been exposed to such materials before these were gradually removed and replaced.

Claims for occupational illnesses related to past asbestos exposure have been filed against the Group, mostly for periods before 1980. Risks related to occupational illness are described in paragraph 1.7.2 of this document.

With respect to industrial hygiene, beyond the use of enclosed industrial processes limiting emissions as much as possible, protective systems such as source capture of residual emissions, general improvement works designed to minimize exposure, and the use of appropriate personal protective equipment at each workstation. The Group requires risk exposure to be assessed at each workstation and that residual employee exposure to hazardous chemicals is regularly measured in order to attenuate the risk of occupational illness in the future. Measurement data are stored in conditions that guarantee their long-term integrity.

In 2016, 55 occupational illnesses were reported Group-wide, of which 14 were related to exposure to asbestos and 10 to exposure to chemicals.

In France, the Group also deploys traceability programs to track potential exposure to arduous working conditions, including chemicals, in the production facilities, as part of the risk assessment report prepared in compliance with local legislation. Since 2012, the Group has been working on data digitalization, while integrating the requirements of the French legislation concerning arduous working conditions. The dedicated STARMAP program (described in paragraph 2.3.2.4 of this chapter) will thus ensure internal traceability and monitoring of arduous working conditions, in line with the Group's international scope.

2.3.2.3 MEDICAL CARE

Regular medical check-ups were available in 95.1% of Group companies in 2016, covering 92% of employees.

2.3.2.4 HEALTH AT WORK

To maintain health at work, the Group has undertaken continuous improvement initiatives to prevent arduous working conditions, stress and workstation risk and generally to improve employee well-being.

Preventing arduous working conditions

Since 2012, the Group has undertaken a process to prevent arduous working conditions. In this context, numerous initiatives have contributed to improve working conditions, such as:

- workstation ergonomics studies;
- workstation accommodations; and
- the development of handling support systems.

In 2016, for example, as part of the expansion of the molecular sieve production capacity at the Honfleur, France, plant, ergonomic and working condition issues were taken into account in the design of the new unit, with the active participation of unit operators.

In France, a new agreement to prevent arduous working conditions and integrate ergonomics was signed in 2016 by all of the unions. Designed to consolidate the process implemented since 2012, the new agreement covers the following main points:

- in every facility, appoint ergonomics correspondents and set up working groups to support the program's in-plant deployment;
- continue to integrate ergonomics into the process engineering phase of every project;
- integrate ergonomics into the procurement process; and
- pursue initiatives to improve working conditions.

In 2016, correspondents attended an initial training program that was completed in early 2017. It will be offered to other correspondents and will constitute an on-going training.

Preventing stress and improving quality of work life

In 2008, Arkema France initiated a physician-supported stress management program for individual employees, whose stress levels are determined by taking a standardized test during their annual check-up with the occupational physician. The Group has also undertaken a company-wide voluntary workplace stress prevention initiative to improve any working environment identified as being "at risk", based on such proven indicators as an abnormally high percentage of employees diagnosed as being "over-stressed".

The primary stress management initiatives undertaken in 2016 included:

- conferences, workshops, quality of work days and other local initiatives concerning quality of work life;
- further deployment of training and awareness-building programs to help managers deal effectively with workplace stress and psychosocial risks, while enhancing quality of work life; and
- changes in the way psychosocial risks are taken into account in the annual occupational risk assessment report (*document unique*) describing workstation risk factors.

In addition, a teleworking system is being gradually introduced in agreement with the employees concerned and their managers.

An agreement was signed by four of Arkema France's five unions on this company-wide workplace stress management initiative. With this agreement, the Group affirms its ambition to offer employees a working environment favorable to their well-being. This agreement calls for a variety of training and information initiatives, as well as the introduction of a procedure for identifying working environments at risk together with an analysis to determine stress factors and take corrective action.

FOCUS: QUALITY OF WORK LIFE

Arkema's corporate headquarters received the 2016 *Mieux Vivre en Entreprise* Award, created by France's Rh&M group, for its innovative quality of work life program. The award honored the Group's workplace stress management process and all the initiatives being led in this area.

Protecting health at the workstation

To consolidate all of the workstation health and safety initiatives, the Group is developing a workstation risk assessment application, known as STARMAP, to prevent health and safety risks more effectively around the world, by capitalizing on centrally managed data libraries and best practices.

Agreements on early retirement for employees in asbestos-contaminated facilities

In France, five Group operating plants have been included by ministerial decree on a list of sites whose current employees would be entitled to the early retirement provisions for asbestos workers. The Group cannot exclude that other Group sites may be added to the list in the future.

In addition, on 30 June 2003, Arkema France signed an agreement with all of the representative unions that improved the terms of retirement for employees qualifying for this provision, and adjusted their retirement dates to facilitate the transfer of their skills and knowledge within the organization. These measures were extended to all Group companies in France by an agreement signed on 1 September 2007 with all of the unions. For more information, please refer to note 20 to the 2016 consolidated financial statements in paragraph 4.3.3 of this document.

2.3.3 Process safety

The Group carefully analyzes the risks associated with its production and storage activities and pays particular attention to both internal and external feedback concerning incidents, accidents and best industrial risk management practices.

In compliance with applicable legislation, production plant risks are assessed based on systematic studies of (i) manufacturing processes, (ii) operating conditions in existing units, (iii) the transportation of hazardous and other products, (iv) the design and construction of new facilities, (v) upgrades to existing facilities (vi) health and safety at workstations, and (vii) environmental impacts.

Identified risks are prioritized using a qualitative and quantitative process developed and led by a network of experts in Europe, the United States and Asia. To reduce the impact and probability of occurrence of these risks, appropriate technical and organizational resources have been deployed in the production units and for the transportation of hazardous substances. The experts are also responsible for preparing the directives, procedures and guidelines required for effective risk management.

At the same time, the Group is investing heavily to reinforce a culture of process safety of its employees. This involves not only technical training in process safety systems and methods, but also seminars conducted in the United States, Europe and Asia for plant employees and managers by experts from the Center for Chemical Process Safety of the American Institute of Chemical Engineers.

When a new production unit is designed or a significant extension is made to an existing facility, the best options are explored to improve process safety. In addition, existing plants are regularly upgraded and improved. The Group capital expenditure allocated to safety, the environment and maintaining the production facilities to standard amounted to €240 million in 2016 versus €203 million in 2015.

In France, Technological Risk Prevention Plans (PPRTs) put in place in accordance with local legislation help manage urban development around the Group's Seveso facilities. As of year-end 2016, 16 facilities operated by the Group in France are subject to a PPRT and the Group will support any of the related measures through 2018. Furthermore, the ministerial decree of 29 September 2005, requiring that the probability of occurrence, kinetics, impact intensity and severity of potential accidents be assessed and addressed in the hazardous impact studies performed for classified installations subject to authorization, is also entailing the introduction of risk management measures at all of the sites classified as such.

In Europe, at the date of this document, 34 of the Group's production facilities are subject to reinforced monitoring in accordance with the provisions of the Seveso 3 directive 2012/18/EU of 4 July 2012 concerning major accidents involving hazardous substances. This directive requires, in particular, the deployment of safety management systems and the regular updating of hazard studies, whose findings may entail additional risk prevention obligations for companies operating the sites.

In the United States, industrial accident risk management is primarily regulated by the Superfund Reauthorization Act, the Risk Management Process and the Emergency Planning and Community-Right-to-Know Act. In particular, the latter requires companies to inform government authorities when more than the minimum authorized quantity of a hazardous substance is being used or stored, and if such substances are stored, to have emergency plans and procedures in place. Other regulations at the federal, state or local levels govern certain specific aspects of the storage of chemicals, the safety of workers when handling stored products and the storage of highly hazardous substances.

Crisis management

The in-plant crisis management procedures are broadly based on the Group Crisis Management directive, which covers the management of potentially critical situations in the areas of health, safety and the environment. In particular, a year-round on-call system ensures rapid and effective response to potential incidents, by assessing their context and fielding a dedicated crisis management team as needed. The Group also regularly offers training courses in "Crisis management and communication" and conducts simulations of crises and set-up of crisis management teams.

Process Safety Incidents (PSI)

Regarding process safety, the Group's objective is to minimize the number of serious process safety incidents, as defined by the European Chemical Industry Council (CEFIC). PSIs are reported as soon as possible to Executive Committee members and to the surrounding community in the event of nuisances.

Since 2013, the total number of PSIs, major or minor, has been systematically reviewed at every meeting of the Executive Committee.

	2016	2015	2014*
Serious PSIs (type A or C1 according to the CEFIC method) (1)	12	27	33

(1) See the note on methodology in section 2.8 of this chapter.
* *Excluding Bostik.*

The decrease in the number of PSIs attests to the success of the action plans and industrial investments made in particular as part of the operational excellence program.

2.3.4 Audits

The effective implementation of safety policies is regularly audited, with a focus on measuring progress and harmonizing practices. These audits are also an important management practice.

To ensure a highly efficient inspection and control process, all of the Group-led safety, environment and quality audits have been consolidated into a single audit, known as the Arkema Integrated Management System (AIMS). It is based on all of the Group's standards, both proprietary and endorsed, such as ISO 9001, ISO 14001 and OHSAS 18001. This "all-in-one" approach has the dual benefit of being aligned with the Group's corporate culture and ensuring consistency across all its safety, environment and quality management initiatives. AIMS audits are conducted every three years, with follow-up audits every year.

The 2025 target is for every facility to have been AIMS-audited within the past three years.

	2016	2015	2014*
% of facilities AIMS-audited over the past three years	63	61	78

* *Excluding Bostik.*

The increase in the percentage of AIMS-audited facilities over the last three years and reported in 2016 illustrates the continued deployment of this program, in particular at the Bostik plants included in early 2015.

The year-on-year decrease in the percentage in 2015 reflected the inclusion of the Bostik plants, where the AIMS method began to be rolled out during the year. Excluding the Bostik facilities, the percentage would therefore have been 91% in 2015, an increase on the 2014 figure.

Many facilities are audited simultaneously according to the AIMS standard and a variety of international standards, to earn or renew external certification, depending on their particular situation. The number of sites audited in this way over the last three years is presented in the following table and attests in 2016, as for previous years, to the Group's ongoing efforts in these areas:

Number of units audited according to each standard	2016	2015	2014*
ISO 9001	130	135	90
ISO 14001	72	74	71
OHSAS 18001	66	71	67

** Excluding Bostik.*

54% of Group facilities have been certified to OHSAS 18001 standard in Europe, 45% in North America and 34% in Asia.

In addition, the Group performs a large number of non-AIMS audits every year, including:

- operational safety audits: construction site inspections, pre-start-up reviews, and operational safety audits in areas such as mechanical integrity and explosive atmospheres;
- process safety audits, including fire safety audits, post-incident audits and risk analysis reviews;
- supplier and supply chain audits: transportation companies and warehouses are inspected and assessed. These audits are performed in addition to third-party audits, such as the Safety & Quality Assessment System for overland transportation, the Chemical Distribution Institute for maritime shipping, and the European Barge Inspection Scheme for river shipping. A certain amount of packaging is also inspected; and
- field safety audits led by plant employees to assess the safety culture and installation compliance on a continuous, sustainable basis. These assessments include short flash audits, scheduled general inspections and safety tours by management. They concern everyone working on the site, including contractor employees, and are performed in every aspect of the site's operations, including production units, offices, capital works and turnarounds.

In addition to audits, DSEG teams lead safety support initiatives at facilities whose performance has fallen short of Group standards or which have reported a specific issue. DSEG experts share their findings of the facility's accident record and HSE activities with plant management, then discuss how to prepare, implement and follow up on the remedial action plans. In 2016, a dedicated support program led by onsite DSEG representatives was offered to plants during their turnarounds, which require the involvement of a large number of employees and outside contractors. The program also enables the plants to share good practices.

Another important tool in managing the deployment of the Group's safety process is feedback on material incidents. It consists in sharing experiences on relevant incidents so that ways can be found to avoid recurrence. Feedback takes place across the global organization through various geographic, professional and technological networks. In the event of a material incident, the network issues a safety alert that enables other Group facilities that may encounter a similar incident to take corrective measures. The feedback process is helping to improve the Group's safety expertise and ensure the effectiveness of the deployed measures.

2.3.5 Responsible product stewardship

The Group integrates health, safety and environmental protection into every product's design and throughout its life-cycle.

This product stewardship process, which in certain aspects exceeds regulatory requirements, engages stakeholders across the product chain, from raw material suppliers to end-customers.

The Group expresses its commitment to product stewardship in its Safety, Health, Environment and Quality Charter and by endorsing the International Council of Chemical Associations'(ICCA) Responsible Care® initiative. In particular, the Group participates in a variety of international ICCA programs, such as the High Production Volume (HPV) initiative, which aims to supply globally-harmonized data sets and initial hazard assessments for around 1,000 chemical substances.

Leveraging its organization and the scientific and regulatory expertise acquired over many years, the Group ensures to define product-specific HSE roadmaps by country that are well adapted to local conditions, thus helping to drive continuous improvement and deepen its knowledge of each product's features and conditions of use.

2.3.5.1 REGULATORY COMPLIANCE

Regulatory compliance plays a key role in ensuring product safety for customers, the value chain and stakeholders.

In recent years, the Group has deployed the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and implemented the REACH regulations in Europe.

1. Deployment of GHS

GHS is a major United Nations initiative designed to replace the various chemical classification and labeling standards used in different countries with a global system based on consistent criteria. The Group has deployed it in every participating country, in line with its implementation in local legislation.

In Europe, the GHS has been transposed into the Classification, Labeling and Packaging (CLP) regulation governing chemical products and mixtures. The Group reassessed and classified all the substances contained in its product portfolio within the regulation's deadline and updated the related safety data sheets and labels.

In addition, the Group has deployed the system in other countries, in particular in the United States, South Korea, China, Malaysia and Turkey, again within the regulatory timeframe. Roll-out is proceeding apace in the countries that are currently phasing in the GHS, such as Australia and Canada.

2. Implementation of the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) legislation in Europe

REACH is a European regulation that aims to make in-depth changes in the way chemical substances are managed by improving their level of knowledge, analyzing their environmental and health risks and defining measures to manage the risks arising from their use or manufacture. The Group endorses the objectives of REACH, which represents an additional pathway to continuously improving knowledge of its substances and their safe use, in line with the legitimate expectations of civil society. The Group therefore complies with all of the REACH standards governing the registration, evaluation, authorization and restriction of chemicals.

REACH compliance is managed at Group level by the Product Safety and Environment department, whose team of experts in toxicology, ecotoxicology and compliance oversee implementation of the regulation. More particularly, the Group has filed the following registrations with the European Chemicals Agency (ECHA):

	Number of substances	Substances for which the Group is Lead or Sole Registrant	Number of dossiers submitted to the ECHA	Dossiers accepted by the ECHA
2010 and 2013 deadlines	277	122	311	100%
2018 deadline	153	52	40	26%

In all, the Group plans to register 430 substances. This number has been adjusted after the first two registration deadlines were met and after surveying forthcoming developments in the businesses' portfolios. REACH compliance is expected to cost around €25 million over the 2016-2020 period, and to represent a total cost to the Group of an estimated €65 million between 2008 and 2020.

In addition to submitting new registration dossiers, the Group regularly revises its existing dossiers following the acquisition of new data or at the request of the ECHA. In 2016, around 40% of the revisions were filed preventively to improve the registrations.

The Group is also participating in the Community Rolling Action Plan (CoRAP) launched by the authorities after the first registration phase. Once a substance has been evaluated, additional information may be requested to determine if the risks are effectively managed. This could eventually lead to proposed pan-European risk management measures, such as restrictions, the identification of substances of very high concern or other initiatives outside the REACH remit. Since 2012, 28 Group substances have been listed in CoRAP. Of these, the data sets for five were deemed adequate, whereas for 14 others, additional hazard information and/or risk assessments were requested. The last nine substances are still being evaluated.

Management of REACH-defined substances of very high concern (SVHC)

The Group has put in place a dedicated process to track the REACH-defined substances of very high concern (SVHCs) that are used in its productions or placed on the market. It was designed in response to the REACH substance authorization process, which has two phases:

- the first consists in identifying substances that could have potential negative impacts on human health or the environment. Once so designated, these substances of very high concern are added to a list of substances that may be subject to prior authorization for their specific use (Annex XIV);
- the second phase aims to ensure that the risks from the use of these SVHCs are adequately managed and that the substances themselves are being gradually replaced by appropriate alternatives. These substances may not be placed on the market or used after a designated date unless an authorization is granted (or waived) for their specific use.

As soon as the authorities propose that a substance be listed as an SVHC, the Group responds to the public call for comments by the ECHA for substances whose use(s) may be subject to authorization.

In cases where these substances are finally identified as SVHCs and included in the candidate list, a review is conducted to determine the most appropriate response, such as assessing alternative substances for the intended uses, applying for authorization when the substance is listed in Annex XIV, or converting the production unit and phasing out production.

ANALYSIS OF THE GROUP'S SVHCS

Substances of Very High Concern	SVHCs contained in products placed on the market	Of which SVHCs contained in raw materials
SVHCs subject to REACH authorization	1	1
SVHCs on the REACH candidate list	7	4

In November 2015, the Group filed an application with the ECHA to authorize the sodium dichromate used as a processing aid at the Jarrie plant in France, while waiting for an alternative solution to be found.

As of 1 June 2016, the industry candidate list contained 169 substances, including (i) the hydrazine produced at the plant in Lannemezan, France, (ii) the 2-imidazolidinethione (ETU) produced by MLPC, and (iii) the nonylphenol ethoxylates produced by CECA.

REACH's third component is the restriction procedure, which is intended to restrict or prohibit a substance's production, marketing or use.

Cobalt chloride, which was previously recommended for authorization, is now expected to be recommended for restriction, although in theory this would only apply to metal coatings. This would not affect the Group, which uses the substance as a processing aid at the Jarrie site in France. Nevertheless, pending a formal proposal for restriction and as a precautionary measure, an alternative solution is being explored.

Compliance with other legislation

Outside Europe, the Group markets its chemicals in accordance with national and regional mandatory inventories, as applicable. Due to its history and global presence, some of these products are already notified in many inventories. Should a need arise for a new product notification, dossiers can be filed in a timely manner thanks to the extensive database the Group maintains on the characteristics of its products.

In particular, since 2015, this process has made it possible to respond to the three new REACH-like regulations that have been introduced in Asia (South Korea, Taiwan and Turkey). For example, the Group completed Phase I registration of substances in Taiwan and submitted its first annual report to the Korean authorities during the year.

The Group also joined consortia formed to jointly register substances brought to market in South Korea, in accordance with article 15 of the Act on the Registration and Evaluation of Chemical Substances (ARECS).

More specifically, the Group does not manufacture any persistent organic pollutants (POPs). It also has low exposure to bisphenol A, particularly in the food container market, where it is working closely with customers to substitute BPA-derivatives.

2.3.5.2 PRODUCT INFORMATION

The Group relies on an in-house team of expert toxicologists and ecotoxicologists who conducts product hazard studies and works closely with regulatory experts to assess risks in normal conditions of use. The findings are shared across the Group and externally in various forms, including Safety Data Sheets, labeling and GPS Safety Summaries.

Safety Data Sheets (SDSs)

In many countries, the Group describes its product characteristics and conditions of use in Safety Data Sheets (SDSs), which are required to market chemicals classified as hazardous to human health or the environment. They are prepared in some forty languages based on a global database comprising the composition of every product and its toxicological, ecotoxicological and physical-chemical data, thereby ensuring consistent information in every market. The Group issues SDSs in accordance with regulatory requirements and posts them on the Group website or the online QuickFDS platform. As part of the product stewardship process, the Group exceeds regulatory obligations by issuing SDSs even for products that are not classified as hazardous.

In Europe, the Group's organization and IT infrastructure have made it possible to issue extended SDSs the latest REACH-compliant format, which improve risk management by including exposure scenarios for each identified use.

Labeling

The Group has also developed systems to print labels with a consistent classification, regardless of the country in which the product is manufactured or marketed.

In addition, efficient IT systems enable the Group to prepare compliance documents and align them as needed with the latest formats and data, notably when the GHS standardized classification and labeling system is introduced in a new country.

Global Product Strategy (GPS)

The Group remains actively engaged in the Global Product Strategy (GPS) program, which is designed to support the deployment of safer, more efficient chemicals management practices. As part of this process, a dedicated web page has been created and Safety Summaries are regularly posted on the ICCA and corporate websites, as and when REACH registration dossiers are filed. To date, the Group has already published 145 GPS Safety Summaries, describing the intrinsic properties of the substances marketed by the Group, their potential risks for human health and the environment and the recommended ways of managing these risks effectively. The Group will continue to publish these summaries as part of the next REACH deadline in 2018.

2.3.5.3 ANIMAL TESTING

Given its business portfolio, the Group neither conducts triage trials on substances derived from its research nor participates in toxicology research projects that could involve the use of laboratory animals. Toxicology studies conducted on vertebrate animals are strictly limited to those required for regulatory compliance. They are contracted to outside laboratories subject to oversight by the relevant ethics committees.

The Group always conducts in-depth analyses of existing literature data, thanks to constant tracking of information on Group substances, in order to use all of the available public information. As required by REACH, the Group applies, whenever possible, the rules for waiving standard testing when such tests are not justified (due to the absence of exposure) or when alternative methods can be used.

In addition, the Group participates in the work of FRANCOPA, a French platform dedicated to the development, validation and dissemination of alternative animal testing methods, using the 3Rs (reduction, refinement, replacement).

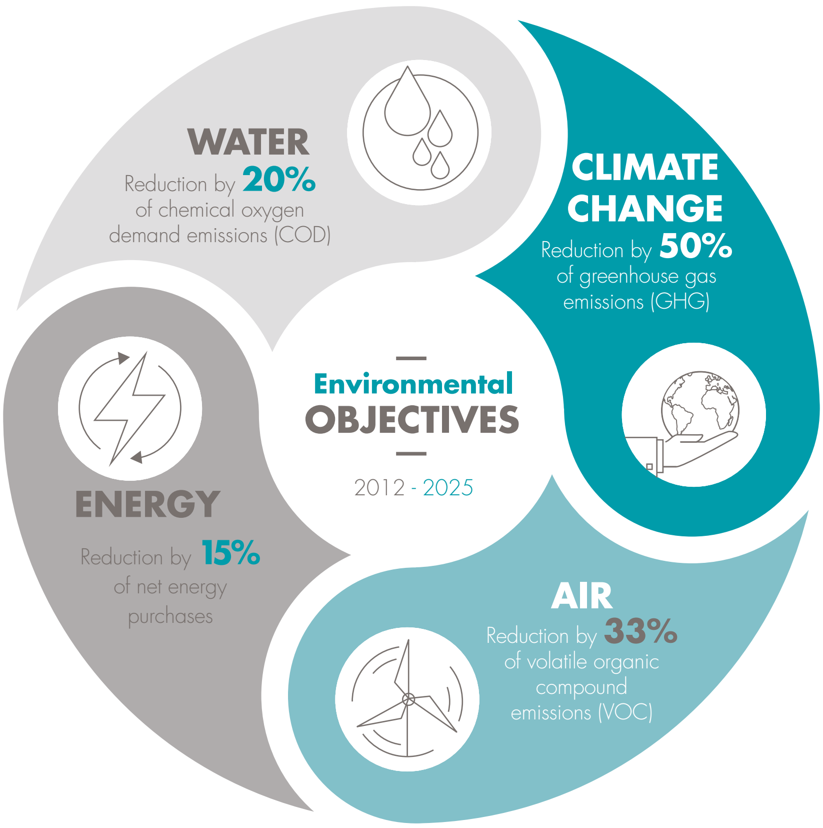
2.4 ENVIRONMENTAL INFORMATION

REDUCING THE ENVIRONMENTAL FOOTPRINT OF THE GROUP'S OPERATIONS

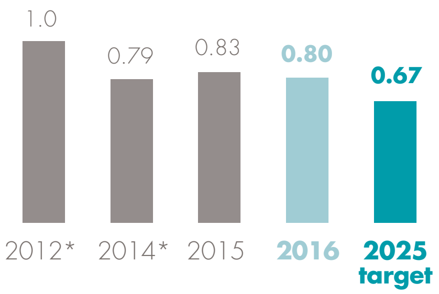
2.4.1 Environmental management

Reducing the environmental footprint of its operations is one of the Group's five CSR commitments. To achieve it, the Group is upgrading its manufacturing practices to minimize emissions and to optimize and reduce the use of energy, water and non-renewable raw materials. By stringently tracking their effluent releases, air emissions and waste production, the plants are implementing effective initiatives.

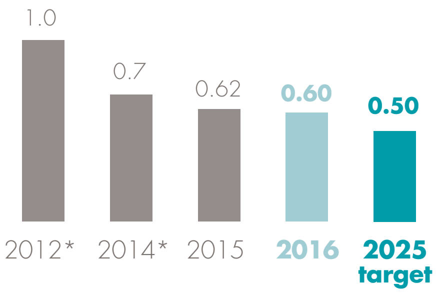
The findings of the 2016 materiality assessment confirmed the importance of environmental topics for stakeholders, for which the Group has already defined four objectives. These objectives apply to intensive indicators, known as Environmental Footprint Performance Indicators (EFPI), which are not impacted by changes in the scope of reporting, making them more effective in tracking the Group's industrial performance. The following charts illustrate the objectives and the progress made since the 2012 baseline.



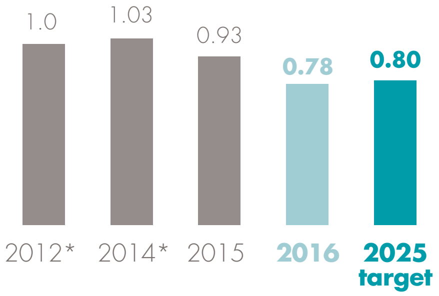
AIR (VOLATILE ORGANIC COMPOUNDS EFPI)



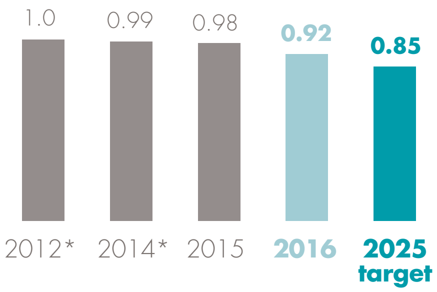
CLIMATE (DIRECT GREENHOUSE GAS EMISSIONS EFPI)



WATER (CHEMICAL OXYGEN DEMAND EFPI)



ENERGY (NET ENERGY PURCHASES EFPI)



** Data prior to 2015 exclude Bostik.*

NB: change in the EFPI indicators is expressed in relation to an index base 1 in 2012.

In addition to the progress made in these four intensive indicators, the Group reports absolute figures for every parameter used to track the Group's environmental footprint.

To meet these targets, the Group has undertaken initiatives at two levels:

- continuous improvement programs, based on regulatory monitoring, employee training and an action plan deployed in every unit; and
- a certification process, completed by internal audits, to assess the performance of each plant's environmental management system.

Regulatory and compliance monitoring

The Group ensures that its HSE network properly understands EU regulations, such as Phase III of the European Union Emissions Trading Scheme (EU ETS) or the Industrial Emissions directive (IED), as well as the latest environmental data reporting rules which concern it, thanks to the organization of awareness-building sessions. The Group also performs regulatory compliance audits every three years at the US facilities. A similar process is being rolled out in Asia and especially in China. European facilities can monitor their compliance with applicable regulations using specific IT applications dedicated to each country legislation.

2

Instilling an environmental culture through employee training and information

As regard the environment, Group employees are trained and made aware of the main characteristics of their plant, the real-world consequences of their actions, the operational management of all types of releases and emissions, the environmental impact of turnaround or installation restart operations, and waste sorting.

At the 52% of Group facilities that earned ISO 14001 or, in the United States, RCMS certification in 2016, a dedicated environmental training program is offered after an environmental risk analysis has been performed in each workshop. At an increasing number of facilities, feedback on environmental incidents is being tracked in a common system for reporting incidents and following up corrective actions. The training program is regularly repeated to maintain employee awareness of the importance of critical parameters.

Details on employee training and the new-hire induction process may be found in the "General HSE training" paragraph in paragraph 2.6.3.2 of this chapter. Environmental training totalled 19,029 hours [1] in 2016, or an average of 6.3 hours per employee per year. In all, 3,012 employees, or 18% of the Group headcount, attended at least one environment-related course during the year (excluding e-learning) [1].

Management engagement

Initiatives underway to reduce the environmental footprint are extensively reviewed and discussed within the Group:

- each business's entire environmental footprint, including its energy footprint, is annually reviewed in individual meetings with the business's managing director and industrial Vice-President(s) and the Group Safety and Environment and Sustainable Development Vice-Presidents. During this process, the managers concerned are assigned an environmental target for the following year. This target is a criterion for their annual performance review and compensation;
- the Group's annual environmental and energy reports presenting results for the reporting and prior years, along with historical environmental footprint data (excluding energy) for the trailing six years, are issued to all the departments concerned. These reports track the initiatives that helped to improve the Group's environmental performance. In 2016, for example, 126 initiatives were highlighted. They covered the full range of environmental-related topics, including water withdrawals, the reduction in water effluent releases, GHG and COV emissions, soil contamination and waste production; and
- each year, the Group Safety and Environment Vice-President and the Sustainable Development Vice-President provide the Executive Committee with overviews of, respectively, the Group's environmental performance and the progress made in the key indicators towards the 2025 targets.

In addition to internally tracking the improvement plans deployed in each entity, the Group ensures alignment among the environmental management systems through an outside certification process.

A certified environmental management system

The Group deploys environmental management systems in its production plants, most of which have also earned environmental certification in accordance with the ISO 14001 standard. Depending on local conditions, certain facilities have been certified to other standards, such as the Responsible Care® Management System (RCMS) in the United States.

	2016	2015	2014*
% of facilities ISO 14001 or RCMS-certified	52	62	70

** Excluding Bostik.*

The decline since 2014 reflects both changes in the scope of consolidation and readjustments to the plants' certification needs.

The ISO 14001 or, in the United States, RCMS certification systems, require each production facility to identify its environmental impact in terms of water, air (including greenhouse gas emissions), waste, noise, odors, soil, use of resources and logistics flows, and then to define an action plan with priority areas for improvement. Periodic environmental assessments enable the facilities to measure progress and determine new improvement targets.

To harmonize the identification, assessment and analysis of environmental risks, the Group rolled out in 2013 a new methodology, with global application, while a dedicated IT system was deployed in Europe, the United States and Asia in 2016.

This process is being supported on every site by environmental audits performed by the Internal Audit department, AIMS audits conducted by the Group Safety and Environment department and certifications by third-party accreditation bodies, depending on the country.

Environmental declaration

The Group's statement concerning its environmental indicators is based on the principles of relevance, representativeness and consistency. The methodology applied is described in section 2.8 of this chapter.

(1) In entities at least 50%-owned and employing more than 30 people.

2.4.2 Resources

Reducing the environmental impact of the Group industrial sites consists of optimizing their use of raw materials, energy and natural resources like water. New manufacturing units are designed to incorporate environmental footprint considerations into the choice of processes and equipment. Special attention is also paid to operating conditions and maintenance and development investments are regularly undertaken to reduce the Group plant's use of water, energy and raw materials.

2.4.2.1 RAW MATERIAL CONSUMPTION

The Group wants to contribute to optimizing the consumption of non-renewable raw materials used in its manufacturing process with the primary goal of reducing their use by deploying process control initiatives and developing best operating practices. These initiatives are described in more detail in section 1.6 of this document.

In addition, to optimize its own and its customers' raw materials use, the Group undertakes, independently or in partnership with suppliers, such programs as recycling the reaction solvents used in its production processes. It also offers customers other recycling solutions and deploys circular economy initiatives that are described in paragraph 2.4.5.2 of this chapter.

Lastly, the Group is expanding the use of renewable and especially bio-based raw materials in its products. The Group resulting products are presented in section 1.4.4.2 of this document. This ongoing commitment was demonstrated in 2016 by the fact that products at least 20% made from renewable raw materials accounted for around 10% of Group sales. The decline compared to the 13% reported in 2014 was mainly due to the consolidation of Bostik in 2015 and the disposal of the activated carbon and filter aids business in 2016.

2.4.2.2 ENERGY CONSUMPTION

The Group uses a variety of energy sources, primarily in its industrial operations. To optimize energy consumption, the Group set the following target:

2025 TARGET

Reduce net energy purchases by 15% in EFPI terms by 2025, corresponding to an average reduction of 1.5% a year over the 2012-2020 period and of 1% a year through 2025.

To this end, the Group is rolling out the Arkenergy program in every subsidiary through a global network of Energy Leaders in the Business Lines, facilities and relevant Procurement and Technical departments. It focuses on optimizing the energies used in the production facilities and processes, which account for 98% of consolidated energy consumption. Moreover, Arkenergy is structured to meet the following priorities:

- continuously optimize energy use and cost, from equipment design and procurement to day-to-day on-site operations;
- deploy an energy management system to systematically embed best operational practices, define site-specific targets and periodically review them; and
- ensure compliance with energy efficiency legislation, regulations and other applicable standards.

As well as improving energy efficiency, the program is also contributing to reinforce the production plants' competitiveness.

The Arkenergy process mainly consists in:

- rolling out energy efficiency audits worldwide, focusing on the facilities with the highest net energy purchases. To date, a total of 75 energy efficiency audits (including 14 in 2016) have been initiated or performed, of which 54 in Europe, 19 in North America and two in China. The audited plants account for 82% of total consolidated energy consumption;
- implementing the ISO 50001 energy management system in Europe and Asia. By the end of 2016, 21 plants had been ISO 50001-certified, of which one in the Americas; and
- allocating a dedicated capital expenditure budget specifically for Arkenergy initiatives. In 2016, 51 investments were funded out of the budget, including 31 in Europe, nine in the Americas, 10 in Asia and one in Africa.

FOCUS: AN ARKENERGY SUCCESS

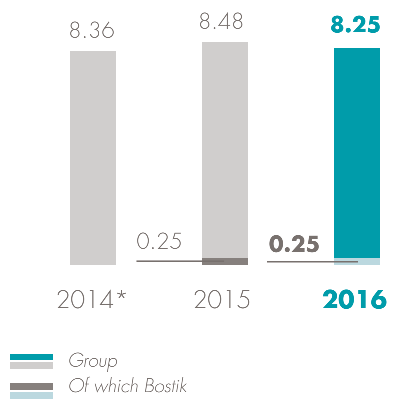
Thanks to an investment in process control, the distillation unit at the plant in La Chambre, France significantly reduced its annual steam consumption, by the equivalent in MWh of the electricity used every year by around 800 households.

Absolute indicator for energy purchases

The chart hereafter presents consolidated net energy purchases in 2016, 2015 and 2014, calculated in terawatt-hours according to the methodology described in section 2.8 of this document.

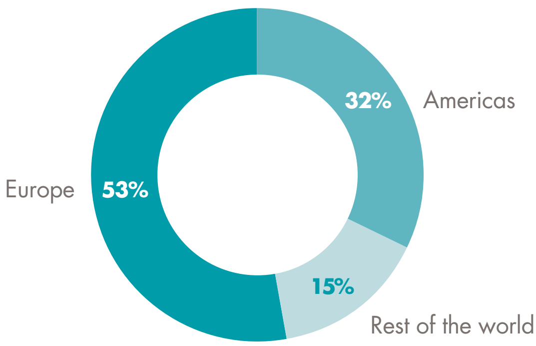
NET ENERGY PURCHASES

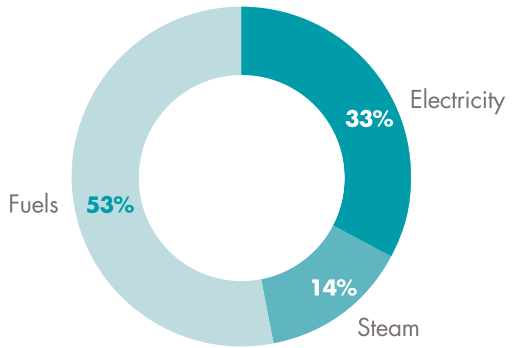
(In TWh)



** Excluding Bostik.*

Net energy purchases by region and by type of energy break down as follows:





91% of the terawatt-hours generated by fuel were natural gas-fired.

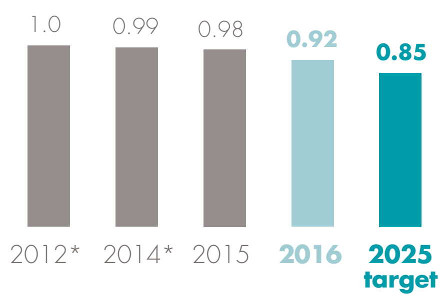
17% of the net terawatt-hours purchased by the Group, regardless of source, were from low-carbon electricity.

Intensive indicator for energy purchases

The chart below presents the net energy purchases EFPI for the Group's operations in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this document. Net energy purchases are calculated using the Group's biggest net energy purchasing entities, which account for more than 80% of the consolidated total.

The indicator showed significant improvement in 2016, demonstrating the effectiveness of the investments made as part of the Arkenergy project, which in some cases have only made a full-year contribution since 2016. The energy performance of Group installations was also considerably improved by the high utilization rates in the production units and a favorable product mix.

NET ENERGY PURCHASES EFPI



** Data prior to 2015 exclude Bostik.*

2.4.2.3 WATER USE

Water is used in the Group's industrial operations to:

- provide a reaction medium for certain production processes, cool production installations and clean products and equipment;
- generate steam; and
- operate hydraulic barriers to treat groundwater contaminated by legacy pollution on historical sites.

To contribute to optimizing the use of fresh water, whether withdrawn from the surface or the ground table, the Group is upgrading production practices by installing water-saving systems and closed loops. These initiatives can cover a wide range of solutions, such as tracking usage more effectively, installing flow meters, deploying leak detection programs, changing technologies, upgrading fire-fighting systems, recovering rainwater and recycling water from scrubbing or boiler condensates.

In 2016, as part of the operational excellence program, the Group launched the "Optim'O" project to improve/optimize its production units' water management. The analyses carried out as part of this project found that:

- 80% of water withdrawn from the natural environment is returned as surface water; and
- 90% of consolidated water use is attributable to some 35 plants, none of which are located in a water-stressed region.

A water management program will be gradually rolled out at the 19 facilities located in water-stressed areas, depending on their criticality. These facilities represent less than 2% of total consolidated water use.

The chart below presents consolidated water withdrawals in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this chapter.

Water use	2016	2015	2014*
Total water withdrawn *(in millions of cu. m)*	126	124	120

* *Excluding Bostik.*

The slight increase in water withdrawals in 2016 was attributable to improvements in the reporting and mapping processes as part of the "Optim'O" water project.

2.4.3 Land and biodiversity

The Group wants to limit its land footprint and use as well as its impact on biodiversity.

2.4.3.1 MANAGING LEGACY POLLUTION AND PROTECTING THE SOIL

The Group responsibly manages soil and groundwater contamination caused by legacy pollution, including the storage of waste from operating facilities that have been operated, sold or acquired. The Group's environmental responsibility is managed to ensure control of health risks and protection of the environment over the long term, with an appropriate allocation of funds.

In addition, the Group implements prevention policies at all of the operating facilities, with mechanical integrity programs, dedicated incident reporting systems and experience sharing. When soil or groundwater contamination is suspected at a facility, an inquiry is conducted to determine the extent of the area concerned and ascertain the impact. The Group cooperates with authorities to define the appropriate management response, in line with applicable legislation.

A wide range of remediation programs are also being led, using new techniques.

FOCUS

Success of the pilot *in situ* groundwater remediation facility using permeable reactive barrier technology at the Mont plant in France.

Four years after a pilot facility was built to develop a permeable reactive barrier to remediate groundwater contaminated by chlorinated solvents, the technology has been recognized as reliable and effective. It has now been deployed in all of the contaminated areas.

Brownfield redevelopment

To redevelop certain brownfield sites, the Group is partnering with local officials, academics and specialized companies. They use these brownfield sites either for biomass production projects or for the installation of photovoltaic panel projects.

Provisions for the management of legacy pollution

The amount of provisions for environmental risk at 31 December 2016 may be found in note 20.3 to the consolidated financial statements, in paragraph 4.3.3 of this document.

2.4.3.2 BIODIVERSITY

Measures to protect flora, fauna and biodiversity in general

Preserving biodiversity primarily means protecting all of the flora and fauna species liable to be impacted by emissions from the Group's operations.

The initiatives underway are therefore designed to reduce each plant's releases into the surrounding water, soil and air. Periodic environmental assessments enable the facilities to identify their environmental impact and the species liable to be affected, define priority objectives for their environmental protection action plans, and measure the improvements. Additionally, new manufacturing units are designed to incorporate environmental footprint considerations into the choice of processes and equipment.

In this way, the compliance and other initiatives being led by the Group have enabled:

- a reduction in chemical oxygen demand (COD) in the effluent discharged into rivers, thereby preserving the dissolved oxygen that is essential to all aquatic life;
- a reduction in the amount of volatile organic compounds (VOC) released into the air, thereby limiting the formation of ground-level ozone, a super-oxidant harmful to flora and fauna;
- a reduction in SO_2 and NOx emissions, thereby helping to prevent the formation of acid rain which, in addition to its direct impact on plant life, can also alter soil characteristics; and
- the pursuit of soil remediation projects at sites with long-standing industrial operations, as described in the preceding paragraph, so as to protect all of the species that depend on their land or groundwater.

Measures to develop biodiversity

Despite occupying only a limited amount of land, the Group is leading a number of initiatives to help enhance biodiversity on sites where part of the land is not allocated to industrial operations. One of the purposes is to encourage revegetation and the development of local species on and around the sites.

The Group promotes certain initiatives to improve biodiversity around former production units. In Italy, for example, hundreds of olive trees are being tended on the grounds of the Gissi facility, helping to safeguard the surrounding plant and animal ecosystem.

2.4.4 Emissions

The Group is leading an active policy of managing and reducing the impact of its operations on air emissions, effluent releases and waste production.

As part of this process, released substances are identified and their amounts calculated by category, so that appropriate measures can be taken to manage each one, in compliance with host country legislation.

In this way, the manufacturing plants are cutting their releases by optimizing their use of raw materials, energy or natural resources, so that they produce fewer emissions and less waste. Following the findings of the environmental assessments conducted according to the Group methodology, production units are also being constantly improved with process upgrades and the installation of effluent treatment facilities.

2.4.4.1 AIR EMISSIONS

The Group's objective is to minimize its emissions of the most harmful compounds, particularly greenhouse gases (GHG), volatile organic compounds (VOCs), acidifying substances (nitrogen oxides and sulfur dioxide) and dust.

Climate change: direct greenhouse gas emissions

The Group's direct greenhouse gas emissions (Scope 1 GHG) arise from:

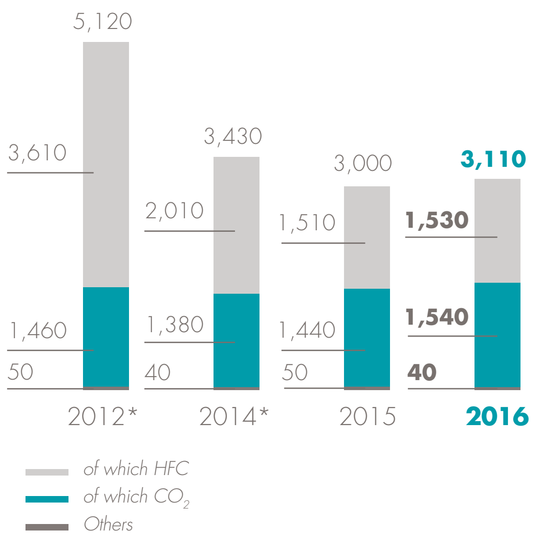
- hydrofluorocarbon (HFC) emissions from its fluorogas production units;
- fugitive emissions from cooling circuits using GHGs;
- the burning of fuel oil and gas in production operations; and
- processes that generate carbon dioxide (CO_2), nitrous oxide (N_2O) or methane (CH_4) as a product, by-product, co-product or waste, and gas discharges from processes such as thermal oxidation, which converts VOCs into CO_2.

Absolute indicator for direct greenhouse gas emissions

The chart below presents direct greenhouse emissions from the Group's operations in 2016, 2015 and 2014, calculated in kilotonnes of carbon dioxide equivalent (kt CO_2 eq.) according to the methodology described in section 2.8 of this chapter.

DIRECT GHG EMISSIONS

(in kt per year)

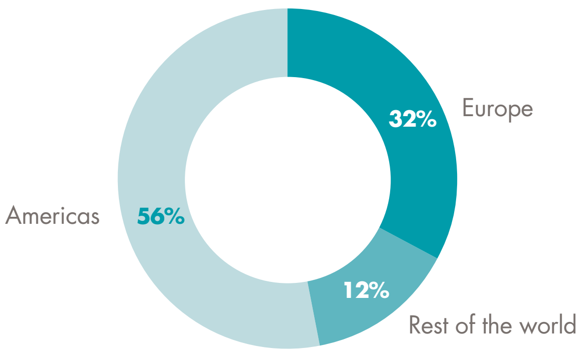


* Data prior to 2015 do not include Bostik.

GHG emissions rose by 3.6% in 2016, as more reliable reporting of emissions from the Taixing plant in Asia and technical difficulties encountered at certain sites led to an increase in reported figures. This increase was partially offset by the continued improvements at the Calvert City plant in the United States and the exclusion of data reported from the activated carbon and filter aids business sold in 2016.

The acquisition of Bostik in 2015 had only a slight impact on these data, because its operations release few greenhouse gases.

Direct GHG emissions, expressed in kilotonnes of carbon dioxide equivalent (kt CO_2 eq.), may be analyzed by region as follows:



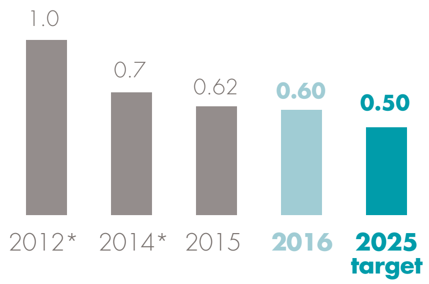
To reduce its impact on global warming, the Group has undertaken a number of actions and deployed effective measures to minimize direct GHG emissions, such as:

- installing emissions scrubbers, notably at the plants in Calvert City, United States, Pierre-Bénite, France, and Changshu, China;
- introducing systematic leak detection programs at the fluorogas production facilities, so as to minimize fugitive emissions; and
- replacing boilers with more efficient installations as part of the Arkenergy program (see paragraph 2.4.2.2 of this chapter).

Intensive indicator for direct greenhouse gas emissions

The chart below presents the direct greenhouse emissions EFPI from the Group's operations in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this chapter. The index base is 1 for 2012. Emissions are calculated using the Group's biggest GHG emitters, which account for more than 80% of the consolidated total.

DIRECT GHG EMISSIONS EFPI



Data prior to 2015 do not include Bostik.

The improvement in this indicator in 2016 was led by the improvements at the Calvert City plant in the United States and the generally good level of production during the year.

2025 TARGET

Reduce GHG emissions, expressed in EFPI terms, by 50% compared with 2012.

Internal carbon price

In 2016, to strengthen its long-term approach, the Group set an internal price for Scope 1 and Scope 2 GHG emissions, expressed in terms of CO_2 equivalent, known as "internal carbon price". It is used to analyze strategic industrial investments and to steer investment decisions under the operational excellence program towards the lowest carbon solutions.

Indirect greenhouse gas emissions

The Group analyzes the following indirect GHG emissions:

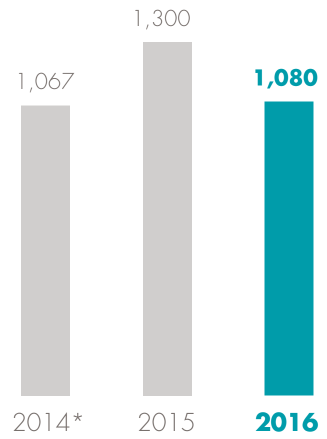
- Scope 2 GHG emissions from the use of purchased electricity and steam; and
- Scope 3 GHG emissions (Category 9) from transport-related activities using chartered vehicles.

The chart below presents the Scope 2 and Scope 3 emissions from the Group's operations in 2016, 2015 and 2014, as defined above and calculated according to the methodology described in section 2.8 of this chapter.

Scope 2 GHG emissions break down as follows:

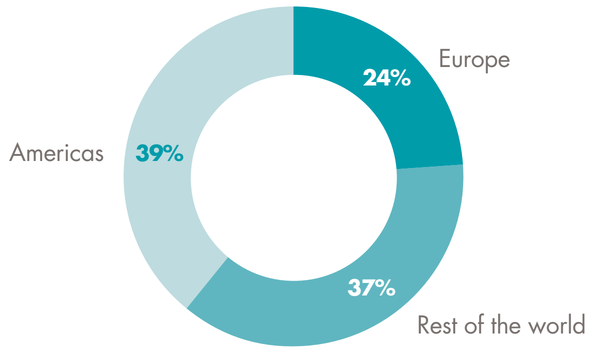
INDIRECT GHG EMISSIONS

(Kt CO_2 eq.)



** Excluding Bostik.*

INDIRECT GHG EMISSIONS BY REGION



The year-on-year reduction in Scope 2 GHG emissions in 2016 was mainly due to the decrease in the Group's net energy purchases and the increase in steam sales by certain plants.

The Group deploys a wide range of actions to reduce Scope 2 emissions as part of both the Arkenergy program (see paragraph 2.4.2.2 of this chapter) and its operational excellence strategy (see section 1.6 of this document).

INITIAL SCOPE 3 EMISSIONS INVENTORY

In 2016, the Group began to inventory its Scope 3 emissions based on 2015 data, in accordance with the GHG Protocol calculation guidance issued by the World Business Council for Sustainable Development (WBCSD). The guidance also supports compliance with French legislation and standards, including the provisions of Law no. 2015-992 of 17 August 2015 concerning the energy transition to drive green growth.

According to the WBCSD, Scope 3 emissions arise from 15 categories of activities across the corporate value chain. This first analysis enabled the Group to benchmark its findings against analyses previously performed by peers. This benchmark shows that the Group's initial Scope 3 inventory is fairly similar to its peers:

- Category 9 – "Downstream transportation and distribution", concerning transport-related activities in chartered vehicles represents the equivalent of nearly 7% of the consolidated Scope 1 emissions. As a result, the Group will continue to report these emissions and to implement its action plans in this area;
- the initial estimates show that emissions in Category 1 – "Purchased goods and services" and Category 12 – "End-of-life treatment of sold products" represent a major source of GHG emissions. They will continue to be inventoried in 2017;
- given their complexity, additional initiatives will be required to inventory emissions in Category 2 – "Capital goods", Category 3 – "Fuel- and energy-related activities not included in Scope 1 or Scope 2", Category 4 – "Upstream transportation and distribution", Category 5 – "Waste generated in operations" and Category 15 – "Investments". Consequently, their data were not reported in 2016; and
- two other categories, Category 6 – "Business travel" and Category 7 –"Employee commuting", each represent less than 2% of the direct Scope 1 emissions in 2015. As relatively minor GHS emission sources, they are therefore not considered as priorities and have not been included in the reporting process. Nevertheless, targeted actions are underway, such as the implementation of business travel guidelines recommending trains rather than planes for short trips or the Company transportation organized by certain plants.

Building on this initial analysis, the Group will improve the data collection process and continue, in 2017, to inventory its Scope 3 emissions in the categories identified as material, with the goal of preparing effective action plans to reduce them.

In early 2017, Scope 3 emissions from Category 9 – "Downstream transportation and distribution" activities were estimated on the basis of the 2016 data at 260 kt of CO_2, plus or minus 15%, according to the methodology described in section 2.8 of this document. As the Group's use of different means of transportation remained relatively unchanged in 2016, the 50 kt or so increase compared with 2015 stemmed from the inclusion of Bostik over the full year, the growth in output and the reporting of more accurate data.

Volatile organic compound (VOC) emissions

Group production facilities are reducing their VOC emissions in several ways, including:

- collecting and treating effluent containing VOCs, particularly with thermal oxidizers or vent scrubbing; and
- conducting regular campaigns to detect and eliminate VOC leaks.

The Group is also reducing its emissions of acidifying substances by:

- firing boilers with low or ultra-low sulfur fuels, or replacing fuel oil with natural gas; and
- installing new low-NO_X burner technologies.

Absolute indicators for air emissions

The indicators in the table below present air emissions from the Group's operations in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this chapter.

Air emissions	2016	2015	2014*
Acidifying substances *(t SO_2 eq.)*	3,570	4,430	4,750
Carbon monoxide (CO) *(t)*	690	1,900	3,030
Volatile organic compounds (VOCs) *(t)*	4,800	5,010	4,600
Dust *(t)*	300	520	430

* *Excluding Bostik.*

The exclusion of the activated carbon and filter aids facilities sold in 2016 led to a reduction in air emissions over the year, in particular in carbon monoxide.

The steady decline in acidifying substances since 2014 attests to the success of the initiatives undertaken by several production plants to significantly reduce their emissions. Several investments were made to upgrade the boilers, either to run on natural gas instead of fuel oil or to equip them with vented emission treatment systems, so that these emissions were significantly reduced. In addition, flare gas burn-off data from the Lacq, France site was reported for the first time in 2016 following the purchase of *OP Systèmes*, the company in charge of these operations.

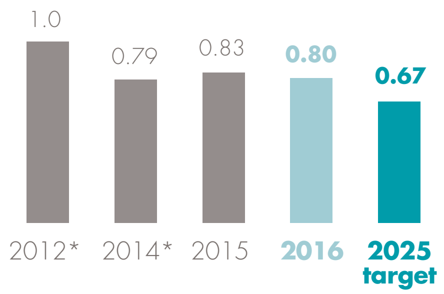
The significant decline in volatile organic compounds (VOCs) resulted from improvements in operating efficiency at certain sites, which partially offset the impact of the more reliable (and therefore higher) data reported from certain Bostik plants.

In addition to the change in the scope of reporting, the temporary shutdown of a facility in China helped to reduce dust emissions.

Intensive indicator for air emissions

The chart below presents the volatile organic compound emissions EFPI from the Group's operations in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this chapter. Emissions are calculated using the Group's biggest VOC emitters, which account for more than 80% of the consolidated total.

VOLATILE ORGANIC COMPOUND EFPI



** Data prior to 2015 exclude Bostik.*

The improvement in this indicator in 2016 was led by the progress made by several plants following the investments made in previous years and the temporary shutdown of a facility in China.

Action plans are being deployed to sustain the improvement dynamic through to 2025.

2025 TARGET

Reduce VOC emissions by 33% compared with 2012.

2.4.4.2 EFFLUENT RELEASES

Reducing effluent and other water discharge is one of the Group's main environmental objectives, with particular attention paid to effluents with high chemical oxygen demand (COD) and/or suspended solids.

The Optim'O project, presented in paragraph 2.4.2.3 of this chapter under its water consumption aspects, is also aiming to reduce the amount of effluent discharged by the Group. It is contributing to:

- continuously optimize water use and the efficiency of the water treatment process, from the initial design of the installations to their daily operation, through the use of advanced technologies and the development of innovative solutions, thanks in particular to the "Water management" innovation platform; and
- ensure compliance with applicable legislation or address forthcoming standards, such as the Best Available Techniques reference documents (BREFs) and the Common Waste Water (CWW) document issued by the European Union.

Absolute indicators for effluent releases

The environmental indicators in the table below present effluent released from the Group's operations in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this chapter.

Effluent releases	2016	2015	2014*
Chemical oxygen demand (COD) *(t O_2)*	2,600	3,200	3,870
Suspended solids *(t)*	770	870	3,030

** Excluding Bostik.*

In recent years, several initiatives have helped to reduce COD emissions from certain plants. In 2016, the Optim'O project helped to strengthen this process through better reporting, targeted investments and better facilities management.

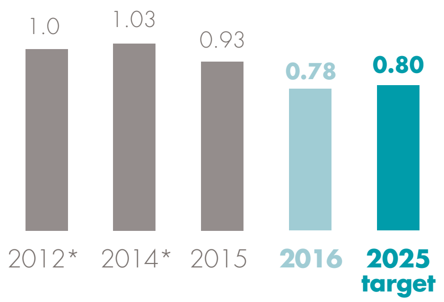
One third of the year-on-year decline in COD in 2016 was attributable to the improvement in reporting, with the product mix and a decrease in output at certain sites also making a contribution.

The significant reduction in the suspended solids indicator primarily reflected process improvements at the Jarrie plant in France.

Intensive indicator for effluent releases

The chart below presents the COD effluent EFPI from the Group's operations in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this chapter. Emissions are calculated using the Group's biggest COD effluent emitters, which account for more than 80% of the consolidated total.

CHEMICAL OXYGEN DEMAND EFPI



** Data prior to 2015 exclude Bostik.*

In 2016, the improved results illustrate the positive influence of the Optim'O project and the factors described in the previous paragraph. As announced in the 2015 reference document, the further deployment of the project in 2017 could possibly lead to a revision of the 2025 target, which remained unchanged when environmental objectives were updated in 2015.

2025 TARGET

Reduce COD emissions, expressed in EFPI terms, by 20% compared with 2012.

2.4.4.3 WASTE

While inherent to its industrial operations, the Group ensures that its waste production is managed at every stage of its business activity and that resource recovery and/or recycling solutions are found whenever possible.

This commitment is reflected in a number of areas:

- reducing waste at source, by designing products and processes that generate as little waste as possible;
- recycling waste in the product value chain, in compliance with the REACH regulation; and
- recovering the energy potential of waste by burning it as fuel, wherever possible.

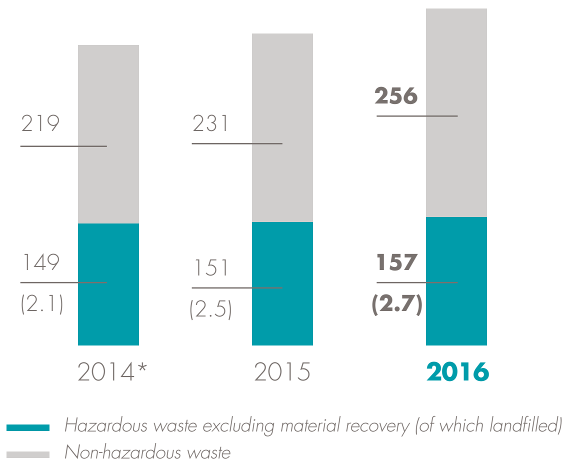
In recent years, the Group has in particular:

- explored new ways to recover and reuse certain types of waste, for example, to replace conventional fuels in boilers;
- recycled cleaning solvents and optimized cleaning cycles; and
- installed filters to reduce sludge volumes.

The following chart shows the amounts of hazardous and non-hazardous waste generated by the Group's operations in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this chapter.

NON-HAZARDOUS AND HAZARDOUS WASTE

(in kt per year)



** Excluding Bostik.*

In 2016, the increase in hazardous and non-hazardous waste was driven by the growth in output at various Group plants around the world. In the case of non-hazardous waste, the year-on-year increase also stemmed from the purchase of a company that, among other activities, treats effluent from the Lacq facility in France. The increase in hazardous waste was partially offset by the decline in output at other plants undergoing scheduled maintenance turnarounds and by more reliable reporting.

The Group's objective is not only to reduce overall waste production, but also to recycle waste or recover its energy potential by burning it as fuel.

The following table shows the amounts of hazardous waste that were either recycled or burned as fuel in 2016, 2015 and 2014, calculated according to the methodology described in section 2.8 of this chapter.

Hazardous waste *(kt per year)*	2016	2015	2014*
Waste recycled into materials	28	26	29
Waste burned as fuel	92	84	79
Total waste (including recycled)	188	177	178

** Excluding Bostik.*

Recovering waste for reuse as fuel is continuing to gain ground across the Group. Accordingly, in 2016, 15% of hazardous waste produced by the Group worldwide was recycled on- or off-site to recover useful materials, and 49% was burned as fuel.

2.4.4.4 OTHER EMISSIONS

Another major focus of the Group's environmental policies is to ease the impact of other pollutants from its operations on people living in nearby communities. Every year, projects are undertaken to attenuate such other pollutions as:

- odors, by upgrading incinerators to cut SO_2 emissions;
- noise, by improving air compressor soundproofing; and
- visual pollution (smoke), by firing boilers with natural gas rather than fuel oil.

The Group has put in place communication systems to alert stakeholders in real-time about any event likely to result in noise, odors, or visual pollution in and around a production site. In addition, most facilities now have a system for receiving and responding to complaints from local residents so that they can address the issues and minimize the nuisances to the extent possible. Complaints are investigated and action plans defined accordingly in liaison with local authorities.

2.4.5 Products and services

The Group strives to optimize its environmental footprint by participating in recycling and circular economy initiatives and assists customers in assessing the environmental performance of its products.

2.4.5.1 LIFE-CYCLE ASSESSMENTS

To assess the environmental performance of certain products and in response to customer requests, life-cycle assessments (LCAs) are used to convert the entire inventory of a product's process material and energy inputs and environmental emissions into environmental impacts. The Group has developed dedicated LCA expertise at its Rhône-Alpes research center in France. It has also set up the global Arkema's LCA Network, which is instilling this LCA culture across the organization, in particular through periodic employee training courses, and endurably embedding it into the Group's CSR process.

The Group is supplying LCA data to certain customers to enable them to assess the environmental footprint of a given product all along its value chain. This particularly concerns the Rilsan®, Rilsamid®, Pebax®, Kynar® and Forane® ranges, as well as Bostik adhesives. Assessments are also performed for acrylic monomers and PMMA through trade associations.

Depending on the type of product, internal experts assess the impacts in such areas as climate change (greenhouse gas emissions), ozone depletion potential, contribution to acidification, and energy, water and land use. Their scope is generally limited to a cradle-to-gate analysis, *i.e.* to production operations and upstream factors.

LCAs are performed in accordance with the recommendations of the International Reference Life Cycle Data System (ILCD) Handbook and the international ISO 14040 and ISO 14044 standards describing the principles and framework for LCAs.

2.4.5.2 RECYCLING AND CIRCULAR ECONOMY PROJECTS

The Group is contributing to preserve non-renewable fossil-based raw materials by reusing the by-products of its industrial processes, supporting the recyclability of its own and its customers' products, and extending the lifespan of customers' products.

Recycling

The Group is developing a number of solutions that are making it easier for customers to recycle their products.

For example, Elium® liquid thermoplastic resins are produced using the same equipment and processes as thermoset composites. Their properties make them easy to recycle, unlike parts made from thermoset resins such as epoxy.

The Group has also developed technologies to protect glass bottles (Kercoat®) and hide scuffs (Opticoat®), which significantly improve the appearance and useful lives of bottles by tripling the number of times returnable beer and other bottles can be reused.

CECA has developed a solution that increases the recycling rate of roadwork scrap. Using Cecabase RT® additives in the asphalt mix increases the aggregate recycling rate by 10% to 15% compared with conventional techniques. These additives also reduce the asphalt mix's workable heating temperature.

Circular economy

The Group markets numerous by-products from the production of its leading products by finding suitable commercial applications linked to their inherent properties.

In addition, the Group is seeking solutions to transform certain types of industrial waste, which otherwise would be discarded, into products that can be used in other industries. In 2015, the Group formed an inter-business working group to step up these efforts and tighten coordination with partners.

In 2016, some 15% of hazardous waste produced worldwide was recycled on- or off-site to recover useful materials.

For example, the Mont facility in France has long marketed the sodium-water produced as part of a monomer purification process to the paper industry for use in the Kraft paper and cardboard production process. The basic, organic-rich water helps to minimize sulfur loss in the process regeneration loops.

At the Hebei Casda Biomaterials Co. Ltd plant in Hengshui, China, the residual sulfuric acid generated by the sebacic acid manufacturing process is neutralized to obtain a sodium sulfate solution, which is then concentrated and crystallized. Instead of discharging the residual acid as waste, the plant now uses the new process to produce 50,000 tonnes a year of solid sodium sulfate for sale.

In another long-standing example, by-products from the conversion of castor oil into undecanoic acid 11 at the Marseille plant have been sold for many years through stable marketing channels.

FOCUS: REVERPLAST

A "Commitment to green growth" was signed in 2016 with the French government to promote a complete recycling chain for PMMA as part of the Reverplast project in France.

Extending the lifespan of customer products

The Group is constantly enhancing the performance over time of both its own and its customers' products.

The Group has developed a range of organic peroxides for crosslinking rubber, which is then used to manufacture automotive and other parts that last longer than their conventional counterparts.

Kynar® coatings are particularly durable in general, and their Aquatec® version, used for reflective roofs (see paragraph 2.5.2 of this chapter), retains a virtually intact white finish maintenance-free for an especially long time.

2.5 INNOVATION INFORMATION

PLACING SOLUTIONS FOR SUSTAINABLE DEVELOPMENT AT THE HEART OF THE GROUP'S APPROACH TO INNOVATION AND PRODUCT RANGE

2.5.1 Managing innovation to support sustainable development

In a fast-changing world characterized by global warming, a rising world population, the increasing difficulty in accessing energy and safe drinking water, and the growing scarcity of certain resources, manufacturing companies like Arkema must constantly innovate and adapt their product range to offer solutions addressing these challenges.

To address these major changes, the Group has structured its innovation strategy around six innovation platforms, described in section 1.4 of this document that are developing and delivering for its customers usable, innovative and environmentally friendly solutions in such areas as bio-based products, new energies, water management, electronics solutions, lightweight materials and design, and home efficiency and insulation.

These six platforms are addressing issues that are of rising interest, as evidenced by the entry into force on 1 January 2016 of the 17 Sustainable Development Goals (SDGs) defined by the United Nations in their "2030 Agenda for Sustainable Development", and to which governments, civil society and companies are being encouraged to contribute.

The Group has identified six SDGs where its expertise and innovation efforts will enable it to offer new solutions and thus to contribute to their achievement. These SDGs are:

- "Ensure sustainable consumption and production patterns" (SDG 12);
- "Ensure access to affordable, reliable, sustainable and modern energy for all" (SDG 7);
- "Ensure availability and sustainable management of water and sanitation for all" (SDG 6);
- "Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation" (SDG 9);
- "Take urgent action to combat climate change and its impacts" (SDG 13); and
- "Make cities inclusive, safe, resilient and sustainable" (SDG 11).

The materiality assessment performed in 2016 and presented in section 2.1 of this chapter confirmed that the development of sustainable, innovative solutions was one of the important aspects of the Group's CSR approach.

FOCUS: 116

Number of patent applications filed by the Group worldwide in 2016, covering innovative solutions that address the Sustainable Development Goals (SDGs) defined by the United Nations in its "2030 Agenda for Sustainable Development". The Group filed 121 patents around the world in 2015 and 128 in 2014 (excluding Bostik). These results confirm the efforts made by the Group in this area, in particular in the fields of bio-based polymers (SDG 12) and solutions for lightweight materials and design (SDG 13).

The Group's ambitious partnership and open-innovation policy is supporting internal R&D efforts, as described in paragraph 1.4.2.3 of this document. The 276 non-disclosure, cooperation and intellectual property agreements signed by Arkema France in 2016 attest to the dynamic in place.

In addition, the Group is developing new processes and upgrading the manufacturing technologies used on its production sites so as to attenuate the environmental risks relating to their operations and reduce their emissions of potential pollutants as well as to optimize their use of energy and raw materials. These initiatives, described in section 1.6 and paragraphs 2.4.2 and 2.4.5 of this document, will also contribute to the achievement of certain of these SDGs.

Information on industrial safety, environmental and climate change risks for the Group may be found in paragraph 1.7.2.3 of this document.

2.5.2 Innovations to address sustainable development challenges

The Group has developed a range of innovative solutions that respond perfectly to six of the UN's sustainable development goals, as shown in the examples described below.

"Ensure sustainable consumption and production patterns"

The growth in the world's population, the improvement in living standards and the rapid pace of industrialization are all driving the increased use and therefore growing scarcity of the planet's fossil raw materials.

By developing products using renewable raw materials within its "Bio-based products" innovation platform, the Group is helping to preserve non-renewable fossil materials and to introduce eco-design solutions with optimized environmental footprints, for example through recycling or as part of the circular economy (see paragraph 2.4.5.2 of this chapter).

The Group's ongoing commitment was demonstrated in 2016 by the fact that products at least 20% made from renewable raw materials accounted for around 10% of Group sales. These products are described in paragraph 1.4.4.2 of this document. The decline compared to the 13% reported in 2014 was mainly due to the consolidation of Bostik in 2015 and the disposal of the activated carbon and filter aids business in 2016.

Leveraging their more than 60 years of expertise, the Group's R&D teams will continue their efforts in this field to further expand the range of solutions offered.

The Group is also striving to reduce its own use of raw materials, particularly petrochemical feedstock, as part of the continuous improvement in its production processes (see paragraph 2.4.2.1 of this chapter).

"Ensure access to affordable, reliable, sustainable and modern energy for all"

New energies are one of the Group's important research areas. By offering innovative solutions in this area, the Group is helping to preserve the planet's fossil resources and fight against climate change.

With its "New energies" innovation platform, the Group offers innovative new solutions for solar power, photovoltaics, wind power and energy storage, which are described in paragraph 1.4.4.2 of this document.

The Group is very active in photovoltaic panels with its Kynar® PVDF resins. In addition, its new Elium® recyclable thermoplastic resin is being tested for the production of composites to make wind turbine rotor blades.

Lastly, a laboratory operated jointly with Hydro Quebec is working to expand the range of solutions for the battery market beyond Kynar® resins.

"Ensure availability and sustainable management of water and sanitation for all"

An expanding global population and growing urbanization are sharply impacting water demand and tightening access to safe drinking water. Access to high-quality water for everyone is therefore a major challenge. In addition, industrialization is increasing the need for wastewater treatment and driving the emergence of new needs among the Group's customers.

To help prevent the risk of a shortage of water resources, the Group is undertaking, with its "Water management" innovation platform, to develop materials that will make filtration processes more effective, more energy-efficient and less costly. These solutions, detailed in paragraph 1.4.4.2 of this document, include the Rilsan® powders chosen for decades by many cities to coat their drinking water network and wastewater treatment installations and a special grade of Kynar® PVDF resins used in multi-layered drinking water pipes.

In addition, the Group is continuing its efforts to optimize its own water consumption in its production processes. As part of this process, the Group has launched "Optim'O", a program to improve water management. These initiatives and their impacts are described in more detail in paragraph 2.4.2.3 of this chapter.

"Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation"

This SDG addresses the important social challenge of sustainable and inclusive industrialization. Two of its main drivers are technology and innovation, particularly digital technologies and electronics, which will enable manufacturers in the developed world to optimize their production facilities and supply chain. In developing countries, they will help to give equal access to information and knowledge to the more than four billion people living without internet access in these countries. The Group is positioning itself, with the "Electronics solutions" innovation platform, as a player in the upstream part of this chain.

The electronics industry is characterized by strong growth and very short time-to-market cycles for new solutions. With its Technical Polymers range, the Group offers solutions for the smartphone and tablet segments, as described in paragraph 1.2.1.3 of this document.

In addition, an ambitious research project in the area of nano-scale semiconductor etching, housed in the incubator, aims at using the directed self-assembly process, based on ultra-pure block copolymers, where the Group enjoys unique expertise. By enabling the fabrication of even smaller silicon chips, this innovation offers a promising pathway to increasing microprocessor storage capacity, a key factor in the spread of digital technology. These products are described in paragraph 1.4.4.2 of this document.

"Take urgent action to combat climate change and its impacts"

An increasing global population, growing urbanization, rising living standards (with a corresponding increase in the number of cars and air travel) and the faster pace of industrialization in emerging markets all contribute to the gradual global warming of the planet and to climate change. The fight against global warming is therefore a major challenge that mobilizes the entire international community.

To actively participate in this fight, the Group is developing, within its "Lightweight materials and design" innovation platform, solutions that reduce vehicle weight and thereby their fuel consumption. In doing so, they are helping to limit carbon emissions in the transportation industry. These products include the Altuglas® ShieldUp nanostructured PMMA sheet that replaces glass in automobile windows, the Rilsan® HT polyamide 11 and, more recently, the Kepstan® PEKK to substitute metal, and thermoplastic composites such as the Elium® resin. In addition, Bostik adhesives and the Platamid® offer automotive and aerospace manufacturers lightweight bonding solutions for materials assembly.

For example, in the case of cars, the use of Altuglas® ShieldUp roofs can reduce fuel consumption by 0.4 liters and reduce CO_2 emissions by seven kilograms per 100 kilometers traveled.

Assuming that 100,000 vehicles driving 20,000 kilometers a year were equipped with this innovation, CO_2 emissions would be reduced by 140,000 tonnes a year.

The Group's lightweight materials solutions are presented in detail in paragraph 1.4.4.2 of this document.

In addition, within the Fluorogases Business Line, the Group is developing chemicals with low global warming potential (GWP), in particular low-GWP HFO refrigerants with zero ozone-depletion potential (ODP) (see paragraph 1.2.2.3 of this document).

"Make cities and human settlements inclusive, safe, resilient and sustainable"

With growing urbanization, access to high-quality, sustainable housing is becoming increasingly problematic. The "Home efficiency and insulation" innovation platform offers solutions that insulate buildings more effectively, which in turn improves the energy efficiency of their air-conditioning systems. These innovations are also helping to fight against global warming.

One of them is the Kynar Aquatec® PVDF resin, a water-based formulation for the white paint on reflecting roofs, whose use reduces a building's energy consumption in high-sunlight regions by 20%, or 20 kilowatt-hours per square meter a year. For ten buildings with a roof area of 15,000 square meters, this would represent a total reduction of 1,500 tonnes of CO_2 a year, assuming an emission coefficient of 0.5 tonnes of CO_2 per 1,000 kilowatt-hours.

In addition to addressing these energy efficiency challenges, the Group is also participating in the development of solutions that reduce a home's environmental footprint and make it healthier and more comfortable for residents. In particular, these solutions are being tested in the Smart House by Arkema, a world-unique laboratory-house for sustainable construction.

The Group's home efficiency and insulation initiatives and solutions are described in more detail in paragraph 1.4.4.2 of this document.

2.5.3 R&D organization and outcomes

R&D organization and outcomes are described in section 1.4 of this document. The key R&D indicators are presented in the table of CSR indicators in paragraph 2.8.3 of this chapter.

To develop the technologies of the future and invent new products, the Group is innovating directly with its ecosystem in a seamless, interconnected way. Initiatives undertaken as part of partnerships and open innovation are described in paragraph 1.4.2.3 of this document.

2.6 SOCIAL INFORMATION

PROMOTING THE INDIVIDUAL AND COLLECTIVE DEVELOPMENT OF ALL ITS EMPLOYEES

2.6.1 Social management

The Group's success is deeply linked to its 19,637 employees in some 50 countries around the globe, who each contribute to its development and performance. The Group is benefiting from a strong corporate culture, rooted in the four core values of simplicity, solidarity, performance and accountability.

The Group's human resources policies are designed to encourage employee development by providing career opportunities within an innovative, global company, and to attract and retain the best talent. This implies an environment offering good working conditions and guaranteeing fair treatment in every circumstance.

These policies cover both personal development initiatives and programs focused on the workplace environment as follows:

- personal development initiatives concern hiring, training and career development, with the aim of improving each employee's skills and capabilities. Career management policies help to build career paths that enhance the expertise of employees and, by extension, the entire Group. They are supported by training programs that provide the knowledge and practices required to take up a new position or acquire new job skills. Employee development is also being encouraged by a policy of proper recognition and fair compensation, regularly benchmarked against peer groups; and
- programs focused on working conditions that are designed to drive continuous improvement. They include initiates to improve the working environment and preserve employee health and safety. They are also designed to foster positive employee relations, by paying close attention to employee feedback, maintaining social dialogue and broadening the diversity of national origins, profiles and educational backgrounds among employees.

Based on the materiality assessment carried out in 2016 (see paragraph 2.1.2 of this chapter), the Group has decided to reinforce the employee relations aspects of its CSR process with two new targets focused on diversity.

2025 TARGETS

- 23% to 25% of senior management and executive positions to be held by women; and
- 42% to 45% of senior management and executive positions to be held by non-French nationals.

The Group ensures that it consistently complies with the constitutional texts, treaties, conventions, laws and regulations in force in the countries and regions in which it operates, as detailed in paragraph 2.7.3 of this chapter.

2.6.2 Employment

Through its human resources policies, the Group endeavors to offer its employees varied career paths and opportunities, in particular by encouraging transfers among subsidiaries and businesses and by developing their capabilities.

The Group supports the personal development of every employee, provides opportunities for promotion and transfer and is actively broadening the diversity of its teams.

2.6.2.1 TOTAL HEADCOUNT AND EMPLOYEES BY REGION, GENDER AND AGE

Data in this section concern all of the companies that are more than 50%-owned by the Group. They describe how the workforce breaks down by various criteria and how the Group manages its human capital.

Every reporting company considers as an employee, any person hired under an employment contract. The number of employees, which does not include interns or temporary workers, is calculated on a headcount basis, regardless of working hours.

For further details on the methods used to collect and calculate this data and their possible limitations, please see the note on methodology in section 2.8 of this chapter.

TOTAL HEADCOUNT AND BREAKDOWN BY REGION

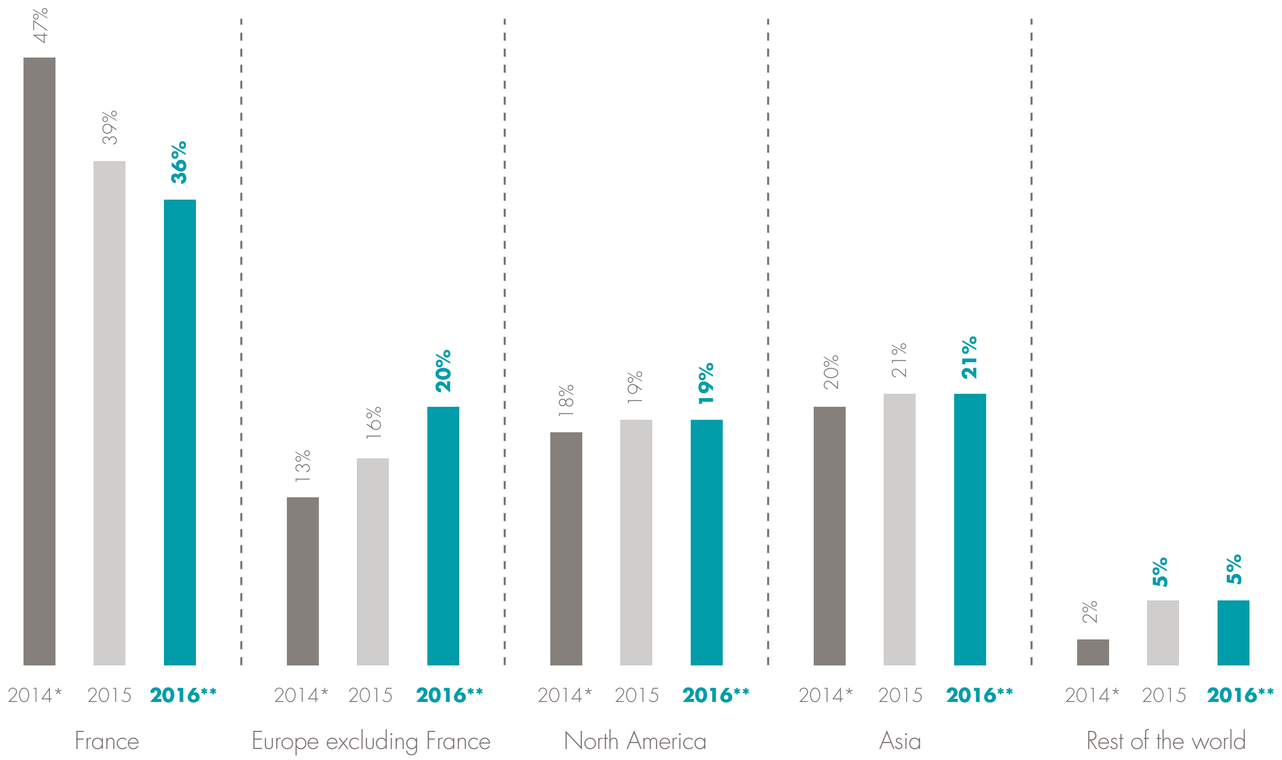
The total workforce over the past three years is the following:

Total headcount	31 December 2016**	31 December 2015	31 December 2014*
GROUP TOTAL	**19,637**	**18,912**	**14,280**
France	7,145	7,282	6,716
Rest of Europe	3,838	3,120	1,839
North America	3,694	3,568	2,609
Asia	4,061	3,979	2,874
Rest of the world	899	963	242
Of which permanent [(1)]	*18,607*	*17,801*	*13,832*
Of which fixed-term	*1,030*	*1,111*	*448*

(1) See the note on methodology in section 2.8 of this chapter.
** Excluding Bostik.*
*** Including Den Braven.*

The number of employees rose by 3.8% from 2015 to 2016. This was primarily due to the net positive impact of the acquisition of Den Braven (+982 employees) and the disposal of the activated carbon and filter aids business (-319 employees).

The consolidation of Den Braven, which has extensive operations in Europe outside France, impacted the breakdown by region. Consequently, the headcount breaks down by region as follows:

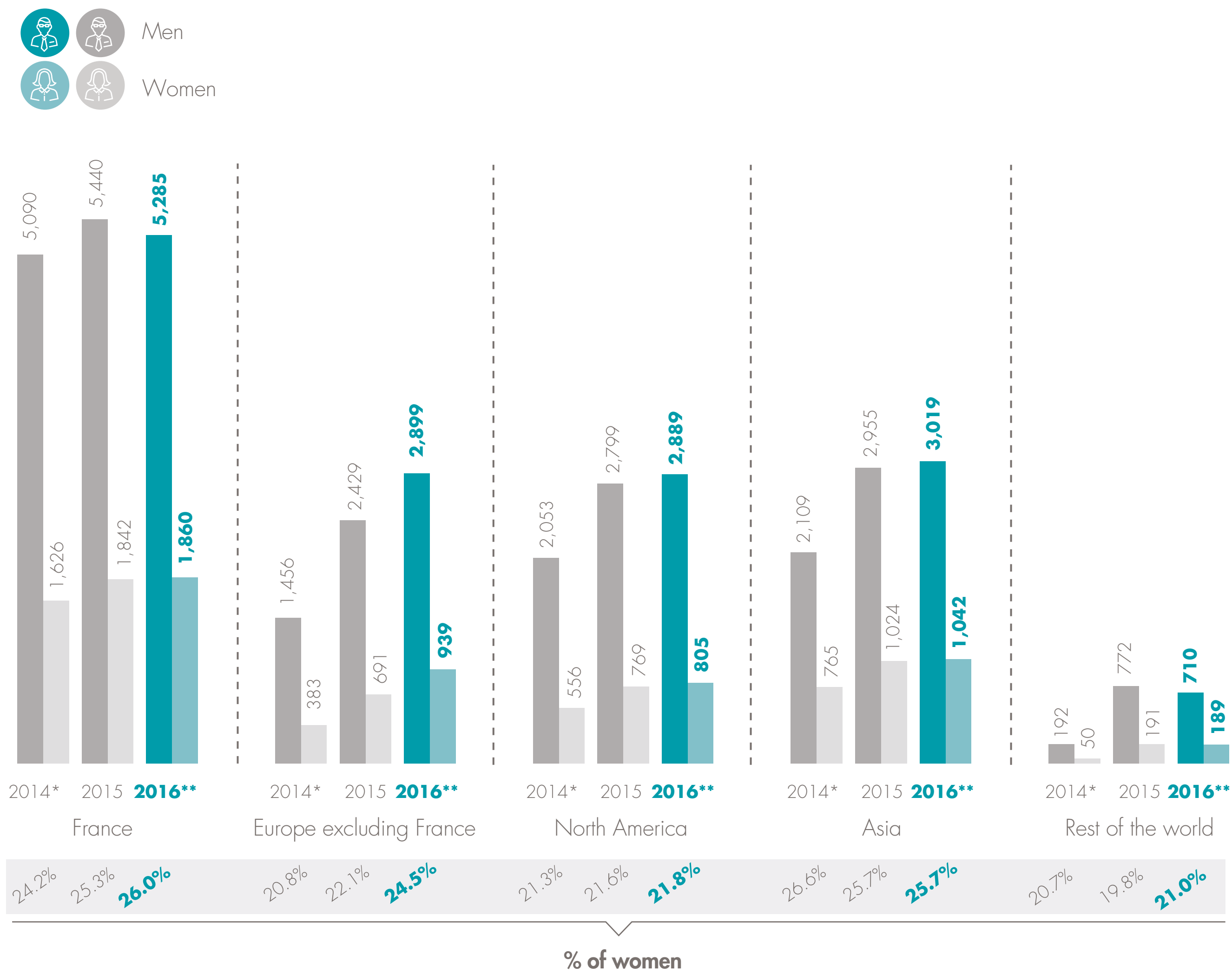


* *Excluding Bostik.*

** *Including Den Braven.*

HEADCOUNT BY REGION AND GENDER

Women represented 24.6% of Group employees. This proportion has been gradually rising in recent years, with a 0.8-point increase in 2016.



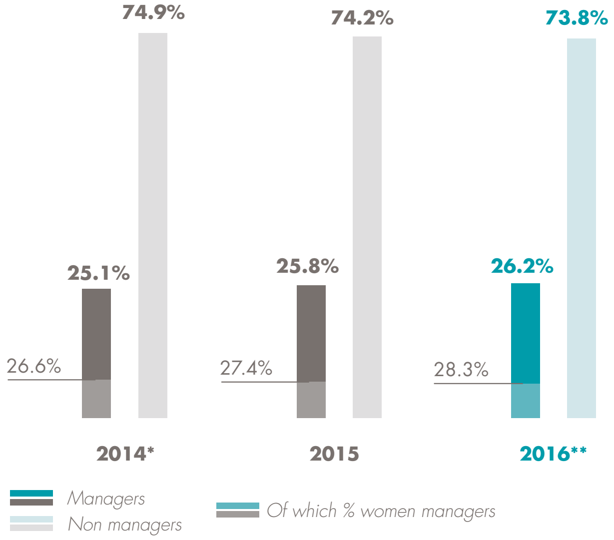
* *Excluding Bostik.*

** *Including Den Braven.*

The fact that the majority of employees are men reflects the high percentage of jobs traditionally held by men in non-managerial positions (supervisors and operators), who account for 73.8% of the workforce. The regions with the lowest proportion of women are North America and Europe (excluding France), particularly Germany where the percentage of working women is traditionally lower.

HEADCOUNT BY CATEGORY AND GENDER

At 31 December 2016, managers accounted for 26.2% of Group employees. The following chart shows the breakdown of the workforce by category over the past three years.



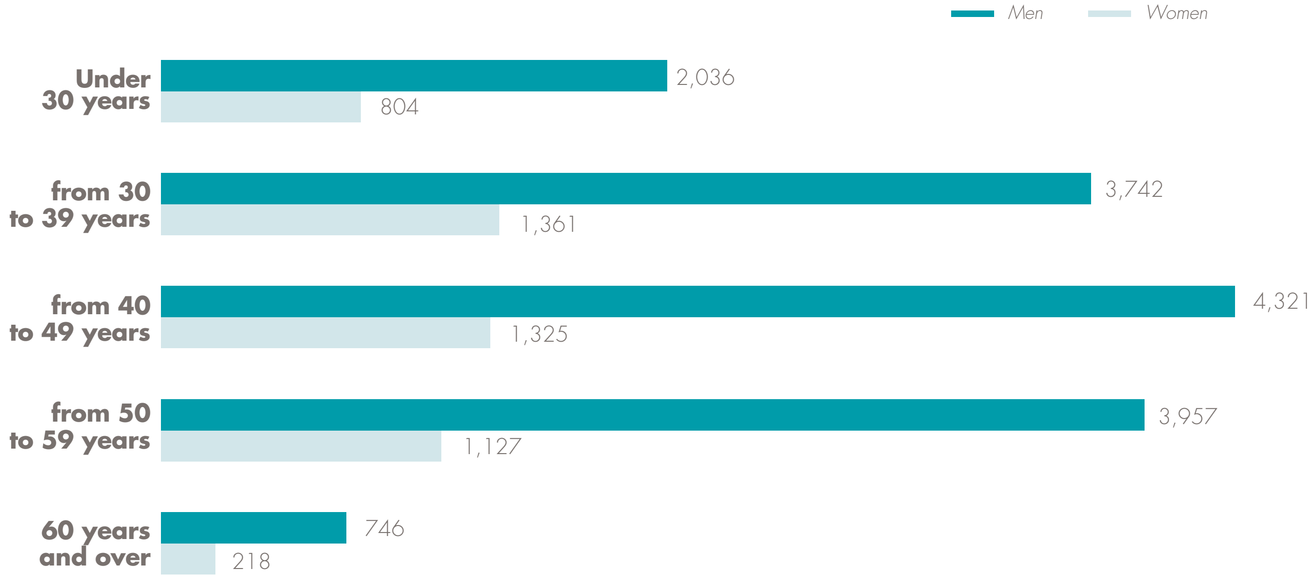
* Excluding Bostik.

** Including Den Braven.

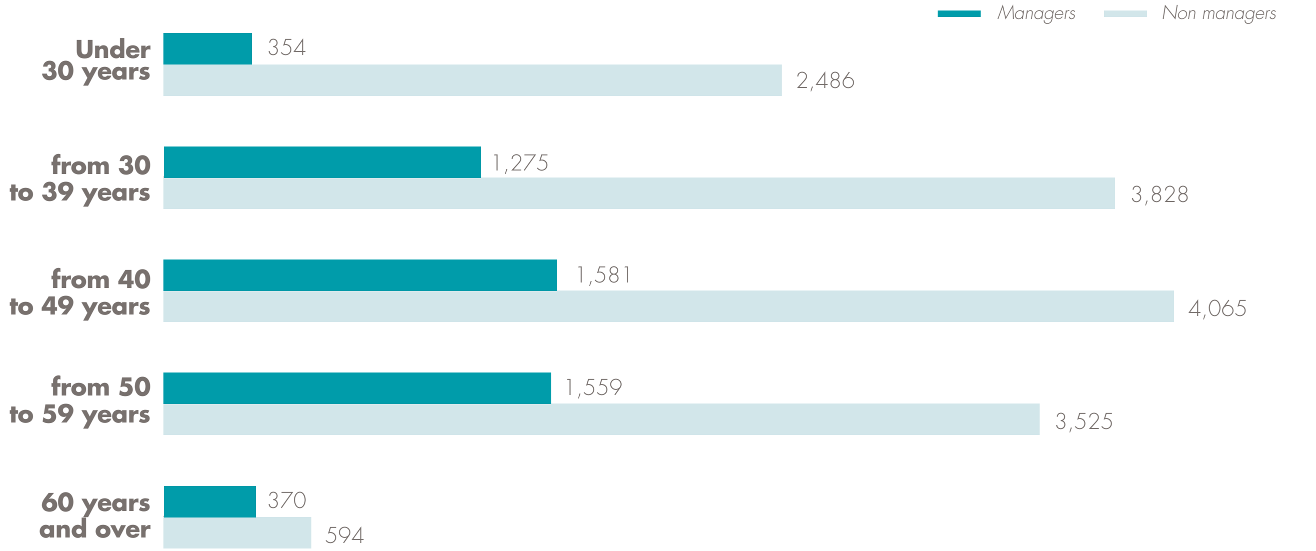
At 26.2%, the percentage of managers rose slightly by 0.4 points compared to 2015, corresponding to an increase of 562 people. Nearly 20% of these people were promoted from within (excluding Den Braven), attesting to the dynamic career development process deployed across the Group.

Women accounted for an average 28.3% of managers, an increase of 0.9 points year-on-year, and 3.7 points higher than the percentage of women in the workforce as a whole (24.6%).

EMPLOYEE AGE PYRAMID BY GENDER



EMPLOYEE AGE PYRAMID BY CATEGORY



These age pyramids are typical of the chemicals industry. The preponderance of employees over 30 reflects the fact that, compared to other industries, both managers and non-managers spend a longer time in professional education and training. This means that the Group can build its growth on well-trained, experienced employees. Human resources policies are also designed to ensure that, over time, this expertise is transferred to a new generation of employees. However, the high proportion of employees over 50 is prompting the Group to address the foreseeable departure of nearly a quarter of its current workforce over the next ten years, by leveraging its hiring and career management policies to gradually replace them.

2.6.2.2 RECRUITMENTS AND DEPARTURES

The Group's recruitment policies are designed to attract talented, highly skilled individuals to support its growth.

In keeping with its founding values of simplicity, solidarity, performance and accountability, the Group attaches a great deal of importance to finding applicants with cultural awareness, teamwork skills, a solutions-driven approach and an entrepreneurial spirit.

A recruitment charter has been issued to help promote the principles of fairness and non-discrimination in the selection of job applicants.

In 2016, the Group revised its employer brand in order to integrate the brand identity of Bostik which was acquired in 2015. The new employer brand has been deployed across the organization through a variety of communications media, with an ample presence on social media so as to reach the broadest possible audience of young graduates and potential applicants. It was supported by a revamp of the careers section of the corporate website, which enhanced existing content concerning the Group's human resources policies and jobs with testimonials from employees based at locations around the world.

Proactively attracting talented young graduates

In order to continuously improve the recruitment and hiring process, the Group nurtures special relationships with the best educational and training institutions for all its professions.

In France

The Group takes part in a large number of school events, such as job forums, presentations and plant tours. These initiatives seek to promote the Group and its professions to the students of general engineering schools (*Mines de Paris, Centrale Paris* and *Polytechnique*), chemical engineering schools (such as ESPCI, *Chimie Paris*, ENSIC and ENSIACET), business schools (particularly HEC, ESSEC and ESCP-Europe), and technical schools in the fields of safety and maintenance.

Each year, the Group offers numerous opportunities for internships, apprenticeships, doctoral research positions and jobs under France's International Volunteers in Business (IVB) program. In 2016, for example, 19 IVB contracts were offered in the United States, Asia and Europe. The Group aims to further broaden these international opportunities by offering students from partner schools the possibility to intern abroad. Final-year internships, IVB contracts and doctoral research projects are managed at the corporate level to monitor the future recruitment pool more effectively.

Another major objective in France is to develop work-study programs, whose participants represent an important source of new hires. The objective is for one-third of positions open to young graduates to be offered or open to people already on a work-study contract with the Group. Students on work-study programs accounted for 3.9% of the workforce in 2016.

In the United States

Arkema Inc. is nurturing close relations with universities whose students can meet the Group's hiring needs. In 2016, for example, a series of meetings was organized between Group researchers and students from MIT, the University of Massachusetts, Cornell University and Pennsylvania State University. In addition, 51 internships were offered during the year. The Group also recently invested in an MBA Rotational Leadership Development program with the goal of recruiting candidates with technical backgrounds who are capable of moving into management positions. The two-year program offers participants experience in a variety of corporate positions.

In China

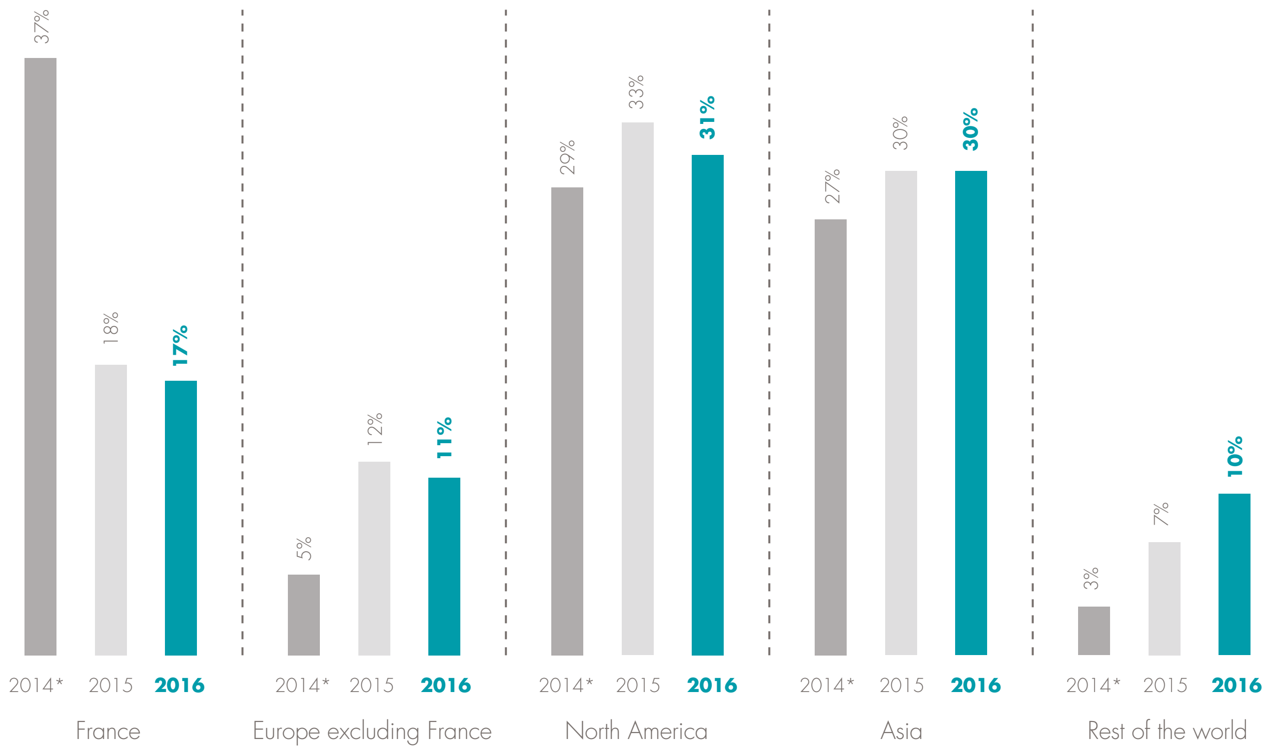
To meet its hiring needs, operations in China are fostering closer relations with selected universities. In 2016, six university visits were organized, with 32 job offers for young graduates. These initiatives attracted 1,350 students and almost as many applications.

RECRUITMENTS UNDER PERMANENT CONTRACTS BY REGION

In 2016, the Group hired 1,694 people under permanent contracts, compared with 1,450 in 2015.

Recruitments under permanent contracts	31 December 2016	31 December 2015	31 December 2014*
GROUP TOTAL	**1,694**	**1,450**	**1,022**
France	295	259	376
Rest of Europe	186	173	47
North America	530	473	293
Asia	511	439	277
Rest of the world	172	106	29

* *Excluding Bostik.*
These data do not include Den Braven.

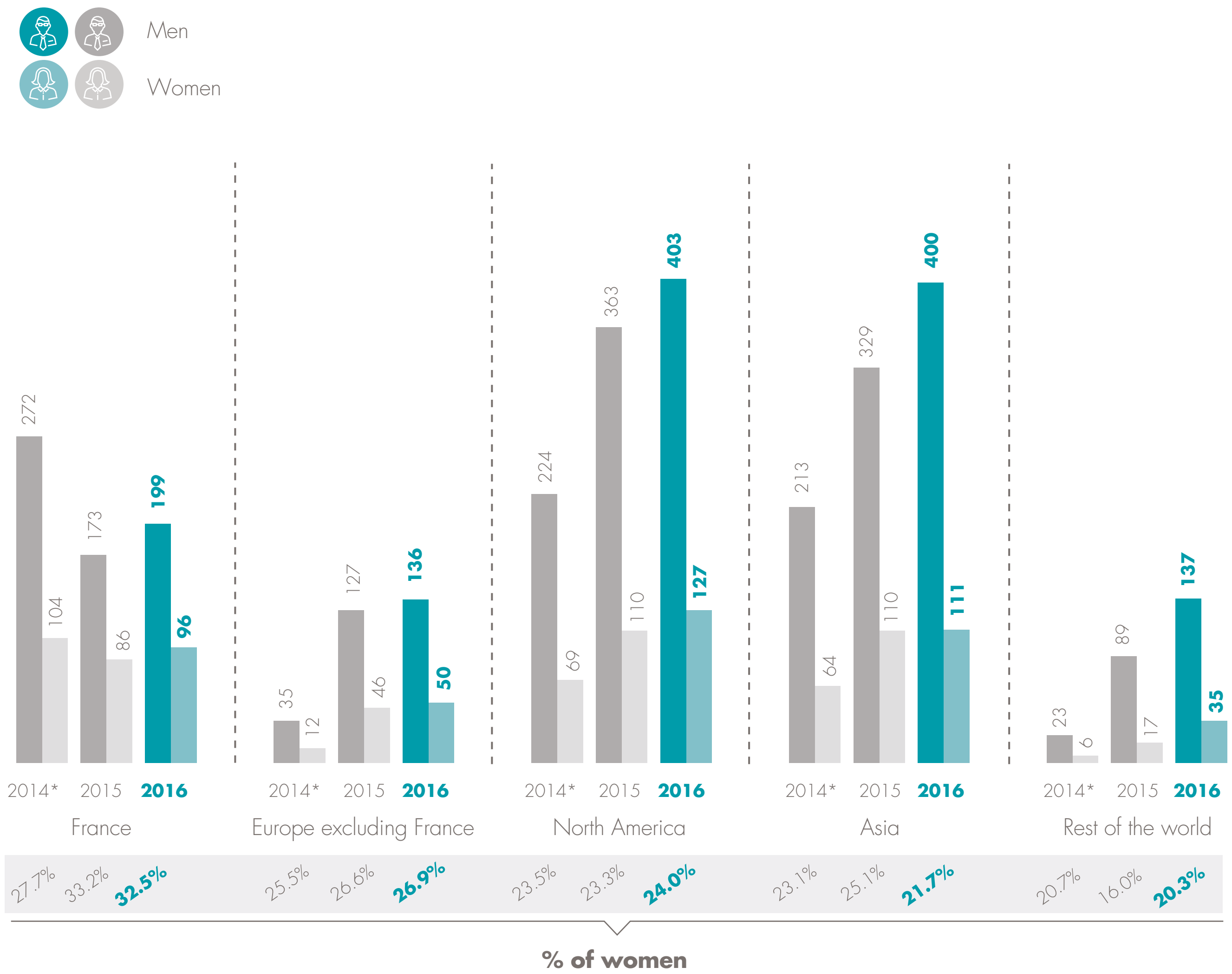


* *Excluding Bostik.*
These data do not include Den Braven.

The geographic distribution of recruitments shows that Asia and North America have been the most active regions in recent years, in line with the Group's expansion in Asia and the higher turnover in both regions.

RECRUITMENTS UNDER PERMANENT CONTRACTS BY REGION AND GENDER

Women accounted for 24.7% of recruitments in 2016. This figure has been about the same for the past three years and corresponds to the percentage of women in the total workforce:

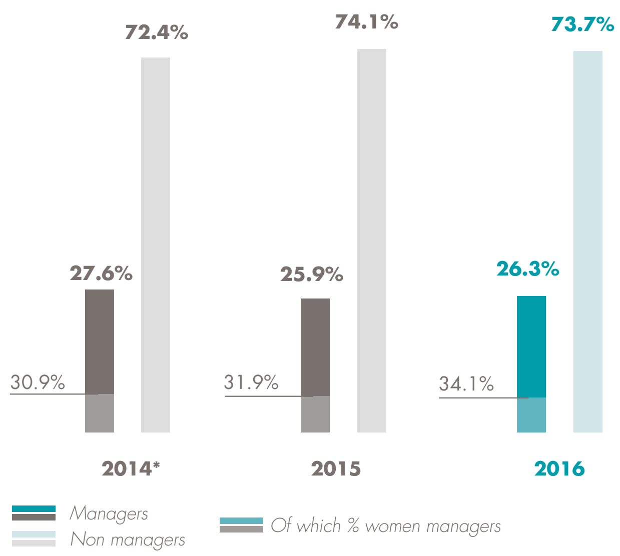


* *Excluding Bostik.*

These data do not include Den Braven.

The chart above shows a relatively even distribution by region, albeit with a higher proportion of women among recruitments in France.

RECRUITMENTS UNDER PERMANENT CONTRACTS BY CATEGORY AND GENDER



* *Excluding Bostik.*

These data do not include Den Braven.

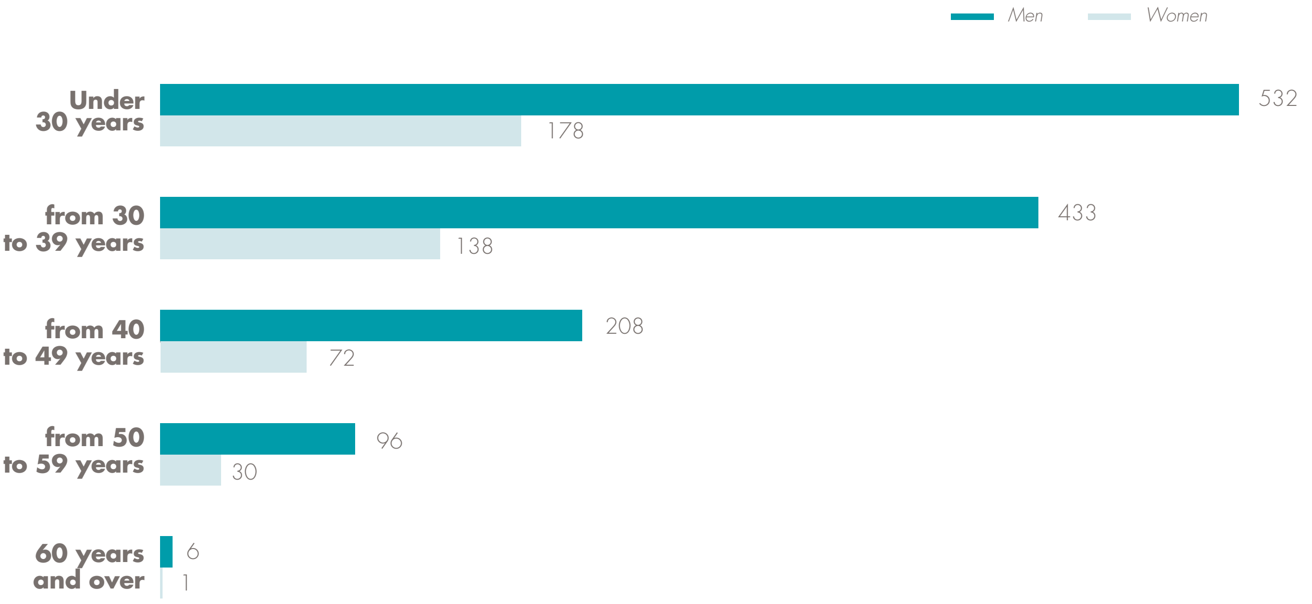
In 2016, 26.3% of recruitments concerned managerial positions, compared with 25.9% in 2015. This corresponds to the proportion of managers in the total workforce (26.2%), thereby ensuring an efficient succession process.

The percentage of women among managerial hires continued to increase in 2016, to 34.1% from 31.9% in 2015. This was significantly higher than the percentage of women hires in general (24.7%). These proportions are in line with the percentage of women among the applicants for Group jobs. The growing proportion of women among new managerial hires also attests to the Group's decision to gradually hire more women across the organization, as described in paragraph 2.6.5.2 of this chapter.

AGE PYRAMID FOR RECRUITMENTS UNDER PERMANENT CONTRACTS BY GENDER IN 2016

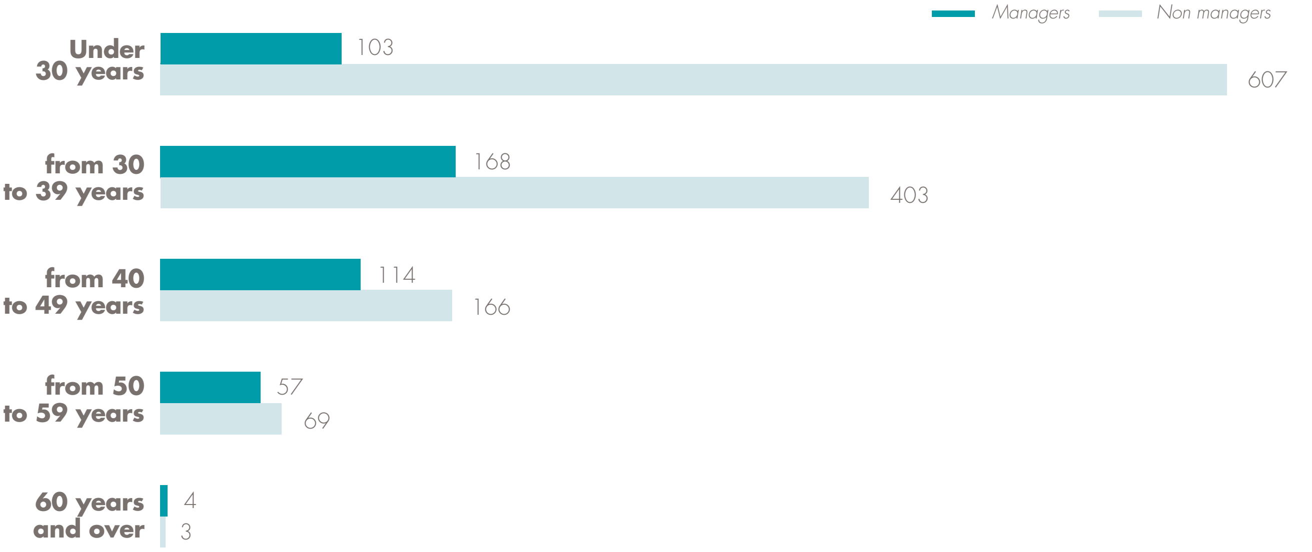
Recruitment practices are designed to provide the skills and expertise that the technical, sales and administrative professions need. The recruitment of people under 40 illustrates the initiatives in place to proactively respond to the wave of departures projected over the next ten years.

Data by gender and category are summarized in the following two charts.



These data do not include Den Braven.

AGE PYRAMID FOR RECRUITMENTS UNDER PERMANENT CONTRACTS BY CATEGORY IN 2016



These data do not include Den Braven.

These two charts show that the proportion of women among new hires under 60 is about 25%, and is therefore independent of age. On the other hand, the proportion of managers among new hires increases with age.

People 50 years old and over account for 7.9% of recruitments and people under 30 years old for 42%.

DEPARTURES

In 2016, the Group recorded 2,023 employee departures, versus 1,914 in 2015, which break down as follows:

	France	Rest of Europe	North America	Asia	Rest of the world	Total
TOTAL DEPARTURES	**544**	**262**	**459**	**491**	**267**	**2,023**
Of which resignations	*52*	*106*	*254*	*395*	*59*	*866*
Of which dismissals	*26*	*55*	*94*	*56*	*197*	*428*
*Of which departures following a divestment**	*253*	*66*	*5*	-	-	*324*

** Disposal of the activated carbon and filter aids business (CECA).*
These data do not include Den Braven.

RESIGNATIONS

The following table shows employee turnover, corresponding to resignations as a percentage of the total headcount, for 2016, 2015 and 2014.

	2016	2015	2014*
Resignations	866	758	379
Turnover (resignations as a percentage of employees under permanent contracts)	*4.7%*	*4.3%*	*2.7%*

** Excluding Bostik.*
These data do not include Den Braven.

Concerning 2016 resignations, turnover by region and global turnover were both within the industry average.

At constant scope, recruitments exceeded dismissals and resignations by 446 people during the year, reflecting the Group's further expansion and active management of its human capital to support its global growth.

2.6.2.3 ORGANIZATION OF WORKING TIME

In every country, the Group implements working times that comply with the relevant statutory and professional requirements.

Employees work full time and, to a lesser extent, part time. At Arkema France, for example, full-time employees work 1,575 hours a year while part-time hours range from 50% to 80% of the full-time equivalent. In the United States, full-time employees work 1,960 hours a year and part-time hours range from 50% to 90% of the full-time equivalent. For the Group overall, part-time employees accounted for 3.8% of the total workforce at 31 December 2016, compared with 3.1% in 2015.

Given the specific features of the Group's industrial operations, some employee categories may work on continuous, discontinuous or semi-continuous shifts.

In response to a sudden demand increase or unusual difficulties, the Group may make use of fixed-term employment contracts, overtime, subcontractors or temporary employment agencies, in compliance with local legislation and depending on the local labor market.

2.6.2.4 ABSENTEEISM

Absenteeism, which includes sickness, accident and maternity leave as well as strikes and unpaid leave, is presented in the following table:

	2016	2015	2014*
Percentage of hours of absence (excluding authorized leave) / number of hours worked	3.7	3.4	3.5

* *Excluding Bostik.*
These data do not include Den Braven.

The following table presents the percentage of hours of medical leave:

	2016	2015	2014*
Percentage of hours of medical leave/number of hours worked	2.6	2.4	2.4

* *Excluding Bostik.*
These data do not include Den Braven.

The absenteeism rate is low, in line with the average 3.5% to 4.5% reported by the global manufacturing industry.

This indicator is often used to measure employee engagement and satisfaction. The Group's good performance attests to the positive impact of the quality of work life improvement programs underway in such areas as optimizing workstation ergonomics, preventing stress, supporting teleworking and improving safety (see paragraph 2.3.2 of this chapter).

2.6.2.5 COMPENSATION AND THEIR EVOLUTION

A key component of the Group's human resources policies, total compensation is designed to recognize and equitably reward each employee's contribution to the Group's success.

The compensation structure comprises a fixed base salary, an individual bonus and a collective bonus, which are applied differently depending on the position and the country. This structure fulfills a number of objectives:

- compensate individual and collective performance;
- enhance each employee's awareness of his or her responsibilities and involve everyone in meeting objectives;
- offer fair compensation consistently across the organization; and
- manage costs.

In addition, the compensation structure is regularly benchmarked.

31% of employees receive some form of individual bonus, whose amount depends on their fulfillment of personal objectives and their contribution to the collective performance of a business, a country organization or the Group. A significant portion of their bonus depends on a safety or other CSR objective.

68% of employees are eligible for some form of collective bonus, which give them a stake in the Group's expansion and financial performance. This is the case for the incentive and profit-sharing schemes in effect in France.

Nearly all employees, *i.e.* 99.2% of the total workforce, are covered by a guaranteed minimum compensation agreement. In the few countries where there is no minimum wage, Group companies regularly perform benchmarking studies and are in line with standard chemical industry practices.

Employees may also receive various forms of long-term or deferred compensation, such as performance shares and employee share ownership plans.

Employee share ownership

Since its 2006 stock market listing, Arkema has encouraged employee share ownership, with plans offered every two years in around 20 countries to enable the purchase of Company shares on preferential terms.

In 2016, Arkema carried out a new share capital increase reserved for employees, the fifth since its stock market listing ten years ago and the first since Bostik employees joined the Group in early 2015. It was offered to employees in 26 countries around the world. The participation rate reached a new record, both in France (67%) and abroad (21%), with an average 40% of employees investing in their company.

As a result, 5.4% of outstanding shares were owned by employees as of 31 December 2016, collectively making them one of the Group's main shareholders.

For more details, please refer to paragraph 5.2.7 of this document.

Performance shares

Performance share plans, which are granted every year by the Board of Directors, concerned close to 1,200 grantees, or around 6% of the workforce, in 2016. The shares were granted to executives and employees who had demonstrated remarkable performance or whom the Group wished to incentivize and involve more closely in its long-term development.

For more information, please refer to section 3.5, paragraph 5.2.6 and note 28 to the consolidated financial statements at 31 December 2016 in paragraph 4.3.3 of this document.

2.6.2.6 PENSION, HEALTH AND WELFARE BENEFITS

In most countries in which the Group operates, employees are covered by mandatory public schemes addressing risks related to death, disability, work incapacity, pensions and healthcare costs.

In addition to this statutory coverage, Group entities in France and abroad are responsible for implementing and updating health, welfare and employee benefit schemes, with a preference for defined contribution plans, in compliance with the approved annual budgets and in line with local requirements and practices. Nearly 94% of Group employees thus receive supplementary life cover and 89% supplementary disability cover.

2.6.3 Training and personal development

The Group is committed to fostering a workplace environment that encourages the personal and professional development of its employees and to offering resources that help them to effectively meet this objective and improve their performance.

Around the world, annual performance reviews provide one-on-one opportunities for employees and managers to set objectives for the coming year and to discuss the employee's desired career path. They also review the training completed over the year, and on that basis, determine the further training needed to improve the employee's expertise and capabilities. Performance reviews are conducted for every employee, regardless of category.

In all, 99% of Group companies conduct annual performance reviews.

In addition to these reviews, meetings with career managers provide an opportunity to review the employee's career path, their expectations and how they could advance their career in other Group professions.

2.6.3.1 TRAINING POLICY

Professional training concerns all employees regardless of their job, level of responsibility or age. It enables everyone to develop or acquire the skills needed to hold a position, move to a new position and fulfill the Group's expectations in terms of technical expertise or management practices. This is why the Group has reaffirmed its desire to provide every employee with access to lifelong learning and continued employability.

Training hours are reported for entities at least 50%-owned and employing more than 30 people, corresponding to 92% of the total workforce.

NUMBER OF TRAINING HOURS (EXCLUDING E-LEARNING)

	2016	2015	2014*
Total number of training hours, Group-wide	464,706	463,065	334,278
Training hours per employee per year	27	27	26
Number of permanent employees having attended at least one course	16,256	17,062	11,534
Percentage of permanent employees having attended at least one course during the year	94.7	99.3	88.9

* *Excluding Bostik.*
These data do not include Den Braven.

The number of training hours has increased over the past three years, reflecting the momentum in the deployment of the Group's training policies.

In 2016, they leveled off somewhat after rising sharply in 2015 when Safety Academy training was rolled out to every employee. In France, the vocational education and training reform that came into effect in 2015 did not have a negative impact on the number of courses offered, despite the removal of compulsory training.

NUMBER OF EMPLOYEES WHO TOOK AN E-LEARNING COURSE

To facilitate access to training, the Group offers e-learning modules, which are easier to use, particularly for courses on safety and corporate subjects. The curriculum currently consists of more than 20 modules in French, English and sometimes Chinese, or else subtitled in German or Italian, depending on the course. One reason for their growing popularity is the ease of enrollment, given that almost every employee has a log-in and access to a computer.

	2016	2015	2014*
Number of employees who took an e-learning course	9,298	8,218	4,442
Percentage of employees having taken at least one e-learning course during the year	54	45	33

** Excluding Bostik.*
These data do not include Den Braven.

E-learning courses continue to grow in popularity, as measured by both the number and percentage of participating employees.

In 2016, the Code of Conduct and Business Ethics training module (described in paragraph 2.7.3 of this chapter) was rolled out around the world, backed by a dedicated employee communication campaign. In early 2017, employees will also be able to sign up for an energy saving awareness module, developed to support the Arkenergy project.

2.6.3.2 SPECIAL PROFESSIONAL TRAINING PROGRAMS FOR EMPLOYEES

The Group's training policies are especially designed to improve employee skills in the areas of safety, health, the environment, its businesses and management.

International initiatives include:

- the Safety Culture process that was deployed in 2016 at Bostik via the Safety Academy module; and
- a further session of the Arkema Executive Program which was organized in 2016 in association with INSEAD. Offered every two years, the program is attended by some forty high-potential managers from a variety of businesses and countries across the Group.

Regional initiatives:

- in December 2016, 32 Asian managers attended a Share Strategic Challenges seminar held in China, enabling them not only to deepen their understanding of Arkema's strategy and projects but also to embrace its changes and challenges; and
- during the year, two programs based on the Arkema Cornell Leadership Program already offered in the United States were introduced in Asia and Europe. Known together as the Arkema Leadership Academy, these courses focus on developing leadership skills for managers, offering a valuable addition to the courses dedicated to the Group's high potentials.

In France, a special initiative has been undertaken in recent years to expand the management training curriculum and to add the following courses to the "Managers' Passport" induction training program:

- managing psychosocial risks and quality of work life;
- working together internationally;
- managing teams remotely;
- communicating one-on-one: realignment meetings, annual performance reviews, job interviews;
- communicating interpersonally; and
- reviewing management practices in accordance with the Arkema Management Way.

2.6.3.3 TALENT MANAGEMENT

One of the cornerstones of the Group's human resources development process, talent management helps to diversify the experience that employees acquire along their career paths, while steadily enhancing their capabilities, which is a fundamental driver of the Group's development.

This process therefore focuses on both:

- ensuring that the Group has the expertise it needs to secure its successful development, today and over the medium-term; and
- helping employees to build their career paths, by enabling them to increase their skills and achieve their objectives, based on the possibilities and opportunities available in the Group.

Employee talent management is led by career managers, whose responsibilities include:

- overseeing talent management at the corporate level for managers in France and grade 15 jobs and higher internationally; and
- working in collaboration with other career managers in each country or facility for administrative, technical and supervisory employees.

Talent management policies are based on the same principles regardless of employee category, country, age or gender, as follows:

- providing each employee the resources and support he or she needs to manage every phase in his or her career;
- leading a proactive promotion-from-within policy;
- identifying and developing high-potentials to encourage acceptance of responsibility and support career development;
- encouraging mobility among subsidiaries and geographies; and
- enabling every employee to move up in the organization and enrich his or her experience and skills, while ensuring organizational flexibility.

In every country, a career development program has been rolled out Group-wide for high-potentials, based on feedback to participants after their self-assessment has been compared with those of their manager and their manager's manager. This system provides input for preparing personalized action and improvement plans involving coaching, new experience and training.

In France

In addition to the recruitment targets for young people and seniors (see paragraph 2.5.1.2 of this chapter), the Provisional Management of Employment and Skills agreement renewed in 2016 for Group companies in France includes measures for recognizing experts through skills/professions charts, in addition to the Hay classification. The agreement also includes specific measures to manage career endings for seniors, such as knowledge transfer, retirement counseling, and the possibility of working 80% of full-time equivalent at 90% of pay for the 24 months preceding retirement.

In the United States

To support the talent management process, human resources teams are using the SAP SuccessFactors software to manage hiring, career development, annual performance reviews, training and performance initiatives for all US employees. The system is now being introduced worldwide to support a holistic, global vision of employee career paths.

In China

In 2015, a talent management leader was appointed and tasked with encouraging the development of employee skills not only in China, but also across all of Asia, in liaison with the country human resources managers.

2.6.3.4 INTERNATIONAL EXPERIENCE

The Group, which mainly operates in Europe, North America and Asia, is actively pursuing an international job mobility policy designed to ensure that it has the skills and capabilities it needs at all its sites, and to broaden employee skills by offering them opportunities to work in different environments.

This policy is being applied through five programs aligned with the different international mobility objectives, as follows.

Expertise

This program enables employees who are contributing to implement strategic Group projects in a country where the requisite skills are not yet available to gradually transfer those capabilities to local employees.

Development

This program concerns employees who are going to take up a position in their area of expertise for a set period (on average three years) in a country where similar capabilities exist locally, with the goal of broadening their skills and returning home with their newly acquired experience.

International

This program is for employees whose career is exclusively international, with no further reference to their country of origin.

Expatriation in Europe

This program enables French employees to work on strategic projects or develop their careers in another European country.

Talent Program

Introduced in 2016, this new program offers an international experience to talented junior employees identified after being hired for an initial position or completing an IVB contract with the Group.

On average, only around 80 employees are working as expatriates, reflecting the Group's priority focus on hiring locally whenever possible, including for executive or high responsibility positions.

2.6.4 Social dialogue

The Group respects the fundamental freedoms of its employees, such as the freedom of association and expression, protects their personal data and respects their privacy, as defined in its Code of Conduct and Business Ethics.

Among the fundamental principles and rights at work, the right to freedom of association and to collective bargaining is a vector of social progress that the Group encourages wherever it operates.

Accordingly, in addition to complying with host country legislation, the Group facilitates employee representation in order to support suitable collective bargaining processes. In countries where the law does not provide for employee representation, specific bodies can be set up locally. A consultation and dialogue structure has been implemented at the European level with the European Works Council.

The social dialogue process and the results of the collective agreements signed within the Group are presented in paragraph 2.6.4.1 of this chapter.

Lastly, the Group strives to develop two-way feedback and consultation with employees, either directly in the form of surveys or via employee representatives.

2.6.4.1 THE SOCIAL DIALOGUE ORGANIZATION

As part of its employee relations policy, the Group fosters ongoing dialogue with employee representatives in every entity, in accordance with local cultural norms and legislation.

The memo describing Group human resources policies also explains the principles for implementing social dialogue, which are in full compliance with the provisions of the Code of Conduct and Business Ethics.

At the European level

The social dialogue body is the 26-member European Works Council, which holds a one-day plenary meeting once a year to discuss issues within its remit, including:

- business issues: market trends, commercial situation, activity level, main strategic priorities, growth outlook and objectives;
- financial issues: review of the consolidated financial statements, annual report and investments;
- labor issues: human resources policy and the employment situation and outlook;
- environmental issues: Group policy and emerging European regulations; and
- organizational issues: significant changes in the Group's organization, developments in the businesses and the creation or termination of operations affecting at least two European Union countries.

In 2016, two plenary sessions were held on 7 and 8 July and 7 October at the Arkema head office.

The European Works Council's liaison office, consisting of 11 members appointed from among the Council's employee representatives, meets yearly with management for updates on the Group's progress. In 2016, it met on 22 March.

In the United States

Employees at unionized facilities are covered by collective bargaining agreements negotiated with local and national trade unions for an average period of three years. They deal with such issues as compensation, the safety of people and processes, and quality of work life.

In China

The first Employee Representatives Congress (ERC) of Arkema China Investment Co. Ltd, the Group's main local subsidiary, was elected in late 2007 and began operations in January 2008. It currently has 34 members. The ERC has a broad remit, ranging from pay negotiations to safety and training. It complements the labor unions already in place at the Group's local production plants.

Around the world, a high percentage of employees were represented by elected bodies or unions in 2016, as shown in the following table.

Percentage of employees represented by elected bodies and/or unions, by region	2016
France	100%
Rest of Europe	90%
North America	78%
Asia	83%
Rest of the world	88%
GROUP TOTAL	**90%**

These data do not include Den Braven.

2.6.4.2 EMPLOYEE RELATIONS WITH REGARD TO THE GROUP'S DEVELOPMENT

The Group acts within the framework of a structured, permanent consultation approach with employee representative bodies that aims to accommodate changes in the Group.

In particular, when a reorganization project is approved and implemented, in-depth discussions are held with the representatives as part of information and consultation procedures, both at corporate level and locally. Moreover, after the project is announced, management is careful to engage with employee representatives for at least three months before implementation begins. Similarly, much attention is paid to responding responsibly to the social impact of these changes. The employee support measures undertaken during a reorganization primarily concern transfer or outplacement opportunities for the employees whose jobs have been eliminated, offered under the best possible conditions and in compliance with national legislation.

For example, ahead of the European Union's ban, effective 1 January 2017, on the use of certain fluorogases in automotive air conditioning systems, in September 2016 Arkema France submitted a plan to shut down the Pierre Bénite plant's production unit for R134a fluorogas, which was specifically banned by the new regulation. The unit will be shut down, with the loss of 38 jobs, and have an organizational impact only as from March 2017. However, the project will not involve a redundancy plan because all of the employees concerned are offered transfers to other Group units.

2.6.4.3 COLLECTIVE AGREEMENTS

Since the Group was founded, its collective bargaining policy has led to the signing of a wide range of agreements in each facility or company.

In France, some agreements are Group-wide and therefore applicable to every Group company in the country, while others have been negotiated only for a given company or facility.

In other countries, collective bargaining procedures are aligned with national employee representation practices and legislation.

Negotiations are designed to raise the social status of employees in correlation with the Group's development and the macroeconomic environment. The main issues negotiated in 2016 concerned total compensation (salaries, health and welfare plans, health insurance, employee savings plans and other employee benefits), employment and skills management, quality of work life, workplace health and safety, workplace equality and diversity, and social dialogue. In France, five major agreements were signed in the subsidiaries or Group-wide during the year.

Collective agreements have a positive impact on working conditions, as illustrated in France by the measures taken in favor of people with disabilities, described in paragraph 2.6.5.3 of this chapter, and the second agreement signed in 2016 concerning workstation ergonomics, described in paragraph 2.3.2.4 of this chapter.

2.6.5 Diversity, equal opportunity and equal treatment

As part of its policy of non-discrimination, workplace equality and diversity, the Group commits to promote the elimination of all forms of discrimination in its operations, encourage diversity as a valuable asset in its global business and hire people solely on the basis of its needs and each applicant's personal qualities, as defined in its Code of Conduct and Business Ethics and its human resources policy memo.

Workplace equality is one of the major priorities of the Group's human resources policy, along with the prevention of discrimination in general. A special attention is given to ensure gender equality in the workplace, facilitate the integration of disabled employees and prevent discrimination on the basis of age or nationality. Initiatives undertaken to encourage workplace equality and deliver measurable results include:

- a program that periodically revises job descriptions to ensure that they are non-discriminatory and consistent across each profession, with a particular focus on accurately describing the related tasks and responsibilities. In addition, the positions, job titles and requisite profiles are reviewed once a year, department by department; and
- recruitment policies based on the sole criterion of suitability for the job. In the United States, for example, Arkema Inc. gives training to people involved in the recruitment and hiring process, provides them with job descriptions and applicant profiles, and remedies any situation where there is a significant underrepresentation of minorities or women in the workforce.

Diversity is an important issue for the Group, as a powerful lever for driving team performance and attracting the finest talent. This is why the Group is also aiming to enhance its employer brand image. It has therefore set two new diversity objectives, as specified in paragraph 2.6.1 of this chapter and described in detail in the following sections.

2.6.5.1 MEASURES TO FOSTER INTERNATIONAL DIVERSITY

In every country and region where the Group operates, it is committed to developing local skills and capabilities, with a preference for hiring locals in every aspect of the business, from shop floor to executive teams. The Group also offers career opportunities abroad. Several expatriation programs have been designed, including the recent "Talent Program" for the most junior employees.

Encouraging the presence of non-French executives was also an important issue identified during the 2016 materiality assessment. The Group has therefore set the following objective for 2025:

2025 TARGET

42% to 45% of senior management and executive positions to be held by non-French nationals.

In 2016, 39% of senior management and executives were non-French nationals.

2.6.5.2 MEASURES TO PROMOTE GENDER EQUALITY

The Group ensures that women enjoy the same career development opportunities as their male counterparts. In recent years, a policy of gender equality and equal pay has been deployed, with initiatives in the following four areas:

- strengthening the principle of non-discrimination in the hiring process;
- ensuring equal pay for equal work;
- encouraging and facilitating career development; and
- encouraging parenting across the organization.

The second diversity objective set for the human capital aspects of the CSR process concerns promoting women to executive positions, where the proportion of women needs to increase. This issue was also identified during the materiality assessment performed in 2016. Since 2015, an action plan has been in place to encourage female talent. Today, 35% of middle managers are women, who therefore represent a promising source for meeting the 2025 target.

2025 TARGET

23% to 25% of senior management and executive positions to be held by women.

In 2016, women accounted for 18% of all senior managers and executives across the Group, compared with 17% in 2015. This figure is consistent with the average 0.5% a year increase required to meet the 2025 target.

In France

In 2015, Arkema France signed an agreement on gender equality and diversity, covering such issues as hiring and induction, compensation and promotions, access to training and work/life balance.

In 2016, the Group strengthened its policy of hiring and promoting women. Practical initiatives were deployed, in particular the expansion of a mentoring program run by senior Group executives to help women move into positions of responsibility.

To lead the entire process, a diversity steering committee comprising business Managing Directors and corporate Vice-Presidents was formed in 2016, with the goal of approving and recommending initiatives to support gender diversity.

In the United States

Arkema Inc. has prepared an action plan supporting workplace equality and equal pay for all employees and job applicants, with similar qualifications, regardless of race, ethnicity, national origin, religion or gender. The plan, which is specific to each facility, is updated every year for the period from 1 June to 31 May. In addition, to encourage diversity in hiring, Arkema Inc. vacancies for outside applicants are posted on job search sites intended to reach veterans, women and the disabled, and mailed to local community organizations that help people in these categories find employment.

2.6.5.3 MEASURES TO PROMOTE THE RECRUITMENT OF PEOPLE WITH DISABILITIES

One of the flagship commitments of the Group's disability policy is to hire and maintain the employability of people with disabilities, through dedicated training programs and workstation modifications. In addition, the Group's recruitment procedures make it possible to offer disabled talents real job opportunities.

The following paragraph describes the measures taken in France that illustrate the approach taken by the Group. For the other regions, similar measures have been implemented taking into account local conditions and legislation.

In France

A third agreement signed by Arkema France with all of the unions and covering the 2014-2016 period has confirmed the Group's commitment to retaining disabled employees and guaranteeing their access to training and career development opportunities, while leading an open hiring and integration policy and expanding partnerships with social enterprises.

The agreement includes the following recruitment targets: raise the percentage of disabled employees to 4.45% of the total, and increase the amount spent on disabled contractor labor by 5%, compared with the 2011-2013 period.

Given that the amount spent on disabled contract labor rose 4.46% in 2014 and by 4.54% in 2015, the Group is expected to have exceeded that target at the end of 2016. Data are available only at the end of the first quarter of the next reporting year.

In addition, actions in favor of the disabled have been pursued and strengthened in the following areas:

- retention: performing a wide variety of workstation ergonomic studies; installing appropriate upgrades; and training occupational health services and correspondents;
- hiring and integration: diversifying methods of approaching the labor market; making the new-hire safety videos and corporate website pages accessible; and expanding the network of disabled employment correspondents;
- increasing the use of social enterprises and work centers: identifying a partner to support the sites in contracting more business with social enterprises; appointing a correspondent in the Procurement department; and expanding local partnerships;
- training: continuing to support "Manufacturing Operator" job certification in partnership with industry peers; and launching a new project to train disabled laboratory technicians; and
- communication and awareness training: continuing to raise employee and manager awareness through local initiatives and corporate information.

2.6.5.4 MEASURES TO HIRE AND RETAIN SENIORS

In France, the issue of recruiting and retaining seniors was included in the 2013 strategic workforce planning (SWP) and intergenerational management agreement signed by two unions.

Under the agreement, which defined "seniors" as people over 50 years old, the Group pledged to undertake initiatives in the following areas:

- a target of having seniors account for 10% of people recruited under permanent contracts;
- retaining senior employees;
- supporting career-endings;
- transitioning to retirement; and
- knowledge transfer.

In 2016, 295 people were recruited under permanent contracts in France, of whom 27 were over 50. This came to 9% of all new recruitments, close to the targeted 10% but down from 12% in 2015.

Changes in French legislation concerning retirement and senior employment resulted in a modification to corresponding employee-related liabilities as described in note 19 to the consolidated financial statements at 31 December 2016 in paragraph 4.3.3 of this document.

2.7 SOCIETAL INFORMATION

ENCOURAGING OPEN DIALOGUE WITH ALL THE GROUP'S STAKEHOLDERS

2.7.1 Societal management

The Group's societal management practices integrate a certain number of international documents and principles. For example, the Group has endorsed the ten principles of the United Nations Global Compact, which concern such issues as respect for human rights, international labor standards, environmental protection and the fight against corruption. The Group's values are also shaped by the principles of the 1948 Universal Declaration of Human Rights and the International Labour Organization and the OECD Guidelines for Multinational Enterprises.

Lastly, the Group complies worldwide with the principles of the International Council of Chemical Associations' (ICCA) Responsible Care® Global Charter, whose declaration of support was signed on 16 November 2006.

All of these principles are expressed in corporate reference documents, such as the Code of Conduct and Business Ethics; the Supplier Code of Conduct; the Health, Safety, Environment and Quality Charter; and the Energy Policy.

In addition to complying with international conventions and host country legislation, the Group is committed to complying with competition rules and to rejecting all forms of corruption and fraud. It also condemns fraud and corruption and works to prevent it in business transactions with its partners.

2.7.2 Institutional initiatives

As a responsible chemicals producer, the Group interacts with public authorities in every country where it operations, in particular to contribute preparing legal and regulatory frameworks favorable to the development of its businesses, in full accordance with its values and social responsibility commitments. As part of this process, it may take part in public debate on issues directly related to its businesses, while maintaining a position of strict political neutrality.

These public initiatives fully comply with the lobbying rules in each host country. For example, the Group has been entered in the European Union Transparency Register and has pledged to comply with the related Code of Conduct. In the same way, it is registered as a lobbyist with the French National Assembly.

The Group is also active in several business federations or associations, such as the French Association of Private Enterprises (AFEP) and the *Cercle de l'industrie* in France, and chemical industry trade associations, such as *Union des industries chimiques* - UIC in France, CEFIC in Europe and the American Chemistry Council in the United States.

Employees in charge of institutional relations are responsible for monitoring public initiatives at the local, national or international level that may impact the Group and, in response, defending or promoting the interests both of the Group and of the chemical industry in general. The priority issues addressed concern business competitiveness, both globally (*i.e.*, at Group level, such issues as taxation, particularly on output, payroll taxes, employment law, regulation in general, etc.) and locally (*i.e.*, at the plant level, such issues as health, safety and environmental legislation, and support for expansion projects and reorganizations), the energy transition (secure access to competitive energy over the long term, energy efficiency, etc.), climate change (carbon markets and prices), and the circular economy. The consolidated budget allocated to institutional relations amounted to around €400,000 in 2016.

In the United States, Arkema Inc. files quarterly activity reports with both houses of Congress, as required under section 5 of the Lobbying Disclosure Act of 1995. Expenses reported for 2016, calculated according to the prescribed rules, stood at around $500,000. Two Arkema Inc. employees have been registered as lobbyists to Congress, particularly on the issue of refrigeration gases.

2.7.3 Compliance and ethics

THE CODE OF CONDUCT AND BUSINESS ETHICS

The Code of Conduct of the Group is effective since 2006 and was revised and renamed in 2013 as the Code of Conduct and Business Ethics.

Built on Arkema Group values and the principles of the Global Compact, the code describes the good business practices to be applied in every aspect of the Group's operations.

It may be downloaded from the corporate website and covers the following main points:

- as concerns bribery, employees may not offer, provide or accept, directly or indirectly, any unfair advantage, be it pecuniary or otherwise, whose purpose is to secure business relations or any other business advantage. The counterparties concerned include people in positions of public authority, business intermediaries, customer employees and political parties;
- employees must scrupulously comply with all applicable rules relating to antitrust legislation in every country in which the Group operates; and
- employees must comply with import and export regulations.

PROCESSES FOR IDENTIFYING AND REDUCING THE RISKS OF NON-COMPETITIVE PRACTICES, CORRUPTION AND FRAUD

The Group has put in place a compliance and business ethics program, whose cornerstone is the Code of Conduct. The compliance program mainly covers antitrust, export control and anti-corruption legislation. It defines and describes guidelines, procedures and risk management processes applicable throughout the Group.

To ensure that the program runs smoothly, the following resources have been implemented:

- training to build employee awareness of the need to comply with competition rules, export control regulations and anti-bribery practices;
- a practical guide to competition covering rules and recommended behaviors issued to employees;
- the verification of business intermediaries prior to appointment, according to the business intermediary procedure, to minimize the risks of corruption-prone situations arising;
- systematic prior approval required for any export to countries subject to commercial or financial restrictions, according to the export control procedure; and
- the introduction of a Code of Conduct e-learning module and an annual compliance statement, which designated employees are expected to sign, thereby attesting that they will abide by the Code of Conduct's principles. In 2016, the statement was signed by 99% of the designated senior level employees across the global organization, including subsidiary Managing Directors, business line Managing Directors, corporate Vice-Presidents and plant or facility Managing Directors.

Application of the compliance program is overseen by the Compliance Committee and the ethics mediator.

The Compliance Committee, whose members are appointed by the Chairman and Chief Executive Officer and which reports to the Executive Committee, consists of the Internal Audit and Internal Control Vice-President, a Human Resources department representative, the Sustainable Development Vice-President, the Group Safety and Environment Vice-President, a representative of the Legal department, a representative of the Finance/Treasury/Tax department and, since October 2016, a member of the Executive Committee.

It is responsible for monitoring compliance Group-wide in the following areas: antitrust laws, business intermediaries, fraud, business practices and integrity, work environment integrity and environmental stewardship. The committee met four times in 2016.

Appointed by the Chairman and Chief Executive Officer, the ethics mediator is fully familiar with the Group's operations and businesses, with a career situation that ensures independent judgment.

He or she is bound by an obligation not to disclose the identity of people raising ethics issues to third parties, or to disclose information likely to help identify such people. This obligation may be tempered and third-parties informed on a need-to-know basis as strictly required to address and solve the question raised or to handle the case concerned, the said third parties then also being bound by the same obligation of confidentiality.

In the host regions, the regional Vice-Presidents are appointed as correspondents of the ethics mediator.

For all practical questions regarding an ethical issue in general, and particularly any problem in applying the Code of Conduct and Business Ethics, an application may be made to the Compliance Committee and the ethics mediator either by executive management or by an employee.

Lastly, as part of the global risk management process, the Internal Audit and Internal Control department regularly performs audits in the subsidiaries. These include an analysis of the management processes to help detect possible risks of fraud and to define, where appropriate, the necessary corrective measures (for more information on the global risk management process, see paragraph 1.7.1 of this document).

COMMITMENT TO HUMAN RIGHTS

The Group recognizes the importance of protecting human rights wherever it operates, both in conducting its business and in its supplier relationships.

Its CSR policies are guided by the Universal Declaration of Human Rights, the ten principles of the United Nations Global Compact, the OECD Guidelines for Multinational Enterprises and the eight fundamental conventions of the International Labour Organization (ILO) concerning respect for freedom of association and the right to collective bargaining, the elimination of discrimination in respect of employment and occupation, the elimination of forced or compulsory labor and the effective abolition of child labor. In line with this, the Group ensures that the human rights and dignity of its employees, contractors, temporary workers and suppliers are consistently upheld, by undertaking to exclude all forms of discrimination, harassment, forced labor and child labor, as well as any infringement of the freedom of association.

The Group also undertakes to comply with labor legislation in every country in which it operates, in alignment with the ILO's fundamental conventions.

PROMOTING AND RESPECTING THE FUNDAMENTAL CONVENTIONS OF THE INTERNATIONAL LABOUR ORGANIZATION

The Group endeavors to comply with the constitutional texts, treaties, conventions, laws and regulations in force in its host countries and regions. All of this information may be found in detail on the arkema.com website.

2.7.4 Procurement, suppliers and subcontracting

The Group has integrated labor, environmental and social issues into its procurement process and strives to build long-term, balanced, sustainable, trust-based relationships with its suppliers and subcontractors. These relationships are managed transparently and in accordance with negotiated contractual terms, including those related to intellectual property. In support, the following resources have been deployed.

THE SUPPLIER CODE OF CONDUCT

The Group's responsible procurement process is guided by the ethical principles expressed in the Code of Conduct described in paragraph 2.7.3 of this chapter. The Group has also signed the national inter-company charter of the French purchasing managers' organization and the state-sponsored inter-company mediation initiative *Médiation Inter-Entreprises*, which is based on ten responsible procurement commitments. As part of this process, a dedicated Code of Conduct for suppliers summarizing all of the related CSR aspects was issued in 2014.

The Supplier Code of Conduct's guidelines also cover environmental stewardship and the quality and safety of supplied products and services. Lastly, as part of the focus on business integrity and transparency, suppliers must comply with laws governing competition, corruption, conflicts of interest, confidentiality and the transparency and accuracy of reported information. The Code has been posted on the corporate website and the process of informing existing suppliers was completed in 2015. New suppliers are systematically informed of the Code's provisions. While their selection process continues to focus on bids offering the best combination of performance, cost and quality, it now integrates their CSR performance as well.

RESPONSIBLE PURCHASING TRAINING AND AWARENESS

Group buyers are all trained to apply the Supplier Code of Conduct, with regular follow-up meetings to inform and maintain awareness.

ASSESSMENTS BY THREE PROCUREMENT DEPARTMENTS

The Goods and Services Procurement department regularly assesses the employee safety performance of the leading contractors working on Group sites. As explained in section 2.3 of this chapter, the safety of contractor employees is considered just as important as that of Group personnel, and their incidents are recorded in the consolidated indicator.

Logistics services contracts are awarded on the basis of the provider's safety, security and environmental performance, while highway hazardous materials transporters are selected based on third-party assessments, such as the Safety and Quality Assessment System (SQAS) in Europe and the Road Safety and Quality Assessment System (RSQAS) in China. Similarly, vessels chartered worldwide for the bulk transportation of Group products are first vetted by a third party.

To assess raw materials suppliers, pre-approval questionnaires are used to assess their management system, compliance with the principles of the Responsible Care® program and certification to ISO-type standards.

FOCUS: SUSTAINABLE CASTOR CARING FOR ENVIRONMENTAL AND SOCIAL STANDARDS (SUCCESS)

In May 2016, the Group and three other partners launched the "SUCCESS" initiative to make the castor oil supply chain more sustainable by improving the living and working conditions of castor bean farmers in India, the world's largest producing country. During this three-year project, farmers will be trained and supported during the growing season.

SUPPLIER AND PROCUREMENT PROCESS AUDITS

Under the Supplier Code of Conduct, suppliers agree to meet all of the Group's CSR expectations and to cooperate with its audits of their Code compliance.

Supply chain service providers are regularly audited with visits to transportation companies and outside warehouses and assessments of their performance. These audits are supported by third-party assessments, such as the Safety & Quality Assessment System (SQAS) for overland transportation, the Chemical Distribution Institute for maritime shipping, and the European Barge Inspection Scheme for river shipping. A certain amount of packaging is also inspected.

In addition, every year, the Internal Audit and Internal Control department audits subsidiaries by conducting a range of tests on supplier approval and assessment processes and on the practices and risks associated with the raw materials and goods and services procurement.

MEMBERSHIP FOR THE TOGETHER FOR SUSTAINABILITY (TFS) INITIATIVE

To base its requirements on accepted standards and avoid the need for duplicate supplier assessment procedures, in 2014 the Group joined the Together for Sustainability (TfS) initiative, founded by six European chemical companies. This global program is designed to encourage social responsibility across the chemical industry service chain, in line with the principles of the United Nations Global Compact and the Responsible Care® Global Charter. It enables member companies to share the findings of assessments or audits of their suppliers' CSR performance conducted by Ecovadis or independent third parties. Ecovadis analyzes supplier documents and questionnaires on the basis of CSR criteria in line with international standards, and ensures a 360° watch on information reported by external stakeholders.

In the coming years, the Group will use its supplier risk analyses to determine which suppliers to assess and audit as part of the TfS program.

THE IMPACT OF SUBCONTRACTING

The Group subcontracts for two main purposes: for the production of certain finished products representing very limited quantity, and for maintenance. Subcontracting therefore accounts for part of the €240 million in capital expenditure dedicated to safety, the environment and the maintenance of industrial units.

Under the Group's procurement policy, contractors are bound by the Supplier Code of Conduct and its general purchasing conditions.

Following the amendment to France's Grenelle II legislation, the amount of food waste in company cafeterias was assessed. The vast majority of providers have already implemented or are preparing to implement improvement plans in compliance with the law.

2.7.5 Direct and indirect socio-economic impact

In the 50 countries where it operates, the Group's business operations are contributing to develop the local economy, by creating and maintaining direct and indirect jobs, developing local skills and expertise, purchasing local goods and services, forming business partnerships and paying taxes.

In particular, the Group focuses on hiring locally at every level of the business, including the senior management teams of its non-French subsidiaries. In this way, more than 80% of the executives at the operating facilities outside France were hired locally.

As seen in this document, and particularly chapter 4, the Group's economic contribution to host communities includes a wide range of components – sales, capital expenditure, operating expenses, wages and salaries and payroll taxes, income and other business taxes, dividends, etc. – that together make up the Group's economic and social footprint.

In addition to contributing to the local economy, the Group is deploying a policy of revitalizing regional labor markets and supporting scientific research upstream from industrial innovation.

REVITALIZATION OF REGIONAL LABOR MARKETS

The Group pays close attention to the possible consequences of business relocation. When such reorganization is called for in France, the Group endeavors to offset any job losses, wherever possible, and contributes to revitalize the impacted labor markets. These initiatives are legally defined in accordance with the revitalization agreements signed with public authorities and include a variety of measures, such as:

- financial support for the creation or acquisition of companies; and
- a search for new business activities and support for their development.

More generally, the Group has a policy of supporting innovative small and medium-sized enterprises (SMEs) in related business areas through joint projects and equity investments. Each research center, for example, works closely with neighboring schools or laboratories as part of clusters while creating possibilities for partnerships with local SMEs. The Group is a founding member of Axelera, a world-class competitiveness cluster in the field of chemistry and the environment that brings together and coordinates players from industry, research and education in the Auvergne Rhône-Alpes region in France.

These kinds of local partnerships are contributing to stimulate innovation, while deepening the Group's local roots. For example, at the Lacq site in France, the Group provides technical and infrastructure support to innovative young businesses setting up in the Chemstart'up business incubator.

It is also positioned as a key early-stage player in strategically crucial industries such as thermoplastic composite materials, renewable raw materials and new energies.

SUPPORT FOR SCIENTIFIC RESEARCH

Under its ambitious innovation policy, the Group maintains close ties with the scientific and educational ecosystems in its host regions worldwide, in particular through a wide variety of partnerships with universities and public and private research laboratories. These partnerships, such as the ones in France with Compiègne Technology University for the Smart House by Arkema and with Hydro Québec in Lacq, are described in section 1.4 of this document, which looks at open innovation programs.

2.7.6 Corporate citizenship and philanthropy

As a responsible company in an increasingly interconnected world, the Group is particularly attentive to the need to nurture close ties with all its stakeholders. Around the world, the Group is deploying nearness communication initiatives to foster high-quality, trust-based relationships with host communities. This open dialogue also helps the Group to better understand the expectations of people living in nearby communities and ensure that they are properly addressed in its CSR strategy.

THE COMMON GROUND® INITIATIVE

Formalized and introduced nearly 15 years ago, the pioneering Common Ground® initiative takes community relations beyond the legal minimum requirements by actively encouraging local dialogue and exchange in every host country. It is based on three key principles, designed to improve the social acceptability of chemical plants:

- **Listening to understand expectations**

Understanding the concerns of people living in nearby communities is key to effectively addressing their concerns about industrial and chemical risks;

- **Engaging in dialogue and informing communities about the Group's activities**

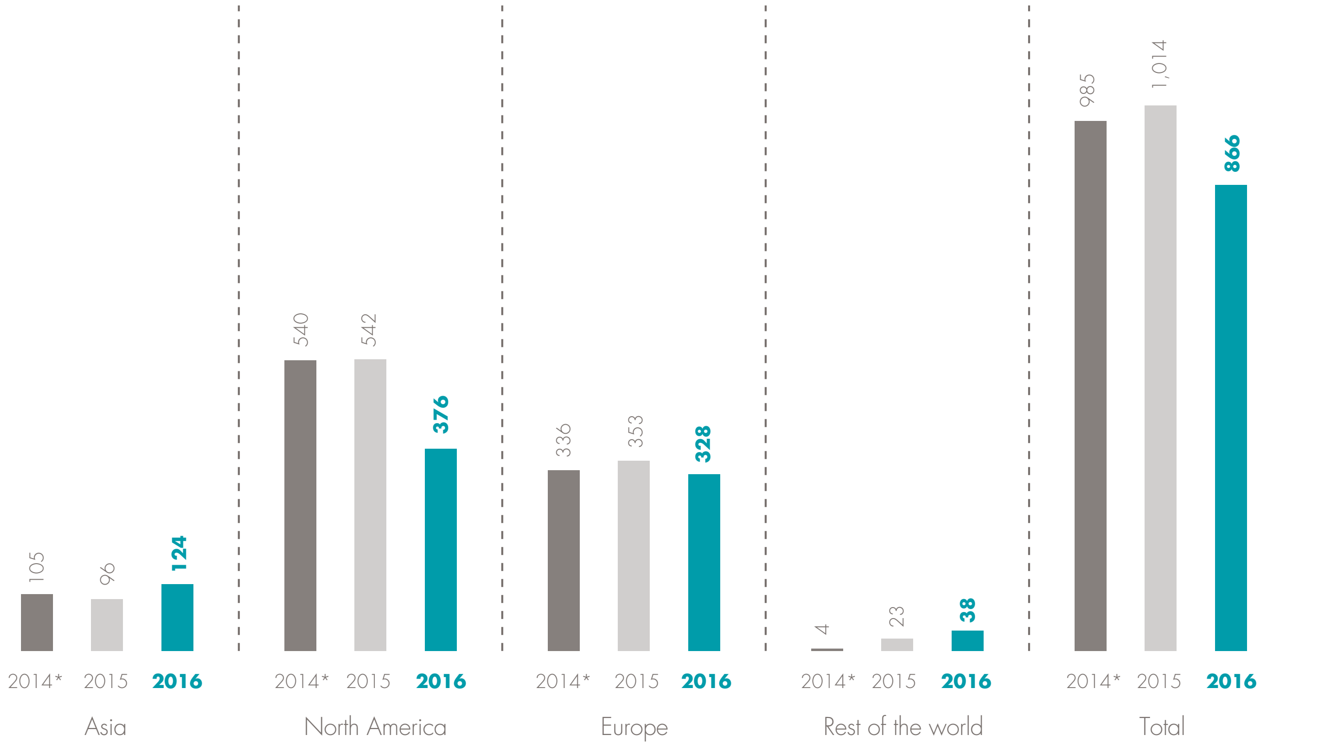
At the core of the initiatives are events and tours that enable neighbors to discover what the plant does, the products it makes and the processes it uses, and get a reassuring first-hand view of how the site runs and what its projects are; and

- **Risk prevention and progressing**

In addition to continuously improving the safety, health and environmental performance of its production facilities, the Group is deploying a risk prevention culture in every host country. As part of this proactive approach, incident or accident drills are regularly organized to test emergency response resources and procedures, along with the systems for alerting, informing and protecting employees and the local community.

BUILDING BETTER RELATIONS AROUND THE WORLD

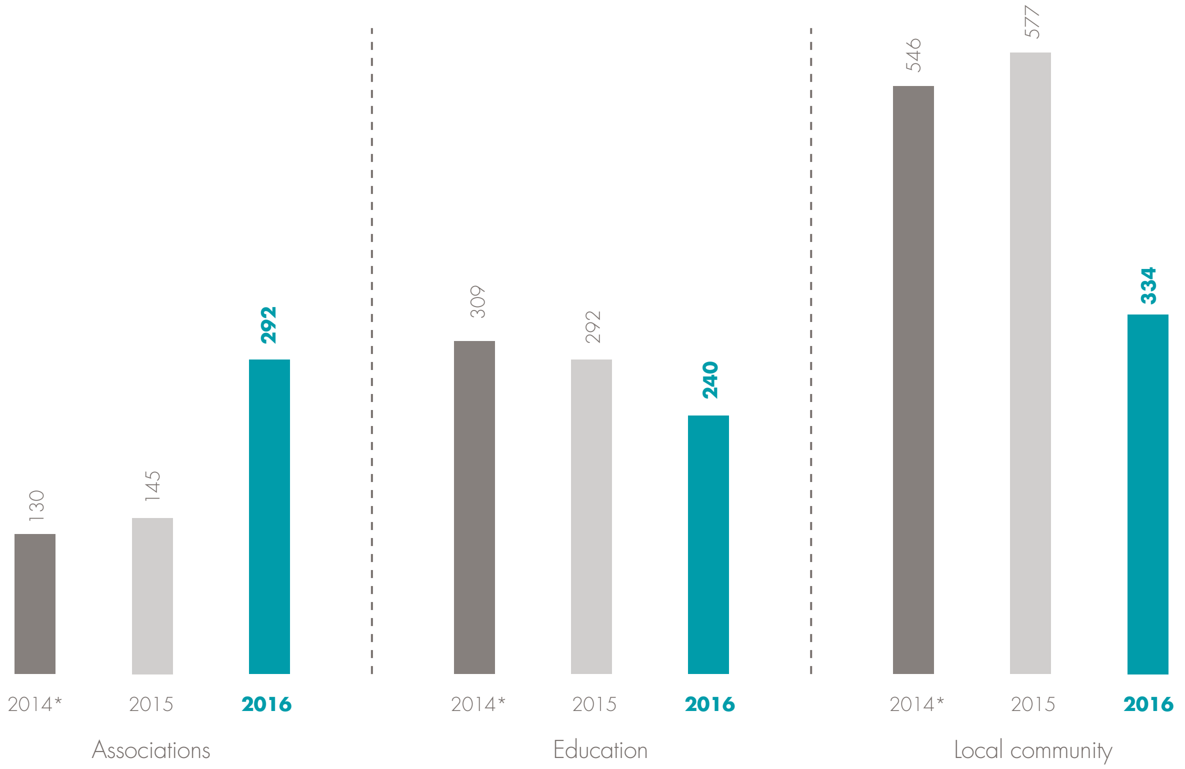
In 2016, more than 850 Common Ground® initiatives were carried out worldwide, with 86% of production plants actively participating. These initiatives broke down by region as follows over the past three years:



** Excluding Bostik.*

In all, 92% of production plants took part in these initiatives in the United States, 84% in Europe, and 93% in Asia.

These initiatives are primarily aimed at local communities, academia and associations, as shown in the following breakdown over the past three years.



** Excluding Bostik.*

The decrease in the number of Common Ground® initiatives, from 1,014 in 2015 to 866 in 2016, primarily reflected the decrease in the number of local community initiatives after additional security measures were deployed by the plants.

Initiatives involving local communities and the public

In 2016, around 70% of Group facilities conducted public tours, in particular to explain how the solutions offered by chemistry and chemicals can benefit everyone in their daily lives.

In the United States and Asia, many plants also take part in information meetings organized by local resident associations.

In recent years, the Group has partnered two important science and industry events in France:

- the *Fête de la Science*, an initiative of the French Ministry of Higher Education and Research to encourage interaction between research scientists and the general public; and
- the *Semaine de l'Industrie*, a week-long event that gives young people and career seekers insights into the world of industry and its job opportunities.

Educational initiatives

Around the world, the Group gives priority attention to strengthening its ties with schools and universities.

Programs and events are regularly conducted in cooperation with schools, to provide young people with information on careers in the chemicals industry and to promote the development of a scientific culture. Locally, the production facilities periodically organize tours for school groups, take part in educational initiatives, and speak at conferences at higher education venues, such as Rho University in Italy.

The Group also offers opportunities for socially disadvantaged young people, and helps them to earn academic qualifications. To promote access to the prestigious ENSIC chemical engineering school, Fondation de France and the Group founded Fondation ENSIC to grant scholarships to students experiencing financial hardship. Since it opened, the foundation has provided support for around a hundred students.

In the United States, the Arkema Inc. Foundation, set up in 1996, runs a number of disinterested initiatives focused on science and education at all levels. Its yearly Science Teacher Program has reached hundreds of researchers and teachers.

In 2016, the Group began working with France's C. Génial Foundation to support its programs designed to promote and valorize sciences among middle and high school students in France. With the partnership, Arkema reaffirmed its commitment to attracting young people to science and developing bridges between business and academia by taking part in the Foundation's flagship initiatives.

FOCUS: ARKEMA CHEMART GREEN INNOVATION CLASS

In 2016, a number of educational initiatives were offered in schools near Group plants in China, whereby employees met with children and talked to them about safety and the need to protect the environment. In addition, the Group also donated a large number of recycled computers and books to improve the schools' educational materials.

Initiatives involving associations

The Group's values of solidarity and responsibility show through in the initiatives being led in partnership with non-profit associations in its host regions. Many examples around the world attest to the dedication of Group employees to helping the neediest and to actively participating in their local communities.

The Group regularly leads or partners a broad range of community outreach initiatives in such areas as:

- jobs for the disabled, with support for several associations that are helping disabled people to enter the mainstream workforce;
- health and community, with corporate and employee participation in a large number of charitable campaigns; and
- the environment, with programs to improve biodiversity (see paragraph 2.4.3 of this chapter).

2.8 REPORTING METHODOLOGY

2.8.1 Methodological note on environmental and safety indicators

2.8.1.1 ENVIRONMENTAL REPORTING TOOLS AND SCOPE

Absolute data

Absolute environmental data are compiled by its Reporting of Environmental and Energy Data (REED) system, which is accessible worldwide via the web platform of a service provider.

The values of the absolute indicators, once published after review by the independent third-party auditor, are not amended in the REED system. Any subsequent retroactive modifications made due to a change in the estimation method or a correction are addressed in section 2.4 of this document.

The data are entered by the plant Health, Safety and Environment departments and validated at two levels, geographic and corporate.

The scope of consolidation for environmental reporting covers all Group industrial sites for which operating and emissions permits were held in the name of the Group or a majority-owned subsidiary at 31 December 2016. On this basis, the scope covered 99% of the Group's industrial operations in 2016.

The scope of consolidation for environmental reporting covers all of the industrial sites operated by the Group or by majority-owned subsidiaries, head offices and research and development centers, corresponding to around 91% of the production base. It should be noted that this scope covers more specifically 98% of the industrial sites operated by the Group or by majority-owned subsidiaries.

Operations sold or discontinued in 2016 were removed from the scope of reporting for the year, but remain in prior-year data. This was the case in 2016 for the activated carbon and filter aids business.

For activities that were acquired in 2016, such as OP Systèmes in Lacq, France, all operations for the year are included in the scope of reporting. However, the operations of Den Braven, acquired on 1 December, were not included in the 2016 scope.

In China, the Taixing plant, which reported partial environmental data during its first reporting campaign in 2015, reported data in line with Group standards in 2016.

Operations that started up in 2016 reported data from their start-up date.

Intensive data (EFPIs)

To manage its environmental performance more efficiently and report consolidated data that more accurately track this performance year by year, Arkema uses a methodology that enables production facilities to report relative indicators, known as Environmental Footprint Performance Indicators (EFPIs). This method of calculating the intensity of emissions or resource consumption relative to production volumes, compared with a baseline year, minimizes the impact of any changes in the business base and plant output, as well as any changes to the method used to estimate or calculate environmental footprint variables.

These relative environmental data are compiled by the same REED environmental reporting system, which is accessible worldwide via the web platform of a service provider.

EFPI data are entered by facility Health, Safety and Environment (HSE) departments and validated first by the Industrial Vice-President then at Group level. They are subject to a large number of consistency tests.

The scope of EFPI reporting covers facilities for which operating and emissions permits were held in the name of the Arkema

Group or a majority-owned subsidiary at 31 December 2016 and which rank among the biggest contributors to consolidated data. In all, these sites account for around 80% of the total prior-year emissions or consumption.

Operations sold or discontinued in 2016 were removed from the scope of reporting for the year, but remain in prior-year data.

Operations started up in 2015 have been included in the scope of EFPI reporting in 2017, compared with their 2016 performance.

Operations acquired in 2016 will be included in the 2018 scope of EFPI reporting for all of their 2018 activities, compared with their 2017 performance.

The EFPI methodology allows new reporting units to be included in prior-year performance data. Should the inclusion of a large number of new units result in a significant change to the confidence interval in the calculation of the Group's EFPIs, consideration will be given to whether an adjustment factor should be applied or whether the use of a new baseline year should be used.

2.8.1.2 SAFETY DATA REPORTING TOOLS AND SCOPE

Safety data:

- are recorded in the SafetyLog application accessible on the employee intranet;
- are entered by the reporting units and validated at corporate level;
- cover all of the industrial sites operated by the Group or by majority-owned subsidiaries, head offices and research and development centers, corresponding to around 99% of the scope;
- include Bostik as from 2015 unless specified otherwise; and
- do not include Den Braven in 2016, because it was acquired on 1 December of that year.

2.8.1.3 CHOICE OF INDICATORS, MEASUREMENT METHODS AND USER INFORMATION

Group indicators have been designed to track the emissions and consumption levels that concern its operations, in accordance with the French New Reporting Requirement Act and its associated decree of 20 February 2002.

They were introduced at the time of the Group's creation and have been tracked since 2006.

They also comply with the standards defined in Articles L. 225-102-1 and R. 225-104 *et seq.* of the French Commercial Code as amended by the "Grenelle II" Law no. 2010-788 of 12 July 2010.

The environmental reporting system is governed by an Environmental Reporting directive, an EFPI Reporting directive and an Energy Reporting directive issued by the Group Safety and Environment (DSEG), Sustainable Development (DDD) and Energy Procurement (DAMPE) departments and accessible to all employees on the corporate intranet.

Calculation and estimation methods are subject to change, for example due to changes in national or international legislation, measures to improve consistency among regions, or problems with their application.

The directives may then be expressed in guidelines and handbooks, which are supported by training sessions in each region as required.

The safety reporting process is covered by a Monthly Safety Reporting directive issued by the Group Safety and Environment department and accessible to all employees on the intranet.

2.8.1.4 CLARIFICATIONS CONCERNING THE ENVIRONMENTAL AND SAFETY INDICATORS

The following information is provided to clarify the definition of the indicators applied by the Group.

Total acidifying substances

This indicator is calculated using sulfur oxide (SOx), ammonia (NH_3) and nitrogen oxide (NOx) emissions converted into tonnes of sulfur dioxide (SO_2) equivalent.

Volatile organic compounds (VOCs)

The list of products regarded as VOCs may vary from country to country, 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, known as the Industrial Emissions directive (IED).

Emissions from US sites are therefore obtained by adding products such as fluorinated organic compounds to national reported data.

Chemical oxygen demand (COD)

For reporting purposes, COD is measured in effluent released into the natural environment.

In cases where wastewater from a Group facility is treated in an external plant, the reported data takes into account the effectiveness of the treatment process.

In cases where a Group facility takes in COD-laden water, the reported data concerns the net COD load effectively introduced in the ecosystem by the Group (outgoing less incoming).

Waste

The distinction between hazardous and non-hazardous waste may vary from one region to another. The definitions used by the Group are those of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

By-products that are sold to third parties for reuse without processing at a Group site are not counted as waste.

Water use

All sources of water are included in the reported data, including groundwater/wells, rivers, seawater, public or private networks and drinking water, excluding rainwater collected in separate networks.

Energy use

Reported use corresponds to net energy purchases.

It does not include self-generated energy, which corresponds to the energy produced by exothermic chemical reactions and therefore does not draw down the planet's energy resources.

Sales of energy are deducted from purchases of energy. This is the case, for example, for facilities fitted with combined heat and power plants that generate steam and electricity from purchased gas (reported), then sell the electricity (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.

Direct greenhouse gas (GHG) emissions

For reporting purposes, direct GHG emissions correspond to those defined in the Kyoto Protocol.

Their impact is calculated in equivalent tonnes of carbon dioxide (t CO_2 eq.).

In this report, 2012 emissions have been calculated using the Global Warming Potential values published in 2007 by the Intergovernmental Panel on Climate Change (IPCC).

For relative data, EFPI calculations include fluorinated greenhouse gases that are not listed in the Kyoto Protocol but are listed in the Montreal Protocol.

Indirect greenhouse gas (GHG) emissions

For the purposes of this report, indirect Scope 2 CO_2 emissions were calculated using electricity and steam consumption and emission factors in tonnes per kilowatt-hour (KWh) or tonnes of steam reported by suppliers. Where this was not possible, they were calculated using figures provided by local authorities, such as those available in the EPA-2012 database in the United States, the 2013 Baseline Emission Factors for Regional Power Grids issued by China's National Development & Reform Council (NDRC) for China, SEMARNAT data issued by Mexico's Federal Environmental Agency for Mexico and data issued by the French environmental agency, ADEME, for a variety of countries.

For the purposes of this report, Scope 3 indirect CO_2 emissions were estimated using Group company logistics data, which account for 99% of consolidated shipments. By shipment, the Group means the transportation of products to customers as well as any post-production logistics. Emissions are calculated by taking such logistics data as tonnes transported, number of shipments, and average kilometers for each mode of transportation (road, rail, air, etc.) and applying the emission factors defined in the *Guidelines for Measuring and Managing CO_2 Emissions from Freight Transport Operations* published by the European Chemical Transport Association (ECTA) and the European Chemical Industry Council (CEFIC) in March 2011, based on the work of Professor Alan McKinnon of Heriot-Watt University in Edinburgh, UK. The reporting period runs from 1 October to 30 September of the following year. A detailed explanation of the reporting methodology is available to stakeholders upon request. The methodology has proven effective and was further improved in 2016 to make it more reliable and applicable to a wider scope of reporting. Current reporting practices are showing their limits, particularly as concerns operations outside Europe. These limits mainly relate to reported distances, with average distances used in the absence of actual data, and emissions factors, with standard factors used in the absence of transporter data. These methodological limits mean that 2016 data are accurate to within plus or minus 15%.

Accidents

Total recordable incident rates (TRIR) and lost-time incident rates (LTIR) are calculated for both Group and on-site contractor employees on the basis of US standard 29 CFR 1904.

Process safety

The safety performance of a plant's production processes is assessed by means of performance indicators that measure and analyze process safety incidents. The Group reports and classifies process safety indicators in accordance with European Chemical Industry Council (CEFIC) guidelines.

AIMS-audited sites

The Group tracks the increase in the percentage of facilities that have been audited in accordance with the AIMS standard. Depending on their specific features and size, some sites have had the option since 2016 of performing simplified self-assessments. This is the case for Bostik in particular.

2.8.2 Note on methodology used for employment, social and R&D information/indicators

2.8.2.1 REPORTING TOOLS AND SCOPE

Employee data are taken from several different reporting processes.

The workforce data presented in section 2.6:

- are recorded in the AREA 1 application accessible via the corporate intranet;
- are entered by the human resources managers or company Managing Directors (depending on their size);
- are validated at the Arkema, Altuglas International, Bostik, CECA, Coatex and Sartomer group levels;
- cover all companies at least 50%-owned;
- cover Bostik from 2015 unless specified otherwise;
- include employees of Den Braven, acquired on 1 December 2016.

The quantitative and qualitative data concerning other employee and social information:

- are recorded in the AREA 2 application accessible via the corporate intranet;
- are entered by human resources employees of the companies or regional organizations;
- are validated by the regional human resources managers or subsidiary Managing Directors;
- cover all companies at least 50%-owned and employing more than 30 people, corresponding to 96.5% of the total workforce;
- cover Bostik from 2015 unless specified otherwise;
- do not include Den Braven in 2016, because it was acquired on 1 December of that year.

Any modifications or corrections to prior-year data are noted in section 2.6 of this document.

2.8.2.2 CHOICE OF INDICATORS, MEASUREMENT METHODS AND USER INFORMATION

The Group has defined indicators that are relevant to its activities and its employee relations policies.

Indicators concerning employees and safety performance were introduced at the time of the Group's creation and have been tracked since 2006.

Additional employee information and indicators, and social data have been reported since 2012 via the AREA 2 compilation system. They were expanded in 2013, in particular with the tracking of reported training hours.

The information and indicators also comply with the regulatory requirements of Article 225-I of the French "Grenelle II" Law no. 2010-788 of 12 July 2010 and its application decree of 24 April 2012.

Employee data reporting is covered by different procedural documents in the form of AREA 1 and AREA 2 guidelines, which have been provided to all of the contributors and validators.

The calculation methods may have limitations and be subject to change, for example due to varying national labor legislation and practices, difficulties in reporting certain information in some regions, or the unavailability of certain data in some countries.

2.8.2.3 DETAILS ON EMPLOYEE INFORMATION AND INDICATORS

Headcount

For the purposes of reporting, the headcount includes employees on payroll (employees present and employees whose employment contract, of any type, has been suspended) at 31 December of the reporting year.

Permanent employees are defined as employees that have signed an employment contract for an indefinite period of time. Outside France, employees hired on fixed-term contracts for periods of more than 12 months and renewed more than once are also included among permanent employees.

Employee categories

Data are presented by professional category. In France, manager status (*cadre*) is determined by the collective bargaining agreements governing the company concerned. Outside France, employees with a Hay job level of 10 or more are considered managers.

New hires

These data cover only the hiring of employees under permanent contracts, including the transformation of contracts (fixed-term into permanent contracts in France, for example).

Compensation

Collective bonus components are defined as components that vary depending on overall business criteria and the business and financial results of the employee's company. In France, these take the form of incentive and profit-sharing schemes.

Health and welfare

Health and welfare cover refers to benefits from a collective or mutual insurance plan providing cover for incapacity/disability/death risks.

Training

Training hours are defined as the hours spent in training by employees on permanent contracts (excluding e-learning).

During verification by the independent third-party auditor for 2015 reporting, an error was detected in the 2014 data reported by Arkema Inc. The figure of 136,992 training hours reported under "education assistance" should have read 13,692 hours. The corrected consolidated figure for 2014 is therefore 334,000.

This correction does not impact the consolidated environmental and safety training data reported in 2014.

Absenteeism

The absenteeism rate corresponds to the total number of hours of absence in the year (due to sickness, injuries, maternity leave, strikes and unpaid leave but excluding paid leave) divided by the total number of hours worked in the year.

Departures

Since 2016, departures are recorded only when the person leaves the Group, so that reported data no longer include inter-subsidiary transfers. The 2014 and 2015 data in this chapter have been recalculated using the method applied for the 2016 data.

2.8.2.4 DETAILS ON R&D INFORMATION AND INDICATORS

Sustainable Development Patents

Number of original patent applications filed in the reporting year by the Group in response to sustainable development issues related to the UN Sustainable Development Goals, as described in section 2.5 of this document.

R&D expenditure

R&D expenditure is expressed as a percentage of consolidated revenue for the year.

Number of non-disclosure, cooperation and intellectual property agreements

The number of contracts corresponds to the non-disclosure, cooperation and intellectual property contracts signed by Arkema France during the year and recorded by the R&D department in its Athena database.

2.8.3 Indicators

		2016	2015	2014
SAFETY (1)				
Total recordable injury rate *(TRIR)*	*per million hours worked*	1.5	1.5	1.9
Lost-time injury rate *(LTIR)*	*per million hours worked*	0.9	1.1	1.1
Percentage of sites audited according to Arkema Integrated Management System (AIMS) standards	*%*	63	61	78
Percentage of sites having implemented peer observation	*%*	56	57	77
Safety, environment and maintenance expenditure	*€m*	240	203	211
Percentage of OHSAS 18001-certified sites	*%*	47	52	60
Percentage of OHSAS 18001-certified sites in Europe	*%*	54	51	62
Percentage of OHSAS 18001-certified sites in the Americas	*%*	45	60	63
Percentage of OHSAS 18001-certified sites in Asia	*%*	34	45	50
Number of Process Safety Incidents *(PSIs)*		12	27	33
ENVIRONMENT (1)				
Percentage of ISO 14001/RCMS-audited sites	*%*	52	62	70
Percentage of ISO 14001-audited sites in Europe	*%*	56	69	68
Percentage of RCMS-audited sites in the Americas	*%*	57	60	84
Percentage of ISO 14001-audited sites in Asia	*%*	34	41	50
AIR EMISSIONS				
Acidifying substances	*t SO_2 eq.*	3,570	4,430	4,750
Carbon monoxide	*t*	690	1,900	3,030
Volatile organic compounds *(VOCs)*	*t*	4,800	5,010	4,600
Volatile organic compound *(VOC)* EFPI		0.80	0.83	0.79
Dust	*t*	300	520	430
EFFLUENT RELEASES				
Chemical oxygen demand *(COD)*	*t O_2*	2,600	3,200	3,870
Suspended solids	*t*	770	870	3,030
Chemical oxygen demand *(COD)* EFPI		0.78	0.93	1.03
WASTE				
Hazardous waste (excluding material recovery)	*kt*	157	151	149
• of which landfilled	*kt*	2.7	2.5	2.1
Hazardous waste recycled into materials	*%*	15	15	16
Hazardous waste burned as fuel	*%*	49	47	46
Non-hazardous waste	*kt*	256	231	219

		2016	2015	2014
RESOURCES				
Total water withdrawn	*millions of cu.m*	126	124	120
Net energy purchases	*TWh*	8.25	8.48	8.36
• of which in Europe	*TWh*	4.37	4.66	4.65
• of which in the Americas	*TWh*	2.64	2.69	2.78
• of which in the rest of the world	*TWh*	1.24	1.12	0.93
Energy EFPI		0.92	0.98	0.99
Net energy purchases by type				
• fuel	*TWh*	4.42	4.69	4.52
• electricity	*TWh*	2.71	2.70	2.44
• steam	*TWh*	1.12	1.08	1.40
Natural gas in net purchases of fuel	*%*	91	89	90
Low-carbon electricity in net energy purchases	*%*	17	17	17
Number of energy efficiency audits in progress or completed		14	37	20
• of which in Europe		9	28	14
• of which in North America		5	8	5
• of which in Asia		0	1	1
Number of Arkenergy investments		51	38	47
• of which in Europe		31	21	31
• of which in the Americas		9	10	12
• of which in the rest of the world		11	7	4
Number of ISO 50001-certified sites		22	17	5
Number of sites working to achieve ISO 50001 certification		9	14	10
Direct greenhouse gas emissions corresponding to the Kyoto Protocol	*kt CO_2 eq.*	3,110	3,000	3,430
• of which CO_2	*kt CO_2 eq.*	1,540	1,440	1,380
• of which HFC	*kt CO_2 eq.*	1,530	1,510	2,010
Direct greenhouse gas emissions corresponding to the Kyoto Protocol, by region				
• Europe	*%*	32	33	30
• Americas	*%*	56	59	60
• Rest of the world	*%*	12	8	10
Scope 2 indirect greenhouse gas emissions of CO_2	*kt*	1,080	1,300	1,067
• of which in Europe	*kt*	255	272	284
• of which in the Americas	*kt*	425	521	545
• of which in the rest of the world	*kt*	400	507	239
Scope 3 indirect greenhouse gas emissions of CO_2 (to within 15%)	*Mt*	0.26	0.2	0.2
Direct GHG emissions EFPI		0.60	0.62	0.70

		2016	2015	2014
ADAPTING TO THE CONSEQUENCES OF CLIMATE CHANGE				
Number of sites exposed to a severe risk of storms and/or flooding		22	21	18
Sales from products made in full or in part from renewable raw materials	%	10	N/A	13
EMPLOYMENT (1)				
HEADCOUNT				
Total headcount at 31 December		19,637	18,912	14,280
• of which permanent employees		18,607	17,801	13,832
• of which fixed-term employees		1,030	1,111	448
Managers	%	26.2	25.8	25.1
Women	%	24.6	23.8	23.7
Women in senior management and executive positions (Hay grade 15 or higher)	%	18	17	17
Non-French nationals in senior management and executive positions (Hay grade 15 or higher)	%	39	N/A	N/A
Recruitments		1,694	1,450	1,022
Women recruitments	%	24.7	25.4	25.0
New hires aged 50 and over	%	7.9	8.0	9.8
New hires aged under 30	%	42.0	41.6	41.5
Departures		2,023	1,914	1,133
• of which resignations		866	758	379
• of which dismissals		428	253	239
• of which following a divestment/merger		324	354	213
Part-time employees	%	3.8	3.1	3.7
TRAINING				
Number of training hours	*thousands*	465	463	334
Number of training hours per employee		27	27	26
Number of employees under permanent contracts who received training, excluding e-learning		16,256	17,062	11,534
Number of employees who took an e-learning course		9,298	8,218	4,442
Number of safety training hours	*thousands*	181	173	150
Number of safety training hours per employee		14	12	17
Number of employees who received safety training (excluding e-learning)		9,289	8,218	4,442
Number of employees who took safety-related e-learning courses		4,479	5,538	4,263
Number of environment-related training hours		19,029	20,447	15,837
Number of environment-related training hours per employee		6.3	7.2	7.6
Number of employees who received environment-related training (excluding e-learning)		3,012	2,841	2,070
Percentage of work-study students (Arkema France)	%	3.9	4.2	4.6
Group companies conducting annual performance reviews	%	99	97	95.6

		2016	2015	2014
HEALTH AND WELFARE				
Absenteeism	%	3.7	3.4	3.5
Hours off work on medical grounds as a % of hours worked	%	2.6	2.4	2.4
Employees benefiting from medical care	%	92	95.2	83
Employees benefiting from supplementary disability cover	%	89	86	95
Employees benefiting from supplementary life cover	%	94	92	95
Employees covered by death benefits representing at least 18 months salary	%	74	75	80
COMPENSATION				
Employees benefiting from minimum compensation guarantees	%	99.2	99.5	99
Employees benefiting from collective variable compensation components	%	68	60	65
Employees benefiting from individual variable compensation components	%	31	22	18
REPRESENTATION				
Employees benefiting from employee and/or trade union representation	%	90	88.2	94.2
SOCIETAL (1)				
Number of Common Ground® initiatives		866	1,014	985
Group industrial sites taking part in Common Ground®	%	86	82	90
European industrial sites taking part in Common Ground®	%	84	88	85
North American industrial sites taking part in Common Ground®	%	92	90	93
Asian industrial sites taking part in Common Ground®	%	93	80	94
PRODUCT STEWARDSHIP				
Number of substances with REACH registration		317	277	274
Number of GPS sheets voluntarily published		145	145	145
INNOVATION (1)				
Sustainable development patents addressing SDGs		116	121	128
R&D expenditure as a percentage of consolidated revenues	%	2.9	2.5	2.2
Number of non-disclosure, cooperation and intellectual property agreements signed by Arkema France		276	286	270

(1) Indicators are defined in detail in the methodological notes in sections 2.8.1 and 2.8.2 of this document.

2.8.4 Grenelle II, GRI-G4 and SDG concordance table

The concordance table for social and environmental information corresponding to France's Grenelle II legislation may be found in paragraph 7.3.2 of this document.

The GRI G4 in accordance option is "Essential Criteria".

CONCORDANCE TABLE FOR THE FOURTH GENERATION OF THE GLOBAL REPORTING INITIATIVE GUIDELINES (GRI G4) AND THE UN SUSTAINABLE DEVELOPMENT GOALS (SDG)

GRI indicator		Sustainable Development Goal	Registration document
GENERAL STANDARD DISCLOSURES			
STRATEGY AND ANALYSIS			
G4-1	Statement from most senior decision maker		2.1.1
G4-2	Description of key impacts, risks, and opportunities		1.1.2/1.3/1.4/1.5/1.6/1.7/ 2.1.1/2.1.3/2.1.4/2.5/2.5.2
ORGANIZATIONAL PROFILE			
G4-3	Name of the organization		1.1
G4-4	Primary brands, products and services		1.2
G4-5	Location of the organization's headquarters		Last page
G4-6	Number of countries where the organization operates		1.1.1
G4-7	Nature of ownership and legal form		1.1.1
G4-8	Markets served, sectors served, and types of customers		1.2/1.5
G4-9	Scale of the organization		1.1.1
G4-10	Employment by contract type, work time and gender	SDG 8	2.6.2
G4-11	Collective bargaining agreements	SDG 8	2.6.4
G4-12	Supply chain		2.1.2/2.7.2
G4-13	Significant changes during the reporting period		1.2
G4-14	Position regarding the precautionary principle		1.7
G4-15	Adherence to charters, principles or other initiatives		2.1.3/2.7.3
G4-16	Memberships		2.7.2
IDENTIFIED MATERIAL ASPECTS AND BOUNDARIES			
G4-17	Entities		2.1.2/2.8
G4-18	Process for defining the report content and the aspect boundaries		2.1.4/2.2.2
G4-19	Material aspects		2.1.2
G4-20	Boundary of material aspects within the organization		2.1.8
G4-21	Boundary of material aspects outside the organization		2.1.8
G4-22	Restatements of information		1.2
G4-23	Significant changes		1.2
STAKEHOLDER ENGAGEMENT			
G4-24	Stakeholder groups		2.1.2
G4-25	Identification and selection of stakeholders		2.1.2
G4-26	Approach to stakeholder engagement		2.1.2
G4-27	Key topics and concerns raised through stakeholder engagement		2.1.2

GRI indicator		Sustainable Development Goal	Registration document
REPORT PROFILE			
G4-28	Reporting period		2.2.2
G4-29	Date of most recent previous report		2.2.2
G4-30	Reporting cycle		2.2.2
G4-31	Contact persons		2.2.2/2.8.6
G4-32	GRI content for "in accordance"		2.2.2/2.8.5
G4-33	External assurance		2.2/2.8.5
GOVERNANCE			
G4-34	Governance structure		3/2.2.1
G4-56	Codes of conduct and codes of ethics	SDG 16	2.7.3
ECONOMY			
G4-DMA			2.5.1
ECONOMIC PERFORMANCE			
G4-EC1	Direct economic value	SDG 8	1.4/2.7.5/2.7.6
PROCUREMENT PRACTICES			
G4-EC7	Infrastructure investments and services supported	SDG 8	2.7.4
G4-EC9	Proportion of spending on local suppliers		2.7.4
ENVIRONMENT			
G4-DMA			2.1.3/2.4.1
MATERIALS			
G4-EN1	Materials used by weight or volume	SDG 12	2.4.2
ENERGY			
G4-EN3	Energy consumption within the organization	SDG 7	2.4.2
G4-EN6	Reduction of energy consumption	SDG 7	2.4.2
G4-EN7	Reduction in energy requirements of products and services	SDG 7	2.4.2
WATER			
G4-EN8	Total water withdrawal by source	SDG 9	2.4.2
G4-EN9	Water sources significantly affected by withdrawals	SDG 9	2.4.2
BIODIVERSITY			
G4-EN12	Impacts of activities on biodiversity	SDG 15	2.4.3
EMISSIONS			
G4-EN15	Total direct (Scope 1) GHG emissions in tonnes of CO_2 equivalent	SDG 13	2.4.4
G4-EN16	Total indirect (Scope 2) GHG emissions in tonnes of CO_2 equivalent	SDG 13	2.4.4
G4-EN17	Other indirect (Scope 3) GHG emissions in tonnes of CO_2 equivalent	SDG 13	2.4.4
G4-EN18	GHG emissions intensity		2.4.4
G4-EN19	Reduction of GHG emissions	SDG 13	2.4.4
G4-EN21	Other significant air emissions	SDG 13	2.4.4

GRI indicator		Sustainable Development Goal	Registration document
EFFLUENTS AND WASTE			
G4-EN22	Total water discharge	SDG 6	2.4.4
G4-EN23	Total weight of waste	SDG 6	2.4.4
G4-EN24	Significant spills	SDG 6	2.4.4
G4-EN25	Waste deemed hazardous	SDG 6	2.4.4
PRODUCTS AND SERVICES			
G4-EN27	Mitigation of environmental impacts of products and services	SDG 12	2.4.5
G4-EN28	Packaging materials reclaimed by category	SDG 12	2.4.5
TRANSPORT			
G4-EN30	Impacts of transporting products, goods and materials, and members of the workforce	SDG 12	2.4.5
SUPPLIER ENVIRONMENTAL ASSESSMENT			
G4-EN32	Suppliers screened using environmental criteria	SDG 11	2.7.4
G4-EN34	Number of grievances about environmental impacts filed, addressed, and resolved	SDG 16	2.4.1/2.7.4
SOCIAL			
G4-DMA		SDG 8	2.6.1
EMPLOYMENT			
G4-LA1	Employee turnover	SDG 8	2.6.2
G4-LA2	Benefits provided to full-time employees		2.6.2
G4-LA4	Minimum notice periods regarding operational changes		2.6.4
OCCUPATIONAL HEALTH AND SAFETY			
G4-LA5	Health and safety committee	SDG 8	2.3
G4-LA6	Type of injury and rates of injury, occupational diseases, lost days and absenteeism, and total number of work-related fatalities	SDG 8	2.3
G4-LA7	Workers exposed to diseases related to their occupation	SDG 8	2.3
G4-LA8	Health and safety topics covered in formal agreements with trade unions	SDG 8	2.3
TRAINING AND EDUCATION			
G4-LA9	Employee training	SDG 8	2.6.3
G4-LA10	Programs for skills management and lifelong learning	SDG 8	2.6.3
G4-LA11	Regular performance and career development reviews	SDG 8	2.6.3
DIVERSITY AND EQUAL OPPORTUNITY			
G4-LA12	Diversity	SDG 5	2.6.5
EQUAL REMUNERATION FOR WOMEN AND MEN			
G4-LA13	Ratio of basic salary and remuneration of women to men	SDG 5	2.6.5
G4-LA14	Suppliers screened using labor practices criteria	SDG 12	2.7.4
G4-LA15	Significant impacts for labor practices	SDG 12	2.7.4

GRI indicator		Sustainable Development Goal	Registration document
HUMAN RIGHTS			
DMA-HR			2.7.1
NON-DISCRIMINATION			
G4-HR1	Agreements and contracts that include human rights clauses		2.6.5
G4-HR4	Freedom of association and collective bargaining	SDG 8	2.6.4
G4-HR5	Child labor	SDG 16	2.7.1
G4-HR6	Forced or compulsory labor	SDG 8	2.7.1
SOCIETY			
DMA-SO			2.7.1
LOCAL COMMUNITIES			
G4-SO1	Operations with implemented local community engagement	SDG 1	2.7.5/2.7.6
COMPLIANCE			
G4-SO3	Operations assessed for risks related to corruption and the significant risks identified	SDG 16	2.7.3
G4-SO4	Communication and training on anti-corruption policies and procedures	SDG 12	2.7.3
G4-SO8	Compliance with laws and regulations	SDG 12	2.7.3
SUPPLIER ASSESSMENT FOR IMPACTS ON SOCIETY			
G4-SO9	Suppliers that were screened using criteria for impacts on society	SDG 16	2.7.4
PRODUCT RESPONSIBILITY			
DMA-PR			2.1.3/2.3.5/2.4.5
CUSTOMER HEALTH AND SAFETY			
G4-PR1	Assessments of health and safety impacts	SDG 12	2.3.5
G4-PR2	Compliance with laws and regulations	SDG 16	2.3.5
PRODUCT AND SERVICE LABELING			
G4-PR3	Type of product and service information	SDG 12	2.3.5
G4-PR4	Compliance with laws and regulations	SDG 16	2.3.5/2.4.5/2.7.3
MARKETING COMMUNICATIONS			
G4-PR7	Incidents of non-compliance with regulations and voluntary codes concerning marketing communications	SDG 16	2.3.5/2.4.5/2.7.3

2.8.5 Independent third-party opinion pursuant to Article L. 225-102-1 of the French Commercial Code

REPORT BY ONE OF THE STATUTORY AUDITORS, APPOINTED AS INDEPENDENT THIRD PARTY, ON THE CONSOLIDATED SOCIAL, ENVIRONMENTAL AND SOCIETAL INFORMATION INCLUDED IN THE MANAGEMENT REPORT.

This is a free English translation of the statutory auditors' report issued in French and is provided solely for the convenience of English-speaking readers. This report should be read in conjunction with, and construed in accordance with, French law and professional standards applicable in France.

For the year ended 31 December 2016

To the Shareholders,

In our capacity as statutory auditor of Arkema S.A., appointed as independent third party and certified by COFRAC under number 3-1049 (1), we hereby report to you on the consolidated social, environmental and societal information for the year ended 31 December 2016 included in the management report (hereinafter named "CSR Information"), pursuant to article L. 225-102-1 of the French Commercial Code (*Code de commerce*).

Company's responsibility

The Board of Directors is responsible for preparing a company's management report including the CSR Information required by article R. 225-105-1 of the French Commercial Code in accordance with the procedures used by the Company (hereinafter the "Guidelines"), summarised in the management report and available on request from the Company's head office.

Independence and quality control

Our independence is defined by regulatory texts, the French Code of ethics (*Code de déontologie*) of our profession and the requirements of article L. 822-11-3 of the French Commercial Code. In addition, we have implemented a system of quality control including documented policies and procedures regarding compliance with the ethical requirements and applicable legal and regulatory requirements.

Independent third party's responsibility

On the basis of our work, our responsibility is to:

- attest that the required CSR Information is included in the management report or, in the event of non-disclosure of a part or all of the CSR Information, that an explanation is provided in accordance with the third paragraph of article R. 225-105 of the French Commercial Code (Attestation regarding the completeness of CSR Information);
- express a limited assurance conclusion that the CSR Information taken as a whole is, in all material respects, fairly presented in accordance with the Guidelines (Conclusion on the fairness of CSR Information).

Our work involved eight persons and was conducted between October 2016 and February 2017 during a fourteen week period. We were assisted in our work by our CSR experts.

We performed our work in accordance with the order dated 13 May 2013 defining the conditions under which the independent third party performs its engagement and with the professional guidance issued by the French Institute of statutory auditors (Compagnie nationale des commissaires aux comptes) relating to this engagement and with the international standard ISAE 3000 (2) concerning our conclusion on the fairness of CSR Information.

(1) For which the scope is available on the site www.cofrac.fr.

(2) ISAE 3000 – Assurance engagements other than audits or reviews of historical financial information.

1. Attestation regarding the completeness of CSR Information

Nature and scope of our work

On the basis of interviews with the individuals in charge of the relevant departments, we obtained an understanding of the Company's sustainability strategy regarding human resources and environmental impacts of its activities and its social commitments and, where applicable, any actions or programmes arising from them.

We compared the CSR Information presented in the management report with the list provided in article R. 225-105-1 of the French Commercial Code.

For any consolidated information that is not disclosed, we verified that explanations were provided in accordance with article R. 225-105, paragraph 3 of the French Commercial Code.

We verified that the CSR Information covers the scope of consolidation, i.e., the Company, its subsidiaries as defined by article L. 233-1 and the controlled entities as defined by article L. 233-3 of the French Commercial Code within the limitations set out in the methodological note, presented in 2.8 section of the management report.

Conclusion

Based on the work performed and given the limitations mentioned above, we attest that the required CSR Information has been disclosed in the management report.

2. Conclusion on the fairness of CSR Information

Nature and scope of our work

We conducted around fourty interviews with the persons responsible for preparing the CSR Information in the departments in charge of collecting the information and, where appropriate, responsible for internal control and risk management procedures, in order to:

- assess the suitability of the Guidelines in terms of their relevance, completeness, reliability, neutrality and understandability, and taking into account industry best practices where appropriate;
- verify the implementation of data-collection, compilation, processing and control process to reach completeness and consistency of the CSR Information and obtain an understanding of the internal control and risk management procedures used to prepare the CSR Information.

We determined the nature and scope of our tests and procedures based on the nature and importance of the CSR Information with respect to the characteristics of the Company, the human resources and environmental challenges of its activities, its sustainability strategy and industry best practices.

Regarding the CSR Information that we considered to be the most important:

- at parent entity level, we referred to documentary sources and conducted interviews to corroborate the qualitative information (organisation, policies, actions), performed analytical procedures on the quantitative information and verified, using sampling techniques, the calculations and the consolidation of the data. We also verified that the information was consistent and in agreement with the other information in the management report;
- at the level of a representative sample of sites and entities selected by us [1] on the basis of their activity, their contribution to the consolidated indicators, their location and a risk analysis, we conducted interviews to verify that procedures are properly applied and to identify potential undisclosed data, and we performed tests of details, using sampling techniques, in order to verify the calculations and reconcile the data with the supporting documents. The selected sample represents 43% of headcount considered as material data of social issues and between 17% and 100% of environmental data considered as material data of environmental issues (listed in the table of environmental indicators below) and 17% of "Common ground" initiatives as a main characteristic of societal data.

(1) Social information: Arkema France S.A.; Bostik S.A.; Arkema Inc. (USA); Arkema Hydrogen Peroxide Co. Ltd. Shanghai (China).

Environmental information: Arkema France S.A.: Mont, Lacq, Carling, Pierre-Bénite, Jarrie, La Chambre, Marseille, Lannemezan; Bostik S.A.: Ribécourt; CECA S.A.: Feuchy; Arkema Hydrogen Peroxide Co. Ltd. Shanghai (China); Arkema Delaware Inc. (USA): West Chester, Clear Lake; Arkema SRL (Italy): Spinetta.

Societal information: Arkema France S.A.

2

SOCIAL INDICATORS

Total headcount as at 31/12 and breakdown by age, gender and geographical area

Recruits and leavers

Number of training hours

Absenteeism

TRIR (Total Recordable Injury Rate)

LTIR (Lost Time Injury Rate)

Percentage of sites implementing peer observation

Percentage of AIMS (Arkema Integrated Management System) audited sites

Percentage of employees benefiting of personnel representation and/or trade union representation

Percentage of employees benefiting from regular medical check-ups

Percentage of women in management position

Percentage of OHSAS 18001 certified sites by area

ENVIRONMENTAL INDICATORS

Net purchases of energy

Direct and indirect greenhouse gas emissions including CO2 (Scopes 1, 2 and 3)

HFC emissions

VOC emissions (Volatile Organic Compounds)

All substances contributing to acidification

Water withdrawn

Chemical Oxygen Demand (COD)

Hazardous waste

Percentage of ISO 14001 and ISO 50001 certified sites by area

Number of first patent applications filed by the Group in response to sustainable development issues

SOCIETAL INDICATORS

Number of "Common Ground®" initiatives

QUALITATIVE INFORMATION

Social topic	Social dialogue Occupational health and safety conditions Anti-discrimination policy
Environmental topic	Company organisation to take environmental issues into account and, as necessary, environmental evaluation and certification processes Employee environmental protection training and information Resources dedicated to preventing environmental and pollution risks Measures to prevent, reduce or remedy discharges into the water, air and soil that have serious environmental effects Water consumption and water supply adapted to local constraints, in particular the "Optim'O" project initiated to strengthen the water resources management Energy consumption and measures implemented to improve energy efficiency and the use of renewable energy Measures for prevention, recycling, reuse, or other forms of recovery and disposal of waste
Societal topic	Relationships with individuals or organisations affected by the group's operations Importance of subcontracting and consideration, in the relationship with subcontractors and suppliers of their social and environmental responsibility Consideration of social and environmental issues in the company's purchasing policy Actions taken to prevent corruption Measures implemented to promote consumers health and safety

For the remaining consolidated CSR Information, we assessed its consistency based on our understanding of the company.

We also assessed the relevance of explanations provided for any information that was not disclosed, either in whole or in part.

We believe that the sampling methods and sample sizes we have used, based on our professional judgement, are sufficient to provide a basis for our limited assurance conclusion; a higher level of assurance would have required us to carry out more extensive procedures. Due to the use of sampling techniques and other limitations inherent to information and internal control systems, the risk of not detecting a material misstatement in the CSR information cannot be totally eliminated.

Conclusion

Based on the work performed, no material misstatement has come to our attention that causes us to believe that the CSR Information, taken as a whole, is not presented fairly in accordance with the Guidelines.

Emphasis of matter

Without qualifying the above conclusion, we draw your attention to the methodological limitations noted on the indicator "Greenhouse gas emissions related to the transport and distribution of products", as mentioned in paragraph 2.8.1 of the reference document including the management report. The limits are clearly explained and the Group is committed to improving the reporting processes at the subsidiaries level in order to move towards a more precise data.

Paris La Défense, 27 February 2017

French original signed by

KPMG S.A.

Anne Garans
Associée
Sustainability Services

François Quédiniac
Associé

2.8.6 Contacts

See section 7.2 of this document.

CORPORATE GOVERNANCE

3

3.1 COMPLIANCE WITH THE CORPORATE GOVERNANCE SYSTEM AFR **150**

3.2 COMPOSITION OF ADMINISTRATIVE AND MANAGEMENT BODIES AFR **151**

3.2.1 Board of Directors 151
3.2.2 Executive management 160
3.2.3 Additional information concerning members of the Board of Directors and executive management 162

3.3 OPERATING PROCEDURES OF ADMINISTRATIVE AND MANAGEMENT BODIES AFR **163**

3.3.1 Management and limitation of powers of the Chairman and Chief Executive Officer 163
3.3.2 Duties and operating procedures of the Board of Directors 164
3.3.3 Senior independent director 167
3.3.4 Committees of the Board of Directors 168

3.4 COMPENSATION AND BENEFITS AWARDED TO EXECUTIVES AND DIRECTORS AFR **171**

3.4.1 Compensation of non-executive directors 172
3.4.2 Compensation of executive officers 173
3.4.3 Compensation of Executive Committee members 182
3.4.4 Stock transactions by the Company's executives 183

3.5 STOCK-BASED COMPENSATION **184**

3.5.1 Free share and performance share plans 185
3.5.2 Stock option plans 189

3.6 STATUTORY AUDITORS' REPORT IN ACCORDANCE WITH ARTICLE L. 225-235 OF THE FRENCH COMMERCIAL CODE AFR **190**

The different parts constituting the annual financial report are identified in the table of contents by the pictogram AFR

This chapter 3, together with section 1.7.1 and the section entitled "Risk related to climate change" in section 1.7.2.3 of this document, make up the Chairman of the Board of Directors' report as required under Article L. 225-37 of the French Commercial Code (*Code de commerce*) as amended by Law no. 2015-992 of 17 August 2015 relating to the energy transition to drive green growth. This report was prepared by the Company's Chairman and Chief Executive Officer, with the assistance of a working group comprising, in particular, the Secretary of the Board of Directors and the Internal Audit and Internal Control Vice-President, having taken into consideration:

- the AFEP-MEDEF corporate governance code for listed companies, last revised in November 2016 (the «AFEP-MEDEF Code»), and its correspondingly amended December 2016 Application Guide, available on the AFEP and MEDEF websites (www.afep.com and www.medef.com);
- the *Autorité des marchés financiers* (AMF) recommendations no. 2012-02 dated 9 February 2012 on corporate governance and executive compensation in listed companies, updated on 17 November 2016, 22 December 2015 and 11 December 2014, no. 2013-17 dated 4 November 2013 and no. 2014-08 dated 22 September 2014;
- the AMF review of the Chairman's reports on internal control and risk management procedures for 2015; and
- the recommendations of the AFEP-MEDEF *Haut Comité de Gouvernement d'Entreprise* set out in its annual report published in October 2016.

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) prior to approval by the Company's Board of Directors on 27 February 2017.

The other information required under the aforementioned Article L. 225-37, namely, the conditions of shareholder participation at general shareholders' meetings, information concerning the structure of the Company's share capital and factors likely to have an impact in the event of a takeover bid, are set out in sections 5.5.1, 5.2.1, 5.3.1, 5.3.2 and 5.3.3, respectively, of this document.

3.1 COMPLIANCE WITH THE CORPORATE GOVERNANCE SYSTEM

With regard to corporate governance, the Company refers to the recommendations of the AFEP-MEDEF Code and its Application Guide, available on the AFEP and MEDEF websites (www.afep.com and www.medef.com).

In accordance with the "comply or explain" rule provided under Article L. 225-37 of the French Commercial Code and article 27.1 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 system in force in France.

Disregarded provisions of the AFEP-MEDEF Code	Explanations
17. The compensation committee *"[…] It is recommended […] that one of its members be an employee director."*	The director representing employees takes part in Board of Directors' meetings during which compensation packages are reviewed and discussed. However, given that the Nominating, Compensation and Corporate Governance Committee deals with broader issues than merely compensation, the director representing employees is not a member of said committee.

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 operating procedures 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.

At the date of this document, the Company is run by a Board of Directors comprising thirteen members, nine of whom are independent. The Board includes five women, one member representing shareholder employees and one member representing employees.

In accordance with the AFEP-MEDEF Code and with AMF recommendations on the composition of Boards of Directors, the Nominating, Compensation and Corporate Governance Committee regularly reviews the objectives relating to the diversification of the Board of Directors, in terms of directors' independence, gender balance and the mix of nationalities and cultures, as well as the range of experience, in particular international experience, and complementary skills. Consequently, the Committee aims to select and propose current and former executives with skills in areas such as industry, finance, research and information technology for Board approval. In terms of developing the Board's international dimension, and given the Group's brief history as an independent company, the Board of Directors wishes to continue to encourage the face-to-face presence and active participation of its members at its meetings and, in that respect, is seeking French or foreign nationality candidates who have acquired significant international experience.

At the date of this document, the Board of Directors considers that its members' skills and career paths are diverse enough to allow it to carry out its duties with the necessary independence and objectivity, except for progress identified during the assessment process conducted in 2016 by an external advisory firm (see paragraph 3.3.2.4 of the 2015 reference document).

The professional expertise of each member of the Board of Directors, at the date of this document, is set out in sections 3.2.1.2 and 3.2.1.3 herein.

Independence of directors

As part of its process to assess its members' independence and to prevent risks of conflicts of interest between directors and management, the Company or the Group, the Board of Directors takes into account all the criteria of the AFEP-MEDEF Code, which are laid down 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, the director must not:

- be, or have been within the last five years:
  - an employee or executive officer of the Company,
  - an employee, executive officer or director of a company consolidated by the Company;
- be an executive officer of a company in which the Company holds a directorship, directly or indirectly, or in which one of its employees (designated as such) or executive directors (currently or in the last five years) holds a directorship;
- be, or be directly or indirectly linked to a major customer, supplier, corporate or investment banker of the Company or the Group, or for which the Company or Group represents a significant portion of the business;
- have close family ties with a director of the Company;
- have been an auditor of the Company in the previous 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 of 6 January 2017 and at the Board of Directors' meeting of 18 January 2017. At these meetings, the Nominating, Compensation and Corporate Governance Committee, and subsequently the Board of Directors, reviewed the business relationships in place with companies with which one or several directors are associated and, in that respect, performed materiality tests to establish whether those relationships are significant. To that end, a summary of the transactions carried out between the Group and these companies was submitted to the Board of Directors in order to assess the volume of business between the Group and each of these companies, individually.

One such review concerned the situation of Laurent Mignon, Chief Executive Officer of Natixis. The Board of Directors accordingly performed materiality tests to compare the fees received by all of the Group's banks and determine the share of the Group's credit commitments held by each one. These tests enabled the Board to establish that the business relationships between Arkema and Natixis were not material compared to either of the two companies' revenues, and that Natixis lending commitments to Arkema, which represent less than 15% of the total commitments received by the Group, are at the same level as those of the Group's other main banks. Consequently, the Board of Directors concluded that no dependency relationship exists between the two companies and that Laurent Mignon continued to qualify as an independent director.

In light of the foregoing, the Board of Directors decided that, with the exception of Thierry Le Hénaff, Chairman and Chief Executive Officer of the Company, Patrice Bréant and Nathalie Muracciole, who are employed by a Group company, and Isabelle Boccon-Gibod, permanent representative of the *Fonds Stratégique de Participations*, which holds more than 10% of the Company's voting rights, all members of the Board of Directors are independent.

At the date of this document, and in accordance with the AFEP-MEDEF Code, which provides that the director representing shareholder employees, Patrice Bréant, and the director representing employees, Nathalie Muracciole, should not be included when calculating the percentage of independent directors, the rate of independence of the Board of Directors is 82% (9 directors out of 11). This proportion is considerably greater than the AFEP-MEDEF Code recommendation that at least half the Board members of companies with diversified capital and no controlling shareholders be independent.

Gender balance on the Board of Directors

In accordance with Articles L. 225-17 paragraph 2 and L. 225-37 paragraph 6 of the French Commercial Code, the Board of Directors ensures that the principle of gender balance among its members is applied, particularly when renewing each director's term of office. At the date of this document, the Company's Board of Directors included four women among its twelve members, *i.e.*, 33% (the director representing employees, Nathalie Muracciole was not taken into account when calculating the gender balance, in accordance with the AFEP-MEDEF Code). Pursuant to the provisions of French law no. 2011-103 of 27 January 2011 relating to gender balance on Boards of Directors and Supervisory Boards and to equality in the workplace, the Board of Directors, on the recommendation of the Nominating, Compensation and Corporate Governance Committee, decided to submit the appointment as a director of Yannick Assouad to the ordinary general meeting of 23 May 2017 for its approval. Consequently, at the date of this document, given the proposals concerning ratification, renewals and appointment submitted to this annual general meeting, and subject to a favorable vote on this appointment and on the ratification of the co-optation of Marie-José Donsion by the Board of Directors to replace Claire Pedini, the Board will include five women among its eleven members, *i.e.*, 45%.

For further details on these resolutions, see sections 6.2.2 and 6.2.3 of this document.

Representation of employees and shareholder employees

In accordance with the applicable regulations, the Board of Directors includes a member representing shareholder employees, Patrice Bréant, whose term of office was renewed at the annual general meeting of 15 May 2014.

In addition, pursuant to the provisions of Article L. 225-27-1 of the French Commercial Code, and the amendments to the Articles of Association introduced at the annual general meeting of 7 June 2016, Nathalie Muracciole was appointed by the French delegation of the European Group Works Council meeting of 7 July 2016 as director representing employees. In accordance with Articles L. 225-30-2 and R. 225-34-2 of the French Commercial Code, the Board of Directors, on the recommendation of the Nominating, Compensation and Corporate Governance Committee, set out the content of Nathalie Muracciole's training program for the duration of her term as a director. She is thus entitled to at least 20 hours of training per year.

Other characteristics

According to the provisions of the Company's Articles of Association and/or the Board of Directors' Internal Rules:

- subject to the laws applicable to provisional appointments made by the Board of Directors, the directors shall serve a four-year term of office. 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 runs smoothly. As the terms of office of all directors are staggered, the general shareholders' meeting is called upon every year to decide on the renewal of one or more terms of office;
- each director must hold at least 450 of the Company's shares throughout their term of office except for the director

representing shareholder employees and the director representing employees, who must hold, individually or through a company mutual fund (*Fonds Commun de Placement d'Entreprise* – FCPE) governed by Article L. 214-165 of the French Monetary and Financial Code (*Code monétaire et financier*), at least one share in the Company, or a number of units of the said fund equivalent to at least one share in the Company; and

- the age limit for directors set in the Company's Articles of Association is 70 years old and serving directors who reach this age limit are automatically considered as having resigned on their 70th birthday unless the Board decides that they may complete their term.

Furthermore, in accordance with the provisions of the Board of Directors' Internal Rules, each director is subject to an obligation to report any potential direct or indirect conflicts of interest to the Company (see section 3.2.3.3 below).

3.2.1.2 COMPOSITION OF THE BOARD OF DIRECTORS

In 2016, the composition of the Board of Directors was modified as a result of:

- the resignation of Claire Pedini as a director on 17 June 2016 and her replacement by Marie-José Donsion, appointed by the Board of Directors as a director and member of the Audit and Accounts Committee on 9 November 2016; and
- the appointment by the French delegation of the European Group Works Council, on 7 July 2016, of Nathalie Muracciole, as a director representing employees.

At 31 December 2016, the composition of the Board of Directors was therefore as follows:

Directors	Other offices held
Thierry Le Hénaff CHAIRMAN AND CHIEF EXECUTIVE OFFICER **Business address:** Arkema, 420 rue d'Estienne d'Orves, 92700 Colombes **Date of first appointment:** 6 March 2006 **Date of last renewal:** 7 June 2016 **Date appointment expires:** AGM held to approve financial statements for 2019 financial year **Nationality:** French **Number of shares held at 31 December 2016:** 135,000	***Currently held:*** **France** **Within the Group** ▸ Chairman of the Board of Directors, Arkema France **International** ▸ None ***Held in the past five years but now expired:*** **Expired in 2016** ▸ Director, Eramet* **Expired from 2012 to 2015** ▸ None
Patrice Bréant DIRECTOR REPRESENTING SHAREHOLDER EMPLOYEES **Business address:** Arkema France, 420 rue d'Estienne d'Orves, 92700 Colombes **Date of first appointment:** 1 June 2010 **Date of last renewal:** 15 May 2014 **Date appointment expires:** AGM held to approve financial statements for 2017 financial year **Nationality:** French **Number of FCPE units held at 31 December 2016:** 578 **Expertise:** experience in trade union matters and R&D in high performance materials	***Currently held:*** **France** **Within the Group** ▸ Member of the Supervisory Board, *FCPE Arkema Actionnariat France* **International** ▸ None ***Held in the past five years but now expired:*** **Expired in 2016** ▸ None **Expired from 2012 to 2015** ▸ None

<table>
<tr><th>Directors</th><th>Other offices held</th></tr>
<tr><td>Marie-José Donsion
INDEPENDENT DIRECTOR AND MEMBER OF THE AUDIT AND ACCOUNTS COMMITTEE
Business address: Alstom,
48 rue Albert Dhalenne, 93400 Saint-Ouen

Date of first appointment:
9 November 2016
Date appointment expires:
AGM held to approve financial statements for 2017 financial year
Nationality: French and Spanish
Number of shares held at the date of this document: 0 (1)
Expertise: Senior Vice-President Finance and Executive Committee member of a major industrial group with extensive accounting and financial experience</td><td>Currently held**:
France
‣ Senior Vice-President Finance, Alstom*
International
‣ None
Held in the past five years but now expired**:
Expired in 2016
‣ None
Expired from 2012 to 2015
‣ None</td></tr>
<tr><td>François Enaud
INDEPENDENT DIRECTOR, MEMBER OF THE NOMINATING, COMPENSATION AND CORPORATE GOVERNANCE COMMITTEE AND SENIOR INDEPENDENT DIRECTOR
Business address: Arkema,
420 rue d'Estienne d'Orves, 92700 Colombes

Date of first appointment:
10 May 2006
Date of last renewal:
2 June 2015
Date appointment expires:
AGM held to approve financial statements for 2018 financial year
Nationality: French
Number of shares held at 31 December 2016: 551
Expertise: former CEO of a large digital services company with a strong presence in India and the United Kingdom, listed on the Paris stock exchange with significant experience in customer-driven businesses and new technologies</td><td>Currently held**:
France
‣ Chairman, FE Développement SAS
‣ Chairman, Dejamobile
‣ Chairman, Shadline
‣ Partner and Director, Aston i Trade Finance
‣ Partner and Director, Premium Peers
‣ Senior Advisor, Oddo Finance
‣ Chairman of the Board of Directors, Agence nouvelle des solidarités actives (ANSA)
‣ Director, FONDACT (Association under French law 1901 for participative management, employee savings plans, and responsible share ownership)
International
‣ None
Held in the past five years but now expired**:
Expired in 2016
‣ None
Expired from 2012 to 2015
‣ Chief Executive Officer and Director, Sopra Steria Group*
‣ Chief Executive Officer, Groupe Steria SA*
‣ Chairman and Chief Executive Officer, Steria SA
‣ Director, Steria Limited
‣ Director, Steria Services Limited
‣ Managing Partner, Groupe Steria SCA</td></tr>
<tr><td>Bernard Kasriel
INDEPENDENT DIRECTOR AND MEMBER OF THE NOMINATING, COMPENSATION AND CORPORATE GOVERNANCE COMMITTEE
Business address: Arkema,
420 rue d'Estienne d'Orves, 92700 Colombes

Date of first appointment:
10 May 2006
Date of last renewal:
4 June 2013
Date appointment expires:
AGM held to approve financial statements for 2016 financial year
Nationality: French
Number of shares held at 31 December 2016:
1,642
Expertise: engineer and former CEO of a major French CAC 40-listed industrial group with significant international experience, particularly in the United States</td><td>Currently held**:
France
‣ Director, L'Oréal*
International
‣ Director, Nucor* (USA)
Held in the past five years but now expired**:
Expired in 2016
‣ None
Expired from 2012 to 2015
‣ None</td></tr>
</table>

(1) As from the date of their appointment, directors have one year to comply with shareholding requirement.

Directors	Other offices held
Victoire de Margerie Independent director and member of the Nominating, Compensation and Corporate Governance Committee **Business address:** c/o Rondol Industrie, 8 place de l'Hôpital, 67000 Strasbourg **Date of first appointment:** 7 November 2012 **Date of last renewal:** 2 June 2015 **Date appointment expires:** AGM held to approve financial statements for 2018 financial year **Nationality:** French **Number of shares held at 31 December 2016:** 450 **Expertise:** Chairman of a micromechanics SME with a broad experience in industry acquired for the most part in Germany and the United States, and an independent director of various listed companies in the industrial sector in France and abroad.	***Currently held**:*** **France** ▸ Chairman, Rondol Industrie ▸ Director, Eurazéo* ▸ Director, Banque Transatlantique **International** ▸ Director, member of the nominating and compensation committee and member of the audit and risk committee of Babcock International group Plc.* ***Held in the past five years but now expired**:*** **Expired in 2016** ▸ Director, Écoemballages ▸ Director, Morgan Advanced Materials* (United Kingdom) ▸ Director, Italcementi* (Italy) **Expired from 2012 to 2015** ▸ Director, Norsk Hydro* (Norway) ▸ Director, Ciments Français ▸ Director, Groupe Flo
Laurent Mignon Independent director **Business address:** Natixis, 30 avenue Pierre Mendès France, 75013 Paris **Date of first appointment:** 10 May 2006 **Date of last renewal:** 2 June 2015 **Date appointment expires:** AGM held to approve financial statements for 2018 financial year **Nationality:** French **Number of shares held at the date of this document:** 450 **Expertise:** CEO of a major French bank listed on the Paris stock exchange with significant experience in finance and economics	***Currently held**:*** **France** **Within the BPCE group** ▸ Chief Executive Officer, Natixis SA* ▸ Chairman of the Board of Directors, Natixis Global Asset Management (NGAM) ▸ Member of the Executive Board, BPCE ▸ Chairman of the Board of Directors, Coface SA* **International** **Outside the BPCE group** ▸ None ***Held in the past five years but now expired**:*** **Expired in 2016** ▸ Director, Lazard Ltd* **Expired from 2012 to 2015** ▸ Chairman, Coface Holding SAS ▸ Permanent Representative of Natixis, Director, Coface SA ▸ Director, Sequana* ▸ Permanent Representative of Natixis, non-voting member of the Supervisory Board, BPCE
Hélène Moreau-Leroy Independent director and member of the Audit and Accounts Committee **Business address:** Safran Transmission Systems, 18 boulevard Louis Seguin, 92707 Colombes Cedex **Date of first appointment:** 2 June 2015 **Date appointment expires:** AGM held to approve financial statements for 2018 financial year **Nationality:** French **Number of shares held at 31 December 2016:** 450 **Expertise:** Chairman and CEO of a company belonging to a major industrial group with many years' international experience	***Currently held**:*** **France** ▸ Chairman of Safran Transmission Systems ▸ Director, SEM-MB **International** ▸ None ***Held in the past five years but now expired**:*** **Expired in 2016** ▸ None **Expired from 2012 to 2015** ▸ None

Directors	Other offices held
Thierry Morin Independent director and Chairman of the Nominating, Compensation and Corporate Governance Committee **Business address:** Arkema, 420 rue d'Estienne d'Orves, 92700 Colombes **Date of first appointment:** 10 May 2006 **Date of last renewal:** 4 June 2013 **Date appointment expires:** AGM held to approve financial statements for 2016 financial year **Nationality:** French **Number of shares held at 31 December 2016:** 1,281 **Expertise:** former Chairman and CEO of a French industrial group operating in the highly competitive automotive equipment sector, with a strong international presence	***Currently held****:*** **France** ▸ Chairman, Thierry Morin Consulting (TMC) ▸ Chairman of the Board of Directors, *Université de Technologie de Compiègne* ▸ Manager, TM France ▸ Director, Elis* **International** ▸ Chairman, TMPARFI SA (Luxembourg) ***Held in the past five years but now expired****:*** **Expired in 2016** ▸ None **Expired from 2012 to 2015** ▸ Chairman of the Board of Directors, *Institut national de la propriété industrielle* (INPI)
Nathalie Muracciole Director representing employees **Business address:** Arkema, 420 rue d'Estienne d'Orves, 92700 Colombes **Date of first appointment:** 7 July 2016 **Date appointment expires:** AGM held to approve financial statements for 2019 financial year **Nationality:** French **Number of FCPE units held at 31 December 2016:** 154 **Expertise:** experience in human resources management and employee relations	***Currently held****:*** **France** ▸ None **International** ▸ None ***Held in the past five years but now expired****:*** **Expired in 2016** ▸ None **Expired from 2012 to 2015** ▸ None
Marc Pandraud Independent director **Business address:** JP Morgan, 28th Floor, 25 Bank Street, London E14 5JP, United Kingdom **Date of first appointment:** 15 June 2009 **Date of last renewal:** 4 June 2013 **Date appointment expires:** AGM held to approve financial statements for 2016 financial year **Nationality:** French **Number of shares held at 31 December 2016:** 500 **Expertise:** executive of a major international bank with significant experience in investment banking across numerous countries	***Currently held****:*** **France** ▸ Vice-Chairman of investment banking for Europe, the Middle East and Africa at JP Morgan **International** ▸ None ***Held in the past five years but now expired****:*** **Expired in 2016** ▸ Vice-Chairman, Deutsche Bank Europe – Middle East and Africa **Expired from 2012 to 2015** ▸ None

Directors	Other offices held
Philippe Vassor Independent director and Chairman of the Audit and Accounts Committee **Business address:** Arkema, 420 rue d'Estienne d'Orves, 92700 Colombes **Date of first appointment:** 10 May 2006 **Date of last renewal:** 4 June 2013 **Date appointment expires:** AGM held to approve financial statements for 2016 financial year **Nationality:** French **Number of shares held at 31 December 2016:** 2,370 **Expertise:** former Chairman and CEO (France) of a leading accounting firm with significant experience in finance and accounting	***Currently held**:*** **France** ▸ Chairman, Baignas SAS ▸ Chairman, V.L.V. SAS ▸ Chairman, Triple V SAS ▸ Chairman, VLV Orfila SAS **International** ▸ None ***Held in the past five years but now expired**:*** **Expired in 2016** ▸ None **Expired from 2012 to 2015** ▸ Director, Bull* ▸ Director, Groupama S.A. ▸ Chairman, DGI Finance SAS
***Fonds Stratégique de Participations* (FSP)** Director **Business address:** 47 rue du Faubourg Saint-Honoré, 75401 Cedex 08 Paris **Date of first appointment:** 15 May 2014 **Date appointment expires:** AGM held to approve financial statements for 2017 financial year **Number of shares held at 31 December 2016:** 4,759,008	***Currently held**:*** **France** ▸ Director, SEB S.A.* ▸ Director, Zodiac Aérospace* ▸ Director, Eutelsat Communications* **International** ▸ None ***Held in the past five years but now expired**:*** **Expired in 2016** ▸ None **Expired from 2012 to 2015** ▸ None
Permanent representative of the FSP: Isabelle Boccon-Gibod Member of the Audit and Accounts Committee **Business address:** Arkema, 420 rue d'Estienne d'Orves, 92700 Colombes **Date appointed:** 15 May 2014 **Nationality:** French **Expertise:** former executive of a major international industrial group present in the pulp and paper industry	***Currently held**:*** **France** ▸ Director, Sequana* ▸ Director, Legrand* ▸ Member of the national investment strategy Board (*Conseil national d'orientation*), BPI France ▸ Vice-President of the Economic Commission, MEDEF ▸ Director, Paprec ▸ Director, *Centre Technique du Papier* **International** ▸ None ***Held in the past five years but now expired**:*** **Expired in 2016** ▸ None **Expired from 2012 to 2015** ▸ Chairman, Copacel

* *listed company.*
** *outside the Arkema Group.*

At its meeting on 27 February 2017, the Board of Directors noted that the terms of office of Bernard Kasriel, Thierry Morin, Marc Pandraud and Philippe Vassor were due to expire at the close of the annual general meeting of 23 May 2017.

The Board of Directors would like to extend its warmest thanks to Bernard Kasriel and Philippe Vassor for their support during the different steps in the Group's transformation and for their active contribution to the work of the Board of Directors as well as the Nominating, Compensation and Corporate Governance Committee and the Audit and Accounts Committee, respectively, since the Company's stock market listing.

The Board of Directors also notes the appointment, decided on a provisional basis by the Board of Directors on 9 November 2016, of Marie-José Donsion as director and member of the Audit and Accounts Committee, in place of Claire Pedini who resigned.

Consequently, at the annual general meeting of 23 May 2017, on a recommendation of the Board of Directors, shareholders will be invited to:

- ratify the appointment of Marie-José Donsion as director, for the remainder of Claire Pedini's term of office, *i.e.*, until the close of the ordinary general meeting to be held in 2018 to approve the financial statements for the year ending 31 December 2017;
- re-elect Marc Pandraud and Thierry Morin as directors for a four-year term expiring at the close of the ordinary general meeting to be held in 2021 to approve the financial statements for the year ending 31 December 2020; and
- appoint Yannick Assouad as director for a four-year term expiring at the close of the ordinary general meeting to be held in 2021 to approve the financial statements for the year ending 31 December 2020.

For further details on these resolutions, see section 6.2.2 of this document.

3.2.1.3 INFORMATION ON THE MEMBERS OF THE BOARD OF DIRECTORS

Thierry Le Hénaff, born in 1963, is a graduate of France's *École polytechnique* and *École nationale des ponts et chaussées* and holds a master's degree in Industrial Management from Stanford University in the United States. Thierry Le Hénaff was appointed Chairman and Chief Executive Officer of Arkema on 6 March 2006 and Chairman of the Board of Directors of Arkema France on 18 April 2006.

After starting his career with Peat Marwick Consultants, in 1992 he joined Bostik, Total'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 and Elf Atochem's adhesives divisions. On 1 January 2003, he joined Atofina's Executive Committee, where he was in charge of three business units (Agrochemicals, Fertilizers and Thiochemicals) and three corporate departments. In 2004, he became a member of Total's management committee. On 6 March 2006, he was appointed Chairman and Chief Executive Officer of Arkema and led the Company's stock market listing on 18 May 2006.

Patrice Bréant (director representing shareholder employees), born in 1954 in Rouen, is a graduate of the *Institut national supérieur de la chimie industrielle de Rouen* and holds a doctorate in organic chemical engineering. He is an expert engineer in experimental methodology and statistical process control.

He started his career in 1983 at the Nord Research Center of CDF Chimie (which later became Orkem), as a polyethylene formulation and modification research engineer. In 1990, he joined the Cerdato Research Center in Serquigny, France, and later the Materials Research Laboratory's technical polymers department.

He has been a member of the Serquigny site Works Council and of the Central Works Council since 1994. He was *rapporteur* to the research commission of the Central Works Council of Arkema France from 1994 to 2007. He has also been the union representative for Arkema France's Serquigny site and the CFE-CGC central trade union representative for Arkema France since 2004. He serves as a member of the Supervisory Board of the FCPE Arkema Actionnariat France company mutual fund (*Fonds Commun de Placement d'Entreprise*).

Marie-José Donsion, a dual French and Spanish national born in 1971, is a graduate of France's *École supérieure de commerce de Paris* (ESCP Europe). She is currently Senior Vice-President Finance of Alstom and a member of its Executive Committee.

Prior to this, she held a number of operational financial positions in Alstom's subsidiaries in France and around the world.

Before joining Alstom, Marie-José Donsion began her career at Coopers & Lybrand where she worked in the audit division between 1994 and 1997.

François Enaud, born in 1959, is a graduate of France's *École polytechnique* and graduated as a civil engineer from the *École nationale des ponts et chaussées*.

Between 1998 and March 2015, he was successively Chairman and Chief Executive Officer of Steria SA, Managing Partner of Steria SCA and Chief Executive Officer of the Sopra Steria Group. After spending two years as a works engineer at Colas (1981-1982), François Enaud joined Steria in 1983 where he held several management positions (Technical and Quality divisions Manager, Chief Executive Officer of subsidiaries, Transport division Manager and Telecoms division Manager) before being appointed Chief Executive Officer of Steria in 1997 and Chairman in 1998. In September 2014, François Enaud was appointed Chief Executive Officer of the Sopra Steria Group, which was formed following the merger of Sopra and Steria.

In September 2015, François Enaud set up the FE Développement consultancy whose corporate purpose is to develop and support a network of innovative companies in the digital economy.

Bernard Kasriel, born in 1946, is a graduate of France's *École polytechnique* and has MBAs from Harvard Business School and INSEAD business school.

He joined Lafarge in 1977 as Executive Vice-President and later Chief Executive Officer of the Sanitaryware division. 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 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 the end of 2005.

Before joining Lafarge, Bernard Kasriel had begun his career at the *Institut de développement industriel* (1970), before holding executive management positions in different regional companies (1972). He then joined *Société Phocéenne de Métallurgie* as Executive Vice-President (1975). He was also a Managing Partner at LBO France from September 2006 to September 2011.

Victoire de Margerie, born in 1963, is a graduate of France's *École des hautes études commerciales* (HEC) and *Institut d'Études Politiques* (IEP), and holds a DESS in Private Law from the *Université de Paris 1 - Panthéon -Sorbonne*, and a Ph.D. in Management Science from the *Université de Paris 2 - Panthéon-Assas*. She has been Chairman and principal shareholder of Rondol Industrie, a micromechanics SME, since 2012. She is also Vice-Chairman of the World Materials Forum.

She previously held operational positions in industry in Germany, France and the United States with Elf Atochem, CarnaudMetalbox and Pechiney. Between 2002 and 2011, Victoire de Margerie also taught strategy and technology management at the Grenoble *École de Management* business school.

Laurent Mignon, born in 1963, is a graduate of France's *École des hautes études commerciales* (HEC) and the Stanford Executive Program. He is Chief Executive Officer of Natixis S.A. and member of the Management Board of BPCE.

For over 10 years, he held a number of positions in the banking sector at Banque Indosuez, from trading to investment banking. In 1996, he joined Schroders in London, followed by AGF in 1997 as Finance Director, and was appointed member of the Executive Committee in 1998. In 2002, he was given responsibility for investments at AGF Asset Management and AGF Real Estate successively, and, in 2003, of the Life and Financial Services as well as Credit Insurance departments. From September 2007 to May 2009, he was Managing Partner, alongside Philippe Oddo, of Oddo & Cie.

Hélène Moreau-Leroy, born in 1964, is a graduate of the *Institut National des Sciences Appliquées* (INSA) based in Lyon, France, and holds a Master in International Business Administration from Australia's University of New England. She is an APICS-Certified Supply Chain Professional and is currently Chief Executive Officer of Safran Transmission Systems.

Hélène Moreau-Leroy has held various management positions in the areas of research and development, project management, procurement and production with different industrial groups and spent 14 years in international positions outside France. She joined the Safran group in 2003, as a member of the Snecma SA group purchasing department. She was subsequently given responsibility for organizing Messier-Bugatti Dowty's supply chain in emerging markets before becoming the company's Programs Vice-President and a member of its management committee. She is also a member of the management committee of the French association of aerospace and military equipment manufacturers (*Groupement des Équipementiers de l'Aéronautique et de la Défense* – GEAD) and of various networks and associations set up to promote workplace diversity.

Thierry Morin, born in 1952, holds a degree in management from the *Université de Paris IX Dauphine*. He is also Chairman of the Board of Directors of the *Université de Technologie de Compiègne*, former Chairman of the Board of Directors of INPI (*Institut national de la propriété industrielle*), and Chairman of Thierry Morin Consulting and TM France.

Thierry Morin joined the Valeo group in 1989, where he held various positions, including divisional finance director and director of financial control, strategy and purchasing, before becoming Executive Vice-President in 1997, Chief Executive Officer in 2000, Chairman of the Management Board in 2001, and then Chairman and Chief Executive Officer from March 2003 to March 2009. Prior to that, he held various positions at Burroughs, Schlumberger and Thomson Consumer Electronics.

Nathalie Muracciole, born in 1964, holds a degree in Law from the *Université de Créteil* in France. Since 2012, she has been in charge of change management within Arkema as part of the «Ambition» project.

She began her career in 1983 in the Total group as an executive assistant with CDF Chimie (which later became Orkem). She then became career manager for the professional markets division at Sigma Kalon. After several years as recruitment/employment and training/communication manager with Mapa Spontex, she joined Atofina in 2003. She was appointed corporate training manager with Arkema in 2004 and then served as human resources and employee relations manager for the headquarters between 2006 and 2012.

Marc Pandraud, born in 1958, is a graduate of France's *École supérieure de commerce de Paris* (ESCP Europe). He has been Vice-Chairman of investment banking for Europe, the Middle East and Africa at JP Morgan since 14 April 2016.

Marc Pandraud began his career as an auditor with Peat Marwick Mitchell (1982-1985). He was subsequently Vice-Chairman of Bear Stearns & Co Inc. (1985-1989) and then Chief Executive Officer of SG Warburg France S.A. (1989-1995), Chief Executive Officer of Deutsche Morgan Grenfell (1995-1998), then Chief Executive Officer in charge of investment banking (1998). He then joined Merrill Lynch as Managing Director of Merrill Lynch & Co Inc. (1998) and Chief Executive Officer of Merrill Lynch France (1998) before becoming Chairman of Merrill Lynch France (2005-2009). In 2009, he moved to Deutsche Bank to take up a position as Chairman of the bank's French operations, going on to serve as Vice-Chairman of Deutsche Bank Europe, Middle East and Africa between June 2013 and January 2016.

Philippe Vassor, born in 1953, is a graduate of France's *École supérieure de commerce de Paris* (ESCP) and is a French certified public accountant (*expert comptable*) and statutory auditor. He has been Chairman of Baignas S.A.S. since June 2005.

Philippe Vassor spent most of his career (from 1975 to 2005) at Deloitte, where he became Chairman and Chief Executive Officer in France and a member of the global Executive Group, responsible for Human Resources (from 2000 to 2004).

***Fonds Stratégique de Participations* (FSP)** was created in 2012 by four major French insurance companies – BNP Paribas Cardif, CNP Assurances, Predica and Sogécap – to make long-term investments in the share capital of French non-financial listed companies and to support them in the implementation of their strategy. It is represented in the governance bodies of these companies.

The FSP is an independent investment body with its own governance structure. Its portfolio is managed by a dedicated team within Edmond de Rothschild Asset Management, part of the Edmond de Rothschild group, which is responsible for the financial monitoring of the companies in which the FSP has invested and relations with the FSP's permanent representatives on those companies' Boards of Directors. The FSP does not act in concert with other shareholders and votes independently at annual general meetings. The FSP appointed Isabelle Boccon-Gibod as its permanent representative on the Company's Board of Directors.

Isabelle Boccon-Gibod, born in 1968, is a graduate of the *École Centrale de Paris* in France and the University of Columbia in the United States.

She is a member of the national investment strategy Board (*Conseil national d'orientation*) of BPI France, Vice-President of the MEDEF Economic Commission, director of the Paprec group, director of Sequana and director of Legrand.

Isabelle Boccon-Gibod is also a photographer and author. She was Executive Vice-President of Arjowiggins and an Executive Director of Sequana and also chaired Copacel, the French Association of Paper Industries, until the end of 2013.

3.2.2 Executive management

3.2.2.1 CHAIRMAN AND CHIEF EXECUTIVE OFFICER

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. In 2016, when renewing the term of office as director of Thierry Le Hénaff, Chairman and Chief Executive Officer of the Company, the Board decided unanimously that the positions of Chairman and of Chief Executive Officer should continue to be combined, as recommended by the Nominating, Compensation and Corporate Governance Committee. Consequently, the Board re-appointed Thierry Le Hénaff as Chairman and Chief Executive Officer of the Company following the annual general meeting of 7 June 2016.

The decision to maintain a unified governance structure, in compliance with the AFEP-MEDEF Code, was based on a detailed analysis by the Board of Directors taking into account both the way Arkema's governance structures have operated over the last ten years and the Group's specific needs.

The Board of Directors considered that the Arkema's governance structures operated very efficiently in strict respect of the balance of powers between the Board and management thanks to the robust control mechanisms set up within the Group, such as:

- a very large majority of independent directors on the Board of Directors (82%);
- a very large majority of independent members on the various committees of the Board of Directors (100% for the Nominating, Compensation and Corporate Governance Committee and 75% for the Audit and Accounts Committee);
- close involvement of all members of the Board of Directors in the Group's strategy, notably during the annual strategy seminar;
- limitations of the powers of the Chairman and Chief Executive Officer, who is required to inform the Board of Directors of the most significant transactions or submit them to the Board of Directors for prior approval. These limitations are set out in detail in section 3.3.1 of this document; and
- the appointment in March 2016 of a senior independent director whose primary role is to oversee the efficient running of the Company's governance structure and to assist the Chairman and Chief Executive Officer as needed, in particular in his relations with shareholders on governance issues. The senior independent director's role and responsibilities are described in detail in the Board of Directors' Internal Rules available on the Company's website, www.arkema.com. They are set out in section 3.3.3 of this document.

The Chairman and Chief Executive Officer is not a member of any of the specialized committees of the Board of Directors.

It should also be noted that the Nominating, Compensation and Corporate Governance Committee regularly reviews the existing governance structure – in particular, each time the Chairman and Chief Executive Officer's term of office is renewed – and verifies that the chosen structure continues to be the most appropriate. Its conclusions are presented to the Board of Directors, which then decides whether or not to maintain the structure in place.

In the course of the annual assessment of the Board of Directors carried out by consulting firm Spencer Stuart in early 2016, the directors expressed their satisfaction with the current organization of the governance structure and with the Board's open, adversarial and constructive discussion of the issues put before it. The directors appreciate, in particular, their complete freedom of expression and the quality of the discussions, which they attribute to the Board's diversity and its members' complementary skill-sets.

3.2.2.2 EXECUTIVE COMMITTEE

The Chairman and Chief Executive Officer has put in place an Executive Committee.

The Executive Committee is in charge of the Group's operational management supervision as well as coordination and monitoring of the implementation of strategy within the Group. It is a decision-making body that focuses on strategic matters and performance monitoring, and reviews significant organizational matters and large projects. It also ensures the effective implementation of internal control. The Executive Committee meets twice a month.

At 31 December 2016, the Executive Committee was made up of the following members:

- Thierry Le Hénaff: Chairman and Chief Executive Officer;
- three operational executive Vice-Presidents:
  - Marc Schuller: Executive Vice-President for the Coating Solutions and Industrial Specialties divisions and for Raw Materials and Energy Procurement,
  - Christophe André: Executive Vice-President for the Technical Polymers and Performance Additives Business Lines, who is also in charge of digital affairs within the Group, and
  - Vincent Legros: Executive Vice-President for the Specialty Adhesives (Bostik) Business Line;
- four corporate executive Vice-Presidents:
  - Luc Benoît-Cattin: Executive Vice-President, Industry, who oversees industrial safety, environment and sustainable development, technology, logistics, quality and goods and services procurement,
  - Bernard Boyer: Executive Vice-President, Strategy, who oversees strategic planning, economic studies, acquisitions and divestments, internal audit and internal control, insurance and risk management,
  - Michel Delaborde: Executive Vice-President, Human Resources and Corporate Communications, and
  - Thierry Lemonnier: Chief Financial Officer, who oversees accounting, management control, treasury management, legal, taxation, financial communication and IT.

Information on members of the Executive Committee

Christophe André, born in 1971, is a graduate engineer of the *École Nationale Supérieure de Télécommunication* and of the *École supérieure des sciences économiques et commerciales* (ESSEC), and holds an MBA from the European Institute of Business Administration (INSEAD).

After several positions in Telecommunications, he joined, in 2001, specialty chemicals manufacturer Rohm & Haas to oversee the Europe-wide development of the Monomers division before managing the Adhesives and Packaging division. In 2008 he joined ArjoWiggins, the world's leading manufacturer of technical and creative papers, to head up ArjoWiggins Graphic, one of the company's five divisions. In 2012 he joined the Arkema Group as Managing Director of the Thiochemicals Business Line.

He has been a member of Arkema's Executive Committee since 1 September 2016.

Luc Benoît-Cattin, born in 1963, is a graduate of France's *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 became head of the aluminum rolling business unit. 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 joined Arkema in 2011 and has since then been a member of the Executive Committee.

Bernard Boyer, born in 1960, is a graduate of France's *École polytechnique* and *École nationale supérieure des pétroles et moteurs.*

He has spent his career working in the chemicals industry in operational positions, starting out at industrial facilities before moving to Elf Atochem's head office (Finance & Strategy department), from 1992 until 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 Economic Research, Business Plans, 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 France's *Université Paris-Sorbonne.*

In 1980, he joined Total where he was in charge of Human Resources for both the head office and the refineries. After two years as head of the Human Resources department for the Trading & Middle East division, he took charge of communications for Total in 1996, serving as Director of Communications first for TotalFina, then for TotalFinaElf after the merger in 1999. In 2002, he joined Atofina as Director of Human Resources and Communications and was appointed to Total's Chemicals management committee.

He has been a member of Arkema's Executive Committee since its creation in 2006.

Vincent Legros, born in 1973, is a graduate of France's *École Polytechnique* and *École nationale des ponts et chaussées*, and holds a postgraduate diploma (DEA) in production and corporate organization.

In 1998 he joined the Saint-Gobain group as a production engineer at the Pont-à-Mousson plant (1998-2000), before becoming manager of the Toul plant (2000-2002), deputy manager of the Pont-à-Mousson plant (2002-2004), and Managing Director of the fittings and valves business (2004-2006). He was appointed Managing Director of operations for Saint-Gobain Pont-à-Mousson in 2006. From 2009 to 2013 he was Managing Director of Saint-Gobain Pont-à-Mousson China. In 2013 he became Managing Director of Saint-Gobain Pont-à-Mousson and manager of the group's pipe business.

He has been Chairman and Chief Executive Officer of Bostik and a member of Arkema's Executive Committee since 1 September 2016.

Thierry Lemonnier, born in 1953, is a graduate of France's *École nationale supérieure de géologie* in Nancy and holds a master's degree from Stanford University in the United States.

He joined Total in 1979 as an engineering economist in the Exploration & Production department and then joined Total's Finance department in 1983 before becoming Chief Financial Officer for Refining & Marketing in 1993. In 2000, he was appointed director of Chemical Affiliates Operations. He then joined Total's Chemicals business in 2001 and was appointed to the management committee, in charge of finance, management control and accounting.

He has been a member of Arkema's Executive Committee since its creation in 2006.

Marc Schuller, born in 1960, is a graduate of France's *École supérieure des sciences économiques et commerciales* (ESSEC).

He joined Orkem in 1985 as acrylics product manager. In 1990 he joined the Strategic Planning department of Total Chimie and in 1992 he became Deputy Managing Director of the Structural Resins department at Cray Valley. In 1995, he was appointed Sales 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 business unit, and special project manager for the Chairman. In 2003, he became director of the Thiochemicals and Fine Chemicals business unit. After being a member of Atofina's management committee, he became a member of the Group's Executive Committee at its creation in 2006.

3.2.2.3 THE GROUP MANAGEMENT COMMITTEE

Since 1 September 2016, the Chairman and Chief Executive Officer has put in place a Group Management Committee.

The duties of the Group Management Committee entail in particular the quarterly review of the Group's performance (HSE, financial and operational) and follow-up on the Group's major projects and priorities. This Committee also discusses the Group's medium- and long-term orientations. It meets four times a year.

At 31 December 2016, the Group Management Committee was made up of 20 people, including eight Executive Committee members, seven Vice-Presidents of Business Lines, two Vice-Presidents of corporate functions and two regional Vice-Presidents.

3.2.3 Additional information concerning members of the Board of Directors and executive management

3.2.3.1 ABSENCE OF FAMILY TIES

To the best of the Company's knowledge, and at the date of this 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, INVOLVEMENT IN A BUSINESS FAILURE, OR PUBLIC INCRIMINATION AND/OR SANCTION

To the best of the Company's knowledge, and at the date of this 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 offense or had any official public sanction made against them by statutory or regulatory authorities during the past five years.

To the best of the Company's knowledge, during the past five years, no director has been prohibited by a court from serving as a member of the administrative, management or supervisory body of an issuer, or from participating in the management or governance of an issuer's business.

3.2.3.3 ABSENCE OF CONFLICT OF INTERESTS

The Company has put in place measures to prevent potential conflicts of interest between the directors and the Company.

In accordance with corporate governance best practice and the recommendations of the AFEP-MEDEF Code in particular, the Board of Directors' Internal Rules provide that:

- each director must undertake to maintain under all circumstances their independence of analysis, judgment, decision-making and action and, in this respect, to report to the Board any potential or actual direct or indirect conflicts of interest with the Company. Any director in this situation must abstain from voting on any decision by the Board where he or she is faced with a conflict of interest. In addition, directors must confirm the absence of any conflicts of interest with the Company, each year when so requested for the preparation of the reference document, and at any time, upon request by the Chairman and Chief Executive Officer; and
- each director must 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, each director must 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.

In light of the project to acquire the Den Braven group, Claire Pedini, Senior Vice-President in charge of Human Resources at Compagnie Saint-Gobain, resigned as a director and member of the Audit and Accounts Committee on 17 June 2016. This ended the potential conflict of interest which arose in late 2014 following the Compagnie Saint-Gobain project to acquire the Sika group, a competitor of Bostik. Since that date, in accordance with the Board of Directors'Internal Rules and the decision of the Board, Claire Pedini has not taken part in any discussions or vote on any resolutions that may concern any specific matter associated with Bostik.

To the best of the Company's knowledge, there are no potential conflicts of interest between the duties of members of the Board of Directors or of executive management *vis-à-vis* the Company and their private interests. To the best of the Company's knowledge, no arrangements or agreements resulting in the selection of a member of the Board of Directors or of executive management have been made with the Company's main shareholders, customers or suppliers.

To the best of the Company's knowledge, there are no restrictions accepted by the members of the Board of Directors or executive management concerning the transfer of their holding in the Company's share capital, other than those set out in sections 3.4.2.1 and 3.4.3.1 of this document.

3.2.3.4 INFORMATION REGARDING SERVICE CONTRACTS

To the best of the Company's knowledge, there are no service contracts between the members of the Board of Directors or the Executive Committee and the Company or any of its subsidiaries 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 Thierry Le Hénaff.

3.3 OPERATING PROCEDURES OF ADMINISTRATIVE AND MANAGEMENT BODIES

The duties and operating rules of the Company's administrative and management bodies are defined by law, by the Company's Articles of Association and by the Internal Rules of the Board of Directors. The latter documents can be found on the Company's website (www.arkema.com) under Investor Relations – Governance.

3.3.1 Management and limitation of powers of the Chairman and Chief Executive Officer

The Chairman and Chief Executive Officer is vested 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 shareholders' meetings and the Board of Directors. He represents the Company in its relations with third parties.

The Board of Directors may set limits on the powers of the Chairman and Chief Executive Officer. In 2006, the Board of Directors introduced 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 the Board for prior approval.

Consequently, the Board of Directors must give prior approval to:

- the overall capital expenditure budget;
- any industrial investment in excess of €80 million;
- any acquisition or divestment project with an enterprise value in excess of €130 million; and
- any capital expenditure budget overrun in excess of 10%.

In addition, the Board of Directors must be informed after the event of:

- any industrial investment in excess of €30 million; and
- any acquisition or divestment project with an enterprise value in excess of €50 million.

The general powers of the Chairman and Chief Executive Officer were confirmed by the Board of Directors' meeting of 7 June 2016.

At its meeting on 21 January 2016, the Board of Directors also authorized the Chairman and Chief Executive Officer, or any person duly authorized to act on his behalf, to issue deposits, commitments and guarantees in the name of the Company, up to a limit of €90 million, and to continue the deposits, commitments and guarantees previously made.

This authorization was renewed under the same terms for 2017 up to a limit of €90 million.

3.3.2 Duties and operating procedures of the Board of Directors

3.3.2.1 DUTIES

The Board of Directors is a collegiate body which takes decisions collectively. It is mandated by and accountable to all of the shareholders.

The Company's Board of Directors exercises the powers assigned by law in order to act in the Company's best interests in all circumstances. It decides the Company's overall business strategy and oversees its implementation. Subject to those powers expressly conferred upon 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 any issue concerning the Company.

To this end, it must in particular monitor and review the Group's strategic developments, appoint the executive officers responsible for managing the Company in line with the corporate strategy, monitor the implementation of this strategy, take decisions regarding major transactions, ensure the quality of information supplied to shareholders and the markets, particularly in the financial statements, and guarantee the quality of its operations.

The Board of Directors can decide to set up one or more specialized committees. It defines the composition and remit of these committees, which operate under the responsibility of the Board of Directors. In accordance with the Internal Rules of the Board of Directors and each of its committees, some matters are therefore subject to prior review by the appropriate committee before being submitted to the Board of Directors for approval.

3.3.2.2 OPERATING PROCEDURES

The operating procedures of the Board of Directors are determined by current laws and regulations, the Company's Articles of Association and its Internal Rules as updated in 2016 to allow for the appointment of a senior independent director, and on 27 February 2017 in order to ensure compliance with the provisions of the AFEP-MEDEF Code.

The Board of Directors meets at least four times a year and whenever the interests of the Company so require. Meetings are convened by its Chairman. The convening notice may be delivered by any means, even verbally, eight days before the date of the meeting and, in urgent cases, without notice. It specifies where the meeting will take place. In principle, meetings take place at the Group's head office but may in certain cases be held by conference call in accordance with the law, the Company's Articles of Association and the Board of Directors' Internal Rules.

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 attending the meeting by means of videoconferencing or any other telecommunication method that meets the requisite technical specifications 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 the recommendations of the AFEP-MEDEF Code in particular, the Board of Directors' Internal Rules also set out the rights and obligations of the directors and notably impose that:

- before accepting their duties as director of the Company, the directors must ensure that they are familiar with the Company's Articles of Association, the Board of Directors' Internal Rules, and the legal and regulatory provisions governing the functions of a director of a French joint stock corporation (*société anonyme*), and in particular the rules relating to the definition of the powers of the Board of Directors, multiple directorships, the agreements falling within the scope of Article L. 225-38 of the French Commercial Code, the holding and use of insider information, the declarations of trading in the Company's shares and the black-out periods during which directors may not trade in those shares;
- the directors are elected by all the shareholders and must act in all circumstances in the Company's best interests;
- the directors must devote 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, outside the Group. Accordingly, the directors undertake to inform the Chairman of the Nominating, Compensation and Corporate Governance Committee of any new non-executive or executive directorship that they might accept in a company outside the Group or outside the group of which he or she is a member, including their participation in the committees of these companies' boards; executive directors 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 must be committed and, where possible, take part in all the Company's Board of Directors' meetings and the meetings of the committees to which they have been appointed, as well as annual general meetings;
- prior to each Board of Directors' meeting, except in the event of an emergency justified by exceptional circumstances, the agenda and information on items on the agenda that require special analysis and prior consideration, are sent to each director with the notice of meeting or at least in sufficient time before the meeting, 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 fulfill their duties, particularly in the light of the meetings' agenda;

- if they deem it necessary, the directors may also request additional training on the Group's specific features, businesses, and sector of activity, at the time of their appointment or during their term of office. This training is organized by the Company, which pays the related costs;
- all documents provided for Board of Directors' meetings and all information collected during or outside Board of Directors' 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 opinions expressed by individual directors; and
- as required by law 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 insider information. Furthermore, the directors must disclose any transactions they have entered into in respect of the Company's securities.

The internal rules also provide that, when the positions of Chairman and Chief Executive Officer are held by the same person, the Board of Directors shall appoint one of the independent directors to serve as senior independent director, based on the recommendation of the Nominating, Compensation and Corporate Governance Committee. For further details, see section 3.3.3 of this document.

In accordance with the AFEP-MEDEF Code and with best governance practices, the Chairman and Chief Executive Officer does not take part in any discussions concerning his term of office and compensation. This gives the other Board members the opportunity of conducting discussions without his presence at least once a year. However, since 2016 the internal rules have provided that following the annual assessment of the Board of Directors' operating procedures, the senior independent director may organize and chair a meeting of non-executive directors, from which executive or employee directors are excluded.

3.3.2.3 ACTIVITIES OF THE BOARD OF DIRECTORS

The Board of Directors met eight times in 2016 (versus six in 2015). These meetings included a conference call organized to discuss a strategic project and the meeting held to renew the term of office of the Chairman and Chief Executive Officer of the Company at the close of the annual general meeting of 7 June 2016. There was a high attendance rate at these meetings of 95% (versus 93% in 2015 and 96% in 2014). On average, the meetings lasted approximately three hours.

The agenda of the Board of Directors' meetings included recurring annual topics, in particular (i) approval of the Company's annual and half-yearly consolidated financial statements and review of the quarterly financial information and management forecast documents, as well as the Company's draft press releases, the annual budget, and preparation of the annual general meeting, including approval of the draft resolutions, (ii) approval of the strategy presented during the annual seminar, (iii) approval of the Chairman of the Board of Directors' report on the composition of the Board of Directors, the application of the principle of gender balance, the conditions of the preparation and organization of the work of the Board of Directors as well as the internal control procedures put in place by the Company and, more generally, questions of governance, (iv) setting of the compensation conditions for the Chairman and Chief Executive Officer and Executive Committee members, as well as the setting and allocation of attendance fees among Board and Committee members, (v) review of reports on the work of the specialized committees, and (vi) the annual assessment of the Board of Directors.

In 2016, the Board of Directors also reviewed the following:

- the risk map;
- the 2016 insurance program;
- the assessment of the Board of Directors' operating procedures for 2015 conducted by an independent advisory firm;
- confirmation of the Company's governance structure, the re-election of Thierry Le Hénaff as a director and as Chairman and Chief Executive Officer of the Company for the duration of his term of office;
- the appointment of François Enaud as senior independent director;
- the Bostik integration process and progress made on the implementation of synergies between this new business and the rest of the Group;
- the acquisition of the Den Braven group;
- various strategic investment or divestment projects, some key projects (including Sunke), and, more generally, the Group's overall strategy, in particular during the strategic annual seminar and the monitoring of key operating priorities;
- the 2016 performance share plan;
- the appointment of Marie-José Donsion as a director and member of the Audit and Accounts Committee to replace Claire Pedini;
- the Group's environmental and safety situations;
- changes in the competitive environment;
- feedback from the 2016 road shows;
- renewal of the Euro Medium Term Notes (EMTN) program and of the authorization to issue bonds;
- the changes in the Executive Committee and its succession plan, including for the Chairman and Chief Executive Officer, as well as the management policy for executives; and
- the proposed share capital increase reserved for employees and former employees of the Group.

At each meeting, the Chairman reviewed the transactions concluded since the previous meeting, and sought the authorization of the Board of Directors for the main projects underway that were likely to be completed before the next meeting. The Board of Directors was also informed at least once a quarter of the Company's financial situation, cash position and commitments.

Since the beginning of 2017, the Board of Directors has met twice. These meetings focused in particular on:

- the 2017 budget;
- an insight into important topics, namely human resources policies, safety and the Group's CSR approach;
- the presentation of the 2017 insurance program;
- updates to the risk map;
- the Board of Directors' self-assessment of its operating procedures in 2016;
- the assessment of directors' independence and the allocation of attendance fees;
- the closing of the consolidated and Company financial statements for the year ended 31 December 2016, the proposed allocation of profit and dividend distribution, and all related documents (the management report, the Chairman of the Board of Directors' report prepared pursuant to Article L. 225-37 of the French Commercial Code, and more generally the 2016 reference document), the preparation of the annual general meeting, and, in particular, the resolutions to be submitted to shareholders as well as the financial forecasts;
- the definition of the Chairman and Chief Executive Officer's powers to issue deposits, commitments and guarantees for 2017;
- the review of related-party agreements and agreements entered into and authorized during previous years which were implemented in 2016;
- the Chairman and Chief Executive Officer's compensation policy, the related special report and the draft resolution submitted to the annual general meeting in accordance with Article L. 225-37-2 *nouveau* of the French Commercial Code, as introduced by Act no. 2016-1691 of 9 December 2016 relating to transparency, the fight against corruption and modernization of the economy, known as the « *Loi Sapin II*»;
- the components of compensation due or awarded to Thierry Le Hénaff, Chairman and Chief Executive Officer, for 2016, submitted to the shareholders' vote in accordance with the AFEP-MEDEF Code;
- the compensation conditions for the Executive Committee members (fixed compensation for 2017, variable part for 2016 and criteria used to determine the variable part for 2017); and
- the annual reports of the Audit and Accounts Committee and the Nominating, Compensation and Corporate Governance Committee.

3.3.2.4 ASSESSMENT OF THE OPERATING PROCEDURES OF THE BOARD OF DIRECTORS

In accordance with the AFEP-MEDEF Code and its internal rules, the Board of Directors conducts an annual assessment of its operating procedures by means of a formal questionnaire. Every three years in principle, an assessment is conducted by an external consultant. The form and terms of the Board's assessment are discussed by the Nominating, Compensation and Corporate Governance Committee every year.

The Board of Directors' 2015 operating procedures were assessed at the beginning of 2016 by Spencer Stuart, which conducted individual interviews of each director based on a guide that was approved by the Chairman of the Nominating, Compensation and Corporate Governance Committee and the Secretary of the Board of Directors. Prior to the interviews, each director was invited to complete an online questionnaire. The findings from this assessment process were detailed in a report that was first presented to the Nominating, Compensation and Corporate Governance Committee on 19 February 2016 and then to the Board of Directors on 2 March 2016. The assessment showed that the operating procedures of the Board of Directors in 2015 were very good and that the Board had demonstrated its maturity and efficiency and continued to improve since the previous independent assessment conducted by an external consultant in 2012. Moreover, more than three-quarters of the directors who also sit on other companies' boards considered that Arkema's Board of Directors had the best operating procedures. Following the assessment and the presentation of the report, certain areas for improvement were identified and agreed by the Board. (For more details, see 2015 reference document).

For 2016, the annual assessment of the Board of Directors was carried out formally on the basis of a questionnaire prepared by the Nominating, Compensation and Corporate Governance Committee and approved by the Board of Directors. This assessment was discussed at the Board of Directors' meetings on 18 January 2017 and 27 February 2017 respectively. After analyzing the answers given by the directors, the Nominating, Compensation and Corporate Governance Committee presented a report to the Board of Directors showing that directors continued to be very satisfied with the operating procedures of the Board and that the areas for improvement identified in early 2016 had all been taken into account, in particular through enhanced risk monitoring by the Board, the Board's ongoing work in relation to its own composition and evolution, and the scheduled presentation of the Group's CSR approach in a more detailed manner.

3.3.3 Senior independent director

As part of the drive to constantly improve its governance and in line with best practice, on a proposal by the Chairman and Chief Executive Officer, supported by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors decided at its meeting on 2 March 2016 to appoint one of the independent directors to serve as senior independent director. The primary role of the senior independent director is to oversee the efficient running of the Company's governance structure and the absence of conflict of interests and to ensure that shareholders' concerns on corporate governance matters are taken into consideration.

François Enaud was appointed senior independent director on 2 March 2016. He has been an independent director and a member of the Nominating, Compensation and Corporate Governance Committee since Arkema's stock market listing in 2006, has excellent knowledge of the Group and its transformation, as well as longstanding experience of working with his fellow directors. Moreover, as former Chairman and Chief Executive Officer of a listed group, François Enaud has acquired over many years in-depth knowledge of investor relations, making him well qualified to answer questions about the Company's governance.

In accordance with the Board of Directors' Internal Rules, a senior independent director is appointed when the Chairman of the Board of Directors also serves as Chief Executive Officer. The senior independent director is selected from among the independent members of the Board, on the recommendation of the Nominating, Compensation and Corporate Governance Committee, and is appointed for his or her term as a director. He or she may be re-appointed.

The senior independent director's duties and responsibilities are as follows:

1. Concerning the operating procedures of the Board of Directors

- he or she may propose the inclusion of additional items on the agenda of Board meetings, if necessary,
- he or she may ask the Chairman of the Board of Directors to call a Board meeting with a specific agenda under exceptional circumstances,
- he or she oversees the application of the Internal Rules for the preparation of Board meetings as well as during the meetings,
- following the annual assessment of the Board of Directors' operating procedures led by the Nominating, Compensation and Corporate Governance Committee, he or she may organize and chair a meeting of non-executive directors, without the presence of executive or employee directors, to discuss the operating procedures of the Company's governance structures; he or she reports the meeting's conclusions to the Chairman and Chief Executive Officer, and
- he or she reports on his or her activities to the Board of Directors at least once a year and at any time if he or she considers it necessary.

2. Concerning conflict of interests

He or she advises his or her fellow directors on the related risks. He or she reviews with the Chairman of the Board of Directors and the Nominating, Compensation and Corporate Governance Committee any potential conflict of interests that he or she has identified or been informed of, and informs the Board of Directors of his or her thoughts on the matter as well as those of the Chairman.

3. Concerning shareholder relations

He or she is informed of comments and suggestions received from significant shareholders not represented on the Board of Directors about corporate governance matters. He or she oversees that they receive answers to their questions and, after consulting the Chairman and Chief Executive Officer, makes himself or herself available to communicate with them if necessary. The Board of Directors is informed about these contacts.

Activity report of the senior independent director for 2016

François Enaud, senior independent director since 2 March 2016, reported to the Board of Directors on his first year in this role at the meeting of 27 February 2017 and stated that he had not encountered any particular difficulties. Since the assessment of the operating procedures of the Board of Directors and of the committees had not identified any problems, no executive session has been organized following this assessment. During the period, François Enaud provided, in addition to Arkema teams, some answers on a few governance points mentioned by the Company's shareholders.

In 2016, the senior independent director participated in all the meetings of the Board of Directors and of the Nominating, Compensation and Corporate Governance Committee.

3.3.4 Committees of the Board of Directors

The Board of Directors has two permanent specialized committees: the Audit and Accounts Committee and the Nominating, Compensation and Corporate Governance 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.

Each committee's role, organization and operating procedures are set out in their respective internal rules, as defined and approved by the Board of Directors. The internal rules of each committee state that:

- the term of office of committee members corresponds to their term of office as directors, although the Board of Directors may modify the composition of the committees at any time;
- at least two members must be present for a meeting of the committees to be valid;
- 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 operating procedures drawn up on the basis of the requirements of its internal rules, as well as any suggestions for improving its operating procedures.

Committee members may only receive attendance fees from the Company in respect of their term of office as directors and members of a committee.

3.3.4.1 THE AUDIT AND ACCOUNTS COMMITTEE

Composition and operating procedures

At 31 December 2016, the Audit and Accounts Committee was made up of four directors: Philippe Vassor (Chairman), Isabelle Boccon-Gibod (permanent representative of the *Fonds Stratégique de Participations* (FSP)), Hélène Moreau-Leroy and Marie-José Donsion, appointed on 9 November 2016.

In accordance with the AFEP-MEDEF Code, none of the members of the Audit and Accounts Committee holds an executive position within the Company. At the date of this document, all members of this Committee were qualified as independent by the Board of Directors except for Isabelle Boccon-Gibod, permanent representative of the FSP. The appointment or reappointment of the Chairman of the Audit and Accounts Committee recommended 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, it should be noted that the Chairman of the Audit and Accounts Committee, Philippe Vassor, has specific expertise in finance and accounting as he spent most of his career (from 1975 to 2005) with the accounting firm Deloitte and served as its Chairman and Chief Executive Officer in France. Furthermore, in accordance with the AFEP-MEDEF Code, all the members of the Audit and Accounts Committee have financial or accounting expertise (see biographies of the members under sections 3.2.1.2 and 3.2.1.3 of this document).

In light of the changes in the composition of the Board of Directors submitted to the annual general meeting to be held on 23 May 2017, and subject to ratification by this meeting of the appointment of Marie-José Donsion as director, the Board of Directors, on the proposal by the Nominating, Compensation and Corporate Governance Committee, has decided to appoint Marie-José Donsion, who has the required expertise as set out in Article L. 823-19 of the French Commercial Code, to chair the Audit and Accounts Committee once the term of office of Philippe Vassor as director has expired.

The members of the Audit and Accounts Committee have also all benefited from a presentation focusing on the Group's accounting, financial and operational specifics.

The Audit and Accounts Committee generally meets six times a year, in particular to review the consolidated financial statements. Two meetings are primarily devoted to discussing internal control matters. It meets at the request of its Chairman, two of its members, or the Chairman of the Board of Directors. The dates of Audit and Accounts Committee meetings are set by its Chairman. The Chairman of the Audit and Accounts Committee has appointed the Chief Financial Officer as secretary to the Committee.

The statutory auditors are invited to every Audit and Accounts Committee meeting. The Audit and Accounts Committee hears their conclusions after the meeting without the presence of Company representatives. The Committee also meets privately with the Internal Audit and Internal Control Vice-President after the Committee meetings attended by him.

The Chairman and Chief Executive Officer does not take part in the meetings of the Audit and Accounts Committee.

Unless there is a decision to the contrary by the Board of Directors, no Audit and Accounts Committee member may be a member of the Audit and Accounts Committees of more than two other listed companies in France or abroad. The Board also ensures that it does not appoint to this Committee a director from a company that has appointed one of the Company's directors to its own Audit and Accounts Committee.

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 a specialized committee as defined under Article L. 823-19 of the French Commercial Code 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 process, (ii) the effectiveness of the internal control and risk management systems, (iii) the audit of the annual Company and consolidated financial statements by the statutory auditors, and (iv) the independence of the statutory auditors. Therefore, in accordance with its internal rules, it has particular responsibility for the following:

- submitting recommendations on the appointment of the statutory auditors and their fees, in compliance with independence requirements;
- ensuring compliance with all applicable laws and regulations when statutory auditors are commissioned to perform work other than auditing the financial statements;
- reviewing the options and assumptions used in the preparation of the financial statements, the annual consolidated financial statements, the half-yearly and quarterly financial information and the annual Company financial statements and forecasts prior to their consideration by the Board of Directors, and the accounting content of press releases prior to their publication;
- overseeing the audit of the annual Company and consolidated financial statements by the statutory auditors, and the procedures involved in preparing the financial information;
- assessing the suitability and consistency of accounting principles and policies;
- reviewing internal control procedures;
- reviewing external and internal auditor work programs;
- reviewing audit work;
- assessing the organization of delegations of authority;
- overseeing the efficiency of internal control and risk management systems;
- reviewing the conditions for the use of derivatives;
- assessing major transactions planned by the Group, when appropriate;
- remaining regularly updated on developments of significant claims and disputes;
- reviewing the main off-balance sheet commitments, particularly the most significant new contracts; and
- preparing and submitting reports as set out in the Internal Rules of the Board of Directors, and presenting to the Board in draft form the sections of the annual report and any documents required under applicable regulations that fall within its remit.

Activity of the Audit and Accounts Committee

The Audit and Accounts Committee met six times in 2016 with an attendance rate of 100%, as in 2015.

The Group's Chief Financial Officer (appointed as secretary of the Committee), the Accounting Vice-President and the statutory auditors attended all of these meetings.

The work of the Audit and Accounts Committee in 2016 focused mainly on (i) the review of the 2015 financial statements (consolidated and Company, including a review of provisions at 31 December 2015), the draft 2015 management report, the draft 2015 reference document, including the section relating to the Company's Corporate Social Responsibility policy, and the draft of the section of the Chairman of the Board of Directors' report concerning internal control and risk management in 2015, the 2016 quarterly financial information, the half-yearly financial statements at 30 June 2016 and the draft half-yearly financial report, draft press releases relating to the quarterly, half-yearly and annual results, and the review of the Company's management forecasts, (ii) the approval of the statutory auditors' fees for 2016, (iii) the review of internal control procedures and internal and external audit work programs, as well as the review of the Group's risks and, consequently, risk mapping, in the presence of the Internal Audit and Internal Control Vice-President, (iv) the liabilities related to pensions and similar benefits, off-balance sheet commitments and derivative instruments, (v) closing options, (vi) the Group's tax situation, (vii) the monitoring of major transactions carried out by the Group including the sale of the activated carbon and filter aids business and the acquisition of the Den Braven group, (viii) the integration of Bostik, (ix) the monitoring of the «Ambition» project to overhaul the supply chain, (x) audit reform and (xi) cybersecurity, with François Enaud in attendance.

Since the beginning of 2017, the Audit and Accounts Committee has met once. At that meeting, the Committee focused, in particular, on the review of the 2016 consolidated and Company financial statements and of provisions at 31 December 2016, the draft 2016 management report, including social, environmental and societal information as required under Article L. 225-102-1 of the French Commercial Code, the draft of the section of the Chairman of the Board of Directors' report concerning internal control and risk management in 2016, the draft press release relating to the 2016 results as well as the Committee's activity report to the Board of Directors.

In accordance with the AFEP-MEDEF Code and its internal rules, the Audit and Accounts Committee conducts an annual self-assessment of its work. The assessment for 2016 shows that the Committee members were very satisfied with meeting preparation and proceedings.

3.3.4.2 THE NOMINATING, COMPENSATION AND CORPORATE GOVERNANCE COMMITTEE

Composition and operating procedures

The Nominating, Compensation and Corporate Governance Committee is made up of four directors: Thierry Morin (Chairman), François Enaud, Bernard Kasriel, and Victoire de Margerie. In accordance with the AFEP-MEDEF Code, none of its members holds an executive position in the Company. At the date of this document, all members of this Committee were 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 Board of Directors. The dates of the Nominating, Compensation and Corporate Governance Committee meetings are set by its Chairman. The Chairman of the Nominating, Compensation and Corporate Governance Committee has appointed the Group's Executive Vice-President Human Resources and Communication as secretary to the Committee.

The Chairman and Chief Executive Officer attends the Committee's meetings and is closely involved in its discussions, especially concerning nominations and governance issues (in particular regarding the compensation policy for the Executive Committee members). However, he does not take part in the Committee's discussions relating to him.

Duties

In accordance with its internal rules, the Nominating, Compensation and Corporate Governance Committee is responsible for (i) recommending the persons to be proposed for election as non-executive or executive directors, (ii) examining the process and practices regarding the succession plans for Executive Committee members and the career path of the Group's managers, (iii) reviewing the Group's compensation policies for executives, and proposing to the Board of Directors the compensation packages of the Company's directors, and (iv) recommending to the Board of Directors the corporate governance principles to be implemented in the Group.

Accordingly, its duties include:

(i) nominations:

- making recommendations to the Board of Directors on the composition of the Board of Directors and its committees,
- performing annual reviews of the process and practices regarding the succession plans for Executive Committee members and the appointment of the Group's managers, and making recommendations in this regard,
- every year, submitting to the Board of Directors the list of directors who can be considered as independent, in accordance with the provisions of article 2.1 of the Internal Rules of the Company's Board of Directors,
- assisting the Board of Directors in choosing and evaluating directors and the members serving on the Committees set up by the Board of Directors, and
- preparing and submitting an annual report on the Committee's operation and work;

(ii) compensation:

- reviewing the compensation packages of the Company's executives (members of the Executive Committee) and directors, as well as the main objectives proposed by executive management for stock option and performance share plans, pension schemes, death/disability insurance and benefits in kind,
- making policy recommendations and proposals to the Board of Directors on compensation, pension schemes and death/disability insurance, benefits in kind, and allocations of stock options or performance shares,
- reviewing the principles for allocating attendance fees among members of the Board of Directors and the rules governing expense reimbursements, and
- preparing and submitting the reports set out in the internal rules, and presenting to the Board in draft form the sections of the annual report and any documents required under applicable regulations that fall within its remit, in particular information on the compensation of directors, stock options and performance shares; and

(iii) corporate governance:

- analyzing and supervising corporate governance principles,
- making recommendations on corporate governance best practices,
- preparing the annual assessment of the Board of Directors' work,
- examining any cases of conflicts of interest,
- discussing corporate governance and ethical issues referred by the Board of Directors or its Chairman for review, and
- reviewing the Code of Conduct and Business Ethics and proposing modifications when necessary.

Activity of the Nominating, Compensation and Corporate Governance Committee

In 2016, the Nominating, Compensation and Corporate Governance Committee met three times, with a 100% attendance rate.

The Group's Executive Vice-President Human Resources and Communication (appointed secretary to the Committee) attended every meeting.

The work of the Nominating, Compensation and Corporate Governance Committee in 2016 mainly focused on (i) changes in the Company's governance and the appointment of François Enaud as senior independent director, (ii) the compensation policy for the Chairman and Chief Executive Officer in the context of his re-election (general compensation policy, variable compensation due for 2015, fixed compensation for 2016 effective as from the date of his re-election and criteria used for determining his variable compensation for 2016 and long-term components), the proposal to maintain the termination indemnity that would be due to him in the event of forced departure and the proposed changes to his supplementary pension scheme, (iii) the compensation of Executive Committee members and the payment of attendance fees to directors (Board members, committee members and the senior independent director), (iv) the annual assessment of the Board of Directors and of the Committee itself, (v) the review of the profiles of candidates for election or re-election to the Board of Directors or for appointment or re-appointment to the Board committees, and in particular that of Marie-José Donsion, (vi) the long-term compensation policy and the implementation of the 2016 performance share plan, (vii) the succession plan for Executive Committee members, and (viii) feedback from governance road shows.

Since the beginning of 2017, the Nominating, Compensation and Corporate Governance Committee has met twice. The matters discussed during these meetings concerned, in particular, (i) the analysis of the 2016 annual reports of the AMF and *Haut Comité de Gouvernement d'Entreprise* as well as the changes made to the AFEP-MEDEF Code in November 2016 and more generally, the latest legal and regulatory developments in the area of corporate governance, (ii) the annual assessment of the Board of Directors for 2016 as well as the annual assessment of the Committee itself, (iii) the review of the situation of each individual director in relation to the applicable independence criteria and the analysis of conflict of interests, (iv) the total amount of attendance fees to be proposed for 2017, (v) the compensation policy for the Chairman and Chief Executive Officer for 2017 and its submission to the shareholders' vote in accordance with Article L. 225-37-2 *nouveau* of the French Commercial Code, as introduced by the "*Loi Sapin II*", the calculation of his variable compensation due for 2016 and the submission for the shareholders' consultation, in accordance with the AFEP-MEDEF Code, of the components of compensation due or awarded for 2016 to Thierry Le Hénaff, (vi) proposed compensation packages for the Executive Committee members (variable compensation due for 2016, fixed compensation for 2017 and criteria for determining their variable compensation for 2017), (vii) changes in the composition of the Board of Directors as a result of the expiration in 2017 of the terms of office of a number of directors, and the proposal to renew the terms of office as directors of Marc Pandraud and Thierry Morin and to appoint Yannick Assouad as director, and (viii) the review of the corporate governance section of the Chairman and Chief Executive Officer's report provided for in Article L. 225-37 of the French Commercial Code.

3.4 COMPENSATION AND BENEFITS AWARDED TO EXECUTIVES AND DIRECTORS

The principles and rules for determining the compensation and benefits awarded to executives and directors of the Company are set out by the Company's Board of Directors based on recommendations by the Nominating, Compensation and Corporate Governance Committee which mostly comprises independent directors.

The following information is disclosed in application of the AFEP-MEDEF Code and AMF recommendation no. 2012-02 on corporate governance and executive compensation dated 9 February 2012 and revised most recently on 22 December 2015, the 2016 AMF annual report on corporate governance and executive compensation for listed companies dated 17 November 2016 and the recommendations of the *Haut Comité de Gouvernement d'Entreprise* in its activity report of October 2016.

3.4.1 Compensation of non-executive directors

The annual general meeting of 15 May 2014 set the maximum annual amount of attendance fees that the Board of Directors may allocate between its members and those of the specialized committees at €550,000.

Attendance fees awarded to directors for 2016 amounted to €472,700 (compared to €444,670 for 2015), allocated as follows:

TABLE OF ATTENDANCE FEES AND OTHER COMPENSATION RECEIVED BY NON-EXECUTIVE DIRECTORS (TABLE 3 IN THE AMF RECOMMENDATIONS)

(In euros)	Amounts paid for 2016	Amounts paid for 2015
Isabelle Boccon-Gibod, permanent representative of the FSP, director		
Attendance fees	53,000	50,000
Patrice Bréant, director representing shareholder employees		
Attendance fees	None (1)	None (1)
Marie-José Donsion, director		
Attendance fees	3,700 (2)	-
François Enaud, director		
Attendance fees	55,500	46,000
Bernard Kasriel, director		
Attendance fees	44,000	46,000
Victoire de Margerie, director		
Attendance fees	45,500	43,000
Laurent Mignon, director		
Attendance fees	36,500	29,000
Hélène Moreau-Leroy, director		
Attendance fees	53,000	26,670 (3)
Thierry Morin, director		
Attendance fees	50,000	54,000
Nathalie Muracciole, director representing employees		
Attendance fees	None (4)	None (4)
Marc Pandraud, director		
Attendance fees	41,000 (5)	38,000 (5)
Claire Pedini, director		
Attendance fees	25,500 (6)	50,000
Philippe Vassor, director		
Attendance fees	65,000	62,000
TOTAL	**472,700**	**444,670**

(1) Patrice Bréant is on the payroll of Arkema France and, as such, does not receive any attendance fees.
(2) Marie-José Donsion has been a director of the Company since 9 November 2016.
(3) Hélène Moreau-Leroy has been a director of the Company since 2 June 2015.
(4) Nathalie Muracciole is on the payroll of Arkema France, and, as such, does not receive any attendance fees.
(5) Marc Pandraud declines all amounts due to him in return for his work as a director of Arkema and requests that the Company donate his attendance fees to charity.
(6) Claire Pedini resigned as a director and member of the Audit and Accounts Committee on 17 June 2016.

With the exception of Patrice Bréant, director representing shareholder employees, and Nathalie Muracciole, director representing employees, who are each paid a salary by Arkema France, the non-executive directors received no other compensation or benefits in 2016 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 non-executive directors by other Group companies during the year.

Since 2014, the attendance fees payable to directors have been determined as follows:

- an annual fixed amount of €20,000 per director paid on a pro rata basis in the event of a change during the year; and
- a predominant variable amount based on directors' attendance, as follows:
  - €3,000 per director present at a Board of Directors' meeting, except for exceptional meetings held by conference call and of a shorter duration for which the variable amount is set at €1,500 per director present, and
  - €2,000 per member present at a meeting of one of the specialized committees, except for the Chairman who receives €4,000.

The Board of Directors decided at its meeting of 2 March 2016 to award additional fixed annual compensation in the form of directors' fees in an amount of €10,000 to the senior independent director.

Directors who so wish may receive their attendance fees at the end of each quarter as the year progresses, as follows:

- payment of the annual fixed amount on a pro rata basis, *i.e.*, 25% of the fixed amount per quarter; and
- payment of the variable amount based on directors' attendance at Board meetings and specialized committee meetings during the quarter concerned.

The Board of Directors has confirmed these compensation principles and the associated amounts for the 2017 financial year.

3.4.2 Compensation of executive officers

At the date of this document, the Chairman and Chief Executive Officer is the Company's sole executive officer.

3.4.2.1 COMPENSATION PRINCIPLES

This section makes up the special report of the Board of Directors provided for in Article L. 225-37-2 *nouveau* of the French Commercial Code, as introduced by Law no. 2016-1691 of 9 December 2016, relating to transparency, the fight against corruption and modernization of the economy, known as the "*Loi Sapin II*", and Article R. 225-29-1 *nouveau* of the French Commercial Code as introduced by decree n° 2017-340 of 16 March 2017 relating to compensation of executives and members of supervisory boards of listed companies, submitted to the Company's annual general meeting of 23 May 2017, pursuant to the 9th resolution (for further information on this resolution, see section 6.2.2 of this document).

The policy and principles governing the compensation of the Chairman and Chief Executive Officer are globally defined by the Board of Directors at each renewal of his term of office and for the duration of his term of office, on the recommendation by the Nominating, Compensation and Corporate Governance Committee which mostly comprises independent directors, in accordance with the AFEP-MEDEF Code recommendations. The Board of Directors conducts an overall assessment of the Chairman and Chief Executive Officer's compensation package as well as a detailed review of its components, to ensure that the compensation package remains simple, easy to understand, balanced and consistent. In particular, it ensures that the compensation policy is aligned with the Group's medium- and long-term strategic priorities and is linked both to the Group's financial performance and to the Chairman and Chief Executive Officer's individual performance and responsibilities.

The Chairman and Chief Executive Officer does not take part in the discussions of the Nominating, Compensation and Corporate Governance Committee or those of the Board of Directors concerning his compensation.

The compensation policy for the Chairman and Chief Executive Officer aims to provide incentives and to secure loyalty, in accordance with market practice for equivalent positions in similar French and international chemical companies and in French companies with similar market capitalizations, and to align the compensation structure with those of such companies. It is also consistent with the policy applicable to all executives of the Group.

On the basis of the above, in accordance with the decision of the Board of Directors of 2 March 2016, on recommendation by the Nominating, Compensation and Corporate Governance Committee, and as presented to the annual general meeting held on 7 June 2016, the structure of the Chairman and Chief Executive Officer's compensation, for the duration of his term of office as renewed as of this date, comprises (i) annual fixed compensation, (ii) annual variable compensation linked to the achievement of specific objectives reflecting the Group's performance for the year, and (iii) long-term variable compensation in the form of an annual award of performance shares. A component enabling the Chairman and Chief Executive Officer to build up his retirement completes this package since the termination of the supplementary defined benefit pension scheme from which he benefited on 7 June 2016. These components are divided in a balanced manner between short-term and long-term components, in line with the compensation of the Group's other executives and employees. They are mostly linked to the achievement of specific, quantified targets that reflect the Group's performance and are supporting the Company's development and the value creation over the long-term, thus ensuring that the interests of the executive officer are aligned with those of the shareholders and all stakeholders. In addition, the Chairman and Chief Executive Officer benefits from a termination indemnity in the event of forced departure.

The policy and principles set out in this section have been defined for the position of Chairman and Chief Executive Officer, as exercised at the date of this document and based on the current business scope of the Arkema Group. In the event that the Chairman and Chief Executive Officer was to be replaced during the year, for any reason whatsoever, the components and general principles of this policy should continue to be applicable. They may, however, be adjusted, if necessary, to reflect the duties and responsibilities of the new executive officer as well as the circumstances in which he took up office.

Annual fixed compensation

In accordance with the AFEP-MEDEF Code, the annual fixed compensation is reviewed each time the Chairman and Chief Executive Officer's term of office is renewed, *i.e.*, once every four years. It is determined by taking into account the duties and responsibilities of the Chairman and Chief Executive Officer and changes in the Group's size and profile. In addition, it is benchmarked with the compensation level of chief executive officers of comparable industrial companies. This compensation was last modified when the Chairman and Chief Executive Officer's term of office as director was renewed by the annual general meeting on 7 June 2016.

Annual variable compensation

Annual variable compensation is determined taking into account the achievement of specific, precise and demanding quantitative and qualitative targets aligned with the Group's strategy and priorities. These targets are set on an annual basis by the Board of Directors on recommendation by the Nominating, Compensation and Corporate Governance Committee.

The annual variable compensation may represent up to 150% of the annual fixed compensation.

The criteria adopted are as follows:

- three quantitative criteria representing a maximum of 110% of annual fixed compensation (and 73.5% of the criteria used to determine the variable compensation):
  - EBITDA, for a maximum of 55% of annual fixed compensation, which aligns the compensation of the Chairman and Chief Executive Officer with the annual financial performance of the Group and in particular rewards the success of the actions undertaken, the ability to adapt to changing market conditions and, more generally, the good management of the Group by the Chairman and Chief Executive Officer,
  - recurring cash flow, for a maximum of 27.5% of annual fixed compensation, which rewards the Group's ability to generate the cash necessary to finance its strategic ambitions and in particular its capital expenditure plans, acquisition program and dividend policy while maintaining a solid balance sheet, and
  - contribution of new developments, for a maximum of 27.5% of annual fixed compensation, which promotes innovation, the development of new customers and the launch of new applications as well as the completion of major investment projects in line with the Group's targeted growth strategy.

It should be noted that although the targets to be met are set out in detail and quantified on an annual basis, the amounts involved are not disclosed for confidentiality purposes, in particular with regard to competitors. However, the Group does disclose every year the achievement rates for each criterion; and

- qualitative criteria, which are precisely defined every year using around twenty points and may represent a maximum of 40% of annual fixed compensation (and 26.5% of the criteria used to determine the variable compensation). They are mainly linked to (i) the implementation of the Group's long-term strategy by the Chairman and Chief Executive Officer, and in particular changes in the Group's profile with the strengthening of a balanced geographical presence, the management of acquisitions, the development of innovation platforms and the secure access to strategic raw materials, (ii) the day-to-day management of the Company with quantified operational criteria (safety, fixed costs, working capital, capital expenditure and balance sheet structure) and (iii) the implementation of major industrial projects for the Group.

In accordance with Article L. 225-37-2 of the French Commercial Code, the payment of this annual variable compensation is subject to the approval by the Company's shareholders' meeting of the Chairman and Chief Executive Officer's compensation components in accordance with the conditions provided for under Article L. 225-100 of said code.

Long-term variable compensation: performance shares

Like a number of Group employees, the Chairman and Chief Executive Officer receives an annual allocation of performance shares that directly links a significant portion of his compensation to the Company's long-term performance.

The number of shares allocated each year is reviewed each time the Chairman and Chief Executive Officer's term of office is renewed, *i.e.*, once every four years, as part of the overall review of his compensation structure. The allocation comprises a fixed number of shares set for the duration of his term of office, taking into account, as for the annual fixed compensation, the grantee's duties and responsibilities and changes in the Group's size and profile. It is also assessed, based on the IFRS valuation, in view of the percentage of the total compensation of the Chairman and Chief Executive Officer it accounts for, so that it represents a significant part of this latter, *i.e.*, around 40%.

In accordance with the law, the AFEP-MEDEF Code and market recommendations:

- performance shares awarded to the Chairman and Chief Executive Officer only vest subject to a condition of presence and to performance conditions evaluated over a period of at least three years, which is followed by a two-year holding period, *i.e.*, a total vesting-holding period of five years;
- since 2016, the rights awarded to the Chairman and Chief Executive Officer in respect of performance share plans may not exceed 10% of all rights awarded in any one year (versus 12% for previous plans);
- the Chairman and Chief Executive Officer is required to retain at least 30% of his vested shares for as long as he remains in office, as well as a number of shares obtained upon exercise of stock options corresponding to at least 40% of the net capital gain on acquisition. These obligations are suspended once the total value of the Arkema shares held, whatever their origin, is equivalent to 200% of his annual gross fixed compensation. However, when the total value of the shares held by the Chairman and Chief Executive Officer, whatever their origin, represents the equivalent of two years of the gross annual fixed compensation, the holding obligation applies to:

- at least 10% of the shares that vest after this threshold is reached, and
- a number of shares corresponding to at least 10% of the net capital gain on acquisition from the exercise of stock options and the sale of the resulting shares;

- the annual performance share plans provide that, as is the case for any other grantee within the Group, in the event of departure of the Chairman and Chief Executive Officer, except in the case of serious or gross misconduct, the Board of Directors may decide, in line with current good governance practice, to maintain the benefit of the shares awarded at the date of termination of his functions that are not fully vested at that date, the final vesting rate still remaining subject to the achievement of the performance criteria provided for in the plans concerned.

The performance criteria for the vesting of the shares to the Chairman and Chief Executive Officer, are as follows:

- REBIT margin (recurring operating income as a percentage of sales), which reflects the Group's transformation, and in particular, its ambition to strongly develop its Specialty Adhesives activities, and helps monitor the progress made by the Group in reducing its capital intensity and enhancing its resilience;
- EBITDA to cash conversion rate, in line with the Group's cash generation objective presented at the Capital Markets Day in June 2015;
- comparative Total Shareholder Return (TSR) which helps benchmark the Arkema share performance against a peer group by factoring in both changes in share price and dividends. This criterion helps align even more closely the interests of beneficiaries with those of shareholders. The composition of the peer group is validated each year by the Board of Directors and may evolve to take account of changes in the competitive landscape. At the date of this document, it consists of AkzoNobel, BASF, Clariant, DSM, Evonik, Lanxess, Solvay, and the CAC 40 index; and
- average return on capital employed or ROCE (recurring operating income/average capital employed at the end of years Y and Y-1), which helps assess the profitability of investments made and therefore the Group's discipline in selecting its investments and using its resources and its ability to create value over the long term.

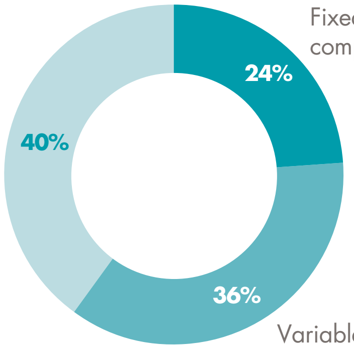
Taking into account all four criteria and the reward for outperformance if the Group significantly exceeds its targets, the overall vesting rate may represent up to a maximum of 110% of the initial grant.

The targets set for these criteria are fully consistent with the medium- and long-term targets announced to the financial market and are similar to the internal targets.

In accordance with the recommendations of the AFEP-MEDEF Code, each year the Chairman and Chief Executive Officer formally undertakes not to use any financial instruments to hedge the risk of losses on the performance shares that he has been granted by the Company during his term of office as Chairman and Chief Executive Officer and as long as he remains in office.

For more details concerning stock-based compensation for which an authorization was approved by the annual general meeting of 7 June 2016, see section 3.5 and note 28 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

By way of illustration, based on the valuation of the performance share rights awarded in November 2016, the breakdown of these three components of the Chairman and Chief Executive Officer's compensation for 2016 was as follows:



Pension benefits

Since the Chairman and Chief Executive Officer's term of office was renewed in June 2016, when the supplementary defined benefit pension scheme governed by Article L. 137-11 of the French Social Security Code from which he benefited since 2006, was terminated, the Chairman and Chief Executive Officer receives an additional annual payment corresponding to 20% of his total fixed and variable compensation for the year concerned, to enable him to build up his supplementary retirement benefits year after year.

Thierry Le Hénaff has committed to invest this amount, net of any contributions and tax, in investment vehicles dedicated to the financing of his supplementary retirement benefits.

Termination indemnity

The Chairman and Chief Executive Officer is entitled to compensation for termination of office in the event of forced departure, regardless of the form of the departure, including dismissal before the end of the term of office or non-renewal of such term of office on expiry, linked to a change in control or strategy, subject to the conditions approved by the annual general meeting of 7 June 2016. No compensation for termination of office will be paid in the event of serious or gross misconduct. The amount of the indemnity would be calculated by reference to the achievement of performance conditions and should not exceed twice his total annual gross fixed and variable compensation. The calculation base would correspond to the fixed annual compensation for the year in which the forced departure occurs and the average of the last two years of variable compensation paid prior to the departure.

Other benefits

The Chairman and Chief Executive Officer has the use of a company car and is covered by director unemployment insurance.

3.4.2.2 IMPLEMENTATION OF COMPENSATION POLICY

3.4.2.2.1 2017 variable compensation criteria

In accordance with the compensation policy of the Chairman and Chief Executive Officer described in section 3.4.2.1 of this document, the Board of Directors, at its meeting on 27 February 2017, on recommendation by the Nominating, Compensation and Corporate Governance Committee, confirmed that the Chairman and Chief Executive Officer's annual variable compensation for 2017 may reach, as was the case in previous years, a maximum of 150% of his annual fixed compensation. It will continue to be based on quantitative criteria of the same type as in previous years and linked to the Group's financial performance: EBITDA, recurring cash flow and contribution of new developments.

In addition to these quantitative criteria, qualitative criteria will continue to be based on the Group's priorities 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 changes in the Group's profile to reinforce the balanced geographical presence, the management of acquisitions, the development of innovation platforms and the secure access to strategic raw materials, (ii) the day-to-day management of the Company with quantified operational criteria (safety, fixed costs, working capital, capital expenditure and balance sheet) and (iii) the implementation of major industrial projects for the Group. For 2017, the Board of Directors will focus in particular on the Group's ability to maintain its current very good safety record, progress made in the area of corporate social responsibility, the implementation of integration synergies between Bostik and Den Braven, the adaptation to the raw material context, the ramp-up of molecular sieves and the start-up of capacity expansions in polyamides and PVDF, the start-up of the digital transformation program, the further implementation of the divestment program and the progress made on the main ongoing or planned development projects which have not yet been announced by the Group. The Board of Directors will also monitor the operational excellence initiatives and talent management.

The weighting of the different criteria used to determine variable compensation remains unchanged.

In accordance with the provisions of Article L.225-37-2 *nouveau* of the French Commercial Code, payment of the annual variable compensation due for 2017 will take place subject to the approval by the 2018 Company's shareholders meeting of the Chairman and CEO compensation components in accordance with the provisions of article L.225-100 of said code.

3.4.2.2.2 Components of compensation due or awarded to the Chairman and Chief Executive Officer for 2016 submitted to the consultation of the shareholders

In accordance with the recommendations of article 26 of the AFEP-MEDEF Code, the following presentation of the components of compensation due or awarded to Thierry Le Hénaff, Chairman and Chief Executive Officer of the Company, for the year ending 31 December 2016, is submitted for the consultation of the shareholders' annual general meeting of 23 May 2017 (10th resolution).

COMPONENTS OF COMPENSATION DUE OR AWARDED TO THIERRY LE HÉNAFF FOR 2016 SUBMITTED FOR THE CONSULTATION OF THE SHAREHOLDERS

Components of compensation due or awarded for 2016	Amounts or accounting valuation submitted to vote	Presentation
Fixed compensation	€835,000	As part of the renewal of the term of office as director of Thierry Le Hénaff last year by the annual general meeting of 7 June 2016, his annual fixed compensation was set at €900,000 per year, from this date and for the duration of his term of office as director (versus €750,000 between 23 May 2012 and 6 June 2016). The determination of this amount reflects the successful implementation of the Group's strategy which enabled to sustainably and very positively change its profile and to significantly grow its size notably in terms of sales, profitability and market capitalization. This transformation, which was driven in particular by the integration of Bostik with an increase in Group sales of more than 25%, the completion of major fundamental industrial projects, the ramp-up of the operational excellence program and the geographic repositioning, resulted consequently in substantial increased responsibilities and duties for the Chairman and Chief Executive Officer. The continuous benefit of innovation, a structurally higher cash flow generation, the reduction in capital intensity and a higher share of more resilient specialty activities have also been taken into account. Lastly, the results of a benchmarking study carried out by Towers Watson of seventeen French industrial companies, including Valeo, Technip, Essilor, Imerys and Rexel, and four European chemical companies in the Group's panel of peers (Clariant, Lanxess, Solvay and Evonik) were also considered.

Components of compensation due or awarded for 2016	Amounts or accounting valuation submitted to vote	Presentation
Annual variable compensation	€1,252,500	Variable compensation due for 2016, which could, as in previous years, represent up to 150% of the annual fixed compensation, was set by the Board of Directors at its meeting on 27 February 2017, taking into account the quantitative and qualitative criteria approved by the Board in 2016 and the achievements noted as of 31 December 2016, as follows: • **concerning 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 achievement rates by criterion were as follows in 2016: ◦ 100% for EBITDA, whose weighting represents 55%, taking into account the excellent performance of the Group, with EBITDA significantly up by 12.5% in 2016 compared to 2015, which was already strongly up, in an economic environment characterized by overall moderate growth worldwide and strong volatility, particularly with regard to raw materials. This increase is fully in line with the Group's medium-term target announced in 2014 for 2017, to increase EBITDA to €1.3 billion compared to €784 million in 2014; ◦ 100% for recurring cash flow, whose weighting represents 27.5%. After a very good performance in 2015, recurring cash flow reached an excellent level again in 2016, totaling €477 million with a very high EBITDA to cash conversion ratio of 40%, which is among the highest within the peer group. This cash generation was directly reflected in stable gearing of 35% despite the acquisition of Den Braven at the end of the year for an enterprise value of €485 million. This performance reflects the further strict management of capital expenditure and working capital in a raw material context significantly less favorable with rising raw material prices at the end of 2016 compared to their 2015 level; and ◦ 100% for the contribution of new developments, whose weighting represents 27.5%. The Board of Directors took into account the further progress made compared to previous years with, in particular, the commercial successes in lighter materials (in sports, automotive industries and consumer electronics), innovation in new energy applications, the very positive impact for Bostik of increased R&D investment structured around its three regional platforms, with notable successes in hygiene, floor adhesion systems and flexible packaging with new-generation formulations, and diversification of the Group's downstream acrylics (Coatex, Sartomer and coating resins) into higher value-added products. After applying the calculation formula defined by the Nominating, Compensation and Corporate Governance Committee, the variable compensation due in respect of quantitative criteria amounted to 110% of annual fixed compensation; and • **concerning the qualitative criteria** relating for the most part to the implementation of the Group's strategy and operating priorities, and several of which are quantifiable, the performance was once again deemed excellent at the end of a year 2016 marked by the successful integration of Bostik and the implementation of synergies with an EBITDA growth target of 30% in 2017 versus 2014 achieved one year early, the acquisition of the Den Braven group finalized on 1 December 2016, which strengthens the Specialty Adhesives (Bostik) Business Line and supports the Group's long-term ambition in this market, and the continued implementation of the divestment program with the sale of the activated carbon and filter aids business on favorable terms with a 9.5x enterprise value to EBITDA multiple. In addition, the Board of Directors noted the completion or progress of several industrial projects that are complex, significant and fundamental in establishing the Group's long-term positioning. They include the doubling of specialty molecular sieve production capacity at the Honfleur site in France, doubling of organic peroxide production capacity in China, renegotiation of the agreements concluded with Jurong in acrylics in China enabling Arkema to access to 50% of total capacity for a limited cash outflow and the renegotiation of the terms and conditions for the purchase and sale of a number of key raw materials. The Board of Directors also noted the further efficient management of fixed costs, working capital (with a ratio of working capital to pro forma sales of 14.5%, excluding Den Braven, in 2016 versus 14.6% in 2015) and capital intensity (with capital expenditure representing 5.6% of sales in 2016, the same as in 2015). The Group's rating was upgraded by two agencies with a neutral outlook. Lastly, the Group's very good safety record was maintained at a level among the best in the industry (TRIR of 1.5 accidents per million hours worked in 2016 again). The Board also noted the effective succession planning for senior executives and Executive Committee members, notably when the CEO of Bostik was replaced, and the creation of a Group Management Committee in addition to the Executive Committee. As a result, the achievement rate of these qualitative criteria was set at 100%. Consequently, the variable compensation due in respect of qualitative criteria was set at 40% of the annual fixed compensation. In total, the variable compensation for 2016 amounts to €1,252,500. It reflects the very strong performance for the year and the continued transformation of the Group's profile. It represents 150% of the 2016 annual fixed compensation of €835,000 (*i.e.*, €750,000 for the period to 6 June 2016 and €900,000 for the period from 7 June 2016 when the Chairman and Chief Executive Officer's term of office was renewed by the shareholders' annual general meeting) and an overall achievement rate of 100%.

Components of compensation due or awarded for 2016	Amounts or accounting valuation submitted to vote	Presentation
Deferred variable compensation	N/A	Thierry Le Hénaff receives no deferred variable compensation.
Exceptional compensation	N/A	Thierry Le Hénaff receives no exceptional compensation.
Attendance fees	N/A	Thierry Le Hénaff receives no attendance fees from Arkema.
Stock options	N/A	The Board of Directors decided, beginning of 2013, not to grant any further stock options.
Performance shares	€1,410,000	Making use of the authorization granted by the annual general meeting of 7 June 2016 (17th resolution), on recommendation by the Nominating, Compensation and Corporate Governance Committee, at its meeting on 9 November 2016, the Board of Directors awarded 30,000 performance shares (representing 0.04% of share capital) to Thierry Le Hénaff (out of a total of 357,915 shares granted to around 1,170 grantees, representing 8.4% out of a maximum of 10%). On the basis of the IFRS valuation at the date of the allocation, and assuming a maximum allocation of the annual variable compensation, such allocation would represent 39% of the Chairman and Chief Executive Officer's total compensation versus 37% in 2015. This level, which is consistent with the change in the fixed part of the compensation, also takes into account, as part of the new term of office, the very positive transformation of the Group's profile and of its financial performance and aims at maintaining a balanced split between the different components of compensation, in line with past practice. The shares will vest at the end of a three-year period subject to a presence condition and if four demanding performance targets are met: REBIT margin (recurring operating income as a percentage of sales), EBITDA to cash conversion rate, comparative Total Shareholder Return and return on capital employed. Each criterion applies for 25% of the awarded rights. The vesting period is followed by a two-year mandatory holding period. Further details on the criteria may be found in section 3.5.1 of this document.
Pension	€254,250	Since 7 June 2016, when the supplementary defined benefit pension scheme (governed by Article L. 137-11 of the French Social Security Code) from which he benefited since his appointment in 2006 was terminated, Thierry Le Hénaff benefits from an additional annual payment corresponding to 20% of his total fixed and variable compensation for the year concerned, to enable him to build up his supplementary retirement benefits, year after year. Thierry Le Hénaff has committed to invest this entire amount, net of any contributions and tax, in investment vehicles dedicated to the financing of his supplementary retirement benefits.
One-off indemnity for the termination of the supplementary defined benefit pension scheme	€1,500,000	In consideration of the termination on 7 June 2016 of the supplementary defined benefit pension scheme (governed by Article L. 137-11 of the French Social Security Code), mentioned above and from which he benefited since his appointment in 2006, Thierry Le Hénaff received a one-off payment of €1,500,000 as compensation for the loss of a part of the pension rights accumulated in the terminated pension scheme. In 2015, Thierry Le Hénaff had already completed the maximum number of years of service taken into account under the scheme and consequently acquired all rights he was entitled to under this scheme. Consequently, the total amount of this one-off indemnity, paid partly in cash and partly in shares (in accordance with the decision of the annual general meeting of 7 June 2016 (18th resolution)), was based on the cumulative annual additional sums that would have been paid to the beneficiary since the Company's stock market listing in May 2006 if the new pension scheme had been put in place since he was appointed as Chairman and Chief Executive Officer. It should also be noted that the new scheme implied, from the beneficiary's standpoint, giving up around 70% of the net value of the benefits he would have been entitled to under the previous system. For the Company, the overall cost of the new system has been divided by two compared to the previous one. The new system led to the reversal in 2016 of a provision amounting to €20 million in the Company's accounts.
Benefits in kind	€6,720	Thierry Le Hénaff has the use of a company car.

COMPONENTS OF COMPENSATION DUE OR AWARDED FOR 2016 ALREADY APPROVED BY THE GENERAL SHAREHOLDERS' MEETING

Termination indemnity	*No payment*	*Thierry Le Hénaff benefits, as part of his term of office, from a termination indemnity in an amount not exceeding two years' gross fixed and variable compensation, calculated based on the achievement of five quantitative criteria set by the Board of Directors and approved by the shareholders' general meeting (total recordable injury rate (TRIR), annual variable compensation, comparative EBITDA margin, working capital and return on capital employed).* *The amount of this indemnity will be calculated on the basis of the fulfillment of the following five demanding performance conditions:* • *TRIR: the total recordable injury rate (TRIR) would have to have decreased by at least 5% per year (average compound rate) between 31 December 2010 and the date at which the performance condition is assessed;* • *annual variable compensation: on average, the annual variable compensation paid during the three years preceding departure would have to be at least 50% of the maximum amount payable;* • *return on capital employed: the average of net operating income over capital employed ((recurring operating income - actual income tax) (1)/(capital employed - provisions)) for the last three years prior to the termination date would have to exceed the Group's cost of capital for the year preceding his re-election, i.e.: 7% in 2015. Capital employed and provisions are those at year-end, and recurring operating income of companies acquired during the year would be included on a full year basis and that of divested companies would be excluded;* • *Working capital: the year-end working capital over annual sales ratio would have to have decreased by at least 2.5% per year (average compound rate) between 31 December 2005 and the date at which the performance condition is assessed; and* • *comparative EBITDA margin: this financial performance indicator will continue to be measured against that of competitors in the chemicals industry comparable to the Arkema Group. The growth in the Group's EBITDA margin would have to be at least equal to the average growth in the EBITDA margin of the companies in the peer group between 31 December 2005 and the date at which the performance condition is assessed.* *The value of the end-of-period index to be taken into account for the computation of the above criteria would be the average of the indices calculated at Group level over the three years for which financial statements have been published prior to the termination date.* *The termination indemnity allocation scale is determined as follows:* *if 5 conditions were met, Thierry Le Hénaff would receive 100% of the maximum of the termination indemnity;* • *if 4 out of 5 conditions were met, Thierry Le Hénaff would receive 90% of the maximum of the termination indemnity;* • *if 3 out of 5 conditions were met, Thierry Le Hénaff would receive 70% of the maximum of the termination indemnity;* • *if 2 out of 5 conditions were met, Thierry Le Hénaff would receive 40% of the maximum of the termination indemnity;* • *if fewer than two conditions were met, no termination indemnity would be paid.* *In addition, the Board of Directors has decided to gradually reduce the maximum termination indemnity that would be payable to 18 months of total annual gross compensation (fixed and variable) beyond 60 years old, and 12 months of total annual gross compensation (fixed and variable) beyond 62-and-a-half years old.* *No compensation would be paid in the event of departure beyond the age of 65.* *In accordance with the related-party agreements and commitments procedure, this commitment was authorized by the Board of Directors' meeting of 2 March 2016, and approved by the annual general meeting of 7 June 2016 (5th resolution).*
Non-compete compensation	*N/A*	*Thierry Le Hénaff is not entitled to any non-compete compensation.*
One-off allocation of free shares as compensation for the termination of the supplementary defined benefit pension scheme	*€2,360,850*	*In return for its decision to terminate the Chairman and Chief Executive Officer's supplementary defined benefit pension scheme (governed by Article L. 137-11 of the French Social Security Code) from which Thierry Le Hénaff benefited since his appointment in 2006, effective from his re-election as a director by the annual general meeting of 7 June 2016, the Board of Directors' meeting of 7 June 2016, making use of the authorization granted by the annual general meeting held on the same day (18th resolution), confirmed its decision to grant 50,000 free shares to the Chairman and Chief Executive Officer, as compensation indemnity for the loss of a part of the pension rights accumulated in the terminated pension scheme. Shares will vest between 2017 and 2019 in three tranches of 16,667, 16,667 and 16,666 shares respectively, subject to a condition of presence and in each case to a two-year holding period. By deciding to pay part of this one-off compensatory indemnity in Arkema shares and spreading the vesting period over three years, the Board of Directors has included a retention component in the scheme.*

(1) On recurring income (in particular excluding impact of M&A, restructuring operations).

3.4.2.3 SUMMARY TABLES DRAWN UP IN ACCORDANCE WITH THE AFEP-MEDEF CODE AND AMF RECOMMENDATIONS

**SUMMARY OF COMPENSATION, STOCK OPTIONS AND SHARES AWARDED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER, EXCLUDING COMPENSATORY INDEMNITIES
(TABLES 1 AND 2 IN THE AMF RECOMMENDATIONS AND AFEP-MEDEF CODE)**

	2016		2015	
(Gross amounts in euros)	**Due for the year**	**Paid during the year**	**Due for the year**	**Paid during the year**
Fixed compensation	835,000*	835,000*	750,000	750,000
Variable compensation**	1,252,500	1,125,000	1,125,000	688,500
Exceptional compensation	None	None	None	None
Attendance fees	None	None	None	None
TOTAL	**2,087,500**	**1,960,000**	**1,875,000**	**1,438,500**
Pension	254,250***	102,000 ***	None	None
Benefits in kind – car	6,720	6,720	6,720	6,720
Director unemployment insurance	16,921	16,921	16,453	16,453
Value of stock options allocated during the year calculated according to the method used in the consolidated financial statements (detailed in note 28.1 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document)		N/A		N/A
Value of performance share rights awarded during the year calculated according to the method used in the consolidated financial statements (detailed in note 28.2 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document)		1,410,000		1,100,060

* *Annual fixed base as from 7 June 2016: €900,000.*

** *Variable compensation is paid in the year following the period for which it is calculated based on the criteria set out in section 3.4.3.2 of this document.*

*** *20% of the annual compensation (fixed and variable) since 7 June 2016.*

**PERFORMANCE SHARES GRANTED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER IN 2016
(TABLE 6 IN THE AMF RECOMMENDATIONS AND AFEP-MEDEF CODE)**

	No. and date(1) of plan	Number of shares granted in 2016	Vesting date/End of holding period	Value of shares according to the method used in the consolidated financial statements
Thierry Le Hénaff	2016 plan (three-year vesting period + two-year holding period) Date: 9 November 2016	30,000 (2)	10 November 2019	€1,410,000

(1) Date of Board of Directors' meeting.
(2) Representing 0.04% of share capital.

No vesting periods for performance shares awarded to Thierry Le Hénaff expired in 2016.

PERFORMANCE SHARES AWARDED TO THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER FOR WHICH THE HOLDING PERIOD EXPIRED IN 2016 (TABLE 7 IN THE AMF RECOMMENDATIONS AND AFEP-MEDEF CODE)

	No. and date(1) of plan	Number of shares for which the holding period ended in 2016	Vesting conditions
Thierry Le Hénaff	2012 plan no. 1 Date: 9 May 2012	13,000 subject to compliance with the specific holding requirements	Conditions of presence and performance: 2012 EBITDA (50%) and growth in the Group's 2012/2013 average margin compared to a peer group (50%)

(1) Date of Board of Directors' meeting.

STOCK OPTIONS EXERCISED DURING 2016 BY THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER (TABLE 5 IN THE AMF RECOMMENDATIONS)

	No. and date(1) of plan	Number of options exercised	Exercise price
Thierry Le Hénaff	2010 Plan Date: 10 May 2010	15,000	€29.33
	2011 Plan Date: 4 May 2011	30,000	€65.92

(1) Date of Board of Directors' meeting.

In accordance with the AFEP-MEDEF Code and AMF recommendations, the history of stock options and performance shares awards, for the plans in place, is set out in the tables presented in section 3.5 of this document.

SUMMARY OF EMPLOYMENT CONTRACT, PENSION BENEFITS AND OTHER BENEFITS IN 2016 (TABLE 11 IN THE AMF RECOMMENDATIONS AND AFEP-MEDEF CODE)

	Employment contract		Supplementary defined benefit pension scheme		Compensation or benefits due or potentially due upon termination or change of position		Indemnities resulting from non-compete agreement	
	Yes	No	Yes	No	Yes	No	Yes	No
Thierry Le Hénaff		X		X	X			X

3.4.3 Compensation of Executive Committee members (1)

3.4.3.1 COMPENSATION PRINCIPLES

Every year, the Nominating, Compensation and Corporate Governance Committee reviews the fixed and variable compensation structure proposed by the Chairman and Chief Executive Officer for Executive Committee members. This compensation comprises:

(i) two short-term components:

- an annual fixed compensation based on the scope of the respective duties and responsibilities of each Executive Committee member,
- an annual variable amount, that may represent up to 85% of the annual fixed compensation, based on general quantitative targets identical to those set for the Chairman and Chief Executive Officer, and closely aligned with the Group's financial performance and the implementation of its strategy, and quantitative and qualitative targets designed to reward the individual performance of each Executive Committee member within their respective area of responsibility; and

(ii) a long-term incentive through the award of performance share rights fully subject to performance conditions.

In the past, Executive Committee members also received stock options (see section 3.5 and note 28 to the consolidated financial statements in section 4.3.3 of this document).

Since 2010, Executive Committee members have been required to retain at least 20% of their vested shares in registered form for as long as they remain in office, as well as a number of shares obtained upon the exercise of stock options corresponding to at least 40% of the net capital gain on acquisition. These obligations are suspended once the total value of the Arkema shares held, whatever their origin, is equivalent to 150% of their gross annual fixed compensation. The Chairman and Chief Executive Officer is subject to specific individual holding requirements (see section 3.4.2.1 of this document).

Each year Executive Committee members certify that they have not used any financial instruments to hedge the risk of losses on the stock options or performance share rights that have been, or will be, awarded to them by the Company.

The amount and structure of Executive Committee members' compensation packages are regularly compared to the market practices for equivalent positions in companies operating in the same industry with similar market capitalizations.

Executive Committee members do not receive any attendance fees as directors of Group companies.

3.4.3.2 ANNUAL COMPENSATION OF EXECUTIVE COMMITTEE MEMBERS (1)

The total gross fixed compensation for 2016 awarded by the Company to Executive Committee members, whom have been seven since 1 September 2016, amounted to €2,185,000.

Furthermore, the total variable compensation paid by the Company to Executive Committee members in 2016 in respect of 2015 amounted to €1,627,787.

Based on the targets approved by the Board of Directors at its meeting on 2 March 2016, namely (i) general quantitative targets identical to those that apply to the Chairman and Chief Executive Officer and relating to growth in EBITDA, recurring cash flow, and margin on variable costs of new developments, and (ii) individual quantitative and qualitative targets for each member, the Board of Directors' meeting of 27 February 2017, on recommendation by the Nominating, Compensation and Corporate Governance Committee, approved Executive Committee members' variable compensation for 2016, which could amount to up to 85% of the fixed compensation for each member. The total annual variable compensation awarded to Executive Committee members for 2016 stood at €1,809,595.

In addition, on recommendation by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors set the Executive Committee members' compensation for 2017 as follows:

- total gross fixed compensation has been set at €2,313,000, in line with market practices and with the changes to the Group's compensation policy for the 2017 financial year;
- variable compensation will continue to be based on general quantitative criteria related to the Group's financial performance as measured by targets for EBITDA, recurring cash flow and margin on variable costs of new developments, as well as on quantitative and qualitative criteria specific to each member. Variable compensation may represent up to 85% of fixed compensation for each member.

(1) Excluding the Chairman and Chief Executive Officer.

Consequently, compensation due and paid to Executive Committee members, excluding the Chairman and Chief Executive Officer, for 2016 and 2015 was as follows:

	2016		2015	
(Gross amounts in euros)	Due for the year	Paid during the year	Due for the year	Paid during the year
Fixed compensation	2,185,000	2,185,000	1,979,876	1,979,876
Variable compensation	1,809,595	1,627,787	1,627,787	932,546
TOTAL	**3,994,595**	**3,812,787**	**3,607,663**	**2,912,422**

3.4.3.3 BENEFIT SCHEMES

Executive Committee members are covered by the same benefit schemes (death/disability and health insurance) as employees of Arkema France. They also benefit from a defined contribution pension scheme based on the part of their compensation that exceeds eight times the annual ceiling for social security contributions and is excluded from the contribution base for compulsory pension schemes.

In line with the project announced in 2016 following the termination of the Chairman and Chief Executive Officer's supplementary defined benefit pension scheme, on 9 November 2016, the Board of Directors decided to terminate the supplementary defined benefit pension scheme offered to certain executives of the Group. At the date of this document, no Executive Committee member benefits from a supplementary defined benefit pension scheme.

3.4.4 Stock transactions by the Company's executives

Pursuant to article 223–26 of the AMF general regulation, the following table details the transactions declared by the individuals concerned by Article L. 621-18-2 of the French Monetary and Financial Code in 2016:

2016	Type of financial instrument	Acquisition	Subscription	Sale	Exchange	Exercise of stock options
Luc Benoit-Cattin	Arkema shares	–	–	–	–	2,400
	FCPE* units	–	1,000	1,870	–	–
Bernard Boyer	Arkema shares	–	–	12,850	–	16,950
	FCPE* units	–	1,000	1,134.78	–	–
Michel Delaborde	Arkema shares	–	–	17,586	–	23,806
	FCPE* units	–	1,000	1,533.92	–	–
Thierry Le Hénaff	Arkema shares	–	–	34,675	–	45,000
Thierry Lemonnier	Arkema shares	–	–	11,916	–	18,301
	FCPE* units	–	1,000	1,045.50	–	–
Marc Schuller	Arkema shares	–	–	9,500	–	11,885
	FCPE* units	–	1,000	1,022.49	–	–

* *FCPE invested in Arkema shares.*

3.5 STOCK-BASED COMPENSATION

Since Arkema's stock market listing in 2006, the Group has been eager to put in place stock-based compensation instruments in order to secure loyalty of executives and certain employees, and involve them more closely in the Group's future growth as well as its stock market performance.

Accordingly, the Board of Directors put in place, from 2006, stock option and performance share plans.

No stock option plans have been set up since 2013.

STOCK-BASED COMPENSATION PRINCIPLES

The principles of the stock-based compensation policy by way of performance share grants, adopted by the Board of Directors on recommendation by the Nominating, Compensation and Corporate Governance Committee, and amended in 2016 as part of the renewal of the authorization to grant performance shares submitted to the annual general meeting of 7 June 2016, are as follows:

- involving executives, senior managers and certain employees who have performed exceptionally well or that the Group wants to retain, closely in the Group's future growth and stock market performance in the medium term. There are currently around 1,200 beneficiaries (excluding Den Braven);
- setting a vesting period of three years for performance shares awarded to the Chairman and Chief Executive Officer and the members of the Executive Committee, followed by a holding period of two years, *i.e.*, a total vesting-holding period of five years;
- submitting the vesting of performance shares to demanding performance criteria. Since 2016, awards without performance conditions have been limited to allocations representing no more than 80 shares. Until 2015, the threshold was 100 shares;
- rewarding outperformance if targets are significantly exceeded, with the maximum achievement rate for each criterion ranging from 120% to 130% depending on the criterion, leading to a global allocation representing up to 110% of the grant;
- limiting the rights awarded to the Chairman and Chief Executive Officer in respect of annual performance share plans to a maximum of 10% of all rights awarded in any annual plan (versus 12% until 2016);
- avoiding any dilution for shareholders by allocating existing shares acquired under the share buyback program to holders of performance share rights; and
- in accordance with the AFEP-MEDEF Code, granting performance share plans at the same period every year, *i.e.*, in November since 2013.

In addition, in accordance with law and the AFEP-MEDEF Code, the Board of Directors sets a fixed number of shares obtained upon the exercise of stock options or vested shares that must be retained by the Chairman and Chief Executive Officer and by each Executive Committee member (see sections 3.4.2.1 and 3.4.3.3 of this document).

PERFORMANCE CRITERIA

Since 2016, the performance share plans are subject to four demanding performance criteria, each applying to 25% of the total award:

- REBIT margin (recurring operating income as a percentage of sales);
- EBITDA to cash conversion rate;
- comparative Total Shareholder Return; and
- average return on capital employed (recurring operating income over average capital employed at the end of years Y and Y-1).

All the targets set for these criteria are fully consistent with the medium- and long-term targets announced to the financial market and are similar to the internal targets.

The performance criteria applied to performance share plans have been continuously strengthened since 2013 to take into account the significant changes to the Group's profile as well as demands from shareholders.

The accounting treatment of these stock-based compensation instruments is described in note 28 to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

3.5.1 Free share and performance share plans

2016 PERFORMANCE SHARE PLANS

In accordance with the stock-based compensation policy in force within the Group and making use of the authorization given by the annual general meeting of 7 June 2016, on recommendation by the Nominating, Compensation and Corporate Governance Committee, the Board of Directors decided, at its meeting on 9 November 2016, to award 357,915 performance shares to some 1,170 beneficiaries, including the Chairman and Chief Executive Officer and the Executive Committee members.

For employees in France, the vesting period is three years, followed by a two-year holding period. For employees outside France, the vesting period is four years, with no holding period, so that the vesting of the shares may correspond to the chargeability of the related taxes.

The vesting of the shares is, for all beneficiaries, subject to their continuing presence within the Group and, for awards of more than 80 shares, entirely subject to the achievement of demanding performance criteria.

In order to take account of the Company's changing profile as well as demands from shareholders, the Board of Directors has decided to replace the criterion of EBITDA growth with two new criteria:

- the first criterion, linked to the Group's REBIT margin (corresponding to the Group's recurring operating income as a percentage of sales), reflects the Group's transformation, and in particular its ambition to strongly develop its Specialty Adhesives activities. It also helps monitor the progress made by the Group, in particular in reducing its capital intensity; and
- the second criterion, linked to return on capital employed or ROCE (corresponding to the recurring operating income for year Y over average capital employed at the end of years Y and Y-1), helps assess the profitability of investments made and therefore the Group's discipline in selecting its investments and using its resources and its ability to create value over the long term.

Accordingly, the four performance criteria applicable for the 2016 plan, each applying to 25% of the total award, are as follows:

- REBIT margin (recurring operating income as a percentage of sales)

Performance in respect of this criterion will be evaluated using the average REBIT margins for 2016, 2017 and 2018 ("average margin").

The vesting scale will be as follows:

Average margin	Vesting rate
9%	50%
10%	100%
10.5%	125%

Between these different values, the vesting rate will be determined based on a linear scale. If the average margin is below 9%, *i.e.*, a threshold that is significantly higher than the Group's REBIT margin in 2015 which was 7.9%, no share will vest in respect of this criterion.

The recurring operating income used for this criterion is the one published in the Group's annual consolidated financial statements;

- EBITDA to cash conversion rate (net cash flow over EBITDA)

Net cash flow corresponds to cash flows from operations and investments excluding the impact of acquisitions and divestments, exceptional investments, payment of dividends, cost of hybrid bonds, and any unrealized exchange differences on foreign currency funding of exceptional investments, with no impact on net debt. It will be restated to offset the impact of the raw material environment on changes in working capital.

The achievement rate will be determined using the average conversion rate for 2017 and 2018.

The vesting scale will be as follows:

Conversion rate	Vesting rate
25%	0%
35%	100%
40%	120%

Between these different values, the vesting rate will be determined based on a linear scale;

- Comparative Total Shareholder Return (TSR)

TSR will be determined over a three-year period, from 2016 to 2018.

The peer group is identical to the one used in the 2015 performance share plan and includes AkzoNobel, BASF, Clariant, DSM, Evonik, Lanxess, Solvay and the CAC 40 index.

The vesting scale will be as follows:

Arkema's ranking by descending order of TSR	Vesting rate
1st and two percentage points above 2nd	130%
1st	120%
2nd	100%
3rd	85%
4th	65%
5th	50%
6th	25%
7th to 9th	0%

The method for calculating TSR is as follows:

TSR = (share price at the end of the period - share price at the beginning of the period + sum of the dividends per share paid out during the period) / share price at the beginning of the period.

To minimize the effects of market volatility on stock prices, the share price used to determine prices at beginning and end of the period will be a six-month average; and

- Average return on capital employed or ROCE (recurring operating income over average capital employed at the end of years Y and Y-1)

The indicator used ("average ROCE") will be the average of ROCE for 2016, 2017 and 2018.

The vesting scale will be as follows:

Average ROCE	Vesting rate
10%	0%
11.5%	100%
12.5%	125%

Between these different values, the vesting rate will be determined based on a linear scale.

Recurring operating income and capital employed are determined in accordance with the definition in the Group's annual consolidated financial statements. To determine ROCE in the context of performance share plans, recurring operating income and capital employed will be restated, in the event of a significant acquisition, to exclude the impact of such acquisition in the year of acquisition and the following two years.

The overall award rate for all four criteria may not exceed 110%. Hence, the maximum number of shares that may be awarded is 391,805, *i.e.*, 27% of the total number of performance shares that may be awarded pursuant to the authorization granted by the annual general meeting on 7 June 2016.

In accordance with the recommendations of the AFEP-MEDEF Code and his own past practice, Thierry Le Hénaff formally undertook not to use any financial instruments to hedge the risk of losses on the stock options or performance shares that have been, or will be, awarded to him by the Company at any time during his term of office as Chairman and Chief Executive Officer. The members of the Executive Committee are also subject to the same restriction.

It is also recalled that in accordance with the law and the AFEP-MEDEF Code, the Chairman and Chief Executive Officer and the members of the Executive Committee are subject to an additional requirement to retain the shares they have been awarded.

SUMMARY OF 2016 PERFORMANCE SHARE PLANS

	Plan for employees in France	Plan for employees outside France
Date of annual general meeting	7 June 2016	7 June 2016
Authorized performance share awards as a % of the Company's share capital	1.94%	
Date of the Board of Directors' meeting	9 November 2016	9 November 2016
Number of rights awarded	235,835	122,080
of which to the Chairman & CEO	30,000	-
Total by authorization	391,805 shares, *i.e.*, 0.52% of the share capital at the date of the annual general meeting(1)	
Origin of shares to be awarded when the rights vest	-	-
Number of canceled rights(2)	-	-
Number of vested shares(3)	-	-
Number of rights still to vest at 31 December 2016	235,835	122,080
Vesting period	3 years	4 years
Holding period	2 years	0
Performance conditions	REBIT margin over the period from 2016 to 2018 (25%) EBITDA to cash conversion rate over the period from 2017 to 2018 (25%) Comparative TSR over the period from 2016 to 2018 (25%) Return on capital employed or ROCE over the period from 2016 to 2018 (25%)	
Vesting rate	-	

(1) Maximum number of shares that may be awarded, taking into account the potential award of up to 110% of the share rights subject to performance conditions.

(2) Performance share rights canceled because the holders left the Group.

(3) Shares awarded to the grantees (including shares awarded before the end of the vesting period, in the event of death for example).

PREVIOUS FREE SHARE PLANS

The plans implemented from 2006 to 2012 have all expired.

2013, 2014 AND 2015 PERFORMANCE SHARE PLANS

	2013	2014	2015
Date of annual general meeting		4 June 2013	
Authorized performance share awards as a % of the Company's share capital		2%	
Date of the Board of Directors' meeting	6 November 2013	13 November 2014	9 November 2015
Number of rights awarded	250,000	275,000	345,120
of which to the Chairman & CEO	26,000	26,000	26,000
Total by authorization	887,238 shares, *i.e.*, 1.41% of the share capital at the date of the annual general meeting[1]		
Origin of shares to be awarded when the rights vest	-	-	-
Number of canceled rights[2]	6,190	2,875	3,490
Number of vested shares[3]	70	-	-
Number of rights still to vest at 31 December 2016	243,740	272,125	345,630
Vesting period	4 years	4 years	4 years
Holding period	0	0	0
Performance conditions	EBITDA growth by 2016 (50%), growth in average EBITDA margin over the period from 2013 to 2016 compared to that of a peer group (50%)	EBITDA growth by 2017 (35%), 2017 EBITDA margin compared to a peer group (30%), comparative TSR over the period from 2015 to 2017 (35%)	EBITDA growth by 2018 (35%), EBITDA to cash conversion rate in 2017 and 2018 (30%), comparative TSR over the period from 2016 to 2018 (35%)
Vesting rate	EBITDA growth: 67.5%	-	-

(1) 2013, 2014 and 2015 plans.
(2) Performance share rights canceled because the holders left the Group or because the performance conditions were not met.
(3) Shares awarded to the grantees (including shares awarded before the end of the vesting period, in the event of death for example).

3.5.2 Stock option plans

In accordance with the stock-based compensation policy, no stock option plan has been granted since 2012.

Under the terms and conditions of the plans decided in 2010 and 2011, which are the only plans still in place, and in accordance with the AFEP-MEDEF Code and stakeholder requirements in this regard:

- stock options were made subject to performance criteria chosen to align medium-term stock-based compensation with the Group's strategy; and
- the exercise price was set by taking 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.

As part of these plans, the Board of Directors authorized the grant of a number of options representing 1% of the Company's share capital at the date of the shareholders' general meeting that authorized the plans.

At 31 December 2016, 308,289 stock options from the 2010 and 2011 plans were still outstanding, *i.e.*, 0.41% of the Company's share capital on that date.

In accordance with the law, and in order to preserve the beneficiaries' rights, an adjustment was made to the number of outstanding options and their exercise price as a result of the share capital increase with preferential subscription rights carried out on 15 December 2014.

HISTORY OF STOCK OPTION PLANS (TABLE 8 IN THE AMF RECOMMENDATIONS AND AFEP-MEDEF CODE)

	2010		2011	
Date of annual general meeting	15 June 2009	15 June 2009	15 June 2009	15 June 2009
Maximum authorized stock option grants as a % of the Company's share capital	5%			
Date of the Board of Directors' meeting	10 May 2010	10 May 2010	4 May 2011	4 May 2011
Number of stock options granted	225,000	225,000	105,000	105,000
Number of options granted following adjustments	230,044	233,513	109,082	109,082
of which to the Chairman and CEO	35,000	35,000	29,250	29,250
of which to the Chairman and CEO following adjustments	36,361	36,361	30,386	30,386
Number of outstanding options at 31 December 2016	65,829	89,184	62,063	91,213
Total by authorization	660,000, *i.e.*, 1% of the share capital at the date of the annual general meeting			
Vesting period (1)	2 years	5 years	2 years	4 years
Holding period (2)	2 years	-	2 years	-
Expiry date	10 May 2018	10 May 2018	4 May 2019	4 May 2019
Exercise price *(in euros)*	€30.47	€30.47	€68.48	€68.48
Exercise price *(in euros)* following adjustments	€29.33	€29.33	€65.92	€65.92
Performance conditions (other than the exercise price)	2010 EBITDA (50%), growth in the Group's 2010/2011 average EBITDA margin versus 2005 compared to a peer group (50%)	2014 EBITDA margin	2011 ROCE	2011/2014 average EBITDA margin
Vesting rate	100%	93.3%	100%	100%

(1) Provided that the grantee is still employed by the Group when the options are exercised.
(2) From end of vesting period.

3.6 STATUTORY AUDITORS' REPORT IN ACCORDANCE WITH ARTICLE L. 225-235 OF THE FRENCH COMMERCIAL CODE

This is a free translation into English of the statutory auditors'report issued in French and is provided solely for the convenience of English speaking readers. 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.

Tour EQHO
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92066 Paris-La Défense Cedex

Statutory auditors
Member of the «Compagnie régionale de Versailles»

ERNST & YOUNG Audit

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S.A.S. à capital variable

Statutory auditors
Member of the «Compagnie régionale de Versailles»

Arkema S.A.

Registered office: 420, rue d'Estienne d'Orves – 92700 Colombes

Share capital: €757,179,470

Statutory auditors' report 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**

Year ended 31 December 2016

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 2016.

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.

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, 27 February 2017

The statutory auditors

French original signed by

KPMG Audit
Département de KPMG S.A.

Bertrand Desbarrières
Partner

François Quédiniac
Partner

ERNST & YOUNG Audit

Denis Thibon
Partner

FINANCIAL AND ACCOUNTING INFORMATION

4

4.1 COMMENTS AND ANALYSIS ON CONSOLIDATED FINANCIAL STATEMENTS AFR 194

4.1.1	Indicators used in management analysis	194
4.1.2	Impact of seasonality	194
4.1.3	Impact of changes to accounting standards	195
4.1.4	Description of main factors which affected sales and results in the period	195
4.1.5	Group income statement analysis	196
4.1.6	Analysis of results by division	198
4.1.7	Group cash flow analysis	200
4.1.8	Financing sources	201
4.1.9	Balance sheet analysis	203

4.2 TRENDS AND OUTLOOK AFR 205

4.2.1	Trends	205
4.2.2	Outlook	206

4.3 CONSOLIDATED FINANCIAL STATEMENTS AFR 207

4.3.1	Statutory auditors' report on the consolidated financial statements	207
4.3.2	Consolidated Financial Statements at 31 December 2016	209
4.3.3	Notes to the consolidated financial statements	215

4.4 COMPANY'S ANNUAL FINANCIAL STATEMENTS AFR 271

4.4.1	Statutory auditors' report on the financial statements	271
4.4.2	Parent company financial statements at 31 December 2016	273
4.4.3	Notes to the Company's financial statements at 31 December 2016	277
4.4.4	Results of the Company in the last 5 years (articles R. 225-81, R. 225-83 and R. 225-102 of the French Commercial Code)	290

The different parts constituting the annual financial report are identified in the table of contents by the pictogram AFR

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 2016 in paragraph 4.3.3 of this document, and in particular with the accounting policies described in note B. "Accounting policies" to the consolidated financial statements.

All figures contained in this section are provided on a consolidated basis and in accordance with the Group's organization into three business divisions.

4.1.1 Indicators used in management analysis

The main performance indicators used by the Group are defined in note B.17 of the notes to the consolidated financial statements presented in section 4.3.3 of this document.

In analyzing variations in its results, particularly variations in sales, the Group identifies the impact 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 analyzed 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

The Group's standard pattern of business shows seasonality effects. Various characteristics contribute to these effects:

- demand for products manufactured by the Group 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 the Group's businesses, particularly those serving the paint and coatings as well as the refrigeration and air-conditioning markets, sales are generally higher in the first half of the year than in the second half. By contrast, in Specialty Adhesives, both halves of the year are more balanced; and
- the major multi-annual maintenance turnarounds at the Group's production plants also have an impact on seasonality, and tend, in general, to be carried out in the second half of the year.

These seasonal effects observed in the past are not necessarily representative of future trends, but can have a material effect on variations in results and working capital from one quarter of the year to another.

4.1.3 Impact of changes to accounting standards

Changes to accounting standards and their potential impacts are described in note B. "Accounting policies" of the notes to the consolidated financial statements at 31 December 2016 presented in section 4.3.3 of this document.

4.1.4 Description of main factors which affected sales and results in the period

In a volatile macroeconomic environment marked by moderate worldwide economic growth, the Arkema Group in 2016 reported its best financial performance since its stock market listing in 2006. It reflects the transformation initiated more than ten years ago towards specialty chemicals as well as a balanced geographic presence.

In 2016, a number of factors contributed to improving EBITDA compared to the high baseline of 2015:

- the successful integration of Bostik and a swifter implementation of synergies than anticipated helped achieve in 2016 the 30% EBITDA growth target (compared to 2014) set for 2017;
- the latest developments from innovation in particular in Technical Polymers for new energies and lighter materials in particular in the automotive industry;
- the implementation of the fluorogas improvement plan to improve EBITDA by €80 million in 2017 versus 2014; and
- the ongoing rollout of the operational excellence programme which, by combining actions to optimize variable costs and productivity, has helped offset more than half the impact of inflation on fixed costs.

Over and above these structural improvements, a number of specific parameters had a significant impact on the Group's financial performance in 2016:

- the decrease in energy prices and in the price of most raw materials benefited the chemical sector as a whole, in particular with a positive impact on margins as a percentage of sales and a reduction in working capital;
- an overcapacity situation in acrylic monomers (representing some 10% of Group sales) weighed on unit margins which remained at low cycle levels before showing some signs of improvement at year-end;
- in PMMA, on the contrary, a tight supply situation in monomers contributed to maintain favourable market conditions that should start to normalize in 2017 given the expected start-up of new capacities; and
- after sharply strengthening against the euro in 2015, the US dollar was on average stable at an exchange rate of 1.11 in 2016. However, a negative translation effect was recorded due to the weakening of a number of other currencies such as the pound sterling, the Chinese renminbi and the Mexican peso.

4.1.5 Group income statement analysis

(In millions of euros)	2016	2015	Variation
Sales	**7,535**	**7,683**	**-1.9%**
Operating expenses	(5,888)	(6,206)	-5.1%
Research and development expenses	(222)	(209)	+6.2%
Selling and administrative expenses	(691)	(664)	+4.1%
Recurring operating income	**734**	**604**	**+21.5%**
Other income and expenses	(17)	(116)	-
Operating income	**717**	**488**	**+46.9%**
Equity in income of affiliates	8	10	-20.0%
Financial result	(103)	(92)	+12.0%
Income taxes	(193)	(118)	+63.6%
Net income	**429**	**288**	**+49.0%**
Of which: non-controlling interests	2	3	-
Net income – Group share	**427**	**285**	**+49.8%**
EBITDA	**1,189**	**1,057**	**+12.5%**
Adjusted net income	**418**	**312**	**+34.0%**

SALES

Sales reached €7.5 billion, 1.9% down on 2015. In a moderate worldwide economic growth environment, volumes rose by +3.2%. They improved across the Group's three business divisions, driven by innovation in Technical Polymers, developments in adhesives, steadier demand in acrylic monomers, and the ramp-up of the thiochemicals plant in Malaysia. The -3.7% price effect mostly reflects the impact on sales prices, over the first three quarters of the year, of lower raw material costs. The -0.1% scope effect includes Bostik's additional contribution in the month of January, which offset the impact of the divestment of Sunclear and of the activated carbon and filter aid business. The currency effect amounted to -1.3%.

The step-up in the Group's profile continued in line with implemented strategy, with the share of High Performance Materials continuing to rise to 46% of Group sales – excluding corporate sales[(1)] – (44% in 2015). Industrial Specialties accounted for 30% (32% in 2015), and Coating Solutions were stable at 24%.

Geographically, the Group continued to rebalance its presence. Europe represented 36% of Group sales (38% in 2015), North America was stable at 34%, while the share of Asia and the rest of the world rose slightly to 25% (24% in 2015) and 5% (4% in 2015) respectively.

EBITDA AND RECURRING OPERATING INCOME

At €1,189 million, EBITDA reached a new record high, +12.5% up on 2015 (€1,057 million), driven by the successful integration and development of Bostik, the important innovation work performed in Technical Polymers and downstream acrylics, and the return of Fluorogases to good level results, in line with the plan previously announced. The contribution of major internal projects represented around three fourth of the EBITDA growth over the year. Lower prices for some raw materials together with operational excellence initiatives also contributed to this achievement.

EBITDA margin, at 15.8% of sales, improved significantly from 13.8% in 2015, reflecting the growing share of higher added value activities and the improvement of Bostik margin .

Operating expenses stood at €5,888 million against €6,206 million in 2015. This decrease is mainly due to a favourable translation effect, the operational excellence efforts designed to offset part of inflation on fixed costs, and lower cost of some raw materials.

Research and development (R&D) expenses reached €222 million, *i.e.* 2.9% of sales, against €209 million and 2.7% of sales in 2015. This increase to a large extent concerns Bostik, which was integrated over one extra month in January 2016.

(1) As defined in note C.1 of the notes to the consolidated financial statements at 31 December 2016 in section 4.3.3 of this document.

Selling and administrative expenses stood at €691 million against €664 million in 2015. Excluding a favourable currency effect, this increase reflects a greater sales drive in certain activities, the cost of studies into certain projets, and the part of wage inflation not compensated by cost savings.

In line with EBITDA variation, recurring operating income stood at €734 million against €604 million in 2015. It includes €455 million depreciation and amortization, stable overall compared to last year (€453 million). Amortization in 2016 included impairments totalling €12 million, identical to the amount recognized in 2015.

Recurring operating income represented 9.7% of Group sales (7.9% in 2015).

OPERATING INCOME

Operating income stood at €717 million against €488 million in 2015. It includes other income and expenses amounting to -€17 million against -€116 million in 2015.

In 2016, other income and expenses mainly corresponded to:

- the impact of divestment and acquisition operations amounting to +€63 million, which primarily includes the capital gain on the sale of the activated carbon and filter aid business;
- -€43 million asset impairments mainly recognized as part of projects which the Group decided to discontinue;
- -€38 million depreciation and amortization related to the revaluation of tangible and intangible fixed assets carried out as part of Bostik purchase price allocation;
- -€22 million net restructuring charges recognized in particular as part of the shutdown of an R134a fluorogas production plant in France; and
- the financial impact of changes made to certain pension schemes within the Group totalling a net amount of +€26 million. These changes include in particular the termination, effective 7 June 2016, of the defined benefit supplementary pension scheme of the Chairman and Chief Executive Officer, and the transfer to external management of pensions in the Netherlands.

In 2015, other income and expenses mainly corresponded to -€73 million asset impairments, the -€71 million impact of the allocation of Bostik purchase price, the +€39 million impact of divestment and acquisition operations (excluding the allocation of Bostik purchase price), -€27 million restructuring charges, and a one-off gain of €21 million recognized as part of the closure of defined benefit pension schemes at Bostik entities.

EQUITY IN INCOME OF AFFILIATES

Equity in income of affiliates came to €8 million against €10 million in 2015, reflecting primarily the contribution of the company CJ Bio Malaysia Sdn. Bhd. in which the Group owns a 14% stake.

FINANCIAL RESULT

Financial result reached -€103 million against -€92 million in 2015. This variation mostly reflects the interest rate effect on the portion of the Group's debt converted through swaps into US dollars and representing around €500 million. It also includes foreign exchange losses incurred on the debts of certain foreign subsidiaries in currencies other than their accounting currency.

INCOME TAXES

Income taxes amounted to €193 million. It includes a €19 million tax gain accounted for as part of Bostik purchase price allocation, part of which corresponds to an adjustment of deferred tax assets and liabilities due to changes in corporate income tax rate in France from 2020. It also includes a €4 million tax on the dividend paid in cash for 2015. Excluding these items, the tax rate amounted to 28.3% of the recurring operating income. This rate reflects the geographic breakdown of the results, and in particular the significant share of North America in the Group's results. End 2016, unrecognized deferred tax assets amounted to €605 million.

In 2015, income taxes amounted to €118 million and included an €82 million tax gain accounted for as part of Bostik purchase price allocation.

NET INCOME GROUP SHARE AND ADJUSTED NET INCOME

Net income Group share amounted to €427 million in 2016 (€285 million in 2015).

Excluding the after-tax impact of non-recurring items, adjusted net income amounted to €418 million against €312 million in 2015, *i.e.* €5.56 per share (€4.23 per share in 2015).

4.1.6 Analysis of results by division

4.1.6.1 HIGH PERFORMANCE MATERIALS

(In millions of euros)	2016	2015	Variation
Sales	**3,422**	**3,358**	**+1.9%**
Recurring operating income	**416**	**354**	**+17.5%**
Other income and expenses	22	(69)	-
Operating income	**438**	**285**	**+53.7%**
EBITDA	**570**	**506**	**+12.6%**
EBITDA margin	**16.7%**	**15.1%**	-

Sales in the High Performance Materials division reached €3,422 million, +1.9% [(1)] up on 2015 (€3,358 million). At constant scope of business and foreign exchange rates, sales rose by +1.2%. Volumes grew by +2.6%, driven by innovation in Technical Polymers, in particular in new energies and lighter materials, and by the geographic expansion of Bostik, whereas the oil and gas activity softened, as expected. The -1.4% price effect mostly reflects a different product mix from last year and the change in the price of certain raw materials. The +3.5% scope effect primarily includes the contribution of Bostik over January which largely offset the impact of the divestment of the activated carbon and filter aid business completed in November 2016. The -1.8% translation effect essentially concerns the Bostik activities in particular in the United Kingdom and in Brazil.

EBITDA grew by +12.6% to €570 million from €506 million in 2015. With €210 million EBITDA, +33% up over 2014, Bostik is a year ahead of schedule for its 30% EBITDA growth target (in 2017 versus 2014) set at the time of the acquisition. Its EBITDA margin grew to 13.1% against 11.2% over 2015 as a whole and 10.3% in 2014, hence continuing to close the gap with its major competitors. This performance confirms the success of Bostik integration, of its development actions and of the implementation of synergies. They also illustrate the adhesives' development potential for Arkema. Excluding Specialty Adhesives, the division's EBITDA also grew significantly thanks to the very good performance of Technical Polymers. However, as expected, the dynamics was less favourable than in 2015 in specialty molecular sieves (filtration and adsorption activity) used in some petrochemical plants, given the timetable for these plants' maintenance operations and for new projects. It should improve in 2017.

The division's EBITDA margin at 16.7% was significantly up on 2015 (15.1%) thanks to progress at Bostik as well as in the division's other activities, the average margin of which is close to 20%, at its record high.

Recurring operating income amounted to €416 million against €354 million in 2015, in line with EBITDA growth. It includes €154 million depreciation and amortization globally stable versus 2015.

Operating income stood at €438 million and includes other income and expenses for a total of +€22 million corresponding primarily to the impact of divestment and acquisition operations which includes the capital gain on the sale of the activated carbon and filter aid business and the depreciation and amortization related to the revaluation of tangible and intangible fixed assets carried out as part of the Bostik purchase price allocation.

(1) At 1 January 2016, an activity within the High Performance Materials division was reassigned to the Industrial Specialties division. The variation in sales includes the €32 million impact of this reporting change.

4.1.6.2 INDUSTRIAL SPECIALTIES

(In millions of euros)	2016	2015	Variation
Sales	**2,316**	**2,450**	**-5.5%**
Recurring operating income	**300**	**237**	**+26.6%**
Other income and expenses	(61)	(21)	-
Operating income	**239**	**216**	**+10.6%**
EBITDA	**473**	**418**	**+13.2%**
EBITDA margin	**20.4%**	**17.1%**	**-**

Sales in the Industrial Specialties division reached €2,316 million, -5.5% [(1)] down on 2015 essentially due to a -5.0% scope effect related to the divestment of the Sunclear companies finalized in November 2015. Volumes, up by +2.2%, improved in all of the division's activities and in particular in Thiochemicals which continued to benefit from the ramp-up of the platform in Malaysia started in first quarter 2015. The -3.2% price effect reflects product mix and the change in the cost of certain raw materials. The translation effect was limited to -0.7%.

At €473 million, EBITDA was +13.2% up on 2015, and EBITDA margin improved significantly to an excellent 20.4%, close to its all-time high. Results in Fluorogases continued to improve, driven by higher prices for certain gases. By end 2016, the Group was in line with its improvement plan which aims to achieve €80 million more EBITDA in 2017 than in 2014 (€100 million more in 2018 than in 2014). Performance in Thiochemicals remained excellent, the contribution of an extra quarter for the Kerteh platform in Malaysia being partially offset by the impact of the regulatory maintenance turnaround on the platform in 3rd quarter 2016. The Group achieved in 2016, ahead of its initial timetable, the targeted annual EBITDA contribution which it had set itself for this project. In PMMA, market conditions remained favourable. Hydrogen Peroxide continued to benefit from its developments in specialty applications.

Recurring operating income amounted to €300 million and included €173 million depreciation and amortization, down by €8 million over last year (€181 million).

Operating income stood at €239 million. It includes other income and expenses for a total of – €61 million, mostly related to asset impairment and to restructuring charges accounted for in particular in connection with the shutdown of an R134a fluorogas production plant in France.

4.1.6.3 COATING SOLUTIONS

(In millions of euros)	2016	2015	Variation
Sales	**1,771**	**1,849**	**-4.2%**
Recurring operating income	**83**	**72**	**+15.3%**
Other income and expenses	2	(36)	-
Operating income	**85**	**36**	**+136.1%**
EBITDA	**208**	**190**	**+9.5%**
EBITDA margin	**11.7%**	**10.3%**	**-**

Sales in the Coating Solutions division amounted to €1,771 million, -4.2% down on 2015. Volumes increased by +5.4%, reflecting sustained demand in acrylic monomers in particular towards the year-end and the benefits of innovation in the downstream activities. The -8.7% price effect reflects the acrylic cycle and changes in the cost of raw materials. It attenuated throughout the year, eventually turning positive in fourth quarter 2016 (+3.5%). The translation effect was limited to -0.9%.

With €208 million EBITDA, +9.5% up on 2015 (€190 million) and an EBITDA margin close to 12%, the results of the division reflect the good performance of downstream activities, the benefits of the integration and the good volume dynamics in acrylic monomers. In this latter activity, which accounts for 10% of Group sales, unit margins remained globally stable at low cycle levels for a large part of the year before showing signs of improvement towards the year-end, mostly in Asia.

(1) At 1 January 2016, an activity within the High Performance Materials division was reassigned to the Industrial Specialties division. The variation in sales includes the €32 million impact of this reporting change.

Recurring operating income reached €83 million and includes €125 million depreciation and amortization, slightly up over 2015 (€118 million) due to new plant start-ups and to asset impairments accounted for as part of the replacement of two reactors on the Clear Lake site (United States).

Operating income stood at €85 million against €36 million in 2015, and includes other income and expenses amounting to +€2 million (-€36 million in 2015).

4.1.7 Group cash flow analysis

(In millions of euros)	2016	2015
Cash flow from operating activities	**821**	**858**
Cash flow from investing activities	**(664)**	**(1,635)**
Net cash flow	**157**	**(777)**
Net cash flow from portfolio management	(269)	(1,219)
Free cash flow [(1)]	**426**	**442**
Non-recurring items including non-recurring investments	(51)	(36)
Recurring cash flow [(2)]	**477**	**478**
Cash flow from financing activities	**(256)**	**371**
Variation in cash and cash equivalents	**(99)**	**(406)**

(1) Net cash flow excluding impact of portfolio management.
(2) Net cash flow excluding impact of portfolio management and non-recurring items.

CASH FLOW FROM OPERATING ACTIVITIES

In 2016, the Group generated €821 million cash flow from operating activities against €858 million in 2015, the increase in EBITDA (+€132 million versus 2015) being offset in particular by a smaller decrease in working capital excluding non-recurring items [(1)] than in 2015 (+€2 million in 2016 against +€127 million in 2015) due to more sustained activity and a less favourable trend in the cost of certain oil-based raw materials at year-end. Furthermore, cash flow from operating activities includes non-recurring items corresponding to restructuring costs and to the transfer to external management of certain pension schemes amounting to -€49 million (-€38 million in 2015) as well as portfolio management operations totalling -€13 million (-€18 million in 2015). Finally, it includes -€206 million current income taxes (-€201 million in 2015) and -€89 million cash items in the financial result (-€79 million in 2015).

CASH FLOW FROM INVESTING ACTIVITIES

Cash flow from investing activities amounted to -€664 million in 2016 against -€1,635 in 2015. It includes €423 million [(2)] capital expenditure in tangible and intangible assets (€431 million in 2015 [(3)]) representing, as in 2015, 5.6% of Group sales in line with the Group's ambition to reduce its capital intensity. It also includes the acquisition cost of Den Braven net of cash acquired (€90 million) amounting to €338 million. Hence, net cash outflow related to all portfolio management operations, which also include the divestment of the activated carbon and filter aid business and the implementation of the agreements concluded with Jurong in acrylics in China, amounted to €256 million (€1,201 million in 2015).

(1) Excluding flows related to non-recurring items totalling +€9 million mostly corresponding to portfolio management operations.

(2) Excluding €20 million corresponding to fixed assets reassigned following an agreement reached with Canada Fluorspar Inc. under which Arkema sold its stake in their joint venture Newspar and concluded a long-term purchasing contract for fluorspar. This operation, which also entailed recognition as proceeds from the sale of the activities by an equivalent amount, had no impact on the Group's net debt.

(3) Excluding investments related to portfolio management operations concerning mostly the transfer to the Taixing Sunke Chemicals joint venture of a third acrylic acid production line, corresponding to an increase in accounts payable and with no impact on the net debt at 31 December 2015.

RECURRING CASH FLOW AND FREE CASH FLOW

Excluding non-recurring items and portfolio management operations, recurring cash flow was stable overall compared to 2015, at +€477 million.

Free cash flow, which corresponds to net cash flow excluding the impact of portfolio management, remained at a very good level at +€426 million in 2016 against +€442 million in 2015. This cash flow represents 36% of EBITDA reported in 2016. This high ratio, perfectly in line with the Group's mid-term target for a 35% conversion rate, reflects the continuation of the actions implemented by the Group to reduce its capital intensity and its working capital. It confirms the Group's cash generation ambition set out at the Capital Markets Day in June 2015.

NET GROUP CASH FLOW

After taking account of the impact of portfolio management, the Group's net cash flow stood at €157 million in 2016 against -€777 million in 2015.

CASH FLOW FROM FINANCING ACTIVITIES

Cash flow from financing activities amounted to -€256 million in 2016 against €371 million in 2015. This includes a dividend of €1.90 per share paid for 2015 totalling €143 million, €33 million interest paid with regard to a hybrid bond, and a €42 million share capital increase reserved for employees in April 2016.

In 2015, it mostly included a bond issue conducted as part of the Bostik acquisition and the payment of the dividend in part in new shares.

4.1.8 Financing sources

4.1.8.1 BORROWING TERMS AND CONDITIONS AND FINANCING STRUCTURE OF THE GROUP

The Group has diversified financing resources including bond issues, multicurrency credit facilities and a negotiable commercial paper programme, as detailed below. At the date of this document and without taking into account the issue of perpetual hybrid bonds completed on 29 October 2014 and classified as equity, these resources amounted to some €2,700 million.

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 five bond issues:

- 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 and 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; and
- on 20 January 2015, a bond issue for €700 million with a 1.5% interest rate.

The documentation for the first two bond issues was filed with the AMF *(Autorité des marchés financiers)* on 22 October 2010, under no. 10-380, and, on 5 October 2012, under no. 12-478 respectively.

The 2013 and 2015 bond issues were part of the Euro Medium Term Notes ("EMTN") program put in place by the Group in 2013 in order to gain easier access to the bond markets and renewed each year since. It was last renewed in November 2016. The documentation for this program and for its renewal was filed with the AMF under no. 13-535 on 9 October 2013 and under no. 16-550 on 25 November 2016 respectively. 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 upon thresholds being exceeded or the expiry of grace periods.

Furthermore, all four 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.

Finally, 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.

The Company also conducted, for the purpose of financing the acquisition of Bostik, the issuance on 29 October 2014 of perpetual hybrid bonds for €700 million. These bonds entail an initial early repayment call option on 29 October 2020 and carry an annual coupon of 4.75% until that date. The coupon will then be reset every 5 years. These bonds are subordinated to any senior debt and are accounted for as equity in accordance with IFRS rules. They are treated as equity for 50% of their amount by rating agencies Standard and Poor's and Moody's, which have rated them BB+ and Ba1 respectively. The prospectus for this issue was filed with the AMF on 27 October 2014 under no. 14–574.

Further details may be found in the EMTN programme base prospectus and in the four above-mentioned prospectuses, all five being available on the Company's website (www.finance.arkema.com) in the "Financials/Debt" section.

Revolving multi-currency credit facility for €900 million

On 29 October 2014, the Company and Arkema France (the ***Borrowers***) and a syndicate of banks signed a revolving multi-currency credit facility in the maximum amount of €900 million which can be used in renewable drawings. This credit facility is for an initial period of 5 years extended to 7 years (the ***Facility***), the banks having exercised their option to extend it for one additional year in 2015 and then once again in 2016. The purpose of the Facility is to finance, in the form of drawings and bank guarantees, the Group's general corporate purposes, and serves as a back-up facility for the commercial paper programme. This credit line was not used as at 31 December 2016.

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 early repayment 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 early repayment and cancellation of the commitments of such lender.

The Facility contains representations to be made by each Borrower relating, among other things, to accounts, litigation, or the absence of events of default. Some of these 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; and
- 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 3.5.

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.

Negotiable commercial paper programme

The Group put in place in April 2013 a negotiable commercial paper programme with a ceiling of €1 billion. This programme was not used as at 31 December 2016.

4.1.8.2 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 facility described above, the Arkema Group has no restrictions on the use of capital that may significantly influence, either directly or indirectly, its business.

4.1.8.3 ANTICIPATED SOURCES OF FINANCING FOR FUTURE INVESTMENTS

Given the Group's cash position as at 31 December 2016 and its financing resources described in paragraph 4.1.8.1 of this document, the Group considers that it is in a position to finance its future investments, in particular those described in section 1.3 of this document.

4.1.9 Balance sheet analysis

(In millions of euros)	31/12/2016	31/12/2015	Variation
Non-current assets [1]	5,724	5,399	+6.0%
Working capital	1,105	1,067	+3.6%
Capital employed	**6,829**	**6,466**	**+5.6%**
Deferred tax assets	171	193	-11.4%
Provisions for pensions and employee benefits	520	571	-8.9%
Other provisions	419	407	+2.9%
Total provisions	**939**	**978**	**-4.0%**
Long-term assets covering some provisions	76	71	+7.0%
Total provisions net of non-current assets	**863**	**907**	**-4.9%**
Deferred tax liabilities	285	307	-7.2%
Net debt	**1,482**	**1,379**	**+7.5%**
Shareholders' equity	**4,249**	**3,949**	**+7.6%**

(1) Excluding deferred tax and including pension assets.

Between 31 December 2015 and 31 December 2016, non-current assets increased by €325 million. This variation was primarily due to:

- €423 million tangible and intangible capital expenditure [1] corresponding to (i) growth projects such as the doubling of specialty molecular sieves production capacity in Honfleur in France in the filtration and adsorption business, (ii) investments made as part of the "Ambition" project designed to put in place the SAP global information system for the Group's supply chain, and (iii) maintenance, safety and environment capital expenditure;
- €530 million net depreciation and amortization including (i) €49 million asset impairments relating either to intangible assets recognized as part of projects which the Group has decided to discontinue, or to various restructuring projects, and (ii) €38 million depreciation and amortization related to revaluations of tangible and intangible fixed assets accounted for as part of Bostik purchase price allocation;
- €441 million resulting, firstly, from the integration of Den Braven assets including €392 million provisional goodwill (for further details see note C.8 "Business combination" of the notes to the consolidated financial statements at 31 December 2016) and, secondly, from the disposal of the assets of the activated carbon and filter aid business; and
- a €23 million increase in loans and receivables corresponding mainly to loans granted to employees as part of the share capital increase conducted in April 2016.

The translation effect at end December 2016 was virtually nil, the impact of the US dollar's strengthening versus the euro at year-end being offset by the impact of other currencies.

At 31 December 2016, working capital increased by €38 million compared to 31 December 2015 with a very limited translation effect (+€2 million) and a +€12 million net scope effect corresponding to the integration of the working capital of Den Braven acquired early December 2016 and the divestment of the activated carbon and filter aid business. The continuing implementation of a strict operational discipline, the optimization drive conducted in several businesses, and lower cost of certain raw materials, the impact of which remained well below that observed in 2015 however, helped limit the impact of a stronger business activity compared to last year. Hence, the working capital on annual proforma sales ratio [2] stood at 14.5% (excluding Den Braven) against 14.6% [3] at 31 December 2015.

(1) Excluding €20 million corresponding to fixed assets reassigned as part of operations conducted with Canada Fluorspar Inc. described in paragraph 4.1.7 of this chapter.

(2) For 2016, 2016 sales – sales of the activated carbon and filter aid business over the first ten months of 2016. For 2015, 2015 sales + sales made by Bostik in January 2015 – sales made by the Sunclear companies over the first nine months of 2015 + sales made by Oxido over the first two months of 2015.

(3) At 31 December 2015, working capital included €54 million trade payables relating to the transfer to the Taixing Sunke Chemicals joint venture of an acrylic acid production line, with no impact on net debt. The computation of the working capital on annual proforma sales ratio for 2015 excludes this amount.

Consequently, between 31 December 2015 and 31 December 2016, the Group's capital employed increased by €363 million to €6,829 million at 31 December 2016. In 2016, the breakdown of capital employed by division (excluding corporate) was as follows: 57% for High Performance Materials, up on the previous year given the integration of Den Braven at end 2016 (53% in 2015), 24% for Industrial Specialties (27% in 2015), and 19% for Coating Solutions (20% in 2015). The breakdown of capital employed by region was as follows: the share of Asia and the rest of the world stood at 22% (23% in 2015), the share of North America at 25% (26% in 2015), and the share of Europe at 53% (51% in 2015).

Deferred tax assets amounted to €171 million at 31 December 2016, €22 million down on 31 December 2015. This reduction mostly corresponds to the impact of changes in corporate income tax rate in France from 2020 on the deferred tax assets recognized as part of the acquisition of Bostik and to the consequences on deferred taxes of the reversal of provision for employee benefits following updated actuarial assumptions.

At 31 December 2016, gross provisions amounted to €939 million. Some of these provisions, accounting for a total of €76 million, are covered by the guarantee facility granted by Total and described in note 30.2 of the notes to the consolidated financial statements at 31 December 2016 (section 4.3.3 of this document) and therefore by long-term assets recognized in the balance sheet. These consist mainly of provisions related to former industrial sites in the United States. Accordingly, at 31 December 2016, provisions net of these non-current assets amounted to €863 million against €907 million at 31 December 2015.

The breakdown of net provisions by type was as follows: pension liabilities of €366 million (€388 million in 2015), other employee benefit obligations of €154 million (€183 million in 2015), environmental contingencies of €131 million (€134 million in 2015), restructuring provisions of €47 million (€51 million in 2015), and other provisions of €165 million (€151 million in 2015).

Between 31 December 2015 and 31 December 2016, net provisions for pension liabilities decreased by €22 million, the impact of lower discount rates being largely offset by the revaluation of financial assets, provision reversals recognized as part of the termination of the defined benefit supplementary pension scheme benefiting in particular the Chairman and Chief Executive Officer, and the finalization of the transfer to external management of pensions in the Netherlands. Provisions for employee benefit obligations (mainly healthcare costs, welfare costs, long-service awards) decreased by €29 million over the period due primarily to an update of certain actuarial assumptions. The other net provisions were globally stable over the same period.

Long-term deferred tax liabilities amounted to €285 million at 31 December 2016, €22 million down on 31 December 2015. This decrease mostly corresponds to the impact of changes in corporate income tax rate in France from 2020 on the deferred tax liabilities accounted for as part of the acquisition of Bostik.

Net debt amounted to €1,482 million at 31 December 2016 (against €1,379 million at 31 December 2015), *i.e.* 35% gearing, stable compared to last year. The variation can be explained by cash flows, as detailed in paragraph 4.1.7 of this chapter. The impact of the Den Braven acquisition on net debt (excluding acquisition expenses) amounted to €477 million and included a -€338 million net investing cash flow and a €139 million acquired gross debt.

Shareholders' equity amounted to €4,249 million against €3,949 million at end 2015. The €300 million increase primarily includes (i) €429 million net income for the period, (ii) the payment of a dividend of €1.90 per share totalling €143 million, (iii) €33 million interest paid in relation to the €700 million hybrid bond issued as part of the financing of the acquisition of Bostik and accounted for under item "Dividends paid", and (iv) a €42 million share capital increase reserved for employees. In 2016, the variation in actuarial differences on pension provisions recognized in net equity and the currency translation differences were not material.

4.2 TRENDS AND OUTLOOK

4.2.1 Trends

4.2.1.1 MAIN TRENDS

At the date of this document, the business environment in which the Group operates is characterized by (i) moderate growth rates in a majority of countries in which the Group operates, (ii) an upward trend and strong volatility in the prices of oil, energy and petrochemical raw materials, (iii) a US dollar that remains strong versus the euro and that further strengthened compared to its level at the beginning of 2016 and (iv) a strong volatility in the foreign exchange rates of currencies in emerging countries.

The current worldwide environment is also characterized by growing political uncertainties concerning potential regulatory and legal changes that could take place in certain regions of the world and that could potentially result in restrictions or additional costs to international trade or in lower corporate taxes for companies. These uncertainties also concern the consequences that the exit by the United Kingdom from the European Union may have on the British domestic market, to which the Group remains however little exposed with sales representing only 4% of its total sales.

Finally, the major sustainable development trends, such as lightweight materials, access to drinking water, development of new energies, and the use of bio-based raw materials will continue to represent promising development opportunities for the Group over the mid-term.

At beginning of 2017 and beyond the external factors described above, the Group has seen a continuity in market conditions with those observed in the second half of 2016.

At the date of this document, there is nothing to indicate that the long-term trends of the Group's main markets as described in chapter 1 of this document might be significantly and durably affected. However, given the uncertainties surrounding changes to the economic environment, to the markets in which the Group is present, to the cost of raw materials and energy, to the exchange rates, and to the continuous developments in the regulatory environment, there is no guarantee that these trends will endure.

4.2.1.2 FACTORS LIKELY TO AFFECT THE GROUP'S OUTLOOK

Some of the statements regarding the Group's outlook contained in this document are based on the current opinions and assumptions of the Group's executive management. This information could be influenced by certain risks, both known and unknown, and by uncertainties, one consequence of which might be that actual results, performance or events may differ substantially from such outlook. The various factors that may influence future results include but are not limited to:

- 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; and
- potential complaints, costs, commitments or other obligations relating to the environment.

4.2.2 Outlook

In 2017, the macroeconomic environment should remain characterized by moderate global growth, mixed dynamics by region, and volatility in energy prices, raw materials and currencies. Market conditions in acrylic monomers should gradually improve while PMMA should start to normalize in the second half of the year.

Over the year, the Group will benefit in particular from the integration of Den Braven, innovation in advanced materials and downstream acrylics and elements of progress in certain fluorogases. The Group will increase its selling prices to reflect higher raw materials. Finally, it will pursue its operational excellence initiatives aimed at offsetting part of the inflation on fixed costs.

Taking into account these elements and assuming a global macroeconomic environment comparable to that of 2016, the Group confirms its ambition announced in 2014 to achieve €1.3 billion EBITDA in 2017.

In addition, in order to maintain a solid balance sheet, the Group has set itself a target of some 40% gearing.

Over the longer term, the Group also announced, in 2014, its ambition to achieve by 2020 €10 billion sales and an EBITDA margin close to 17%, while maintaining a net debt to EBITDA ratio of around 1.5. To achieve these ambitious targets, the Group is implementing a targeted growth strategy detailed in paragraph 1.1.2.2 of this document.

The Group has detailed its long-term objectives for each division. Over the longer term, High Performance Materials should thus represent around 50% of Group sales, Industrial Specialties 25% and Coating Solutions 25%.

Geographically, the Group aims to have in the longer term a perfectly balanced breakdown between Europe, North America, and Asia/rest of the world, with one third of its sales in each of these three regions.

The Group notes that the achievement of its objectives is based on assumptions deemed reasonable by the Group, as of the date of this document and within this time frame (in particular regarding future development of global demand, conditions relating to raw material and energy costs, balance between supply and demand for products marketed by the Group and their price levels, and currency exchange rates). However, it takes no account of the occurrence, as the case may be, of certain risks described in section 1.7.2 of this document, or any unknown factors related to the economic, financial, competitive or regulatory environment in which the Group operates, which could 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 is presented below 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.

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Statutory auditors
Member of Compagnie régionale de Versailles

Arkema

Year ended 31 December 2016

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 31 December 2016, 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 31 December 2016 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.

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, your 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 to the consolidated financial statements "Accounting policies", as well as notes 4, 10 and 11 of chapter C "Notes to the consolidated financial statements" to the consolidated financial statements provide an appropriate level of information.
- Your Group books provisions for liabilities to cover notably environmental risks, litigations in respect of competition law and restructuring costs and suspended business 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 your Group to support such provisions, including some correspondence with lawyers, in order to assess their reasonableness. We also verified that the disclosures made in chapter A "Highlights", in note 4 "Other income and expenses", in notes 20.2, 20.3, 20.4 and 20.5 "Other provisions and other non-current liabilities", in notes 21.1, 21.2.2 et 21.2.4 "Liabilities and contingent liabilities", and in notes 30.1, 30.2.1 and 30.2.2 "Off-balance sheet commitments" of chapter C "Notes to the consolidated financial statements" provide an appropriate level of information.
- Your 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 19 "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, 27 February 2017

The statutory auditors

French original signed by

KPMG Audit *Département de KPMG S.A.*		ERNST & YOUNG Audit
Bertrand Desbarrières	François Quédiniac	Denis Thibon

4.3.2 Consolidated Financial Statements at 31 December 2016

CONSOLIDATED INCOME STATEMENT

(In millions of euros)	Notes	**2016**	**2015**
Sales	(C1&C2)	**7,535**	**7,683**
Operating expenses		(5,888)	(6,206)
Research and development expenses	(C3)	(222)	(209)
Selling and administrative expenses		(691)	(664)
Recurring operating income*	(C1)	**734**	**604**
Other income and expenses*	(C4)	(17)	(116)
Operating income*	(C1)	**717**	**488**
Equity in income of affiliates	(C12)	8	10
Financial result	(C5)	(103)	(92)
Income taxes	(C7)	(193)	(118)
Net income		**429**	**288**
Of which: non-controlling interests		2	3
Net income – Group share	(C6)	**427**	**285**
Earnings per share (amount in euros)	(C9)	5.68	3.87
Diluted earnings per share (amount in euros)	(C9)	5.66	3.85
Depreciation and amortization	(C1)	(455)	(453)
EBITDA*	(C1)	1,189	1,057
Adjusted net income*	(C6)	418	312

** See B17 "Main accounting and financial indicators".*

The accounting policies applied in preparing the consolidated financial statements at 31 December 2016 are identical to those used in the consolidated financial statements at 31 December 2015, except for the policies described at the start of note B "Accounting policies".

4

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

(In millions of euros)	Notes	2016	2015
Net income		**429**	**288**
Hedging adjustments	(C24)	(6)	(8)
Other items		(6)	1
Deferred taxes on hedging adjustments and other items		(2)	1
Change in translation adjustments		7	119
Other recyclable comprehensive income		**(7)**	**113**
Actuarial gains and losses	(C19)	13	60
Deferred taxes on actuarial gains and losses		(12)	(14)
Other non-recyclable comprehensive income		**1**	**46**
TOTAL INCOME AND EXPENSES RECOGNIZED DIRECTLY THROUGH EQUITY		**(6)**	**159**
Comprehensive income		**423**	**447**
Of which: non-controlling interests		0	6
Comprehensive income – Group share		**423**	**441**

CONSOLIDATED BALANCE SHEET

(In millions of euros)	Notes	31 December 2016	31 December 2015
ASSETS			
Intangible assets, net	(C10)	2,777	2,410
Property, plant and equipment, net	(C11)	2,652	2,727
Investments in equity affiliates	(C12)	35	29
Other investments	(C13)	33	29
Deferred tax assets	(C7)	171	193
Other non-current assets	(C14)	227	204
TOTAL NON-CURRENT ASSETS		**5,895**	**5,592**
Inventories	(C15)	1,111	1,129
Accounts receivable	(C16)	1,150	1,051
Other receivables and prepaid expenses	(C16)	197	190
Income taxes recoverable	(C7)	64	33
Other current financial assets	(C24)	10	15
Cash and cash equivalents	(C17)	623	711
TOTAL CURRENT ASSETS		**3,155**	**3,129**
TOTAL ASSETS		**9,050**	**8,721**
LIABILITIES AND SHAREHOLDERS' EQUITY			
Share capital		757	745
Paid-in surplus and retained earnings		3,150	2,864
Treasury shares		(4)	(3)
Translation adjustments		301	294
SHAREHOLDERS' EQUITY – GROUP SHARE	(C18)	**4,204**	**3,900**
Non-controlling interests		45	49
TOTAL SHAREHOLDERS' EQUITY		**4,249**	**3,949**
Deferred tax liabilities	(C7)	285	307
Provisions for pensions and other employee benefits	(C19)	520	571
Other provisions and non-current liabilities	(C20)	464	453
Non-current debt	(C22)	1,377	1,873
TOTAL NON-CURRENT LIABILITIES		**2,646**	**3,204**
Accounts payable	(C25)	932	884
Other creditors and accrued liabilities	(C25)	402	378
Income taxes payable	(C7)	62	68
Other current financial liabilities	(C24)	31	21
Current debt	(C22)	728	217
TOTAL CURRENT LIABILITIES		**2,155**	**1,568**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		**9,050**	**8,721**

CONSOLIDATED CASH FLOW STATEMENT

(In millions of euros)	Notes	2016	2015
Net income		429	288
Depreciation, amortization and impairment of assets		530	568
Provisions, valuation allowances and deferred taxes		(56)	(102)
(Gains)/losses on sales of assets		(106)	(82)
Undistributed affiliate equity earnings		(5)	(9)
Change in Working capital	(C29)	11	186
Other changes		18	9
Cash flow from operating activities		**821**	**858**
Intangible assets and property, plant, and equipment additions		(445)	(493)
Change in fixed asset payables		(37)	47
Acquisitions of operations, net of cash acquired	(C8)	(338)	(1,292)
Increase in long-term loans		(62)	(46)
Total expenditures		**(882)**	**(1,784)**
Proceeds from sale of intangible assets and property, plant, and equipment		118	9
Change in fixed asset receivables		0	1
Proceeds from sale of operations, net of cash sold		43	101
Proceeds from sale of unconsolidated investments		19	0
Repayment of long-term loans		38	38
Total divestitures		**218**	**149**
Cash flow from investing activities		**(664)**	**(1,635)**
Issuance (repayment) of shares and paid-in surplus	(C18.1)	51	96
Issuance of hybrid bonds	(C18.2)	-	0
Purchase of treasury shares	(C18.3)	(6)	(7)
Dividends paid to parent company shareholders	(C18.2 & C18.4)	(176)	(168)
Dividends paid to non-controlling interests		(4)	(3)
Increase/decrease in debt		(121)	453
Cash flow from financing activities		**(256)**	**371**
Net increase/(decrease) in cash and cash equivalents		(99)	(406)
Effect of exchange rates and changes in scope		11	(32)
Cash and cash equivalents at beginning of period		711	1,149
CASH AND CASH EQUIVALENTS AT END OF PERIOD		**623**	**711**

CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY

(In millions of euros)	Share capital	Paid-in surplus	Hybrid bonds	Retained earnings	Translation adjustments	Treasury shares	Shareholders' equity – Group share	Non-controlling interests	Shareholders' equity
At 1 January 2015	**728**	**1,093**	**689**	**844**	**178**	**(3)**	**3,529**	**44**	**3,573**
Cash dividend	-	-	-	(168)	-	-	(168)	(3)	(171)
Issuance of share capital	17	79	-	-	-	-	96	-	96
Purchase of treasury shares	-	-	-	-	-	(7)	(7)	-	(7)
Grants of treasury shares to employees	-	-	-	(7)	-	7	-	-	-
Share-based payments	-	-	-	7	-	-	7	-	7
Other	-	-	-	2	-	-	2	2	4
Transactions with shareholders	**17**	**79**	**-**	**(166)**	**-**	**-**	**(70)**	**(1)**	**(71)**
Net income	-	-	-	285	-	-	285	3	288
Total income and expenses recognized directly through equity	-	-	-	40	116	-	156	3	159
Comprehensive income	**-**	**-**	**-**	**325**	**116**	**-**	**441**	**6**	**447**
At 31 December 2015	**745**	**1,172**	**689**	**1,003**	**294**	**(3)**	**3,900**	**49**	**3,949**

(In millions of euros)	Share capital	Paid-in surplus	Hybrid bonds	Retained earnings	Translation adjustments	Treasury shares	Shareholders' equity – Group share	Non-controlling interests	Shareholders' equity
At 1 January 2016	**745**	**1,172**	**689**	**1,003**	**294**	**(3)**	**3,900**	**49**	**3,949**
Cash dividend	-	-	-	(176)	-	-	(176)	(4)	(180)
Issuance of share capital	12	39	-	-	-	-	51	-	51
Purchase of treasury shares	-	-	-	-	-	(6)	(6)	-	(6)
Grants of treasury shares to employees	-	-	-	(5)	-	5	-	-	-
Share-based payments	-	-	-	12	-	-	12	-	12
Other	-	-	-	-	-	-	-	-	-
Transactions with shareholders	**12**	**39**	**-**	**(169)**	**-**	**(1)**	**(119)**	**(4)**	**(123)**
Net income	-	-	-	427	-	-	427	2	429
Total income and expenses recognized directly through equity	-	-	-	(11)	7	-	(4)	(2)	(6)
Comprehensive income	**-**	**-**	**-**	**416**	**7**	**-**	**423**	**-**	**423**
At 31 December 2016	**757**	**1,211**	**689**	**1,250**	**301**	**(4)**	**4,204**	**45**	**4,249**

4.3.3 Notes to the consolidated financial statements

A. Highlights		**216**
B. Accounting policies		**216**
C. Notes to the consolidated financial statements		**225**
Note 1	INFORMATION BY BUSINESS SEGMENT	225
Note 2	INFORMATION BY GEOGRAPHICAL AREA	228
Note 3	RESEARCH AND DEVELOPMENT EXPENSES	229
Note 4	OTHER INCOME AND EXPENSES	229
Note 5	FINANCIAL RESULT	230
Note 6	ADJUSTED NET INCOME	230
Note 7	INCOME TAXES	231
Note 8	BUSINESS COMBINATION	233
Note 9	EARNINGS PER SHARE	234
Note 10	INTANGIBLE ASSETS	235
Note 11	PROPERTY, PLANT AND EQUIPMENT	237
Note 12	EQUITY AFFILIATES	238
Note 13	OTHER INVESTMENTS	239
Note 14	OTHER NON-CURRENT ASSETS	239
Note 15	INVENTORIES	240
Note 16	ACCOUNTS RECEIVABLE, OTHER RECEIVABLES AND PREPAID EXPENSES	240
Note 17	CASH AND CASH EQUIVALENTS	240
Note 18	SHAREHOLDERS' EQUITY	241
Note 19	PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS	242
Note 20	OTHER PROVISIONS AND OTHER NON-CURRENT LIABILITIES	247
Note 21	LIABILITIES AND CONTINGENT LIABILITIES	249
Note 22	DEBT	253
Note 23	MANAGEMENT OF RISKS RELATED TO FINANCIAL ASSETS AND LIABILITIES	254
Note 24	PRESENTATION OF FINANCIAL ASSETS AND LIABILITIES	257
Note 25	ACCOUNTS PAYABLE, OTHER CREDITORS AND ACCRUED LIABILITIES	258
Note 26	PERSONNEL EXPENSES	259
Note 27	RELATED PARTIES	259
Note 28	SHARE-BASED PAYMENTS	260
Note 29	INFORMATION ON CASH FLOWS	262
Note 30	OFF-BALANCE SHEET COMMITMENTS	263
Note 31	STATUTORY AUDITORS' FEES	266
Note 32	SUBSEQUENT EVENTS	266
D. Scope of consolidation at 31 December 2016		**267**

A. Highlights

1. PORTFOLIO MANAGEMENT

Acquisition of Den Braven

On 1 December 2016, Arkema completed the acquisition of Den Braven, a leader in high performance sealants in Europe, for an enterprise value of €485 million. This acquisition is part of the Group's strategy for active development of its High Performance Materials segment, particularly its Specialty Adhesives (Bostik) Business Line. With sales of some €345 million for 2016 and around 1,000 employees, Den Braven will reinforce Bostik's offering on the insulation and construction markets, leading to creation of a global market leader in high performance sealants. This operation presents synergies assessed at €30 million per year at least, which will be fully realized within 5 years. Details of the impact of this acquisition are given in note C8, "Business combination".

Acquisition of acrylics assets in China

In 2016 the Group negotiated with its partner Jurong Chemical for a 50/50 division of the joint venture Taixing Sunke Chemicals' capacity rights, providing Arkema with access to an additional 80,000 tonnes of acrylic acid capacity per year. This joint venture continues to be treated as a joint operation for accounting purposes.

Divestment of the activated carbon and filter aid business

On 2 November 2016, Arkema finalized the divestment of its activated carbon and filter aid business for an enterprise value of €145 million. This activity has annual sales of approximately €93 million and some 300 employees. The gain on the operation is recognized in other income and expenses (see note C4, "Other income and expenses").

2. COMPETITIVENESS

In September 2016, the Group announced the proposed closure of the R134a fluorogas plant and a reorganization at its Pierre-Bénite site in France, due to an anticipated decrease in demand for R134a in Europe from 1 January 2017 as a result of new regulations on fluorinated gas for mobile air conditioning. The consequences of this closure are recognized in other income and expenses (see note C4, "Other income and expenses").

3. OTHER HIGHLIGHTS

In April 2016, Arkema carried out its fifth capital increase reserved for employees. 998,072 shares were subscribed at the price of €42.16 per share, giving a total amount of €42 million (see notes C18 "Shareholders' equity" and C28 "Share-based payments").

B. Accounting policies

Arkema 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 have been listed on the Paris stock exchange (Euronext) since 18 May 2006.

The Group's consolidated financial statements at 31 December 2016 were prepared under the responsibility of the Chairman and CEO of Arkema and were approved by the Board of Directors of Arkema on 27 February 2017. They will be submitted to the approval of the shareholders' general meeting of 23 May 2017.

The consolidated financial statements at 31 December 2016 were prepared in accordance with the international accounting standards issued by the IASB (International Accounting Standards Board) as released at 31 December 2016 and the international standards endorsed by the European Union at 31 December 2016.

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.

The accounting policies applied in preparing the consolidated financial statements at 31 December 2016 are identical to those used in the consolidated financial statements at 31 December 2015, 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 2016 (and which had not been applied early by the Group), namely:

Amendments to IAS 1	Presentation of financial statements	Adopted by the European Union on 19 December 2015
Amendments to IAS 16 and IAS 38	Clarification of acceptable methods of depreciation and amortization	Adopted by the European Union on 3 December 2015
Amendments to IAS 19	Defined benefit plans: employee contributions	Adopted by the European Union on 9 January 2015
Amendments to IFRS 11	Accounting for acquisitions of interests in joint operations	Adopted by the European Union at 25 November 2015
	Annual improvements to IFRS cycle 2010-2012	Adopted by the European Union on 9 January 2015
	Annual improvements to IFRS cycle 2012-2014	Adopted by the European Union on 16 December 2015
Amendments to IFRS 10, IFRS 12 and IAS 28	Investment Entities: Applying the Consolidation exception	Adopted by the European Union on 23 September 2016

The standards, amendments and interpretations published by the IASB and the IFRS IC (IFRS Interpretations Committee) which were not yet in force for years beginning on or after 1 January 2016 and have not been applied early by the Group, are:

Amendments to IFRS 9, IFRS 7 and IAS 39	Mandatory effective date and transition disclosures	Not adopted by the European Union at 31 December 2016
Amendments to IFRS 9	Hedge accounting and amendments to IFRS 9, IFRS 7 and IAS 39	Not adopted by the European Union at 31 December 2016
Amendments to IFRS 10 and IAS 28	Sale or contribution of assets between an investor and its associate/joint venture	Not adopted by the European Union at 31 December 2016
Amendments to IAS 12	Recognition of deferred tax assets for unrealised losses	Not adopted by the European Union at 31 December 2016
Amendments to IAS 7	Disclosure initiative	Not adopted by the European Union at 31 December 2016
Amendments to IFRS 2	Classification and measurement of share-based payment transactions	Not adopted by the European Union at 31 December 2016
	Annual improvements to IFRS cycle 2014-2016	Not adopted by the European Union at 31 December 2016
IFRS 9	Financial instruments	Adopted by the European Union on 29 November 2016
IFRS 15	Revenue from contracts with customers	Adopted by the European Union on 29 October 2016
Clarifications to IFRS 15	Revenue from contracts with customers	Not adopted by the European Union at 31 December 2016
IFRS 16	Leases	Not adopted by the European Union at 31 December 2016
IFRIC 22	Foreign currency transactions and advance consideration	Not adopted by the European Union at 31 December 2016

The Group does not expect any impact to result from application of IFRS 9 and IFRS 15. Work to identify and assess the impacts of IFRS 16 began in late 2016, and an initial analysis of the impacts on the consolidated financial statements will be reported during 2017. Arkema does not plan early application of IFRS 9, IFRS 15 or IFRS 16.

Preparation of consolidated financial statements in accordance with IFRS requires Group management to make estimates and determine 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.

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

All material transactions between consolidated companies, and all intercompany profits, have been eliminated.

1.1 Control and joint control

The Group controls an entity when all of the three following conditions are fulfilled:

(i) the Group holds power over the entity (has effective rights conferring a current ability to direct the entity's relevant activities);

(ii) the Group is exposed or entitled to variable returns;

(iii) the Group has the ability to use its power over the investee to influence the amount of the returns received.

Joint control is the contractually agreed sharing of control over an arrangement. It exists only when the decisions about the relevant activities require the unanimous consent of the parties sharing control.

1.2 Full consolidation

Companies controlled directly or indirectly by the Group are fully consolidated.

1.3 Joint arrangements

A joint arrangement is an operation over which two or more parties have joint control.

There are two categories of joint arrangements:

- a joint operation is a joint arrangement in which the parties have rights to the assets and obligations for the liabilities. The Group recognizes the assets, liabilities, income and expenses in proportion to its percentage of interest in the capital of the joint operation;
- a joint venture is a joint arrangement in which the parties have rights to the net assets of the arrangement. The Group applies the equity method to this type of joint arrangement.

To determine the type of joint arrangement, the Group must take the following factors into consideration:

- the structure of the joint arrangement (identifying whether it takes the form of a separate vehicle);
- when the joint arrangement takes the form of a separate vehicle: the legal form, the terms of the contractual arrangements and other facts and circumstances.

Assessment of other facts and circumstances has led the Group to classify a certain number of joint arrangements as joint operations.

1.4 Investments in associates

An associate is an entity over which the Group exercises significant influence. If the Group directly or indirectly holds 20% or more of the voting rights in the issuing entity, it is presumed to exercise significant influence. If it holds less than 20%, significant influence must be demonstrated.

Investments in associates are accounted for under the equity method.

1.5 Non-controlling interest

Shares owned in companies which do not meet the criteria set out in 1.1 to 1.4 are included in Other investments and recognized as available-for-sale assets in accordance with IAS 39 (see note B7.1, "Other investments").

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. In exceptional cases a company's functional currency may differ from the local currency.

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, unless they result from unhedged financing, in which case they are included in the financial result.

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 investments 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 B17 "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 principally include goodwill, patents and technologies, trademarks, software and IT licences, capitalized contracts, leasehold rights, customer relations, and capitalized research expenses. 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;
- Technologies: average useful life;
- Software: 3 to 10 years;
- Licences: term of the contract;
- Capitalized contracts: term of the contract;
- Customer relations: average useful life;
- Capitalized research expenses: useful life of the project;
- REACH registration fees: protection period of study data.

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 Software and IT licences

Software development expenses for the design, programming and test phases are capitalized.

Training costs, expenses related to change management, data transfer and subsequent maintenance costs are recorded as expenses.

4.4 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 the Group 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.

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, the Group 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, the Group 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, the Group capitalizes the development costs that meet the requirements for capitalization defined by IAS 38 (see 4.4 "Research and development costs").

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 greater 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 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:

- Machinery and tools: 5 - 10 years;
- Transportation equipment: 5 - 20 years;
- Specialized complex installations: 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 the Arkema Group, the CGUs are the activities as presented in note C1 "Information by business segment". 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 2016, the terminal value was determined on the basis of a perpetuity annual growth rate of 1.5% (the same rate as used in 2015) and mid-cycle cash flow. The after-tax rate used to discount future cash flows and the terminal value is the Group's weighted average cost of capital, i.e. 7.5% in 2016 (the same rate as used in 2015). 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 2016 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 income 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.

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 realizable 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.

Returns on plan assets are in line with discount rates.

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.

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 corresponding 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.

10. OTHER PROVISIONS AND OTHER 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 C21 "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 "Other provisions and other non-current liabilities" caption.

11. GREENHOUSE GAS EMISSIONS ALLOWANCES (EUAs) AND CERTIFIED EMISSION REDUCTIONS (CERs)

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 (EUAs) allocated are adequate to cover the operational needs of the Arkema Group's European entities and a deficit is not currently forecast. The Group does not have any trading activity in respect of CO_2 emissions allowances. However, in the normal course of its operations, the Group 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. REVENUE RECOGNITION

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, 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 has therefore been classified under "Income taxes" since 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.

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 IFRS 2 "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 the last plans granted in 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 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. MAIN ACCOUNTING AND FINANCIAL INDICATORS

The main performance indicators used are as follows:

- **Operating income:** this includes all income and expenses other than financial result, equity in income of affiliates and income taxes;
- **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,
  - depreciation and amortization associated with revaluation of identifiable tangible and intangible assets for allocation of the purchase price of Bostik;
- **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,
  - unrealized exchange differences on foreign currency financing for investments of an exceptional nature;
- **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;
- **Capital expenditure (CAPEX):** 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.

The Arkema Group has three business segments: High Performance Materials, Industrial Specialties and Coating Solutions. Three 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.

The content of the business segments is as follows:

- High Performance Materials includes the following Business Lines[1]:
  - Specialty Adhesives (Bostik),
  - Technical Polymers, comprising specialty polyamides and PVDF,
  - Performance Additives, comprising the filtration and adsorption (CECA) activities, organic peroxides and photocure resins (Sartomer).

  High Performance Materials provide innovative solutions with high value added, used in varied sectors such as transport, oil extraction, renewable energies (photovoltaics, lithium-ion batteries), consumer goods (beauty products, sports equipment, packaging, etc.), electronics, construction, coatings and water treatment;
- Industrial Specialties groups the following Business Lines:
  - Thiochemicals,
  - Fluorochemicals,
  - PMMA,
  - Hydrogen Peroxides.

  These integrated industrial niche markets on which the Arkema Group is among the world leaders concern products used in several industrial sectors such as production of cold (refrigeration and air conditioning), petrochemicals, refining, paper pulp, animal nutrition, electronics and the automotive industry;
- Coating Solutions comprises the following Business Lines:
  - Acrylics,
  - Coatings Resins and Additives, comprising the coatings resins and Coatex rheological additives activities.

  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 are allocated between business segments prior to inter-segment adjustments. Sales prices between segments approximate market prices.

(1) Business Lines are activities or groups of activities.

2016 *(In millions of euros)*	**High Performance Materials**	**Industrial Specialties**	**Coating Solutions**	**Corporate**	**Total**
Non-Group sales	**3,422**	**2,316**	**1,771**	**26**	**7,535**
Inter-segment sales	14	109	56	-	
Total sales	**3,436**	**2,425**	**1,827**	**26**	
EBITDA	**570**	**473**	**208**	**(62)**	**1,189**
Depreciation and amortization	(154)	(173)	(125)	(3)	(455)
Recurring operating income	**416**	**300**	**83**	**(65)**	**734**
Other income and expenses	22	(61)	2	20	(17)
Operating income	**438**	**239**	**85**	**(45)**	**717**
Equity in income of affiliates	1	7	-	-	8
Intangible assets and property, plant, and equipment additions	173	175	82	13	443
Employees at year end	**10,611**	**5,774**	**3,090**		**19,475**
Goodwill, net	1,306	90	299	8	1,703
Intangible assets other than goodwill, and property, plant and equipment, net	1,779	1,166	734	47	3,726
Investments in equity affiliates	9	26	-	-	35
Other investments and other non-current assets	70	55	23	112	260
Working capital*	623	288	222	(28)	1,105
Capital employed*	**3,787**	**1,625**	**1,278**	**139**	**6,829**
Provisions and other non-current liabilities	(368)	(297)	(80)	(239)	(984)

** See B17 "Main accounting and financial indicators".*

2015 *(In millions of euros)*	High Performance Materials	Industrial Specialties	Coating Solutions	Corporate	Total
Non-Group sales	**3,358**	**2,450**	**1,849**	**26**	**7,683**
Inter-segment sales	12	121	64	-	
Total sales	**3,370**	**2,571**	**1,913**	**26**	
EBITDA	**506**	**418**	**190**	**(57)**	**1,057**
Depreciation and amortization	(152)	(181)	(118)	(2)	(453)
Recurring operating income	**354**	**237**	**72**	**(59)**	**604**
Other income and expenses	(69)	(21)	(36)	10	(116)
Operating income	**285**	**216**	**36**	**(49)**	**488**
Equity in income of affiliates	-	10	-	-	10
Intangible assets and property, plant, and equipment additions	167	183	137	6	493
Employees at year end	**9,876**	**5,762**	**3,168**		**18,806**
Goodwill, net	925	89	298	8	1,320
Intangible assets other than goodwill, and property, plant and equipment, net	1,797	1,202	772	45	3,816
Investments in equity affiliates	8	21	-	-	29
Other investments and other non-current assets	61	60	22	92	235
Working capital*	613	364	167	(78)	1,066
Capital employed*	**3,404**	**1,736**	**1,259**	**67**	**6,466**
Provisions and other non-current liabilities	(379)	(289)	(82)	(274)	(1,024)

** See B17 "Main accounting and financial indicators".*

Breakdown of non-Group sales by Business Line:

	2016	2015
High Performance Materials	**46%**	**44%**
Technical Polymers	11%	10%
Performance Additives	14%	14%
Speciality Adhesives (Bostik)	21%	20%
Industrial Specialties	**30%**	**32%**
Thiochemicals	9%	9%
Fluorochemicals	8%	8%
PMMA	9%	11%
Hydrogen Peroxide	4%	4%
Coating Solutions	**24%**	**24%**
Acrylics	10%	10%
Coatings Resins and Additives	14%	14%

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.

2016 *(In millions of euros)*	France	Rest of Europe	NAFTA*	Asia	Rest of the world	Total
Non-Group sales	628	2,092	2,568	1,901	346	7,535
Capital employed	3,060	568	1,673	1,465	63	6,829
Intangible assets and property, plant, and equipment additions	207	38	118	77	3	443
Employees at year end	7,126	3,527	3,694	4,487	641	19,475

2015 *(In millions of euros)*	France	Rest of Europe	NAFTA*	Asia	Rest of the world	Total
Non-Group sales	738	2,163	2,584	1,820	378	7,683
Capital employed	2,707	565	1,682	1,454	58	6,466
Intangible assets and property, plant, and equipment additions	180	33	113	164	3	493
Employees at year end	7,266	2,858	3,568	4,430	684	18,806

** USA, Canada, Mexico.*

Note 3 RESEARCH AND DEVELOPMENT EXPENSES

Research and development expenses are reported net of subsidies. They amount to €222 million in 2016 (€209 million in 2015) and comprise salaries, purchases, sub-contracting costs, depreciation and amortization.

Note 4 OTHER INCOME AND EXPENSES

	2016			2015		
(In millions of euros)	Expenses	Income	Net	Expenses	Income	Net
Restructuring and environment	(28)	6	(22)	(32)	21	(11)
Goodwill impairment	-	-	-	(60)	-	(60)
Asset impairment (other than goodwill)	(43)	-	(43)	(13)	-	(13)
Litigation and claims	(3)	-	(3)	-	1	1
Gains (losses) on sales and purchases of assets	(23)	86	63	(73)	75	2
Depreciation and amortization related to allocation of the acquisition price for Bostik	(38)	-	(38)	(35)	-	(35)
Other	-	26	26	-	-	-
TOTAL OTHER INCOME AND EXPENSES	**(135)**	**118**	**(17)**	**(213)**	**97**	**(116)**

In 2016, restructuring and environment expenses include a provision of €10 million for the closure of the R134a at the Pierre-Bénite site in France, and additional provisions for restructuring prior to 2016, principally in the PMMA and Speciality Adhesives (Bostik) Business Lines. Asset impairment mainly concerns intangible assets relating to projects the Group has decided to discontinue. The gains and losses on sales and purchases of assets principally include the gain on the sale of the activated carbon and filter aid business, and expenses and provisions associated with portfolio management operations.

Other income principally concerns the financial consequences of the termination from 7 June 2016 of the Chairman and CEO's complementary defined benefit pension plan, and the final phase of transfers of pensions in the Netherlands to external management (see note C19, "Provisions for pensions and other employee benefits").

In 2015, restructuring and environment expenses included a provision of €7 million (of which €3 million concerned asset impairment) related to the closure of the Saukville site in the United States, and a provision of €13 million (of which €2 million concerned asset impairment) related to the discontinuation of coating resins production at Villers Saint Paul and extruded acrylic sheet manufacturing at Bernouville, both in France. The reorganization of Bostik's pension plans, with the closure and in some cases transfer to external management of defined benefit plans, was reflected in a reversal of €21 million from provisions (see note C19, "Provisions for pensions and other employee benefits").

Goodwill impairment of €60 million concerned Casda (see note C10.1 "Goodwill") and other asset impairment of €13 million concerned MLPC International (see note C10 "Intangible assets" and note C11 "Property, plant and equipment").

Losses on sales and purchases of assets included the acquisition costs for Bostik amounting to €46 million, the principal factor being the revaluation of Bostik inventories (€36 million), and the expenses recorded in connection with changes in the Group's investment in Taixing Sunke Chemicals (China); gains on sale mainly consisted of the gain on the disposal of Sunclear.

Depreciation and amortization related to revaluation of Bostik's tangible and intangible assets amounted to €35 million.

Note 5 FINANCIAL RESULT

Financial result includes the cost of debt adjusted for capitalized financial expenses, and as regards provisions for pensions and 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. It also includes 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, and the foreign exchange gain/loss on unhedged financing.

(In millions of euros)	**2016**	**2015**
Cost of debt	(64)	(68)
Financial income/expenses on provisions for pensions and employee benefits	(14)	(13)
Spot/forward exchange rate difference and foreign exchange gain/loss on unhedged financing	(28)	(13)
Other	1	-
Capitalized interest	2	2
FINANCIAL RESULT	**(103)**	**(92)**

Note 6 ADJUSTED NET INCOME

Net income – Group share may be reconciled to adjusted net income as follows:

(In millions of euros)	Notes	**2016**	**2015**
ADJUSTED NET INCOME		**418**	**312**
Other income and expenses	(C4)	(17)	(116)
Other income and expenses attributable to non-controlling interests		3	-
Taxes on other income and expenses		14	29
Non-current taxation		9	60
NET INCOME – GROUP SHARE		**427**	**285**

Non-current taxation for 2016 corresponds to the impact of the change in the corporate income tax rate in France from 2020, essentially affecting deferred taxes recognized in connection with the acquisition of Bostik.

Non-current taxation for 2015 related to the amount of deferred tax assets recognized in France in view of the Group's tax position in that country, following recognition of deferred tax liabilities in connection with the fair value measurements of the assets acquired and liabilities transferred from Bostik (see note C7 "Income taxes").

Note 7 INCOME TAXES

7.1 INCOME TAX EXPENSE

The income tax expense is broken down as follows:

(In millions of euros)	2016	2015
Current income taxes	(205)	(203)
Deferred income taxes	12	85
TOTAL INCOME TAXES	**(193)**	**(118)**

The net income tax expense amounts to €193 million for 2016 including €14 million for the CVAE, compared with €118 million for 2015 including €13 million for the CVAE (see B13 "Income taxes").

In 2015 this expense included €60 million of deferred tax assets recorded in non-current taxation (see note C6 "Adjusted net 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)	31/12/2015	Changes in scope	Changes recognized in shareholders' equity	Changes recognized in the income statement	Translation adjustments	31/12/2016
Tax loss and tax credit carryforwards	7	-	-	(4)	0	3
Provisions for pensions and similar benefits	165	0	(6)	(16)	1	144
Other temporarily non-deductible provisions	210	1	3	(1)	3	216
Deferred tax assets	**382**	**1**	**(3)**	**(21)**	**4**	**363**
Valuation allowance on deferred tax assets	**(5)**	**-**	**(8)**	**1**	**(1)**	**(13)**
Excess tax over book depreciation	161	1	(1)	(3)	4	162
Other temporary tax deductions	330	0	0	(30)	2	302
Deferred tax liabilities	**491**	**1**	**(1)**	**(33)**	**6**	**464**
NET DEFERRED TAX ASSETS (LIABILITIES)	**(114)**	**0**	**(10)**	**13**	**(3)**	**(114)**

After offsetting assets and liabilities at fiscal entity level, deferred taxes are presented as follows in the balance sheet:

(In millions of euros)	31/12/2016	31/12/2015
Deferred tax assets	171	193
Deferred tax liabilities	285	307
NET DEFERRED TAX ASSETS (LIABILITIES)	**(114)**	**(114)**

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)	2016	2015
Net income	429	288
Income taxes	(193)	(118)
Pre-tax income	622	406
French corporate tax rate	34.43%	34.43%
Theoretical tax expense	(214)	(140)
Difference between French and foreign income tax rates	4	6
Tax effect of equity in income of affiliates	3	4
Permanent differences	3	(6)
Change in valuation allowance against deferred tax assets ceiling	(1)	67
Deferred tax assets not recognized (losses)	10	(49)
INCOME TAX EXPENSE	**(193)**	**(118)**

The French corporate tax rate includes the standard tax rate (33.33%) and the additional social contribution. The overall income tax rate 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:

	31/12/2016		31/12/2015	
(In millions of euros)	Base	Income taxes	Base	Income taxes
2017	34	8	39	8
2018	36	9	37	7
2019	50	13	53	11
2020	74	18	85	18
2021 and beyond	43	11	0	0
Tax losses that can be carried forward indefinitely	1,844	533	1,823	631
TOTAL	**2,081**	**592**	**2,037**	**675**
Carry back deductible	-	-	-	-

The Group's unrecognized tax loss carryforwards and tax credits amounts take into account in 2016 the change in the tax rate in France from 2020.

Note 8 BUSINESS COMBINATION

On 1 December 2016 the Arkema Group finalized the acquisition of Den Braven for an enterprise value of €485 million and a provisional price of €428 million.

In compliance with IFRS 3 (Revised), the Group will use the acquisition method for the accounting treatment of this operation.

The provisional value of the identifiable assets acquired and the liabilities assumed at the acquisition date breaks down as follows:

(In millions of euros)	**Fair value acquired from Den Braven**
Intangible assets	3
Property, plant and equipment	54
Deferred tax assets	2
Other non-current assets	5
Total non-current assets	**64**
Inventories	29
Accounts receivable	52
Cash and cash equivalents	90
Other current assets	4
Total current assets	**175**
Total assets	**239**
Non-controlling interests	-
Deferred tax liabilities	1
Provisions and other non-current liabilities	1
Non-current debt	58
Total non-current liabilities	**60**
Accounts payable	40
Other current liabilities	103
Total current liabilities	**143**
Fair value of net assets	**36**
Goodwill	**392**

No assets or liabilities connected with this acquisition have yet been adjusted to fair value. The goodwill of €392 million has thus been determined provisionally.

In application of IFRS 3 (Revised), the Group has up to 12 months after the acquisition date to finalize measurements of the assets acquired and liabilities assumed.

The potential tax impact of the goodwill in various countries is currently being analyzed.

The expenses incurred in 2016 for this operation are recorded in Other income and expenses at the amount of €3 million.

If the Den Braven acquisition had been completed at 1 January 2016, additional sales of some €333 million (after elimination of intragroup transactions) and additional EBITDA of some €43 million would have been recognized.

Note 9 EARNINGS PER SHARE

	2016	2015
Weighted average number of ordinary shares	75,201,739	73,691,797
Dilutive effect of stock options	165,146	235,170
Dilutive effect of free share grants	62,714	36,244
Weighted average number of potential ordinary shares	75,429,599	73,963,211

Earnings per share is determined below:

	2016	2015
Earnings per share *(€)*	5.68	3.87
Diluted earnings per share *(€)*	5.66	3.85

Adjusted earnings per share is determined below:

	2016	2015
Adjusted earnings per share *(€)*	5.56	4.23
Diluted adjusted earnings per share *(€)*	5.54	4.22

Note 10 INTANGIBLE ASSETS

10.1 GOODWILL

(In millions of euros)	31/12/2016 Gross book value	31/12/2016 Accumulated amortization and impairment	31/12/2016 Net book value	31/12/2015 Net book value
Goodwill	2,278	(575)	1,703	1,320

The breakdown by segment, with allocation by Business Line for goodwill above €50 million, is as follows:

(In millions of euros)	31/12/2016 Net book value	31/12/2015 Net book value
High Performance Materials	**1,306**	**925**
Specialty Adhesives (Bostik)	984	605
Performance Additives	179	178
Technical Polymers	143	142
Industrial Specialties	**90**	**89**
Coating Solutions	**299**	**298**
Acrylics	172	171
Coatings Resins and Additives	127	127
Corporate	**8**	**8**
TOTAL	**1,703**	**1,320**

Changes in the net book value of goodwill are as follows:

(In millions of euros)	2016	2015
At 1 January	**1,320**	**747**
Acquisitions	-	-
Impairment	-	(60)
Disposals	-	-
Changes in scope	390	606
Translation adjustments	(7)	27
Reclassifications	-	-
At 31 December	**1,703**	**1,320**

Changes in goodwill in 2016 principally correspond to the acquisition of Den Braven (see note C8 “Business combination”).

In 2015, the change in goodwill resulted mainly from acquisition of Bostik (goodwill of €599 million). In application of IAS 36, partial impairment of €60 million was recognized in respect of the goodwill arising on acquisition of Casda; a one-point variation in the discount rate would lead to additional impairment of €13 million.

10.2 OTHER INTANGIBLE ASSETS

(In millions of euros)	31/12/2016 Gross book value	31/12/2016 Accumulated amortization and impairment	31/12/2016 Net book value	31/12/2015 Net book value
Patents and technologies	385	(152)	233	248
Trademarks	445	(5)	440	442
Software and IT licences	276	(165)	111	93
Capitalized REACH costs	46	(17)	29	24
Other capitalized research expenses	5	(2)	3	3
Capitalized contracts	298	(235)	63	69
Asset rights	62	(19)	43	50
Customer relations	59	(7)	52	57
Other intangible assets	27	(15)	12	9
Intangible assets in progress	106	(18)	88	95
TOTAL	**1,709**	**(635)**	**1,074**	**1,090**

Changes in the net book value of intangible assets are as follows:

(In millions of euros)	2016	2015
At 1 January	**1,090**	**347**
Acquisitions	83	60
Amortization and impairment	(94)	(63)
Disposals	(1)	0
Changes in scope	(14)	736
Translation adjustments	0	9
Reclassifications	10	1
At 31 December	**1,074**	**1,090**

In 2016, the Group recorded impairment of €26 million on intangible assets, corresponding to projects that have been discontinued.

In 2015, changes in scope concerned the acquisition of Bostik. The Group also recorded impairment of €6 million on its other intangible assets.

Note 11 PROPERTY, PLANT AND EQUIPMENT

(In millions of euros)	31/12/2016 Gross book value	31/12/2016 Accumulated amortization and impairment	31/12/2016 Net book value	31/12/2015 Net book value
Land and buildings	1,899	(1,170)	729	743
Complex industrial facilities	3,625	(2,851)	774	810
Other property, plant and equipment	2,926	(2,082)	844	876
Construction in progress	317	(12)	305	298
TOTAL	**8,767**	**(6,115)**	**2,652**	**2,727**

Other property, plant and equipment at 31 December 2016 mainly comprise machinery and tools with a gross value of €2,270 million (€2,174 million at 31 December 2015), and accumulated depreciation and provisions for impairment of €1,624 million (€1,496 million at 31 December 2015).

The Arkema Group recorded impairment losses of €23 million on property, plant and equipment in 2016 (€26 million in 2015).

The increase in 2015 in land and buildings and other property, plant and equipment mainly resulted from the acquisition of Bostik.

Changes in the net book value of property, plant and equipment are as follows:

(In millions of euros)	2016	2015
At 1 January	**2,727**	**2,272**
Acquisitions	362	433
Depreciation and impairment	(436)	(444)
Disposals	(7)	(4)
Changes in scope	20	359
Translation adjustments	3	112
Other	(7)	-
Reclassifications	(10)	(1)
At 31 December	**2,652**	**2,727**

The figures above include the following amounts in respect of assets held under finance lease arrangements:

(In millions of euros)	31/12/2016 Gross value	31/12/2016 Depreciation and impairment	31/12/2016 Net value	31/12/2015 Gross value	31/12/2015 Depreciation and impairment	31/12/2015 Net value
Complex industrial facilities and buildings	27	(15)	12	25	(12)	13

They mainly correspond to leases of a hydrogen production unit located at Lacq and a production unit at Carling.

Note 12 EQUITY AFFILIATES

The amounts of the Arkema Group's commitments to joint ventures and associates are non-significant.

12.1 ASSOCIATES

	2016				2015			
(In millions of euros)	% ownership	Equity value	Equity in income (loss)	Sales	% ownership	Equity value	Equity in income (loss)	Sales
Arkema Yoshitomi Ltd.	49%	4	1	17	49%	4	1	16
Meglas*	-%	-	-	-	-%	-	-	3
CJ Bio Malaysia Sdn. Bhd.	14%	24	5	218	14%	19	8	236
Ihsedu Agrochem Private Ltd.	25%	4	0	143	25%	4	0	130
TOTAL		**32**	**6**			**27**	**9**	

* *Until the date of sale of the investment in Meglas.*

The Group sold its investment in Meglas during 2015.

12.2 JOINT VENTURES

	2016				2015			
(In millions of euros)	% ownership	Equity value	Equity in income (loss)	Sales	% ownership	Equity value	Equity in income (loss)	Sales
Daikin Arkema Refrigerants Asia Ltd.	40%	2	1	28	40%	1	1	21
Daikin Arkema Refrigerants Trading Ltd.	40%	1	1	35	40%	1	0	30
TOTAL		**3**	**2**			**2**	**1**	

Note 13 OTHER INVESTMENTS

The main movements in 2015 and 2016 are as follows:

(In millions of euros)	2016	2015
At 1 January	**29**	**33**
Acquisitions	0	2
Disposals	0	-
(Increases)/Reversals of impairment	0	(3)
Changes in scope	4	(3)
Translation adjustments	-	-
Other changes	-	-
At 31 December	**33**	**29**

Changes in scope in 2016 reflect the impact of the acquisition of Den Braven.

Note 14 OTHER NON-CURRENT ASSETS

	31/12/2016			31/12/2015		
(In millions of euros)	Gross value	Impairment	Net value	Gross value	Impairment	Net value
Loans and advances	216	(16)	200	188	(8)	180
Security deposits paid	27	-	27	24	-	24
TOTAL	**243**	**(16)**	**227**	**213**	**(8)**	**204**

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 €40 million of receivables on Total related to the remediation costs in respect of closed industrial sites in the United States (see note C20.3 "Other provisions and other non-current liabilities/provisions for environmental contingencies").

The CIR for 2012, amounting to €21 million, was reimbursed during the third quarter of 2016.

The CIR and CICE for 2013, amounting to €25 million, will be reimbursed during 2017.

Note 15 INVENTORIES

(In millions of euros)	31/12/2016	31/12/2015
INVENTORIES (COST)	**1,220**	**1,229**
Valuation allowance	(109)	(100)
INVENTORIES (NET)	**1,111**	**1,129**
Of which:		
Raw materials and supplies	*341*	*327*
Finished products	*770*	*802*

Note 16 ACCOUNTS RECEIVABLE, OTHER RECEIVABLES AND PREPAID EXPENSES

At 31 December 2016, accounts receivable are stated net of a bad debt provision of €37 million (€37 million at 31 December 2015). Other receivables and prepaid expenses notably include receivables from governments in an amount of €130 million at 31 December 2016 (€129 million at 31 December 2015), including €99 million of VAT. Details of accounts receivable net of valuation allowances are presented in note C23.4 "Credit risk".

Note 17 CASH AND CASH EQUIVALENTS

(In millions of euros)	31/12/2016	31/12/2015
Short-term cash advances	15	14
Monetary mutual funds	386	549
Available cash	222	148
CASH AND CASH EQUIVALENTS	**623**	**711**

Note 18 SHAREHOLDERS' EQUITY

At 31 December 2016, Arkema's share capital amounted to €757 million, divided into 75,717,947 shares with nominal value of €10.

18.1 CHANGES IN SHARE CAPITAL AND PAID-IN SURPLUS

On 26 April 2016 Arkema undertook a capital increase reserved for employees for the total amount of €42 million, resulting from subscription of 998,072 shares at the unit price of €42.16. This price was set by the Board of Directors on 2 March 2016.

Following the exercise of 247,774 share subscription options, the Company undertook two capital increases in the total nominal amount of €10 million.

	2016	2015
Number of shares at 1 January	**74,472,101**	**72,822,695**
Issuance of shares following the capital increase related to payment of dividends	-	1,430,888
Issuance of shares following the capital increase reserved for employees	998,072	-
Issuance of shares following the exercise of subscription options	247,774	218,518
Number of shares at 31 December	**75,717,947**	**74,472,101**

18.2 HYBRID BONDS

As part of the refinancing of its proposed acquisition of Bostik, Arkema issued a perpetual hybrid bond in October 2014 in the total amount of €689 million net of an issuance premium of €7 million and €4 million arrangement costs. These bonds include a first call option on 29 October 2020 and carry an annual coupon of 4.75% until that date. The coupon will then be reset every 5 years. At each coupon date, the interest can be paid or carried over at the issuer's convenience. Coupons carried over generate late payment interest and become due in the event of certain contractually defined circumstances under the control of the issuer.

In compliance with IAS 32, when there is an unconditional right to avoid delivering cash or another financial asset in the form of repayment of principal or interest, an instrument is recognized in shareholders' equity. In application of this principle, the hybrid bonds are recorded in shareholders' equity in the Group's consolidated financial statements.

Arkema paid out a coupon of €33 million in 2016 (€33 million In 2015).

18.3 TREASURY SHARES

Arkema bought back 100,617 treasury shares in 2016. In May 2016, Arkema definitively granted 71,719 free shares to Group employees, principally in application of plans 2012-3, 2012-4 and 2014-3.

	2016	2015
Number of treasury shares at 1 January	36,925	55,014
Repurchases of treasury shares	100,617	106,519
Grants of treasury shares	(71,719)	(124,608)
Number of treasury shares at 31 December	65,823	36,925

18.4 DIVIDENDS

The combined shareholders' general meeting of 7 June 2016 approved the distribution of a €1.90 dividend per share in respect of the 2015 financial year, or a total amount of €143 million. This dividend was paid out on 13 June 2016.

18.5 NON-CONTROLLING INTERESTS

Non-controlling interests do not represent a significant share of the Group's consolidated financial statements.

Note 19 PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS

(In millions of euros)	2016	2015
Pension obligations	366	388
Healthcare and similar coverage	93	123
Post-employment benefits	**459**	**511**
Long service awards	56	55
Other long-term benefits	5	5
Other long-term benefits	**61**	**60**
PROVISIONS FOR PENSIONS AND OTHER EMPLOYEE BENEFITS	**520**	**571**

In accordance with the laws and practices of each country, the Arkema Group 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 the tables in 19.1, 19.2, and 19.3 below.

The main features of the principal 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. A complementary healthcare plan covering certain medical expenses or insurance premiums for retired employees and their dependants is still open to new members; this plan is not funded;
- In France, the top hat pension plans are closed to new members. One of these plans is managed by an insurance company and funded by plan assets. The other plan has been terminated insofar as it concerns the Chairman and CEO, following the resolution adopted at the Company's shareholders' general meeting held on 7 June 2016. The portion of the plan related to other beneficiaries was closed and transferred to external management in 2016. The impacts of these changes are recorded in Other income and expenses in the financial statements at 31 December 2016 (see note C4, "Other income and expenses").

  The retiree top-up healthcare plan 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). Only certain plans are funded, involving non-significant amounts;
- In the Netherlands, the defined benefit plans for Arkema and Bostik were open until 31 December 2015 and were then replaced by defined contribution plans from 1 January 2016; rights vested at 31 December 2015 were transferred to external management. The impacts of changes to the Arkema plan are recorded in Other income and expenses in the financial statements at 31 December 2016, and the impacts of changes to the Bostik plan are recorded in Other income and expenses in the financial statements at 31 December 2015 (see note C4, "Other income and expenses");
- In the United Kingdom, no further rights can now be earned under any existing plan. The last plan remaining open at 31 December 2015, the Bostik Ltd plan, was closed to acquisition of new rights commencing 1 February 2016. The corresponding effects were recorded in Other income and expenses in the financial statements at 31 December 2015 (see note C4, "Other income and expenses"). These plans are covered by a pension fund.

19.1 EXPENSE IN THE INCOME STATEMENT

The expense related to defined benefit plans is broken down as follows:

	2016			2015		
(In millions of euros)	Total	Pension obligations	Healthcare and similar coverage	Total	Pension obligations	Healthcare and similar coverage
Current service cost	17	14	3	25	20	5
Past service cost	0	-	0	(15)	(15)	0
Settlements	(47)	(47)	-	(8)	(8)	-
Interest expense	28	25	3	29	25	4
Expected return on plan assets	(15)	(15)	-	(15)	(15)	-
Other	0	0	0	0	0	0
(INCOME)/EXPENSE	**(17)**	**(23)**	**6**	**16**	**7**	**9**

19.2 CHANGE IN NET PROVISIONS OVER THE PERIOD

	Pension obligations		Healthcare and similar coverage		Total post-employment benefits	
(In millions of euros)	2016	2015	2016	2015	2016	2015
Net liability/(asset) at beginning of year	**388**	**348**	**123**	**56**	**511**	**404**
(Income)/expense for the year	(23)	7	6	9	(17)	16
Contributions made to plan assets	(17)	(20)	-	-	(17)	(20)
Net benefits paid by the employer	(9)	(10)	(4)	(5)	(13)	(15)
Changes in scope	0	96	-	71	0	167
Other	7	14	1	4	8	18
Actuarial gains and losses recognized in shareholders' equity	20	(47)	(33)	(12)	(13)	(59)
Net liability/(asset) at end of year	**366**	**388**	**93**	**123**	**459**	**511**

Changes in scope in 2015 concerned the acquisition of Bostik.

19.3 VALUATION OF OBLIGATIONS AND PROVISIONS AT 31 DECEMBER

a) Present value of benefit obligations

(In millions of euros)	Pension obligations 2016	Pension obligations 2015	Healthcare and similar coverage 2016	Healthcare and similar coverage 2015
Present value of benefit obligations at beginning of year	**836**	**678**	**123**	**56**
Current service cost	14	20	3	5
Net interest expense	25	25	3	4
Past service cost (including curtailments)	-	(15)	-	-
Settlements	(120)	(32)	-	-
Plan participants' contributions	-	1	-	-
Benefits paid	(45)	(39)	(4)	(5)
Actuarial (gains) and losses	43	(69)	(33)	(12)
Changes in scope	0	225	-	71
Other	18	-	-	-
Translation adjustment	0	42	1	4
Present value of benefit obligations at end of year	**771**	**836**	**93**	**123**

b) Change in fair value of plan assets

Plan assets are mainly located in the United States, France, the Netherlands and the United Kingdom.

(In millions of euros)	Pension obligations 2016	Pension obligations 2015
Fair value of plan assets at beginning of year	**(448)**	**(330)**
Interest income	(15)	(15)
Settlements	73	24
Plan participants' contributions	0	(1)
Employer contributions	(17)	(20)
Benefits paid from plan assets	36	29
Actuarial (gains) and losses	(23)	21
Changes in scope	-	(128)
Other	(14)	-
Translation adjustment	3	(28)
Fair value of plan assets at end of year	**(405)**	**(448)**

c) Provisions in the balance sheet

(In millions of euros)	Pension obligations 2016	Pension obligations 2015	Healthcare and similar coverage 2016	Healthcare and similar coverage 2015
Present value of unfunded obligations	203	229	93	123
Present value of funded obligations	568	607	-	-
Fair value of plan assets	(405)	(448)	-	-
(Surplus)/Deficit of assets relative to benefit obligations	**366**	**388**	**93**	**123**
Asset ceiling	-	-	-	-
Net balance sheet provision	**366**	**388**	**93**	**123**
Provision recognized in liabilities	366	388	93	123
Amount recognized in assets	0	0	-	-

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)	2016	2015	2014	2013
Obligations for pensions, healthcare and similar coverage	864	959	734	576
Plan assets	(405)	(448)	(330)	(266)
Net obligations	**459**	**511**	**404**	**310**
Actuarial (gains)/losses on accumulated rights				
• experience adjustments	2	3	(18)	(3)
• effects of changes in financial assumptions	45	(84)	117	(51)
• effects of changes in demographic assumptions	(37)	0	17	(1)

d) Pre-tax amount recognized through equity (SORIE) during the valuation period

(In millions of euros)	Pension obligations 2016	Pension obligations 2015	Healthcare and similar coverage 2016	Healthcare and similar coverage 2015
Actuarial (gains) and losses generated in the period (A)	20	(47)	(33)	(12)
Effect of the surplus cap and the asset ceiling (B)	-	-	-	-
Total amount recognized in equity (A+B)	**20**	**(47)**	**(33)**	**(12)**
Cumulative actuarial (gains) and losses recognized in equity	**164**	**144**	**(33)**	**(27)**

e) Composition of the investment portfolio

	Pension obligations							
	At 31 December 2016				At 31 December 2015			
	France	UK	Rest of Europe	USA	France	UK	Rest of Europe	USA
Shares	19%	34%	27%	42%	16%	31%	4%	54%
Bonds	26%	32%	24%	41%	32%	30%	7%	35%
Property	2%	-	7%	7%	1%	-	-	10%
Monetary/Cash assets	1%	0%	11%	3%	2%	0%	-	-
Investment funds	-	32%	-	7%	-	38%	-	1%
Funds held by an insurance company	52%	1%	10%	-	49%	-	85%	-
Other	-	1%	20%	-	-	1%	3%	-

Pension assets are mainly invested in listed financial instruments.

f) Actuarial assumptions

The main assumptions for pension obligations and healthcare and similar coverage are as follows:

	2016				2015			
	France	UK	Rest of Europe	USA	France	UK	Rest of Europe	USA
Discount rate	1.70	2.60	1.70	4.25	2.00	3.50	2.00	4.50
Rate of increase in salaries	2.30-2.50	N/A	1.50-3.50	3.80	1.95-2.50	N/A	1.50-3.50	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 in 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.

A change of plus or minus 0.50 points in the discount rate has the following effects on the present value of accumulated benefit obligations at 31 December:

Pension obligations, healthcare and similar coverage *(In millions of euros)*	2016	
	Europe	USA
Increase of 0.50	(31)	(25)
Decrease of 0.50	35	27

A change of plus or minus 0.50 points in the salary increase rate has the following effects on the present value of accumulated benefit obligations at 31 December:

Pension obligations, healthcare and similar coverage *(In millions of euros)*	2016	
	Europe	USA
Increase of 0.50	9	5
Decrease of 0.50	(8)	(3)

g) Provisions by geographical area

2016	France	Germany	Rest of Europe	USA	Rest of the world	Total
Pension obligations	109	88	33	128	8	366
Healthcare and similar coverage	37	-	-	56	-	93

2015	France	Germany	Rest of Europe	USA	Rest of the world	Total
Pension obligations	132	86	30	131	9	388
Healthcare and similar coverage	38	-	-	85	-	123

h) Cash flows

The contributions to be paid by the Group in 2017 for funded benefits are estimated at €25 million.

The benefits to be paid by the Group in 2017 in application of defined benefit plans are valued at €10 million for pension obligations, and €5 million for healthcare and similar coverage.

Note 20 OTHER PROVISIONS AND OTHER NON-CURRENT LIABILITIES

20.1 OTHER NON-CURRENT LIABILITIES

Other non-current liabilities amount to €45 million at 31 December 2016 as against €47 million at 31 December 2015.

20.2 OTHER PROVISIONS

(In millions of euros)	Environmental contingencies	Restructuring	Other	Total
At 1 January 2016	**194**	**51**	**162**	**407**
Increases in provisions	12	17	64	93
Reversals from provisions on use	(15)	(18)	(45)	(78)
Reversals of unused provisions	-	(2)	(5)	(7)
Changes in scope	-	-	-	-
Translation adjustments	3	-	2	5
Other	-	(1)	-	(1)
At 31 December 2016	**194**	**47**	**178**	**419**
Of which less than one year	19	16	54	89
Of which more than one year	175	31	124	330

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 2016	**194**	**47**	**178**	**419**
Portion of provisions covered by receivables or deposits	**40**	-	**13**	**53**
Deferred tax asset related to amounts covered by the Total indemnity	23	-	0	23
Provisions at 31 December 2016 net of non-current assets	**131**	**47**	**165**	**343**

(In millions of euros)	Environmental contingencies	Restructuring	Other	Total
At 1 January 2015	**181**	**55**	**125**	**361**
Increases in provisions	31	19	48	98
Reversals from provisions on use	(14)	(27)	(31)	(72)
Reversals of unused provisions	(18)	(1)	(8)	(27)
Changes in scope	5	5	23	33
Translation adjustments	9	-	5	14
Other	-	-	-	-
At 31 December 2015	**194**	**51**	**162**	**407**
Of which less than one year	18	26	45	89
Of which more than one year	176	25	117	318

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 2015	**194**	**51**	**162**	**407**
Portion of provisions covered by receivables or deposits	**38**	**-**	**11**	**49**
Deferred tax asset related to amounts covered by the Total indemnity	22	-	-	22
Provisions at 31 December 2015 net of non-current assets	**134**	**51**	**151**	**336**

20.3 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 €81 million (€84 million at 31 December 2015);
- in the United States for €88 million (€84 million at 31 December 2015), of which €63 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 €40 million and €23 million recognized in deferred tax assets).

20.4 RESTRUCTURING PROVISIONS

Restructuring provisions are mainly in respect of restructuring measures in France for €33 million (€29 million at 31 December 2015), in Europe outside France for €8 million (€17 million at 31 December 2015) and in the United States for €6 million (€5 million at 31 December 2015).

Increases in such provisions in the year principally correspond to the restructuring plans described in note C4 "Other income and expenses".

20.5 OTHER PROVISIONS

Other provisions amount to €178 million and mainly comprise:

- Provisions for labour litigation for €53 million (€49 million at 31 December 2015);
- Provisions for commercial litigation and warranties for €50 million (€47 million at 31 December 2015);
- Provisions for tax litigation for €36 million (€25 million at 31 December 2015);
- Provisions for other risks for €39 million (€41 million at 31 December 2015).

Note 21 LIABILITIES AND CONTINGENT LIABILITIES

21.1 ENVIRONMENT

The Group's business activities are subject to constantly changing local, national and international regulations on the environment and industrial safety, which entail meeting increasingly complex and restrictive requirements. In this regard, these activities can involve a risk of the Group'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, the Group'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, the Group'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 the Group 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 the Group stored or disposed of waste.

21.1.1 Sites currently in operation

The Group 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 the Group 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 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), and Porto Marghera (Italy) 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 concerned 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 was the failure to take remedial action against the pollution observed, and reserved the right to take the matter to court.

During the second quarter of 2016, at the Prosecutor's request, the Judge in charge finally issued a formal notification that the proceedings against the representatives of Arkema Srl had been dropped.

21.1.2 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 and the Bonn site in Germany belonging to Arkema GmbH have been closed and sold. The Wetteren site in Belgium belonging to Résil Belgium has also been closed and is in the process of divestment. The Zaramillo site in Spain was closed in 2016.

21.1.3 Sites sold

Saint-Fons (Arkema France)

In the sale of the Group's vinyls activities 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.

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. The Lyon administrative court rejected Arkema France's two petitions for cancellation of these decisions in rulings of 7 May 2015, which Arkema France appealed on 22 June 2015 before the same court. Should Arkema France lose this appeal, rehabilitation of the site affected by the legacy pollution would be the Company's responsibility. A provision has been established in the consolidated financial statements in connection with this matter.

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. This ruling was upheld by the Paris Appeal Court on 27 May 2014 and the French Supreme Court *(Cour de Cassation)* on 20 September 2016.

Parrapon mining concession (SCIA Parapon)

Under a prior commitment made by the Arkema Group to the French authorities in connection with the transfer of the Parrapon mining concession to Kem One SAS, which was authorized by a ministerial decision of 13 January 2016, the Group will bear the costs that may be incurred by Kem One SAS, as concession operator, as a result of surveillance and safety measures for the 31 salt mines which were permanently closed down on 12 February 2014. As the potential costs cannot be reliably estimated at this stage, no provision has been established in the financial statements.

21.2 LITIGATION, CLAIMS AND PROCEEDINGS IN PROGRESS

21.2.1 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 French Supreme Court *(Cour de 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. It also decided that the compensation awarded for a prejudice of anxiety covers all psychological distress associated with the risk of an illness arising at any time during an indefinite period, including the prejudice of upheaval in living conditions that had been argued.

It is possible that other former employees of Arkema France who may have been exposed to asbestos during their employment on sites listed after 2010 May also bring action before an employee claims court to claim compensation for the prejudice of anxiety. 257 compensation claims for the prejudice of anxiety are currently in process before the employee claims courts.

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.

21.2.2 Commercial litigation and warranties

Antitrust litigation

There are no longer any antitrust litigations or proceedings against any Group entity.

21.2.3 Tax litigations

Arkema Quimica Ltda

Following a declaration as to the unconstitutional nature of certain taxes, Arkema's Brazilian subsidiary Arkema Quimica Ltda, 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 Ltda lodged a counter-claim in mid-June 2009 for cancellation of the tax administration's demands concerning the current portion of the liability. During the first quarter of 2010 Arkema Quimica Ltda 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 €3 million remains concerned by an appeal before the courts, which the Group considers has reasonable chances of success. 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 among other observations, it contested the purchase prices of products for resale and the level of commission paid to the company in intragroup transactions, and applied a withholding tax on intragroup financing. The tax reassessments notified for 2008, 2009 and 2010 amount to €9 million including interest and penalties. The tax authorities have extended the period concerned by this reassessment to include 2011, bringing the total to €11 million. Arkema Srl is contesting all of these reassessments. A provision considered adequate by the Group has been established in the financial statements.

21.2.4 Other litigation

TGAP (Arkema France)

The French customs authorities issued a tax demand of €6.7 million to Total, covering the years 2003 to 2006, for non-payment of the French general tax on polluting activities *(Taxe générale sur les activités polluantes* or TGAP*)* which, according to the authorities, should have been applied to the injections of effluent made by Total on its own behalf and for other industrial operators such as Arkema, into a cavity called Crétacé 4000. Following rejection on 27 May 2015 by the French Supreme Court *(Cour de Cassation)* of Total's appeal, which had already been rejected by the Appeal Court, in late March 2016 Total sent Arkema an invoice for a portion of the TGAP due for the years concerned by the tax demand. Arkema sent Total a letter on 22 April 2016 in which it contested the justification for this invoice. Since then, the parties have been in contact to examine the conditions for an agreement, which could be formally settled during the first quarter of 2017. A provision considered adequate by the Group has been established in the financial statements.

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 (other than employees) 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. Most proceedings by employees against Arkema Inc. concerning alleged exposure to asbestos in the United States are covered by the employee insurance policy in each State. However, in 2015 Arkema settled two disputes concerning former employees' alleged exposure to asbestos before State courts. 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

The Group sold its vinyls activities, grouped into the Kem One Group, to the Klesch Group with effect from 1 July 2012.

On 27 March 2013, insolvency proceedings were opened 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 concerning the company.

An arbitration procedure was initiated against Arkema France by Klesch Chemicals Ltd and Klesch Group Ltd on 4 March 2013. In its decision issued on 24 November 2015, the International Chamber of Commerce Court of Arbitration dismissed all the claims made by Klesch Chemicals Ltd and Klesch Group Ltd against Arkema France, and ordered Klesch Chemicals Ltd to pay Arkema France €73.6 million in damages and Klesch Chemicals Ltd and Klesch Group Ltd to reimburse the majority of the costs incurred for this arbitration procedure. A petition by Klesch Chemicals Ltd and Klesch Group Ltd for cancellation of this arbitration ruling was filed with the Paris Appeal Court on 9 December 2015. Given the small number and specificity of cases in which this type of action gives rise to proceedings, Arkema is confident that it should be rejected by the Appeal Court. The decision is expected during 2017.

Meanwhile, the works council of Kem One SAS' Fos-sur-Mer site brought an action on 9 July 2013 before the Lyon district court against Arkema, certain Kem One group entities and the Klesch group, for alleged fraudulent collusion. As part of the takeover of Kem One SAS, the new owner stated that it would handle withdrawal of this action by the works council. This withdrawal is not yet effective. No provision has been booked in the financial statements.

Also, on 29 April 2014, Kem One employees brought an action before the Lyon district court against Arkema and certain Klesch group entities, claiming damages on the grounds of the allegedly fraudulent nature of the agreements signed between Arkema and Klesch in connection with the sale of the vinyls activities. No provision has been booked in the financial statements.

Coem (Arkema France)

As there were no product supplies by Kem One SAS to the Italian company Coem, Coem in August 2012, and subsequently to its industrial shareholder Industrie Generali in March 2016, issued written complaints to Arkema France and Kem One that they had suffered injury through breach of commercial relations. Arkema considers that these claims have no legal foundation, and no provision has been booked in the financial statements.

21.2.5 Personal Training Credits

Under the French personal training credit system *(Compte personnel de formation* or CPF*)* employees earn entitlements to hours of training, up to a maximum 150 hours each year. These entitlements are used at the employee's initiative, with the consent of the employer, when the CPF is used during working time; it can also be used outside working time.

The Arkema Group's investment in training represented approximately 3.5% of payroll costs in 2016.

Note 22 DEBT

Group net debt amounted to €1,482 million at 31 December 2016, taking account of cash and cash equivalents of €623 million.

22.1 ANALYSIS OF NET DEBT BY CATEGORY

(In millions of euros)	31/12/2016	31/12/2015
Bonds	1,328	1,828
Finance lease obligations	1	2
Bank loans	27	28
Other non-current debt	21	15
Non-current debt	**1,377**	**1,873**
Bonds	500	-
Finance lease obligations	0	0
Syndicated credit facility	-	-
Negotiable European Commercial Paper	-	-
Other bank loans	194	191
Other current debt	34	26
Current debt	**728**	**217**
Debt	**2,105**	**2,090**
Cash and cash equivalents	623	711
NET DEBT*	**1,482**	**1,379**

* *See B17 "Main accounting and financial indicators".*

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 2016 the fair value of this bond is €518 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 2016 the fair value of this bond is €540 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%.

  At 31 December 2016 the fair value of this bond is €172 million.
- In January 2015 the Group issued a €700 million bond that will mature on 20 January 2025, with a fixed coupon of 1.50%.

  At 31 December 2016 the fair value of this bond is €729 million.

These last two issues are part of the Group's Euro Medium Term Notes (EMTN) programme introduced in October 2013. The ceiling of the EMTN programme was raised to €2.5 billion in November 2016.

Negotiable European Commercial Paper

In April 2013 the Group introduced an annually-renewed Negotiable European Commercial Paper programme with a ceiling of €1 billion.

Issues outstanding as part of this programme amount to nil at 31 December 2016.

Syndicated credit facility

On 29 October 2014, the Group put in place a multi-currency syndicated credit facility of €900 million, with an initial duration of five years maturing on 29 October 2019, and the possibility of two one-year extensions subject to approval by the lenders, exercisable at the end of the first and the second year. After an initial one-year extension in 2015, on 9 September 2016 the Group was authorized by its lenders to extend this maturity to 29 October 2021. This credit facility is intended to finance the Group's general requirements as a substitute line for the Negotiable European 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: (i) standard information undertakings and commitments for this type of financing, (ii) a financial undertaking by the Arkema Group to maintain the ratio of consolidated net debt to consolidated EBITDA (tested twice a year) at 3.5 or less.

22.2 ANALYSIS OF DEBT BY CURRENCY

The Arkema Group's debt is mainly denominated in euros.

(In millions of euros)	31/12/2016	31/12/2015
Euros	1,871	1,878
US Dollars	12	31
Chinese Yuan	188	147
Other	34	34
TOTAL	**2,105**	**2,090**

Part of the debt in Euros is converted through swaps to the accounting currency of internally-financed subsidiaries, in line with the Group's policy.

22.3 ANALYSIS OF DEBT BY MATURITY

The breakdown of debt, including interest costs, by maturity is as follows:

(In millions of euros)	31/12/2016	31/12/2015
Less than 1 year	765	246
Between 1 and 2 years	42	585
Between 2 and 3 years	43	35
Between 3 and 4 years	522	35
Between 4 and 5 years	23	515
More than 5 years	922	928
TOTAL	**2,317**	**2,344**

Note 23 MANAGEMENT OF RISKS RELATED TO FINANCIAL ASSETS AND LIABILITIES

The Arkema Group'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.

23.1 FOREIGN CURRENCY RISK

The Group is exposed to transaction risks and translation risks related to foreign currencies.

The Group hedges the transaction risk mainly through spot foreign currency transactions or through forward transactions over maturities generally not exceeding 2 years.

The fair value of the Group's forward foreign currency contracts is a liability of €17 million.

The amount of foreign exchange gains and losses recognized in recurring operating income at 31 December 2016 is a negative €2 million (negative €20 million at 31 December 2015).

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 €21 million at 31 December 2016 (negative €11 million at 31 December 2015).

At 31 December 2016, the Group's balance sheet exposure in transaction currencies other than the euro is as follows:

Group exposure to operating foreign currency risk

(In millions of euros)	USD	CNY	Other currencies
Accounts receivable	418	84	200
Accounts payable	(244)	(63)	(56)
Bank balances and loans/borrowings	35	(135)	44
Off balance sheet commitments (forward currency hedging)	(1,042)	(58)	(261)
NET EXPOSURE	**(833)**	**(172)**	**(73)**

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.

23.2 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 2016.

An increase (decrease) of 1% (100 basis points) in interest rates would have the effect of decreasing (increasing) the interest on net debt by €3 million.

At 31 December 2016, debt is distributed between variable and fixed rates as follows:

	Variable rates	Fixed rates		
(In millions of euros)	overnight – 1 year	1-5 years	Over 5 years	Total
Current and non-current debt	(767)	(483)	(855)	(2,105)
Cash and cash equivalents	623	-	-	623
Net exposure before hedging	(144)	(483)	(855)	(1,482)
Hedging instruments	-	-	-	-
Off-balance sheet items	-	-	-	-
NET EXPOSURE AFTER HEDGING	**(144)**	**(483)**	**(855)**	**(1,482)**

23.3 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 providing the Group with sufficient financial resources to honour its commitments, 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 €700 million bond maturing on 20 January 2025;
- 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 €900 million syndicated credit facility maturing on 29 October 2021. This credit facility is used particularly as a substitute line for the Negotiable European Commercial Paper programme (see note C22, "Debt").

Apart from a change of control, the main circumstances in which early repayment or termination could occur concern the syndicated credit facility (see note C22 "Debt"), if the ratio of consolidated net debt to consolidated EBITDA exceeds 3.5.

At 31 December 2016, 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.

Negotiable European Commercial Paper issues are rated A-2 by Standard & Poor's.

The Group's net debt at 31 December 2016 amounts to €1,482 million and represents 1.2 times the consolidated EBITDA for the last 12 months.

At 31 December 2016, the amount of the unused syndicated credit facility is €900 million and the amount of cash and cash equivalents is €623 million.

Note C22 "Debt" provides details of the maturities of debt.

23.4 CREDIT RISK

The Group is potentially exposed to credit risk on its accounts receivable and as regards its banking counterparties.

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 2016. 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.

For several years, the Group has covered its accounts receivable credit risk through a global credit insurance programme. 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. The rollout of this credit insurance programme to the Bostik companies acquired in 2015 was completed during 2016.

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 Lines and the geographical regions in question.

At 31 December 2016, accounts receivable net of provisions are distributed as follows:

Accounts receivable net of provisions *(In millions of euros)*	**31/12/2016**	**31/12/2015**
Receivables not yet due	1,063	976
Receivables overdue by 1-15 days	44	40
Receivables overdue by 16-30 days	26	23
Receivables overdue by more than 30 days	17	12
TOTAL NET RECEIVABLES	**1,150**	**1,051**

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 C24 "Presentation of financial assets and liabilities" represents the maximum exposure to credit risk.

23.5 RISK RELATED TO RAW MATERIALS AND ENERGY

The prices of certain raw materials used by the Arkema Group can be highly volatile, with fluctuations leading to significant variations in the cost price of the Group's products; in addition, because certain of its manufacturing processes have significant requirements in terms of energy resources, the Group is also sensitive to changes in the price of energy. In order to limit the impact of the price volatility of the principal raw materials it uses, the Group may decide to use derivatives matched with existing contracts, or negotiate fixed price contracts for limited periods.

Recognition of these derivatives generated an expense of €4 million in the income statement at 31 December 2016 (no impact at 31 December 2015).

23.6 EQUITY RISK

At 31 December 2016 the Company held 65,823 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 24 PRESENTATION OF FINANCIAL ASSETS AND LIABILITIES

24.1 FINANCIAL ASSETS AND LIABILITIES BY ACCOUNTING CATEGORY

2016

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	(C13)	-	-	-	33	33
Other non-current assets (loans and advances, security deposits paid)	(C14)	-	-	124	-	124
Accounts receivable	(C16)	-	-	1,150	-	1,150
Cash and cash equivalents	(C17)	623	-	-	-	623
Derivatives*	(C24.2)	8	2	-	-	10
FINANCIAL ASSETS		**631**	**2**	**1,274**	**33**	**1,940**
Current and non-current debt	(C22)	-	-	2,105	-	2,105
Accounts payable	(C25)	-	-	932	-	932
Derivatives*	(C24.2)	8	23	-	-	31
FINANCIAL LIABILITIES		**8**	**23**	**3,037**	**0**	**3,068**

* *Derivatives are carried in the balance sheet in "Other current financial assets" and "Other current financial liabilities".*

2015

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	(C13)	-	-	-	29	29
Other non-current assets (loans and advances, security deposits paid)	(C14)	-	-	109	-	109
Accounts receivable	(C16)	-	-	1,051	-	1,051
Cash and cash equivalents	(C17)	711	-	-	-	711
Derivatives*	(C24.2)	15	0	-	-	15
FINANCIAL ASSETS		**726**	**0**	**1,160**	**29**	**1,915**
Current and non-current debt	(C22)	-	-	2,089	-	2,089
Accounts payable	(C25)	-	-	884	-	884
Derivatives*	(C24.2)	6	15	-	-	21
FINANCIAL LIABILITIES		**6**	**15**	**2,973**	**0**	**2,994**

* *Derivatives are carried in the balance sheet in "Other current financial assets" and "Other current financial liabilities".*

At 31 December 2016 as at 31 December 2015, the fair value of financial assets and liabilities is approximately equal to the net carrying amount, except in the case of bonds.

24.2 DERIVATIVES

The main derivatives used by the Group are as follows:

(In millions of euros)	Notional amount of contracts at 31/12/2016			Notional amount of contracts at 31/12/2015			Fair value of contracts	
	< 1 year	< 5 years and > 1 year	> 5 years	< 1 year	< 5 years and > 1 year	> 5 years	31/12/2016	31/12/2015
Forward foreign currency contracts	1,452	-	-	1,457	267	-	(17)	3
Commodities and energy swaps	24	7	-	28	22	-	(3)	(10)
TOTAL	**1,476**	**7**	**-**	**1,485**	**289**	**-**	**(20)**	**(7)**

24.3 IMPACT OF FINANCIAL INSTRUMENTS ON THE INCOME STATEMENT

The income statement includes the following items related to financial assets (liabilities):

(In millions of euros)	2016	2015
Total interest income (expenses) on financial assets and liabilities*	(61)	(68)
Impact on the income statement of valuation of derivatives at fair value	7	(11)
Impact on the income statement of operations on available-for-sale assets	15	12

* *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 2016 represents an expense of €2 million (expense of €20 million in 2015).

24.4 IMPACT OF FINANCIAL INSTRUMENTS ON SHAREHOLDERS' EQUITY

At 31 December 2016, the impact of financial instruments net of deferred taxes on the Group's shareholders' equity is a negative €19 million (negative impact of €12 million at 31 December 2015), essentially reflecting the net-of-tax fair value of foreign currency hedges of future cash flows and commodities.

Note 25 ACCOUNTS PAYABLE, OTHER CREDITORS AND ACCRUED LIABILITIES

Accounts payable amount to €932 million at 31 December 2016 (€884 million at 31 December 2015).

Other creditors and accrued liabilities mainly comprise employee-related liabilities for €247 million at 31 December 2016 (€225 million at 31 December 2015) and amounts owing to governments for €80 million at 31 December 2016 (€59 million at 31 December 2015), including €30 million of VAT (€25 million at 31 December 2015).

Note 26 PERSONNEL EXPENSES

Personnel expenses, including stock options and free share grants (see note C28 "Share-based payments"), amount to €1,309 million in 2016 (€1,284 million in 2015).

They comprise €968 million of wages and salaries and IFRS 2 expenses (€945 million in 2015) and €341 million of social charges (€339 million in 2015).

Note 27 RELATED PARTIES

27.1 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.

27.2 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 and benefits of all kinds recognized in expenses by the Group are as follows:

(In millions of euros)	2016	2015
Salaries and other short-term benefits	8*	6
Pensions, other post-employment benefits and contract termination benefits	-	1
Other long-term benefits	-	-
Share-based payments	5**	2

* *Including the cash payment to the Chairman and CEO in compensation for the termination on 7 June 2016 of the complementary defined benefit pension plan.*

** *Including the shares awarded to the Chairman and CEO in compensation for the termination on 7 June 2016 of the complementary defined benefit pension plan.*

Termination of the Chairman and CEO's complementary defined benefit pension plan led to a provision reversal of €20 million. The corresponding plan has been closed and transferred to external management insofar as it concerns other beneficiaries (see note C19 "Provisions for pensions and other employee benefits").

Salaries and other short-term benefits 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.

Note 28 SHARE-BASED PAYMENTS

28.1 STOCK OPTIONS

The Board of Directors has decided not to introduce any further stock option plans.

Movements in the stock option plans granted in previous years and still outstanding at 31 December 2016 are as follows:

Plan	Total number of options granted*	Exercise price*	Number of options exercised in 2016	Number of options cancelled in 2016	Total number of options exercised	Total number of options outstanding	Final year for exercising options
2008	465,437	34.85	62,956	6,357	440,203	-	2016
2010-1	230,044	29.33	34,438	-	158,774	64,270	2018
2010-2	233,513	29.33	83,092	-	127,593	83,746	2018
2011-1	109,082	65.92	49,419	-	49,419	59,663	2019
2011-2	109,082	65.92	17,869	-	17,869	91,213	2019

* *After adjustment following the capital increase with preferential subscription rights of November 2014.*

Valuation method

The fair value of the options granted was determined using the Black & Scholes method on the basis of assumptions. The main assumptions are as follows:

	Plan 2008	Plan 2010-1	Plan 2010-2	Plan 2011-1	Plan 2011-2
Volatility	25%	35%	32%	32%	32%
Risk-free interest rate	4.00%	0.34%	0.34%	1.29%	1.29%
Maturity	4 years	4 years	5 years	4 years	4 years
Exercise price *(in euros)*	36.21	30.47	30.47	68.48	68.48
Fair value of stock options *(in euros)*	**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 2016 was nil (lower than €0.5 million at 31 December 2015).

28.2 FREE SHARE GRANTS

Following the general meeting of the Company's shareholders held on 7 June 2016 (18th resolution), on 7 June 2016 the Board of Directors confirmed the grant of 50,000 free shares to the Chairman and CEO in compensation for some of the conditional rights vested to him under the complementary defined benefit pension plan from which he previously benefited and which has now been terminated by the Board. In view of this decision, the entire expense for the grant of these free shares is recognized in Other income and expenses in the financial statements at 31 December 2016.

On 9 November 2016, the Board of Directors decided to put in place two free share grant plans for the benefit of Group employees, particularly employees with responsibilities whose exercise influences the Group's results.

Movements in the free share grant plans existing at 31 December 2016 are as follows:

Plan	Grant date	Vesting period	Conservation period	Total number of free shares granted	*Number of shares subject to performance conditions*	Fair value (*euros per share*)	Number of shares definitively granted in 2016	Number of shares cancelled in 2016	Total number of shares still to be granted at 31/12/2016
Plan 2012-3	9 May 2012	4 years	-	**65,335**	*39,280*	45.27	58,830	3,835	-
Plan 2012-4	9 May 2012	3-4 years	0-3 years	**17,163**	-	-	12,869	1,190	-
Plan 2013	6 Nov 2013	4 years	-	**250,000**	*182,810*	51.60	-	2,370	**243,740**
Plan 2014-1, 3	6 May 2014	3-4 years	0-3 years	**17,118**	-	53.63	20	-	**16,763**
Plan 2014-2	13 Nov 2014	4 years	-	**275,000**	*203,535*	33.41	-	1,770	**272,125**
Plan 2015-1	9 Nov 2015	4 years	-	**285,525**	*285,525*	42.31	-	1,300	**282,975**
Plan 2015-2	9 Nov 2015	4 years	-	**59,595**	-	42.31	-	700	**58,655**
Plan 2016-1, 2	10 May 2016	3-4 years	0-3 years	**43,278**	-	22.91-39.70	-	-	**43,278**
Plan 2016-3	7 Jun 2016	1-3 years	2 years	**50,000**	-	41.04-53.53	-	-	**50,000**
Plan 2016-4	9 Nov 2016	3 years	2 years	**235,835**(1)	*226,040*	47.31	-	-	**235,835**
Plan 2016-5	9 Nov 2016	4 years	-	**122,080**(2)	*112,860*	50.01	-	-	**122,080**

(1) May be raised to 258,439 in the event of outperformance.
(2) May be raised to 133,366 in the event of outperformance.

The amount of the IFRS 2 expense recognized in respect of free shares at 31 December 2016 is €12 million (€7 million at 31 December 2015).

28.3 CAPITAL INCREASE RESERVED FOR EMPLOYEES

In line with its employee shareholding policy, the Arkema Group offered its employees the possibility to subscribe to a reserved capital increase at the subscription price of €42.16. This price corresponds to the average opening price of the Arkema share quoted on the Paris stock exchange in the 20 trading days prior to the date of the Board of Directors' meeting of 2 March 2016, minus a 20% discount.

The shares subscribed through this operation cannot be sold for five years, except in the United States where the minimum holding period is three years.

The employees subscribed for 998,072 shares for the total amount of €42 million, and the capital increase was recognized on 19 April 2016 and completed on 26 April 2016.

Arkema shares were also given to Group employees located outside France via a free share grant plan: one free share was awarded for every four shares subscribed up to a maximum of 25 free shares per person.

On 10 May 2016, the Board of Directors formally noted the attribution of 41,228 free shares to employees located outside France, as part of this operation. These shares will only be definitively granted after variable vesting periods of 3 and 4 years, depending on the country (see note C28.2).

Finally, on 10 May 2016, the Board of Directors decided to put in place a plan to award 2,050 free shares for the benefit of Group employees who had not been able to participate in the capital increase reserved for employees undertaken on 26 April 2016. The only condition for awarding these shares is a presence condition, and they will be definitively granted after a vesting period of 4 years from the date of the Board's decision to award them (see note C28.2).

Valuation method

In accordance with the method recommended by France's national accounting standards authority *(Autorité des normes comptables)*, the calculation used to value the cost of not being able to sell the shares for a certain period is based on the cost of a two-step strategy assuming that these shares will ultimately be sold, and that the same number of shares will be purchased and settled immediately, financed by a loan. The rate used for the loan is the rate that a bank would grant to a private individual presenting an average risk profile in the context of a 5-year consumer loan.

The fair values of the shares subscribed in France and outside France have been calculated separately in order to reflect the grants of free shares to Group employees located outside France.

The main market parameters used in the valuation of the cost of not being able to sell the shares are as follows:

Country of subscription	France	United States	Italy and Spain	Other principal countries
Date of the Board meeting which decided on the capital increase	2 March 2016	2 March 2016	2 March 2016	2 March 2016
Share price at the date of the Board meeting *(€)*	58.60	58.60	58.60	58.60
Risk-free interest rate (at 2 March 2016)*	-0.24%	0.98%	0.39%	-0.38%
Borrowing rate**	10.38%	11.34%	10.38%	11.00%
Cost of not being able to sell the shares	36.23%	27.50%	36.68%	39.05%

** 5-year risk-free rate, except for the United States (3 years).*
*** Rate on 5-year borrowings.*

The difference between the subscription price and the share price at the date of the Board meeting that decided on the capital increase is €16.44 per share, representing a total of €16 million. The difference between the subscription price and the average share price used to calculate the subscription price is €10.53 per share, representing a total of €11 million.

Based on the cost of not being able to sell the shares as indicated above, an IFRS 2 expense of €1 million will be recognized over the vesting period of the shares concerned. The amount recognized for 2016 is included in the amount presented in note 28.2 "Free share grants".

Note 29 INFORMATION ON CASH FLOWS

Additional information on amounts received and paid as operating cash flows are presented below:

(In millions of euros)	31/12/2016	31/12/2015
Interest paid	81	67
Interest received	1	3
Income taxes paid	231	162

Details of the change in Working capital are as follows:

(In millions of euros)	31/12/2016	31/12/2015
Inventories	46	101
Accounts receivable	(54)	68
Other receivables including income taxes	(42)	(29)
Accounts payable	50	(25)
Other liabilities including income taxes	11	71
CHANGE IN WORKING CAPITAL	**11**	**186**

Note 30 OFF-BALANCE SHEET COMMITMENTS

30.1 COMMITMENTS GIVEN

30.1.1 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)	**31/12/2016**	**31/12/2015**
Guarantees granted	73	77
Comfort letters	-	-
Contractual guarantees	3	7
Customs and excise guarantees	14	21
TOTAL	**90**	**106**

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.

30.1.2 Contractual commitments related to the Group's operating activities

Irrevocable purchase commitments

In the normal course of business, the Arkema Group has 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 initial periods generally comprised between 1 and 10 years is a normal practice for companies in the Group's business sector in order to cover their needs.

These purchase commitments were valued taking into account, on a case-by-case basis, the Arkema Group's financial commitment to its suppliers, as certain of these contracts include clauses which oblige the Group 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 €409 million at 31 December 2016, maturing as follows:

(In millions of euros)	**31/12/2016**	**31/12/2015**
2016	-	167
2017	190	58
2018	63	44
2019	54	35
2020 until expiry of the contracts	102	63
TOTAL	**409**	**367**

Lease commitments

In the context of its business, the Arkema Group has signed lease contracts, of which the majority are operating lease agreements. Lease agreements signed by the Group 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).

	31/12/2016		31/12/2015	
(In millions of euros)	Capitalized leases	Non-capitalized leases	Capitalized leases	Non-capitalized leases
2016	-	-	0	17
2017	0	26	0	13
2018	0	23	0	11
2019	0	19	0	10
2020 and beyond	0	61	1	35
NOMINAL VALUE OF FUTURE LEASE PAYMENTS	**2**	**129**	**2**	**86**
Finance cost	0	NA	0	NA
PRESENT VALUE	**2**	**NA**	**2**	**NA**

30.1.3 Off-balance sheet commitments related to changes in the scope of consolidation

Warranties related to sales of businesses

When selling businesses, the Arkema Group has sometimes granted the purchaser warranties in respect of unrecorded liabilities. 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 the Group amounts to €132 million at 31 December 2016 (€113 million at 31 December 2015). These amounts are stated net of provisions recognized in the balance sheet in respect of such warranties.

30.1.4 Off-balance sheet commitments related to Group financing

These commitments are described in note C22 "Debt".

30.2 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 extended certain indemnities, or assumed certain obligations, for the benefit of the Arkema Group, 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.

30.2.1 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. extended indemnities to Arkema and Elf Aquitaine, Inc. extended indemnities to Arkema Amériques SAS. All these indemnities terminated at 18 May 2016.

30.2.2 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 into indemnity and service agreements with Arkema or its subsidiaries.

Pursuant to these agreements, the obligations and environmental responsibilities associated with these former industrial sites in France and at Rieme in Belgium were transferred to Total S.A. group companies.

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 for most of the Group's operations in the United States. The negotiated terms of the stock purchase agreement among Elf Aquitaine Inc., Legacy Site Services 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 Site Services LLC, that performs 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 Site 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, 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 Site Services LLC, Total S.A. or their respective subsidiaries in respect of the sites not covered by the indemnity.

The Legacy Site 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 $270 million. The amount received by Arkema under this indemnity amounts to $96 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 $270 million, on the same terms, for the same sites and subject to the same exceptions as the indemnity described in the preceding paragraph.

30.2.3 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 undertaken to indemnify Arkema 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 or the relevant Group company in connection with such liabilities.

A litigation covered by this indemnity is still ongoing.

30.2.4 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 made certain representations and warranties, some of them in connection with the separation of the Arkema Group from Total; these representations and warranties terminated on 18 May 2016.

Note 31 STATUTORY AUDITORS' FEES

(In millions of euros)	KPMG 2016	KPMG 2015	Ernst & Young 2016	Ernst & Young 2015
AUDIT				
Auditing, certification, review of individual and consolidated financial statements	**2.7**	**2.8**	**2.9**	**2.9**
Issuer	0.6	0.6	0.6	0.6
Fully consolidated subsidiaries	2.1	2.2	2.3	2.3
Other due diligence work and services directly related to the auditors' mission	**0.5**	**0.2**	**0.3**	**0.7**
Issuer	0.1	0.1	0	0.7
Fully consolidated subsidiaries	0.4	0.1	0.3	-
SUB-TOTAL	**3.2**	**3.0**	**3.2**	**3.6**
Other services provided by the networks to fully consolidated subsidiaries	-	-	-	-
TOTAL	**3.2**	**3.0**	**3.2**	**3.6**

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 32 SUBSEQUENT EVENTS

PROPOSED DIVESTMENT OF THE OXO ALCOHOLS BUSINESS

On 26 January 2017 Arkema announced a project for the sale to INEOS of its 50% stake in Oxochimie, their oxo alcohol manufacturing joint venture, and the associated business. The impact of this sale on the Group's annual sales is expected to be approximately €40 million.

The project, due to be finalized during 2017, is subject to an information and consultation process with employee representative bodies, and requires approval by the relevant antitrust authorities.

D. Scope of consolidation at 31 December 2016

(a) Companies sold in 2016.
(b) Companies acquired in 2016.
(c) Companies merged in 2016.
(d) Companies liquidated in 2016.

The percentage of control indicated below also corresponds to the Group's ownership interest.

Altuglas International Denmark A/S		Denmark	100.00	FC
Altuglas International Mexico Inc.		United States	100.00	FC
Architectural & structural adhesives Pty Ltd	(d)	Australia	100.00	FC
Altuglas International SAS		France	100.00	FC
American Acryl LP		United States	50.00	JO
American Acryl NA LLC		United States	50.00	JO
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 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 (Changshu) Polyamides Co. Ltd		China	100.00	FC
Arkema China Investment Co. Ltd.		China	100.00	FC
Arkema Coating Resins Malaysia Sdn. Bhd.		Malaysia	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	JO
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
Arkema Inc.		United States	100.00	FC
Arkema Insurance Ltd		Ireland	100.00	FC
Arkema KK		Japan	100.00	FC
Arkema Kimya Sanayi ve Ticaret AS		Turkey	100.00	FC
Arkema Ltd.		United Kingdom	100.00	FC

NB: FC: full consolidation.
JO: joint operation – consolidated based on shares of assets, liabilities, income and expenses.
JV: joint venture – consolidation by the equity method.
SI: significant influence – consolidation by the equity method.

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 Pty Ltd.		Australia	100.00	FC
Arkema Quimica Ltda		Brazil	100.00	FC
Arkema Quimica SA		Spain	99.92	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 Taixing Chemicals		China	100.00	FC
Arkema Thiochemicals Sdn Bhd		Malaysia	86.00	FC
Arkema Yoshitomi Ltd.		Japan	49.00	SI
ATO Findley Deutschland Gmbh		Germany	100.00	FC
Bostik AB (Sweden)		Sweden	100.00	FC
Bostik AS		Estonia	100.00	FC
Bostik Argentina		Argentina	100.00	FC
Bostik AS (Denmark)		Denmark	100.00	FC
Bostik AS (Norway)		Norway	100.00	FC
Bostik Australia		Australia	100.00	FC
Bostik Belux NV SA		Belgium	100.00	FC
Bostik BV		Netherlands	100.00	FC
Bostik Canada		Canada	100.00	FC
Bostik Egypt For Production of Adhesives S.A.E		Egypt	100.00	FC
Bostik Findley (China) Co Ltd.		China	100.00	FC
Bostik Findley Malaysia Sdn. Bhd.		Malaysia	100.00	FC
Bostik Gmbh		Germany	100.00	FC
Bostik Holding Australia Ltd		Australia	100.00	FC
Bostik Holding BV	(d)	Netherlands	100.00	FC
Bostik Holding Hong Kong Ltd.		Hong Kong	100.00	FC
Bostik Holding SA		France	100.00	FC
Bostik Inc.		United States	100.00	FC
Bostik India Private Ltd.		India	100.00	FC
Bostik Industries Ltd.		Ireland	100.00	FC
Bostik Korea Ltd.		South Korea	100.00	FC
Bostik Ltd.		United Kingdom	100.00	FC
Bostik Mexicana SA de CV		Mexico	100.00	FC
Bostik Nederland BV		Netherlands	100.00	FC

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JO: joint operation – consolidated based on shares of assets, liabilities, income and expenses.
JV: joint venture – consolidation by the equity method.
SI: significant influence – consolidation by the equity method.

Bostik New Zealand		New Zealand	100.00	FC
Bostik-Nitta Co. Ltd.		Japan	66.00	FC
Bostik OOO		Russia	100.00	FC
Bostik OY		Finland	100.00	FC
Bostik Philippines Inc.		Philippines	100.00	FC
Bostik Polska sp Z.o.o		Poland	100.00	FC
Bostik SA		France	100.00	FC
Bostik SA (Spain)		Spain	100.00	FC
Bostik SIA		Latvia	100.00	FC
Bostik (Shanghai) Management Co. Ltd.		China	100.00	FC
Bostik (Thailand) Co. Ltd		Thailand	100.00	FC
Bostik UAB		Lithuania	100.00	FC
Bostik Vietnam Company Ltd		Vietnam	100.00	FC
CECA Belgium		Belgium	100.00	FC
CECA Italiana Srl	(a)	Italy	100.00	FC
CECA LC		France	100.00	FC
CECA SA		France	100.00	FC
CECA Watan Saudi Arabia		Saudi Arabia	51.00	FC
Cekomastik Kimya Sanayi Ve Ticaret A.S		Turkey	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	SI
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 Ltda		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	JV
Daikin Arkema Refrigerants Trading (Shanghai) Co. Ltd.		China	40.00	JV
DBEW Holding BV	(b)	Netherlands	100.00	FC
Debratec GmbH	(b)	Germany	100.00	FC
Den Braven Aerosols GmbH	(b)	Germany	100.00	FC
Den Braven Beheer BV	(b)	Netherlands	100.00	FC
Den Braven Belgium N.V.	(b)	Belgium	100.00	FC
Den Braven Benelux BV	(b)	Netherlands	100.00	FC
Den Braven East sp Z.o.o	(b)	Poland	100.00	FC
Den Braven Endustriel	(b)	Turkey	100.00	FC
Den Braven France Sarl	(b)	France	100.00	FC
Den Braven Hellas SA	(b)	Greece	100.00	FC

NB: FC: full consolidation.
JO: joint operation – consolidated based on shares of assets, liabilities, income and expenses.
JV: joint venture – consolidation by the equity method.
SI: significant influence – consolidation by the equity method.

Den Braven Holding BV	(b)	Netherlands	100.00	FC
Den Braven OG BV	(b)	Netherlands	100.00	FC
Den Braven Productos Quim. Ldo.	(b)	Portugal	100.00	FC
Den Braven Romania Srl	(b)	Romania	100.00	FC
Den Braven Sealants Espana SL	(b)	Spain	100.00	FC
Den Braven Sealants GmbH	(b)	Austria	100.00	FC
Den Braven Sealants South Africa Pty Ltd	(b)	South Africa	100.00	FC
Delaware Chemicals Corporation		United States	100.00	FC
Distri Mark France SAS	(b)	France	100.00	FC
Febex SA		Switzerland	96.77	FC
Hebei Casda Biomaterials Co. Ltd		China	100.00	FC
Ihsedu Agrochem Private Ltd		India	24.90	SI
Jiangsu Bostik Adhesive Co. Ltd		China	100.00	FC
Maquiladora General de Matamoros SA de CV		Mexico	100.00	FC
MEM BAUCHEMIE Gmbh		Germany	100.00	FC
Michelet Finance, Inc.		United States	100.00	FC
MLPC International		France	100.00	FC
Newspar	(a)	Canada	50.00	JO
Mydrin Srl		Italy	100.00	FC
ODOR-TECH LLC		United States	100.00	FC
Oxido Srl	(c)	Italy	100.00	FC
Oxochimie		France	50.00	JO
Ozark Mahoning Company		United States	100.00	FC
PT Bostik Indonesia		Indonesia	100.00	FC
Sartomer Asia Limited		Hong Kong	100.00	FC
Sartomer Guangzhou Chemical Co. Ltd.		China	100.00	FC
Sartomer Shanghai Distribution Company Limited		China	100.00	FC
Seki Arkema		South Korea	51.00	FC
Siroflex Inc.	(b)	United States	100.00	FC
Siroflex Ltd	(b)	United Kingdom	100.00	FC
Société Marocaine des Colles		Morocco	97.01	FC
Sovereign Chemicals Ltd		United Kingdom	100.00	FC
Suzhou Hipro Polymers Co. Ltd		China	100.00	FC
Taixing Sunke Chemicals		China	55.00	JO
Tamer Endustriyel Madencilik Anonim Sirketi		Turkey	50.00	FC
Turkish Products, Inc.		United States	100.00	FC
Usina Fortaleza Industria E commercio de massa fina Ltda		Brazil	100.00	FC
Vetek		Argentina	60.00	FC
Viking chemical company		United States	100.00	FC
Zhuhai Bostik Adhesive Ltd		China	100.00	FC

NB: FC: full consolidation.
JO: joint operation – consolidated based on shares of assets, liabilities, income and expenses.
JV: joint venture – consolidation by the equity method.
SI: significant influence – consolidation by the equity method.

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 is presented below 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 and in the documents addressed to the shareholders.

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.

Tour EQHO
2, avenue Gambetta
CS 60055
92066 Paris-La Défense Cedex

Statutory auditors
Member of *Compagnie régionale de Versailles*

ERNST & YOUNG Audit

1/2, place des Saisons
92400 Courbevoie – Paris-La Défense 1
S.A.S. à capital variable

Statutory auditors
Member of *Compagnie régionale de Versailles*

Arkema

Year ended 31 December 2016

Statutory auditors' report on the 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 31 December 2016, 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 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 31 December 2016 and of the results of its operations for the year then ended in accordance with French accounting principles.

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 appreciations, we bring to your attention the following matters:

- Note B.1 "Investments" to the financial statements specifies the methods of evaluation of the value of utility of the financial investments. Within the framework of our appreciation of the rules and accounting principles followed by your Company, we have verified the appropriateness of the accounting methods specified in this note. We also checked that note D.1 "Investments" and the table of the subsidiaries and participations to the financial statements provide suitable information;
- Note B.8 "Provision for pension and similar benefits" to the financial statements specifies the methods of evaluation of the retirement commitments and similar advantages. These commitments were the object of an evaluation by external actuaries. Our work consisted in examining the data used and appreciating the assumptions selected. Within the framework of our appreciations, we made sure of the reasonableness of these estimations. We also checked that notes D.5 "Provisions" and D.16 "Transactions with the related party" to the financial statements provide suitable 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 management report of the Board of Directors 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 favour, 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 or holders of the voting rights has been properly disclosed in the management report.

Paris-La Défense, 27 February 2017

The statutory auditors

French original signed by

KPMG Audit
Département de KPMG S.A.

Bertrand Desbarrières   François Quédiniac

ERNST & YOUNG Audit

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4.4.2 Parent company financial statements at 31 December 2016

BALANCE SHEET

(In millions of euros)		31/12/2016			31/12/2015
ASSETS	Note	Gross	Depreciation and impairment	Net	Net
Investments	D 1	3,356	1,515	1,841	1,691
Other financial assets	D 1	2,562	-	2,562	2,562
TOTAL FIXED ASSETS		**5,918**	**1,515**	**4,403**	**4,253**
Advances		0	-	0	0
Trade receivables	D 2	15	-	15	14
Other receivables	D 2	219	-	219	156
Subsidiary current accounts	D 2	1,602	-	1,602	1,106
Treasury shares	D 2	4	-	4	2
Cash and cash equivalents		-	-	0	-
TOTAL CURRENT ASSETS		**1,840**	**-**	**1,840**	**1,278**
Bond premium and issuing costs	D 2	15	-	15	19
Prepaid expenses		0	-	0	0
TOTAL ASSETS		**7,774**	**1,515**	**6,258**	**5,550**

LIABILITIES AND SHAREHOLDERS' EQUITY	Note	31/12/2016	31/12/2015
Share capital		757	745
Paid-in surplus		1,212	1,172
Legal reserve		74	73
Retained earnings		653	44
Net income for the year		767	754
TOTAL SHAREHOLDERS' EQUITY	D 3	**3,463**	**2,789**
ADDITIONAL EQUITY	D 4	**700**	**700**
PROVISIONS	D 5	**48**	**52**
Bonds and other financial debt	D 6	1,869	1,871
Subsidiary current accounts	D 8		0
Trade payables	D 8	9	9
Tax and employee-related liabilities	D 8	9	8
Other payables	D 8	160	122
TOTAL LIABILITIES		**2,047**	**2,010**
TOTAL LIABILITIES AND SHAREHOLDERS' EQUITY		**6,258**	**5,550**

INCOME STATEMENT

(In millions of euros)	Note	2016	2015
Services billed to related companies		19	18
Other purchases and external expenses		(11)	(12)
Taxes other than income taxes		(1)	(1)
Personnel expenses		(9)	(14)
Other operating expenses			3
Increases and reversals from provisions	D 5	(6)	4
Operating income		**(8)**	**(2)**
Dividends from investments		522	708
Interest income		92	90
Interest expenses		(87)	(87)
Net foreign exchange gains (losses)		(0)	0
Impairment of investments		150	(0)
Increases and reversals of provisions for financial risks	D 5	(2)	(2)
Financial result	D 10	**675**	**709**
Income before tax and exceptional items		**667**	**707**
Increases and reversals from exceptional provisions	D 5	8	(2)
Other exceptional income		0	0
Income and (expenses) on capital transactions		3	(3)
Exceptional items		**11**	**(5)**
Income taxes		89	52
Net income		**767**	**754**

CASH FLOW STATEMENT

(In millions of euros)	2016	2015
Net income	767	754
Changes in provisions	(150)	4
Changes in impairment	(0)	(0)
(Gains)/losses on sales of assets	0	0
Gross operating cash flow	**617**	**758**
Change in working capital	(28)	(32)
Cash flow from operating activities	**589**	**725**
Cost of acquisition of investments	0	0
Change in loans	0	(711)
Sale of investments	0	0
Cash flow from investing activities	**0**	**(711)**
Increase in bonds	(2)	708
Increase in Additional equity	0	0
Change in share capital and other equity	51	96
Dividends paid to shareholders	(143)	(135)
Cash flow from financing activities	**(94)**	**669**
Change in net cash	**495**	**684**
Net cash at beginning of period*	1,107	423
Net cash at end of period*	1,602	1,107

* *Including subsidiary current accounts.*

TABLE OF SUBSIDIARIES AND INVESTMENTS AT 31/12/2016

Subsidiaries and investments (In millions of euros)	Share capital	Share-holders' equity other than capital, excluding net income	Gross value of shares owned	Net carrying amount of shares owned	Number of shares owned	Ownership interest (%)	Loans, advances & current accounts – gross value	Gua-rantees given by the com-pany	Sales (excl taxes) for 2016 (1)	Net income for 2016 en M€	Dividends received by the company
French subsidiaries											
Arkema France SA 420, rue d'Estienne d'Orves 92705 Colombes Cedex	270	(116)	2,023	527	1,584,253	99.99	4,132	1,009	2,399	410	-
Arkema Amériques SAS 420, rue d'Estienne d'Orves 92705 Colombes Cedex	1,049	(126)	1,044	1,044	104,354,000	99.46	-	-	-	284	451
Arkema Europe SA 420, rue d'Estienne d'Orves 92705 Colombes Cedex	548	18	188	188	12,370,920	34.32	-	-	-	24	36
Arkema Asie SAS 420, rue d'Estienne d'Orves 92705 Colombes Cedex	120	10	71	71	39,420	59.40	-	-	-	8	35
Arkema Afrique SAS 420, rue d'Estienne d'Orves 92705 Colombes Cedex	30	(19)	30	11	300,370	100.00	-	-	-	0	-
TOTAL INVESTMENTS			**3,356**	**1,841**			**4,132**	**1,009**	**2,399**	**725**	**522**

(1) Financial statements not yet approved by the shareholders at the general meeting.

4.4.3 Notes to the Company's financial statements at 31 December 2016

A. Highlights		**278**
B. Accounting policies		**278**
C. Subsequent events		**280**
D. Notes to the parent company financial statements		**281**
Note 1	INVESTMENTS AND OTHER FINANCIAL ASSETS	281
Note 2	CURRENT ASSETS	282
Note 3	SHAREHOLDERS' EQUITY	283
Note 4	ADDITIONAL EQUITY	284
Note 5	PROVISIONS	284
Note 6	BONDS AND OTHER FINANCIAL DEBT	285
Note 7	NEGOTIABLE EUROPEAN COMMERCIAL PAPER	285
Note 8	DEBT	285
Note 9	DETAILS OF ITEMS CONCERNING RELATED COMPANIES	286
Note 10	FINANCIAL RESULT	286
Note 11	INCOME TAXES	286
Note 12	DEFERRED TAX POSITION	287
Note 13	STOCK OPTION PLANS AND FREE SHARE GRANTS	287
Note 14	OFF-BALANCE SHEET COMMITMENTS	288
Note 15	EMPLOYEES	289
Note 16	TRANSACTIONS WITH RELATED PARTIES	289

A. Highlights

- In April 2016, Arkema carried out its fifth capital increase reserved for employees. 998,072 shares were subscribed at the price of €42.16 per share, giving a total amount of €42 million.
- On 7 June 2016 the combined general meeting of Arkema's shareholders approved the distribution of a €1.90 dividend per share in respect of the 2015 financial year.
- Arkema S.A. received dividends in the total amount of €522.2 million from its subsidiaries.

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 27 February 2017.

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 conservatism principle, under 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

Receivables are recognized at their nominal value. A bad debt provision is recognized when the net realizable 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 held 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 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 share grants to employees are reclassified as financial fixed assets in 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.

5. BONDS

Bonds are recognized at nominal value in the balance sheet liabilities.

Bond issuing costs and bond premiums (arising when the bond is issued at a price below its nominal value) 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 under the heading *Bonds*.

Issuing costs comprise bank charges for setting up the bond and legal fees. They are spread over the duration of the bond under the effective interest rate method, with the corresponding expense recognized in operating income.

The bond premium is also spread over the duration of the bond under the effective interest rate method, with the corresponding expense recognized in financial result. If the bond is issued at a price higher than the nominal value, the same method is applied to the difference between the issue price and the nominal value, with the corresponding income recognized in financial result.

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. PERPETUAL HYBRID BONDS

Perpetual bonds whose redemption remains under the exclusive control of the issuer are recorded as "Additional equity".

Costs and the premium related to issuance of such instruments are recorded in the balance sheet assets as prepaid expenses, and will be spread over the duration of the relevant tranche.

The expense resulting from spreading issuing costs is recognized in the operating income by a direct credit to the bond issuing cost account (only the net amount is shown in the balance sheet).

The expense resulting from spreading issue premiums is recognized in financial expenses by a direct credit to the bond issue premium account (only the net amount of the premiums is shown in the balance sheet).

Accrued interest not yet due is included in Debt.

The annual interest expense on these instruments is included in financial expenses in the income statement.

7. STOCK OPTIONS AND FREE SHARE GRANTS

7.1 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. Any difference between the subscription price and the nominal value of the shares created represents an issue premium.

7.2 Free share grants

Arkema S.A. shares will be definitively granted to beneficiaries at the end of a vesting period subject to the beneficiary remaining with the Company and any performance conditions set by the Board of Directors.

7.2.1 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 defined vesting period.

7.2.2 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. The amount of this provision is equal to the probable purchase price, valued on the basis of the closing share price if the shares have not yet been purchased, or 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 exceptional expenses and the provision previously recorded is reversed. However, the expense related to delivery of definitively granted shares to Arkema S.A. personnel under performance share plans is reclassified from exceptional items to operating income.

The provision is recognized on a time-proportion basis over the vesting period and takes into account, where relevant, the probability of remaining with the Company and fulfilling the performance conditions set by the Board of Directors.

7.3 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.

For stock options, the contribution is calculated, at the Company's choice, on the basis of either (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' decision to grant them.

For free share grants, starting from the 2016 plan the contribution is calculated on the basis of the value of the shares granted at their vesting date, and is payable the month after the shares vest to the beneficiary. The provision for expenses corresponding to the contribution payable for Arkema S.A. personnel is established progressively over the vesting period.

8. PROVISIONS FOR PENSIONS AND SIMILAR BENEFITS

The complementary defined benefit pension plan was terminated during 2016 following a decision by the Board of Directors on 9 March 2016. Other non-pension benefits (lump sum payments on retirement, long service awards, death and disability benefits, contributions to healthcare bodies) remain unchanged, and provisions are recognized in respect of these obligations in the financial statements

The amount of the provision corresponds to the actuarial value of employees' 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 (1.7% at 31/12/2016 compared to 2% at 31/12/2015);
- 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.

9. 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 tax consolidated subsidiary must recognize in its own financial statements, during the entire period of its inclusion in the tax consolidation group, a tax expense (or income) corresponding to income tax and additional levies, 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 due 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 also state 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 (even if the said subsidiaries leave the tax consolidation group). On this basis, in accordance with opinion 2005-G of the urgent issues committee of the French National Accounting Board (CNC), Arkema S.A. does not recognize any provision for taxes.

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 AND OTHER FINANCIAL ASSETS

1.1 INVESTMENTS

(In millions of euros)	31/12/2015	Increase	Decrease	31/12/2016
Gross value	3,356	-	-	3,356
Impairment	(1,665)		(150)	(1,515)
NET VALUE	**1,691**	**-**	**(150)**	**1,841**

The change in investments results from the reversal of €150 million of impairment in respect of shares in Arkema France, in view of the Company's improved prospects.

1.2 OTHER FINANCIAL ASSETS

Arkema S.A. has transferred to its subsidiary Arkema France the cash received from the various bond issues (see notes D4 and D6), in the form of loans with the same maturity and same effective interest rates.

The corresponding loans total €2,530 million (excluding accrued interest) at 31 December 2016.

Note 2 CURRENT ASSETS

2.1 BREAKDOWN OF RECEIVABLES

The breakdown by maturity of the Company's receivables at 31 December 2016 is as follows:

(In millions of euros)	Gross amount	Maturing within 1 year	Maturing after 1 year
Operating receivables and VAT	15	15	-
Cash advances to subsidiaries[1]	1,602	1,602	-
Other receivables[2]	219	121	98
TOTAL	**1,836**	**1,738**	**98**

(1) Arkema France current account.
(2) Mainly income tax receivables.

2.2 TREASURY SHARES

At 31 December 2016, Arkema S.A. owns 65,823 treasury shares which are recorded at the total value of €4.4 million. These shares are allocated to the free share grant plans (see note D13).

No impairment was therefore recognized in the financial statements at 31 December 2016.

2.3 BOND PREMIUMS AND COSTS

The following amounts are recognized in this item:

(In millions of euros)	31/12/2015	Increase	Decrease	31/12/2016
Bonds				
Issue premiums	7.5		1.1[1]	6.4
Issuing costs	2.8		0.7[1]	2.1
SUBTOTAL	**10.3**	**0**	**1.8**	**8.5**
Perpetual hybrid bonds				
Issue premiums	5.9		1.1[1]	4.8
Issuing costs	2.3		0.4[1]	1.9
SUBTOTAL	**8.2**	0	**1.5**	**6.7**
TOTAL	**18.5**	**0**	**3.3**	**15.2**

(1) Amount charged to expenses for the period.

Note 3 SHAREHOLDERS' EQUITY

At 31 December 2016, the share capital is composed of 75,717,947 shares with a nominal value of 10 euros, compared to 74,472,101 shares with a nominal value of 10 euros at 31 December 2015.

Changes in shareholders' equity are as follows:

(In millions of euros)	Opening balance at 01/01/2016	Appropriation of 2015 net income	Distribution of dividends(1)	2016 net income	Capital increase reserved for employees(2)	Capital increase due to subscriptions(3)	31/12/2016 before appropriation
Share capital	744.7				10.0	2.5	757.2
Issue premium	421.9				31.4	7.6	460.9
Paid-in surplus	625.9						625.9
Merger surplus	124.8						124.8
Legal reserve	72.4	2.0					74.4
Other reserves	0						0.0
Retained earnings	44.5	751.9	(143.4)				653.0
2015 net income	753.9	(753.9)					0.0
2016 net income				767.1			767.1
TOTAL SHAREHOLDERS' EQUITY	**2,788.1**	**0**	**(143.4)**	**767.1**	**41.4**	**10.1**	**3,463.3**

(1) On 7 June 2016 the shareholders' general meeting adopted a resolution proposing to distribute a dividend of €1.90 per share, or a total amount of €143.4 million, in respect of the 2015 financial year.

(2) On 26 April 2016 Arkema undertook a capital increase reserved for employees: 998,072 shares were subscribed at the price of €42.16 per share. This price was set by the Board of Directors and corresponds to the average opening price of the Arkema share quoted on the Paris stock exchange in the 20 trading days prior to the date of the Board meeting of 2 March 2016, minus a 20% discount. Following this operation, Arkema S.A. recorded a €10 million increase in share capital and an issue premium, net of costs, of €31.4 million.

(3) Capital increases resulting from the exercise of stock options in 2016.

On 30 June 2016, the Company undertook a capital increase of €1.1 million with a €3.1 million increase in the issue premium, following the exercise of stock options between 1 January and 30 June 2016.

On 31 December 2016, the Company undertook a capital increase of €1.4 million with a €4.5 million increase in the issue premium, following the exercise of stock options between 1 July and 31 December 2016.

Following completion of these operations, the share capital of Arkema S.A. was increased to €757.2 million divided into 75,717,947 shares.

Note 4 ADDITIONAL EQUITY

(In millions of euros)	Gross amount	Maturing within 1 year	Maturing after 1 year
Issuance of perpetual hybrid bonds	700		700

As part of the refinancing of its acquisition of Bostik, Arkema S.A. issued a perpetual hybrid bond in October 2014 in the total amount of €700 million with an issue premium and issuing costs (see Note 2.3). These bonds include a first call option on 29 October 2020 and will carry an annual coupon of 4.75% until that date. The coupon will then be reset every 5 years.

At each coupon date, the interest can be paid or carried over at the issuer's convenience. Coupons carried over generate late payment interest and become due in the event of certain contractually defined circumstances under the control of the issuer. The coupon of €33 million was paid in full on 31 October 2016.

Note 5 PROVISIONS

Changes in provisions recognized in the Company's balance sheet are set out in the table below:

(In millions of euros)	31/12/2015	Increase	Decrease	31/12/2016
Provisions for pensions and similar benefits [1]	34.1	4.5	(36.5)	2.1
Provisions for long service awards	0.5		(0.1)	0.4
Provision for free share grants [2]	16.6	32.3	(3.5)[3]	45.4
Provisions for risks related to subsidiaries	-	-	-	-
Provisions for other risks	0.4		(0.3)	0.1
TOTAL	**51.6**	**36.8**	**40.4**	**48.0**

(1) The increase in provisions principally corresponds to actuarial gains and losses up to the date of termination of the complementary pension plan. The reversal recognized in exceptional items results from termination of the complementary defined benefit pension plan for the Chairman and CEO and transfer of this plan to external management for other beneficiaries (see note B8).

(2) Increases and reversals from these provisions are recorded in exceptional items.

(3) Reversal corresponding to an effective expense relating to delivery in May of performance shares under plan 2012-3 and free shares associated with the capital increase of 2012 reserved for employees.

These movements break down as follows:

Recognized in operating income	4.5	(0.4)
Recognized in financial result	0	0
Recognized in exceptional items	32.3	(40.0)
TOTAL	**36.8**	(40.4)

Note 6 BONDS AND OTHER FINANCIAL DEBT

This heading covers:

- the €500 million bond issued in October 2010 with fixed coupon of 4.00%, that will mature on 25 October 2017;
- the bond issued in April 2012 that will mature on 30 April 2020, with fixed coupon of 3.85% and the tap issue undertaken in October 2012 bringing its total amount to €480 million;
- the €150 million bond issued in December 2013 with fixed coupon of 3.125% that will mature on 6 December 2023;
- the €700 million bond issued in January 2015 with fixed coupon of 1.5%, that will mature on 20 January 2025;
- these last two issues are part of the Group's €2 billion Euro Medium Term Notes (EMTN) programme introduced in October 2013;
- the difference between the issue price and the nominal value of the 2012 bond, initially recognized in liabilities at the amount of €13.7 million (net of issuing costs); after a €1.8 million charge to the period, the balance of this difference amounts to €6.4 million at 31 December 2016;
- the accrued interest on bonds, amounting to €26.5 million;
- the accrued interest on the perpetual hybrid bond, amounting to €5.8 million.

Note 7 NEGOTIABLE EUROPEAN COMMERCIAL PAPER

In April 2013 the Group introduced a Negotiable European Commercial Paper programme with a ceiling of €1 billion.

Issues outstanding as part of this programme amount to nil at 31 December 2016.

Note 8 DEBT

The breakdown by maturity of the Company's debt at 31 December 2016 is as follows:

(In millions of euros)	Gross amount	Maturing within 1 year	Maturing in 1 to 5 years	Maturing after 5 years
Bonds and other financial debt	1,869	539(1)	480(2)	850(2)
Trade payables	9	9	-	-
Tax and employee-related liabilities	9	9	-	-
Other payables	160(3)	83	77	-
TOTAL	**2,047**	**640**	**557**	**850**

(1) Including €500 million corresponding to the bond issued in 2010 which matures in October 2017, and €32 million of accrued interest on long-term bonds and on the perpetual hybrid bond.
(2) Long-term bonds issued by Arkema S.A. (see note D6).
(3) Income tax payables owed to companies in the tax consolidation group.

Note 9 DETAILS OF ITEMS CONCERNING RELATED COMPANIES

(In millions of euros)	
Investments	
Investments in other companies	1,841
Receivables related to subsidiaries	2,563
Receivables	
Trade receivables	15
Other receivables (incl. current accounts)	1,602
Other amounts receivable	110
Liabilities	
Financial debt	-
Trade payables	8
Other payables	160
Sales	
Services billed to related companies	19
Financial income and expenses	
Dividends from investments	522
Income on loans and current accounts	89

Note 10 FINANCIAL RESULT

Arkema S.A. received dividends for a total amount of €522.2 million, of which €450.8 million were from Arkema Amériques SAS, €36.2 million were from Arkema Europe S.A. and €35.2 million were from Arkema Asie SAS (paid out of reserves).

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 2016, application of the French tax consolidation system resulted in tax income (negative expense) of €94.2 million for Arkema S.A. This amount corresponds to the income taxes of the profitable companies.

Arkema S.A has expensed and paid the 3% additional contribution on distributed income related to the cash dividend paid for 2015, amounting to €4.3 million.

Note 12 DEFERRED TAX POSITION

Temporarily non-deductible expenses relating to provisions for pensions and similar benefits at 31 December 2016 amount to €2.1 million, down by €32 million from 31 December 2015.

The tax loss carry-forward of the Company's tax consolidation group at 31 December 2016 amounts to €1,600 million, and can be used indefinitely.

Note 13 STOCK OPTION PLANS AND FREE SHARE GRANTS

STOCK OPTIONS

The Board of Directors has decided not to introduce any further stock option plans.

Movements in the stock option plans granted in previous years and still outstanding at 31 December 2016 are as follows:

Plan	Total number of options granted*	Exercise price (€)*	Number of options exercised in 2016	Number of options cancelled in 2016	Total number of options exercised	Total number of options outstanding	Final year for exercising options
2008	**465,437**	34.85	62,956	6,357	**440,203**	-	2016
2010-1	230,044	29.33	34,438	-	158,774	64,270	2018
2010-2	233,513	29.33	83,092	-	127,593	83,746	2018
2011-1	109,082	65.92	49,419	-	49,419	59,663	2019
2011-2	109,082	65.92	17,869	-	17,869	91,213	2019

** After adjustment following the capital increase with preferential subscription rights of November 2014.*

FREE SHARE GRANTS

Following the general meeting of the Company's shareholders held on 7 June 2016 (18th resolution), on 7 June 2016 the Board of Directors confirmed the grant of 50,000 free shares to the Chairman and CEO in compensation for some of the conditional rights vested to him under the complementary defined benefit pension plan from which he previously benefited and which has now been terminated by the Board. In view of this decision, a provision for the entire expense for the grant of these free shares was booked in the financial statements at 31 December 2016.

On 9 November 2016, the Board of Directors decided to put in place two performance share plans for the benefit of Group employees, particularly employees with responsibilities whose exercise influences the Group's results.

Movements in the free share grant plans existing at 31 December 2016 are as follows:

Plan	Grant date	Vesting period	Conservation period	Total number of free shares granted	Number of shares subject to performance conditions	Number of shares definitively granted in 2016	Number of shares cancelled in 2016	Total number of shares still to be granted at 31/12/2016
Plan 2012-3	9 May 2012	4 years	-	**65,335**	39,280	58,830	3,835	-
Plan 2012-4	9 May 2012	3-4 years	0-3 years	**17,163**	-	12,869	1,190	-
Plan 2013	6 Nov 2013	4 years	-	**250,000**	182,810	-	2,370	**243,740**
Plan 2014-13	6 May 2014	3-4 years	0-3 years	**17,118**	-	20	-	**16,763**
Plan 2014-2	13 Nov 2014	4 years	-	**275,000**	203,535	-	1,770	**272,125**
Plan 2015-1	9 Nov 2015	4 years	-	**285,525**	285,525	-	1,300	**282,975**
Plan 2015-2	9 Nov 2015	4 years	-	**59,595**	-	-	700	**58,655**
Plan 2016-1, 2	10 May 2016	3-4 years	0-3 years	**43,278**	-	-	-	**43,278**
Plan 2016-3	7 Jun 2016	1-3 years	2 years	**50,000**	-	-	-	**50,000**
Plan 2016-4	9 Nov 2016	3 years	2 years	**235,835**(1)	226,040	-	-	**235,835**
Plan 2016-5	9 Nov 2016	4 years	-	**122,080**(2)	112,860	-	-	**122,080**

(1) May be raised to 258,439 in the event of outperformance.
(2) May be raised to 133,366 in the event of outperformance.

INCOME AND EXPENSES IN THE FINANCIAL YEAR IN RESPECT OF THE 2012 TO 2016 PLANS

The delivery of shares in respect of plan 2012-3 led to recognition in the 2016 exceptional items of a net expense of €0.7 million (€4.2 million exceptional expense offset by a €3.5 million reversal from provisions).

The provision for free share grants was increased by €32.3 million (of which €6.6 million relates to the 2016 plan).

The total amount of provisions in respect of all plans is €45.4 million at 31 December 2016.

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

Syndicated credit facility

On 29 October 2014, the Group put in place a multi-currency syndicated credit facility of €900 million, with an initial duration of five years maturing on 29 October 2019, and the possibility of two one-year extensions subject to approval by the lenders, exercisable at the end of the first and the second year. After an initial one-year extension in 2015, on 9 September 2016 the Group was authorized by its lenders to extend this maturity to 29 October 2021. This credit facility is intended to finance the Group's general requirements as a substitute line for the Negotiable European 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: (i) standard information undertakings and commitments for this type of financing, (ii) a financial undertaking by the Arkema Group to maintain the ratio of consolidated net debt to consolidated EBITDA (tested twice a year) at 3.5 or less.

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 extended certain indemnities, or 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 and arising from facts prior to 18 May 2006 (or prior to 7 March 2006, as the case may be), Total S.A. extended indemnities to Arkema and Elf Aquitaine, Inc. extended indemnities to Arkema Amériques SAS. All these indemnities terminated at 18 May 2016.

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 undertaken to indemnify Arkema 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 or the relevant Group company in connection with such liabilities.

A litigation covered by this indemnity is still ongoing.

14.2.3 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 made certain representations and warranties, some of them in connection with the separation of the Arkema Group from Total; these representations and warranties terminated on 18 May 2016.

Note 15 EMPLOYEES

The average number of employees by category of personnel is as follows:

Engineers and managerial	9
Supervisors and technicians	0
TOTAL	**9**

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)	**2016**	**2015**
Salaries and other short-term benefits[1]	8	6
Pensions, other post-employment benefits and contract termination benefits		1
Other long-term benefits	-	-
Share-based payments[2]	5	2

(1) Including the cash payment to the Chairman and CEO in compensation for the termination on 7 June 2016 of the complementary defined benefit pension plan.

(2) Including the shares awarded to the Chairman and CEO in compensation for the termination on 7 June 2016 of the complementary defined benefit pension plan (see note D13).

Termination of the Chairman and CEO's complementary defined benefit pension plan led to a reversal of €20 million from provisions. The corresponding plan has been closed, and transferred to external management insofar as it concerns other beneficiaries.

Salaries and other short-term benefits 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 831–3 of regulation n° 2014-03 of 5 June 2014 of the French National Accounting Authority *(Autorité des normes comptables)*.

4.4.4 Results of the Company in the last 5 years (articles R. 225-81, R. 225-83 and R. 225-102 of the French Commercial Code)

Type of disclosures *(In millions of euros unless otherwise indicated)*	2012	2013	2014	2015	2016
I - Financial position at year end					
a) Share capital	629	630	728	745	757
b) Number of shares issued	62,877,215	63,029,692	72,822,695	74,472,101	75,717,947
II - Operations and results					
a) Sales (excluding VAT)	14	13	15	18	19
b) Income before tax, depreciation, impairment and provisions	2	206	70	703	528
c) Income taxes	36	26	28	52	89
d) Employee profit sharing					
e) Income after tax, depreciation impairment and provisions	26	212	189	754	767
f) Amount of dividends distributed	113	117	135	143	NC
III - Earnings per share *(in euros)*					
a) Income after tax but before depreciation, impairment and provisions	0.61	3.69	1.34	10.14	8.15
b) Income after tax, depreciation, impairment and provisions	0.42	3.37	2.59	10.12	10.13
c) Net dividend per share	1.80	1.85	1.85	1.90	NC
IV - Employee data					
a) Number of employees	7	7	7	7	9
b) Total payroll	7	4	5	7	8
c) Amounts paid to employee benefit bodies in the year	3	3	3	4	5

INFORMATION ABOUT THE COMPANY AND ITS SHARE CAPITAL

5

5.1 LEGAL PRESENTATION OF THE GROUP 292

- 5.1.1 Information about the Company AFR 292
- 5.1.2 Subsidiaries and shareholdings of the Company AFR 293
- 5.1.3 Related-party transactions 294

5.2 SHARE CAPITAL AFR 294

- 5.2.1 Amount of share capital 294
- 5.2.2 History of the Company's share capital over the past three years 295
- 5.2.3 Pledges, guarantees, securities 295
- 5.2.4 Treasury shares 296
- 5.2.5 Summary of authorizations and their application 298
- 5.2.6 Stock options and performance share plans 300
- 5.2.7 Share capital increase reserved for employees 300

5.3 SHARE OWNERSHIP AFR 301

- 5.3.1 Breakdown of share ownership and voting rights at 31 December 2016 301
- 5.3.2 Control of the Company 301
- 5.3.3 Clauses likely to have an effect on the control of the Company 302
- 5.3.4 Employee share ownership 302
- 5.3.5 Legal threshold disclosures in 2016 302
- 5.3.6 Breakdown of share ownership and voting rights 304

5.4 STOCK MARKET 305

- 5.4.1 Stock market information 305
- 5.4.2 Financial communication 306
- 5.4.3 Relations with investors and financial analysts 307
- 5.4.4 Relations with individual shareholders 307
- 5.4.5 Registered shares 307
- 5.4.6 Dividend policy AFR 308

5.5 EXTRACT FROM THE ARTICLES OF ASSOCIATION 309

- 5.5.1 Annual general meetings (articles 16, 17.1 and 17.2 of the Articles of Association) AFR 309
- 5.5.2 Voting rights (articles 17.3 and 17.4 of the Articles of Association) AFR 310
- 5.5.3 Appropriation of earnings (article 20 of the Articles of Association) 311
- 5.5.4 Rights and obligations attached to the shares (article 9 of the Articles of Association) 311
- 5.5.5 Form and transfer of shares (article 7 of the Articles of Association) 311
- 5.5.6 Identification of shareholders (article 8.1 of the Articles of Association) 311
- 5.5.7 Thresholds (article 8.2 of the Articles of Association) 312

The different parts constituting the annual financial report are identified in the table of contents by the pictogram AFR

5.1 LEGAL PRESENTATION OF THE GROUP

5.1.1 Information about the Company

The Arkema Group was established in October 2004 within Total's Chemical business to bring together the Vinyl Products, Industrial Chemicals and Performance Products business divisions. On 18 May 2006, the Company's stock market listing marked the Group's independence.

Since 2006, a number of major operations, as mentioned below, have enabled the Group to strengthen its portfolio of businesses and to refocus 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 the vinyl business;
- acquisition in acrylics in China in October 2014 with the creation of the Taixing Sunke Chemicals joint venture with Jurong Chemical;
- acquisition on 2 February 2015 of Bostik in adhesives; and
- acquisition on 1 December 2016 of the Den Braven group in high performance sealants.

Arkema is a French joint stock corporation *(société anonyme)* with a share capital of €757,179,470 and its registered office at 420 rue d'Estienne d'Orves, 92700 Colombes, France (phone: +33 1 49 00 80 80). It is governed by French law and, as a result, is subject to 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 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, by-products 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 or providing any property or rights under a lease or lease-management agreement 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 annual general meetings, statutory auditors' reports and other Company documents may be consulted at the Group's Legal department at the registered office located at 420 rue d'Estienne d'Orves, 92700 Colombes, France. Furthermore, historical financial information, regulated information, reference documents, annual and sustainable development reports and others are available on the Company's website: www.arkema.com.

5.1.2 Subsidiaries and shareholdings of the Company

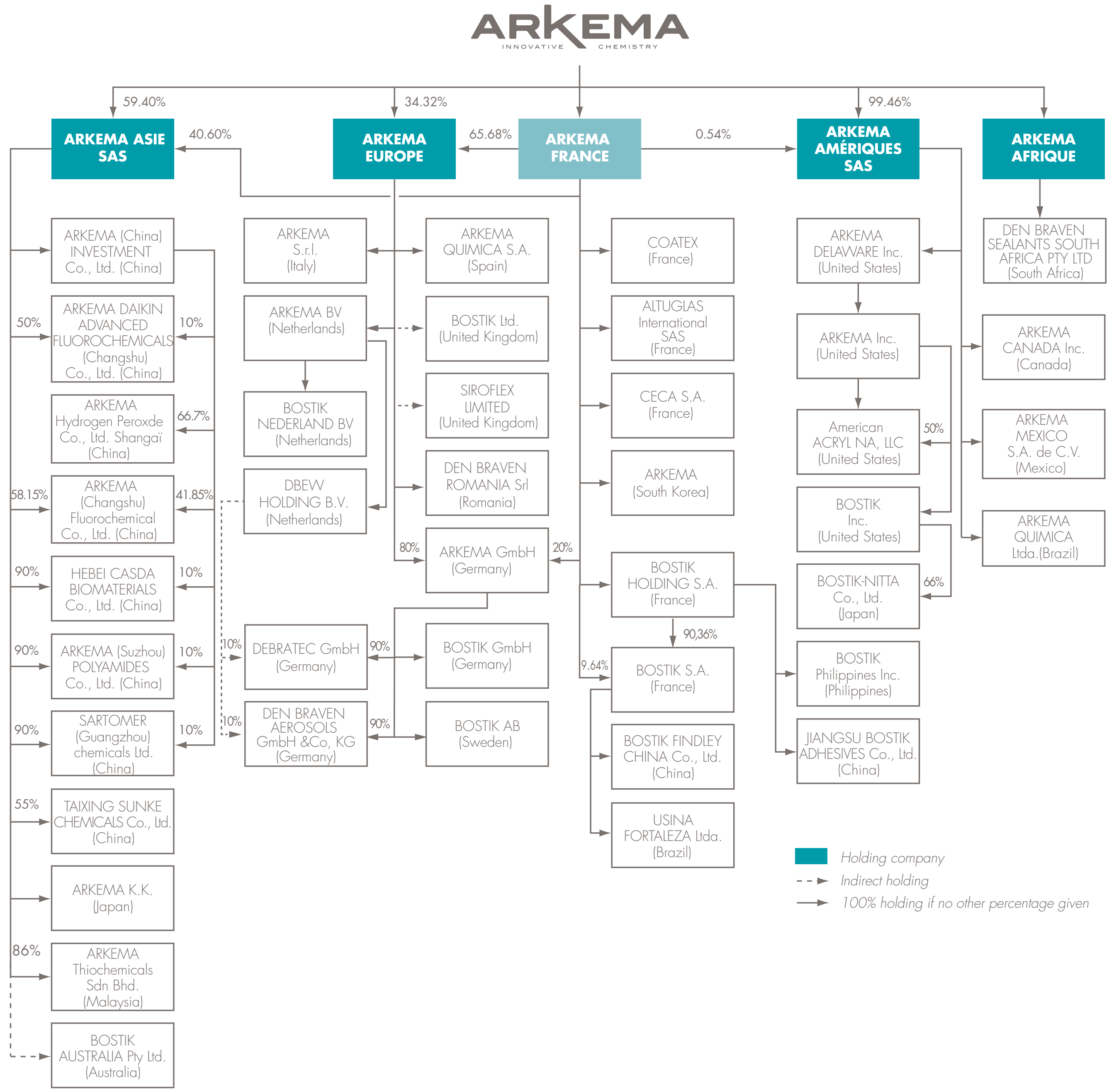
Arkema is the Group's ultimate parent company. It is also the head of the French tax group put in place between companies subject to French corporation tax.

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 – all the Group's French and foreign subsidiaries, which are grouped by region (France, America, Africa, Asia and Europe).

Arkema France is both a holding and an operating company and holds in particular all of the Group's French operational companies.

The Company's main direct and indirect subsidiaries at the date of this document are shown in the following simplified organizational chart:



A comprehensive list of all of the Group's consolidated subsidiaries and their geographical location is given in the consolidated financial statements in section 4.3.3 of this document.

Detailed information on the Company's main subsidiaries is also given in section 4.4.2 of this document.

Information on the Group's structure is given in sections 1.1 and 1.2 of this document. The results of each division are presented in chapter 4 of this document.

5.1.3 Related-party transactions

Arkema, the Group's ultimate parent company, is a holding company and provides administrative services to Group companies. The related service agreements are not material and are entered into under ordinary conditions comparable to those applicable to similar transactions with third parties.

Some of the Group's non-consolidated companies sell products or provide services to consolidated Group companies. 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 are carried out under ordinary conditions comparable to those applicable to similar transactions with third parties.

A description of related-party transactions is provided in note 27 to the consolidated financial statements in section 4.3.3 of this document and in the statutory auditors' special report on related-party agreements and commitments, which is included in chapter 6 of this document.

5.2 SHARE CAPITAL

5.2.1 Amount of share capital

At 31 December 2016, the Company's share capital was €757,179,470 divided into 75,717,947 fully paid-up shares of a single category, with a nominal value of €10 per share. There were 65,823 treasury shares. At 1 January 2016, the Company's share capital was made up of 74,472,101 shares.

In 2016, the number of shares increased by 1,245,846 of which 998,072 from the share capital increase reserved for employees and 247,774 from the exercise of the same number of stock options.

5.2.2 History of the Company's share capital over the past three years

Date	Amount of capital	Total number of shares	Nature of operation	Number of shares issued	Capital increase	Share premium
23 April 2014	€635,211,940	63,521,194	Share capital increase reserved for employees	491,502	€4,915,020	€26,634,493.38
30 June 2014	€636,968,620	63,696,862	Exercise of stock options	175,668	€1,756,680	€4,911,000.56
7 November 2014	€637,183,740	63,718,374	Exercise of stock options	21,512	€215,120	€449,335.64
15 December 2014	€728,209,980	72,820,998	Share capital increase with preferential subscription rights	9,102,624	€91,026,240	€259,424,784
31 December 2014	€728,226,950	72,822,695	Exercise of stock options	1,697	€16,970	€42,170.45
30 June 2015	€743,607,230	74,360,723	Exercise of stock options	107,140	€1,071,400	€3,103,652.13
			Payment in shares of the 2014 dividend	1,430,888	€14,308,880	€73,891,056.32
31 December 2015	€744,721,010	74,472,101	Exercise of stock options	111,378	€1,113,780	€2,414,639.94
26 April 2016	€754,701,730	75,470,173	Share capital increase reserved for employees	998,072	€9,980,720	€32,097,995.52
30 June 2016	€755,811,250	75,581,125	Exercise of stock options	110,952	€1,109,520	€3,115,639.70
31 December 2016	€757,179,470	75,717,947	Exercise of stock options	136,822	€1,368,220	€4,483,416.76

5.2.3 Pledges, guarantees, securities

At 31 December 2016, existing pledges on the Company's direct registered shares and administered registered shares respectively concerned 167 shares held by three shareholders, and 23,543 shares held by three shareholders, representing 0.03% of the share capital.

The Company has no knowledge of pledges concerning other shares of its share capital.

The shares held by the Company in its subsidiaries have not been pledged.

5.2.4 Treasury shares

At 31 December 2016, the Company directly held 65,823 treasury shares.

This section includes (i) a review of the share buyback program authorized in 2016, and (ii) the information that must be given in the description of the share buyback program in accordance with Article 241-2 of the general regulation of the French financial markets authority (*Autorité des marchés financiers* – AMF) as well as the information required under Article L. 225-211 of the French Commercial Code.

REVIEW OF SHARE BUYBACK PROGRAM AUTHORIZED ON 7 JUNE 2016 (2016 SHARE BUYBACK PROGRAM)

The annual general meeting of 7 June 2016 authorized the Board of Directors to implement a share buyback program capped at 10% of the share capital and subject to a maximum purchase price per share of €95. This authorization, which supersedes, for its unused portion, the authorization granted by the annual general meeting of 2 June 2015, was granted for an 18-month period by the annual general meeting of 7 June 2016, *i.e.*, until 6 December 2017. It is therefore still in force at the date of this document.

The maximum amount of funds to be allocated to the implementation of the share buyback program may not exceed €100 million.

At its meeting of 2 March 2016, the Board of Directors decided to implement the share buyback program, subject to the authorization of the annual general meeting of 7 June 2016.

TRANSACTIONS CARRIED OUT AS PART OF THE 2016 SHARE BUYBACK PROGRAM

At 7 June 2016, when the annual general meeting approved the 2016 share buyback program, the Company held, directly or indirectly, 5,823 treasury shares.

The following tables give a summary of the transactions carried out as part of the 2016 share buyback program:

Summary statement at 31 January 2017	
Number of shares comprising the Company's share capital at 7 June 2016	75,546,412
Number of treasury shares held directly or indirectly at 7 June 2016	5,823
Number of shares purchased between 7 June 2016 and 31 January 2017	60,000
Weighted average gross price of shares purchased *(in euros)*	68.72
Number of treasury shares at 31 January 2017	65,823
Number of shares canceled in the last 24 months	None
Book value of portfolio *(in euros)*	4,433,904.68
Market value of portfolio *(in euros)* based on closing price at 31 January 2017, *i.e.*, €91.40	6,016,222.20

Summary of transactions carried out through the program between 7 June 2016 and 31 January 2017	Aggregate gross movements		Open positions at 31 January 2017	
	Purchases	Sales/transfers	Open buying positions	Open selling positions
Number of shares	60,000	-	-	-
Average price of transaction *(in euros)*	68.72	N/A	-	-
Amounts *(in euros)*	4,123,273.20	N/A	-	-

BREAKDOWN OF THE TREASURY SHARES BY OBJECTIVE

At 31 January 2017, the Company's 65,823 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 BUYBACK PROGRAM SUBMITTED TO THE ANNUAL GENERAL MEETING OF 23 MAY 2017 (2017 SHARE BUYBACK PROGRAM)

The Board of Directors would like the Company to continue to have a share buyback program.

To this end, the Board of Directors proposes to the annual general meeting of 23 May 2017 to cancel the 8th resolution voted by the annual general meeting of 7 June 2016, for its unused portion, and to authorize the implementation of a new share buyback program in accordance with the provisions of European Council regulation no. 2273/2003 dated 22 December 2003 pertaining to the terms of application of European directive 2003/6/EC dated 28 January 2003.

In accordance with Article 241-2 of the AMF's general regulation, the following sections give a description of the share buyback program subject to the authorization of the Company's next annual general meeting.

Objectives of the 2017 share buyback program

As part of the 2017 share buyback program that is submitted to the annual general meeting of 23 May 2017, the Company is considering repurchasing its own shares for any purpose permitted by law either now or in the future, and notably for the following purposes:

- implementing market practices allowed by the AMF such as (i) purchasing shares in the Company in order to hold them and subsequently tender them in exchange or as payment as part of any potential external growth operations, it being specified that shares acquired for consideration of mergers, spin-offs or contributions may not exceed 5% of the share capital at the time of the acquisition, or (ii) purchasing or selling shares within the scope of a liquidity agreement entered into with an investment services provider and compliant with the Code of Conduct approved by the AMF, as well as (iii) any market practice subsequently permitted by the AMF or by law;
- putting in place and complying with obligations notably delivering shares upon the exercise of rights attached to negotiable securities giving access by any means, whether immediately or in the future, to shares in the Company, as well as carrying out any hedging transactions in respect of the Company's obligations (or of one of its subsidiaries) related to such negotiable securities, under the conditions provided for by the market authorities and at the times that the Board of Directors or its delegated representative deems appropriate;
- covering stock option plans granted to employees or executive officers of the Company or its Group;
- granting free shares in the Company to the employees or executive officers of the Company or its Group, notably under the conditions provided for in Articles L. 225-197-1 *et seq.* of the French Commercial Code;
- offering employees the opportunity to acquire shares, whether directly or *via* a company savings plan, under the terms provided for by law, and notably Articles L. 3332-1 *et seq.* of the French Labor Code *(Code du travail)*; and
- canceling all or part of the purchased shares in order to reduce the Company's share capital.

These objectives are unchanged from the 2016 share buyback program.

As the authorization granted to the Board of Directors by the annual general meeting of 2 June 2015 enabling the cancelation of purchased shares expires on 2 June 2017, it is proposed to the annual general meeting of 23 May 2017 to renew this authorization for a further period of 24 months (12th resolution).

Maximum portion of share capital to be repurchased and maximum number of shares that may be acquired under the 2017 share buyback program

The maximum portion of the share capital that can be repurchased under the 2017 share buyback program shall be 10% of the total number of shares making up the Company's share capital (*i.e.*, 75,735,716 shares at 31 January 2017).

In accordance with Article L. 225-210 of the French Commercial Code, the number of shares held by the Company at any given date may not be greater than 10% of the shares constituting the Company's share capital on that date.

The securities that the Company is considering acquiring are shares.

Maximum unit purchase price authorized

The maximum purchase price would be €125 per share, it being specified that this purchase price may be adjusted to account for the impact on the share price resulting from transactions such as a capitalization 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 free shares, a stock split or reverse stock split or any other transaction affecting equity.

The maximum amount of cash allocated to the 2017 share buyback program would be €125 million.

Terms and conditions for the 2017 share buyback program

The shares may be purchased or transferred at any time, except during public offerings on the Company's shares, under the conditions and within the limits, particularly as regards volume and price, permitted by law at the date of the transaction concerned, by any and all means, including on the market or over the counter, by way of block trades or by way of derivatives traded on a regulated or over-the-counter market, under the conditions permitted by the market authorities and at the times that the Board of Directors or its delegated representative deems appropriate.

Duration of the 2017 share buyback program

In accordance with the resolution to be submitted for the approval of the annual general meeting of 23 May 2017, the 2017 share buyback program would be authorized for a period of 18 months from the date of its approval, *i.e.*, until 22 November 2018.

5.2.5 Summary of authorizations and their application

At 31 December 2016, there were no securities, other than the Company's shares, giving access to the Company's share capital.

The following table gives a summary of the outstanding delegations of authority and authorizations granted by the annual general meeting to the Board of Directors, in particular to increase the share capital, as well as their application:

Type of authorization	Description	Date of annual general meeting	Duration of authorization	Maximum authorized nominal value	Use at 31 December 2016 *(unless otherwise specified)*
Capital increase	Issue shares in the Company and/or securities giving access to shares in the Company or one of its subsidiaries, **with** preferential subscription rights	7 June 2016	26 months	€372 million €750 million (debt securities)	None
Capital increase	Issue shares in the Company and/or securities giving access to shares in the Company or one of its subsidiaries, by means of a public offering, **without** preferential subscription rights	7 June 2016	26 months	10% of the Company's share capital at 7 June 2016 €750 million (debt securities)	None
Capital increase	Increase the Company's share capital, **without** preferential subscription rights, through the issue of shares and/or securities giving access to shares in the Company, *via* an offering referred to in Article L. 411-2 II of the French Monetary and Financial Code (*Code monétaire et financier*) (A)	7 June 2016	26 months	10% of the Company's share capital at 7 June 2016 €750 million (debt securities)	None

Type of authorization	Description	Date of annual general meeting	Duration of authorization	Maximum authorized nominal value	Use at 31 December 2016 *(unless otherwise specified)*
Capital increase	In the event of the issue of shares **without** preferential subscription rights, set the issue price in accordance with the terms set forth by the annual general meeting up to a maximum of 10% of the share capital over a 12-month period (B)	7 June 2016	26 months	10% of the Company's share capital at 7 June 2016	None
Capital increase	Issue shares in the Company, within the limit of 10% of the share capital, as compensation for contributions in kind (C)	7 June 2016	26 months	10% of the Company's share capital at 7 June 2016	None
Capital increase	In the event of a share capital increase with or without preferential subscription rights, increase the number of shares to be issued	7 June 2016	26 months	15% of the initial issue, subject to the cap stated in the resolution authorizing the issue	None
Capital increase	Overall limit of authorizations to increase the Company's share capital immediately and/or in the future	7 June 2016	26 months	€372 million and 10% of the Company's share capital at 7 June 2016 for authorizations (A) + (B) + (C)	None
Capital increase	Carry out share issues reserved for members of a company savings plan	7 June 2016	26 months	€12 million	None
Share buyback	Carry out a share buyback program*	7 June 2016	18 months	€95 per share €100 million (up to 10% of the share capital at any time)	Use at 31 January 2017: see section 5.2.4 of this document
Performance shares	Allocate free shares in the Company subject to performance conditions	7 June 2016	38 months	1,450,000 shares (less than 2% of the Company's share capital as at 7 June 2016)	Allocation of 357,915 shares ** (9 November 2016)
Free shares	Allocate 50,000 free shares in the Company to the Chairman and Chief Executive Officer	7 June 2016	31 December 2016	50,000 shares	Allocation of 50,000 shares (7 June 2016)
Capital reduction	Reduce share capital by canceling shares *	2 June 2015	24 months	10% of the share capital	None

* *This new authorization is detailed in chapter 6 of this document and will be submitted to the vote of the annual general meeting of 23 May 2017.*

** *This number could be increased to 391,805 in case of over performance.*

The Company's share capital at 31 December 2016, *i.e.*, €757,179,470, divided into 75,717,947 shares, could be increased by 298,892 shares from the exercise of the same number of stock options, representing a potential maximum dilution of less than 1%.

There are no other securities giving access to the Company's capital either immediately or in the future (see section 5.2.6 of this document for a description of these options).

5.2.6 Stock options and performance share plans

In order to retain executives and certain employees and to involve them more closely in the Group's future growth as well as its stock market performance, the Board of Directors put in place stock option plans and free performance share plans, subject to performance conditions.

In accordance with the applicable stock-based compensation policy, the Board of Directors ceased to grant stock options plans in 2013.

Furthermore, since 2007, as the free performance share plans in place are covered by the buyback of shares as part of the Company's share buyback program, these plans do not result in any potential dilution for shareholders.

Additional information on the stock option and performance share plans put in place by the Group is given in section 3.5 of this document as well as in note 28 to the consolidated financial statements for the year ended 31 December 2016 set out in section 4.3.3 of this document.

5.2.7 Share capital increase reserved for employees

The Board of Directors regularly reaffirms its intention to pursue a dynamic employee share ownership policy by regularly offering Group employees the opportunity to purchase Arkema shares with the following preferential terms: 20% discount, with a maximum subscription of 1,000 shares and the allocation of free shares to employees in countries outside France participating in the operation in order to make the offer more attractive.

Consequently, in accordance with the delegation of authority granted by the annual general meeting of 15 May 2014, the Board of Directors, on 2 March 2016, decided to carry out a share capital increase reserved for employees. The share capital increase took place in 26 countries in which the Group is present, from 7 to 20 March 2016 inclusive.

The subscription conditions were as follows:

- subscription price of €42.16, corresponding to the average opening price quoted in the 20 trading days preceding 2 March 2016, to which a 20% discount was applied;
- for employees of Group companies outside France, allocation of one free share for every four subscribed, up to a maximum of 25 free shares, with a vesting period of four years, *i.e.*, until 11 May 2020, with no holding period required, except in Italy and Spain where final allocation will take place after three years, *i.e.*, on 13 May 2019, with a three-year holding period;
- for employees of French companies, possibility of subscribing to the share capital increase using sums from the incentive scheme or the profit-sharing scheme, supplemented, as the case may be, by the employer; and
- possibility of spreading payment for the shares over 24 months.

The operation resulted in the issuance of 998,072 new shares on 26 April 2016, representing 1.34% of the Company's share capital.

A total of 7,430 subscriptions were recorded. The average employee participation rate reached 40% worldwide, *i.e.*, unchanged from the 2014 share capital increase, and 67% in France, *i.e.*, four points more than in 2014, when a very high rate of 63% was achieved.

The 2,205 subscriptions by employees based outside France resulted in the allocation of 41,228 free shares, subject to a specific plan, the provisions and beneficiaries of which were approved by the Company's Board of Directors at its meeting of 10 May 2016. At this same meeting, the Board also allocated 2,050 free shares to employees based in countries where the operation could not be offered, on the basis of five free shares per employee.

5.3 SHARE OWNERSHIP

5.3.1 Breakdown of share ownership and voting rights at 31 December 2016

The breakdown of the share capital was established on the basis of a total number of 75,717,947 shares at 31 December 2016, carrying 85,516,494 voting rights (including double voting rights and after deduction of treasury shares), the threshold disclosures made to the AMF or the Company, and an analysis carried out by the Company based on identifiable bearer shares (*Titres au porteur identifiable* – TPI). TPI procedures were carried out at the end of 2016, 2015 and 2014.

To the best of the Company's knowledge, the breakdown of Arkema's share ownership and voting rights at 31 December 2016 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)	6.3	11.1	11.1
Norges Bank	5.7	5.0	5.0
BlackRock Inc.	5.6	5.0	5.0
Employee ownership** (2)	5.4	9.0	9.0
Treasury shares	0.1	0	0.1
Public	76.9	69.9	69.8
TOTAL	**100**	**100**	**100**

* *Pursuant to Article 223-11 of the AMF's general regulation, the number of theoretical voting rights is calculated on the basis of all shares to which voting rights are attached.*

** *See details presented in section 5.3.4 of this chapter.*

(1) The Fonds stratégique de participations (FSP) is a member of the Board of Directors and is represented by Isabelle Boccon-Gibod (see section 3.2.1.2 of this document).

(2) To the Company's knowledge, both Arkema Actionnariat France and Arkema Actionnariat International company mutual funds (Fonds commun de placement d'entreprise – FCPE) held together 5.6% of the Company's share capital at 31 December 2016, representing 9.5% of the Company's voting rights. These funds include the shareholdings of employees of the Arkema Group (see section 5.3.4 of this chapter), Total and Kem One (a business divested in 2012).

To the Company's knowledge, based on its register and except for the pledges described in section 5.2.3 of this chapter, no share of the Company has been pledged nor used as a guarantee or a surety.

The Company has also put in place an American Depositary Receipt (ADR) program in the United States. In this regard, it has entered into a deposit agreement with Bank of New York Mellon on 18 May 2006. At 31 December 2016, 1,233,948 shares were held by Bank of New York Mellon on behalf of ADR bearers.

5.3.2 Control of the Company

At the date of this document:

- the Company is not controlled, either directly or indirectly, by any single shareholder; and
- to the Company's knowledge, there is no agreement nor pact between shareholders, the implementation of which would result in the takeover of 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 section 5.5.2 of this document.

5.3.4 Employee share ownership

According to the definition of employee share ownership under the terms of Article L. 225-102 of the French Commercial Code, the number of Arkema shares held by employees at 31 December 2016 was 4,082,965, representing 5.4% of the share capital and, taking account of double voting rights, 9.0% of voting rights. This may be broken down as follows:

Shares held by Group employees within the Arkema Actionnariat France FCPE	2,698,857
Shares held by Group employees within the Arkema Actionnariat International FCPE	317,234
Pure registered shares held within a Group savings plan	307,472
Shares arising from the exercise of stock options and held as direct registered shares within a Group savings plan	199,973
Free shares	559,429
TOTAL EMPLOYEE SHARE OWNERSHIP	**4,082,965**

5.3.5 Legal threshold disclosures in 2016

The following legal threshold disclosures were made to the AMF in 2016 and up to the date of this document:

Company	Date threshold crossed	Threshold crossed
Norges Bank	21 January 2016	dropped below the 5% share capital threshold
Norges Bank	22 January 2016	exceeded the 5% share capital threshold
Norges Bank	29 February 2016	exceeded the 5% voting rights threshold
Norges Bank	1 March 2016	dropped below the 5% voting rights threshold
Norges Bank	2 March 2016	exceeded the 5% voting rights threshold
Norges Bank	4 March 2016	dropped below the 5% voting rights threshold

Company	Date threshold crossed	Threshold crossed
Norges Bank	18 March 2016	exceeded the 5% voting rights threshold
Norges Bank	21 March 2016	dropped below the 5% voting rights threshold
Norges Bank	31 March 2016	dropped below the 5% share capital threshold
Norges Bank	1 April 2016	exceeded the 5% share capital threshold
Norges Bank	5 April 2016	dropped below the 5% share capital threshold
Norges Bank	7 April 2016	exceeded the 5% share capital threshold
Norges Bank	8 April 2016	dropped below the 5% share capital threshold
Norges Bank	11 April 2016	exceeded the 5% share capital and voting rights thresholds
Norges Bank	12 April 2016	dropped below the 5% voting rights threshold
Norges Bank	18 April 2016	dropped below the 5% share capital threshold
Norges Bank	19 April 2016	exceeded the 5% share capital threshold
Norges Bank	25 April 2016	exceeded the 5% voting rights threshold
Norges Bank	26 April 2016	dropped below the 5% voting rights threshold
Norges Bank	3 May 2016	dropped below the 5% share capital threshold
Norges Bank	6 May 2016	exceeded the 5% share capital threshold
Norges Bank	10 May 2016	dropped below the 5% share capital threshold
Norges Bank	15 June 2016	exceeded the 5% share capital threshold
Amundi Asset Management[(1)]	17 June 2016	exceeded the 5% share capital threshold
Norges Bank	25 August 2016	dropped below the 5% share capital threshold
Norges Bank	2 September 2016	exceeded the 5% share capital threshold
Norges Bank	6 September 2016	dropped below the 5% share capital threshold
Norges Bank	27 September 2016	exceeded the 5% share capital threshold
BlackRock Inc.	5 October 2016	exceeded the 5% share capital threshold
BlackRock Inc.	19 October 2016	dropped below the 5% share capital threshold
BlackRock Inc.	20 October 2016	exceeded the 5% share capital threshold
BlackRock Inc.	28 October 2016	dropped below the 5% share capital threshold
Norges Bank	31 October 2016	exceeded the 5% voting rights threshold
BlackRock Inc.	1 November 2016	exceeded the 5% share capital threshold
Norges Bank	2 November 2016	dropped below the 5% voting rights threshold
Norges Bank	4 November 2016	exceeded the 5% voting rights threshold
Norges Bank	7 November 2016	dropped below the 5% voting rights threshold
BlackRock Inc.	9 November 2016	exceeded the 5% voting rights threshold
BlackRock Inc.	11 November 2016	dropped below the 5% voting rights threshold
BlackRock Inc.	14 November 2016	exceeded the 5% voting rights threshold
Norges Bank	15 November 2016	exceeded the 5% voting rights threshold
BlackRock Inc.	16 November 2016	dropped below the 5% voting rights threshold
BlackRock Inc.	17 November 2016	exceeded the 5% voting rights threshold
Amundi Asset Management[(1)]	2 December 2016	dropped below the 5% share capital threshold
BlackRock Inc.	23 February 2017	dropped below the 5% voting rights threshold
BlackRock Inc.	24 February 2017	exceeded the 5% voting rights threshold

(1) Management company of the Arkema Actionnariat France FCPE, acting on its behalf.

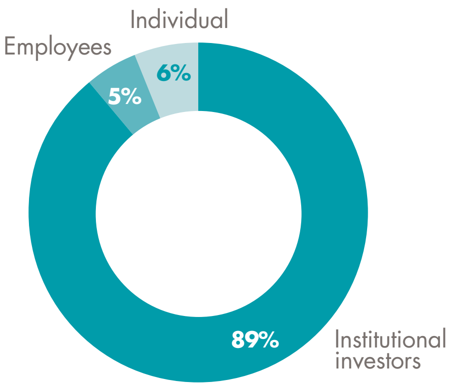
5.3.6 Breakdown of share ownership and voting rights

To the best of the Company's knowledge, Arkema's estimated share ownership at 31 December 2016, 2015 and 2014 was as follows [(1)]:

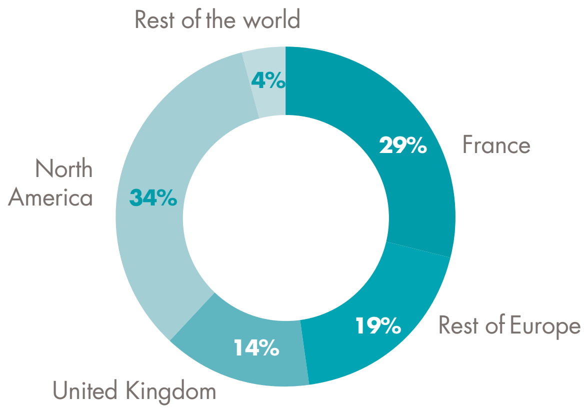
	31 December 2016		31 December 2015		31 December 2014	
	% of share capital	% of voting rights	% of share capital	% of voting rights	% of share capital	% of voting rights
Fonds Stratégique de Participations	6.3	11.1	6.4	10.5	6.5	6.2
Norges Bank	5.7	5.0	5.0	4.5	5.5	5.2
BlackRock Inc.	5.6	5.0	N/A	N/A	5.1	4.8
Other institutional shareholders	70.8	62.7	75.7	67.9	69.7	65.5
Individual shareholders	6.1	7.2	7.9	9.0	8.7	10.6
Employee share ownership	5.4	9.0	5.0	8.1	4.4	7.7
Treasury shares	0.1	0	0	0	0.1	0
TOTAL	**100**	**100**	**100**	**100**	**100**	**100**
Number of shares/voting rights	75,717,947	85,516,494	74,472,101	83,010,787	72,822,695	77,338,556

(1) Only shareholdings in excess of 5% of the share capital threshold are shown in the table above.

BY SHAREHOLDER (AT 31 DECEMBER 2016)



BY REGION (AT 31 DECEMBER 2016)



5.4 STOCK MARKET

5.4.1 Stock market information

The Arkema share is listed on Euronext Paris, compartment A. It is eligible for the Deferred Settlement Service *(Système de règlement différé)* as well as the Personal Equity Savings Plan *(Plan d'épargne en actions)*.

An ADR 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

INDEXES

The Arkema share is included in the following indexes:

- CAC Next 20;
- CAC Large 60;
- SBF 120;
- Euro Stoxx Chemicals; and
- MSCI.

ARKEMA SHARE PERFORMANCE IN 2016

Performance since 1 January 2016 (at 31 December 2016)	+43.9%
Last closing price of the year *(in euros)*	92.94
Average of last 30 closing prices *(in euros)*	91.75
Highest price of the year *(in euros)*	95.28
Lowest price of the year *(in euros)*	48.17

ARKEMA SHARE HISTORICAL DATA SINCE 1 JANUARY 2016

Month	Number of securities traded	Trading volume *(in millions of euros)*	Highest price *(in euros)*	Lowest price *(in euros)*
January 2016	6,367,384	364.29	64.00	52.93
February 2016	7,728,659	407.46	59.00	48.17
March 2016	6,698,527	421.42	66.97	56.25
April 2016	4,813,520	328.66	71.54	63.16
May 2016	5,501,083	389.24	75.00	67.02
June 2016	6,467,677	450.98	74.84	63.40
July 2016	4,117,282	296.73	76.40	65.35
August 2016	3,840,079	300.12	80.59	73.87
September 2016	5,272,917	434.70	85.10	76.30
October 2016	4,368,306	367.84	87.16	81.08
November 2016	5,483,902	477.44	91.40	80.44
December 2016	4,293,539	397.84	95.28	89.06
January 2017	4,554,758	418.21	95.62	88.00
February 2017	4,626,521	431.72	97.24	88.90

5.4.2 Financial communication

The Group regularly provides information on its activities, results and outlook to its shareholders, investors and analysts, and to the financial community at large. Group press releases, financial reports and presentations, and minutes of annual general meetings are available on the Group's 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) and on the Group's website (www.finance.arkema.com). A French version of this reference document is also available on the Group's website.

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 executive 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 hubs in Europe, North America and, since 2016, Asia. The Investor Relations team also regularly meets with the financial community. The purpose of these various meetings is to inform the market of the Group's results and main operations and improve investors and analysts' understanding of its activities, strategy and outlook.

On publication of its quarterly and half-yearly results, a conference call with the financial community is hosted by the Chairman and Chief Executive Officer or by the Chief Financial Officer. The annual results are presented at a meeting that brings together portfolio managers and financial analysts.

In 2016, the Group held some 580 meetings and took part in a number of industry conferences in Paris, Lyon, London, New York, San Francisco, Boston and Beijing.

5.4.4 Relations with individual shareholders

The Group aims to inform its individual shareholders about its strategy, results and activities, with an emphasis on open dialogue, discussion and meetings.

The Group meets with its individual shareholders on a regular basis, in particular at the annual general meeting, which is a dedicated opportunity for discussion about the Group's strategy and outlook. In 2016, the Group also participated in the Actionaria investor fair in Paris.

Additionally, through its Shareholders' Club, the Group organizes various activities throughout the year that give its members the opportunity 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 Group's 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 shareholders' register.

Advantages of registered shares include:

- double voting rights if shares are held for two years continuously (see section 5.5.2 of this chapter); and
- the possibility of directly receiving the notice of the annual general meeting.

Contact details for registered shares:

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 (outside France)

Email address:

- paris_bp2s_arkema_actionnaires@bnpparibas.com

5.4.6 Dividend policy

Dividends are a key component of the Group's shareholder return policy. Therefore, the Company aims to pay a stable to growing dividend each year.

Taking into account this policy and the Group's performance in 2016, the Board of Directors decided, at its meeting on 27 February 2017, after closing the financial statements at 31 December 2016, to propose to the annual general meeting of 23 May 2017 the payment of a cash-only dividend of €2.05 per share, 8% up on 2015.

This decision reflects the confidence of the Board of Directors in the Group's development prospects, solid cash flow generation and balance sheet.

Shares will be traded ex-dividend on 25 May 2017 and the dividend will be paid as from 29 May 2017.

	2016 (1)	2015	2014	2013	2012
Dividend per share *(in euros)* (2)	2.05	1.90	1.85	1.85	1.80
Payout ratio (dividend per share/adjusted net income per share)	37%	45%	51%	32%	25%

(1) In 2016, dividend proposed to the annual general meeting of 23 May 2017.
(2) Dividend eligible for the 40% deduction provided for in the French General Tax Code (Code général des impôts).

Since 2007, the first year in which a dividend was distributed, the dividend has increased by an average of 12% a year.

5.5 EXTRACT FROM THE ARTICLES OF ASSOCIATION

The following provisions are included in the Company's Articles of Association as of the date of this document.

5.5.1 Annual general meetings (articles 16, 17.1 and 17.2 of the Articles of Association)

CONVENING NOTICE – PLACE OF MEETING – ADMISSION

Annual general meetings are called under the conditions provided for by applicable laws and regulations.

Meetings are held at the registered office or at any other place indicated in the notice of meeting.

In compliance with current regulatory requirements, all shareholders have the right to attend annual general meetings and to participate in the deliberations or to be represented, regardless of the number of shares they own, provided that it can be proven in accordance with legal and regulatory provisions that the shares have been registered in his or her name or in that of an intermediary duly authorized on their behalf under the terms of paragraph seven of Article L. 228-1 of the French Commercial Code, within the regulatory period, either in the registered share accounts held by the Company or in the bearer securities accounts held by an authorized intermediary.

The registration or accounting entry of the shares in bearer securities accounts held by the authorized 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 annual general meeting. Electronic absentee ballots may be delivered to or received by the Company until 3:00 p.m. (CET) on the eve of the annual general meeting. The Board of Directors or Chairman, if so authorized by delegation, has the power to reduce or waive this period.

REPRESENTATION

A shareholder may be represented at annual general meetings by another shareholder, his or her spouse, civil union partner, or by any other person or legal entity under the terms provided for in Articles L. 225-106 *et seq.* of the French Commercial Code.

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 must 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 by delegation, the Chairman, 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 no later than 3:00 p.m. (CET) on the eve of the annual general meeting. The Board of Directors, or by delegation, the Chairman, has the power to reduce or waive this period.

USE OF TELECOMMUNICATIONS

The Board of Directors has the power to decide that shareholders who take part in the annual general meeting by video conference 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, shall be deemed present for the purposes of calculating the quorum and majority.

CHAIRMAN OF THE ANNUAL GENERAL MEETING

Annual general meetings are chaired by the Chairman of the Board of Directors or, in his or her 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

Annual general meetings, whether they are ordinary, extraordinary, combined or special, are duly constituted when they meet the quorum and majority conditions provided for by applicable laws and regulations governing such meetings, and exercise the powers ascribed to them by the law.

5.5.2 Voting rights (articles 17.3 and 17.4 of the Articles of Association)

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 two years, under the conditions applicable by law and by regulations.

Furthermore, in the event of a capital increase by capitalization 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 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 an inter vivos gift to a spouse or close relative does not result in the loss of rights acquired nor interrupt the qualifying period indicated above.

LIMITATION ON VOTING RIGHTS (ARTICLE 17.4 OF THE ARTICLES OF ASSOCIATION)

In an annual 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 double voting rights personally or as a proxy, 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 annual general meeting and the shareholders are notified thereof at the beginning of the annual general meeting;
- the number of voting rights held directly or indirectly means those that are attached to shares held by an individual, either personally or jointly, or by a company, group, association or foundation, and those that are attached to shares held by a company that is controlled within the meaning of Article L. 233-3 of the French Commercial Code, by another company or by an individual, 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 an annual general meeting who is voting by virtue of all such proxies combined.

The limitations provided in the foregoing paragraphs have no impact on the calculation of the total number of voting rights, including double voting rights, which are attached to the Company's shares and which must be taken into account when 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 an individual or a legal entity, acting separately or in concert with one or more individuals 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 recognizes that the limitations have lapsed, and carries out the related formalities to amend the Articles of Association.

5.5.3 Appropriation of earnings (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:

1. 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;
2. 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 annual 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 for by applicable laws and regulations.

The annual 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 annual 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 holder the right of ownership of a portion of the Company's assets, profits and winding-up dividends *(boni de liquidation)*, determined proportionately to the shareholding it represents.

Ownership of a share entails compliance with the Articles of Association of the Company and with all resolutions approved by the Company's shareholders at annual general meetings.

Any changes to the rights attached to the shares are subject to legal provisions.

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, unless stipulated otherwise by legal or regulatory provisions.

The shares are freely negotiable. They are registered in an account and may be transferred from one account to another, in accordance with 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 annual general meetings.

For the purposes of identifying the holders of shares in bearer form, the Company has the right, under the conditions provided for by 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 annual 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 for by Article 226-13 of the French Criminal Code *(Code pénal)*.

Under the conditions specified by 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 held by 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 with regard to his own role, the owners of the securities, or 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 annual 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 five 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 Thresholds (article 8.2 of the Articles of Association)

In addition to the legal obligation to inform the Company of any shareholdings or voting rights that they may hold, any individual or legal entity acting alone or in concert that has come into possession, within the meaning of Articles L. 233-9 and L. 233-10 of the French Commercial Code, either directly or indirectly, of a percentage of the share capital or voting rights equal to or greater than 1%, is required to inform the Company, by registered mail with return receipt, of the total number of shares, voting rights and rights giving future access to the Company's capital, as well as the voting rights attached thereto, whether they are held alone or in concert, directly or indirectly, within five stock market trading days starting on the date on which it crossed 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 make the threshold disclosures 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 annual 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

6

6.1 STATUTORY AUDITORS' SPECIAL REPORT ON RELATED-PARTY AGREEMENTS AND COMMITMENTS AFR **314**

6.2 PROPOSED AGENDA AND PROPOSED RESOLUTIONS SUBMITTED TO THE ANNUAL GENERAL MEETING AFR **316**

6.2.1 Proposed agenda for the annual general meeting of 23 May 2017 316

6.2.2 Proposed resolutions submitted to the annual general meeting of 23 May 2017 316

6.3 BOARD OF DIRECTORS' REPORT ON THE RESOLUTIONS SUBMITTED TO THE ANNUAL GENERAL MEETING OF 23 MAY 2017 AFR **320**

6.4 STATUTORY AUDITORS' REPORT ON THE AUTHORIZATION TO REDUCE THE SHARE CAPITAL BY CANCELING SHARES AFR **323**

The different parts constituting the annual financial report are identified in the table of contents by the pictogram AFR

6.1 STATUTORY AUDITORS' SPECIAL REPORT ON RELATED-PARTY AGREEMENTS AND COMMITMENTS

This is a free translation into English of a report issued in the French language and is provided solely for the convenience of English speaking readers. 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.

Tour EQHO
2, avenue Gambetta
CS 60055
92066 Paris-La Défense Cedex

Statutory auditors
Member of the "Compagnie régionale de Versailles"

ERNST & YOUNG Audit

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92400 Courbevoie – Paris-La Défense 1
S.A.S. à capital variable

Statutory auditors
Member of the "Compagnie régionale de Versailles"

Arkema S.A.

Registered office: 420, rue d'Estienne d'Orves - 92700 Colombes

Share capital: €757,179,470

Special report by the statutory auditors on regulated agreements and commitments

Year ended 31 December 2016

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 December 2016, 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

Agreements and commitments authorized in the year ended 31 December 2016

We inform you that we were not advised of any agreement or commitment authorized in the year ended 31 December 2016 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

Agreements and commitments authorized in the year ended 31 December 2016

In accordance with article R. 225-30 of the French Commercial Code, we were advised of the continuation of the following commitment in the year ended 31 December 2016, already approved by the annual general meeting on the 7th June 2016, based on the special report by the statutory auditors dated 11 March 2016, which did not result in effective implementation in the year ended 31 December 2016.

With Mr Thierry Le Hénaff, Chairman and Chief Executive Officer of your Company

Your Board of Directors decided, during his meeting on 2 March 2016, to renew the commitment related to the indemnity granted to Thierry Le Hénaff in the event of non-voluntary early termination of contract. In accordance with article L.225.42.1 of the French Commercial Code, this commitment was submitted to the approval of the general meeting on 7 June 2016.

The Chairman and Chief Executive Officer would be entitled to compensation for loss of office only if he were forced to step down as a result of a change of control of the Company or a change of strategy decided by the Board of Directors, and in particular if he was asked to step down as Chairman and Chief Executive Officer during or at the end of his term as Director, except in the event of serious or gross misconduct.

The compensation for loss of office would not exceed twice his total annual gross fixed and variable compensation. The calculation base would correspond to the fixed annual compensation for the year in which he was forced to step down and the average of the last two years of variable compensation paid prior to his departure.

The amount of this compensation will be calculated on the modalities presented in our special report dated 11 March 2016. It gradually decreases as follows in the event of departure beyond 60 years old:

- 18 months of total annual gross compensation (fixed and variable) in the event of departure beyond 60 years old; and
- 12 months of total annual gross compensation (fixed and variable) in the event of departure beyond 62 years old and 6 months.

No indemnity will be granted in the event of departure after 65 years old.

Paris-La Défense, 27 February 2017

The statutory auditors

French original signed by

KPMG Audit *Département de KPMG S.A.*		ERNST & YOUNG Audit
Bertrand Desbarrières *Partner*	François Quédiniac *Partner*	Denis Thibon *Partner*

6.2 PROPOSED AGENDA AND PROPOSED RESOLUTIONS SUBMITTED TO THE ANNUAL GENERAL MEETING

6.2.1 Proposed agenda for the annual general meeting of 23 May 2017

RESOLUTIONS SUBMITTED TO THE ORDINARY GENERAL MEETING

- Approval of the Company's financial statements for the year ended 31 December 2016.
- Approval of the consolidated financial statements for the year ended 31 December 2016.
- Allocation of profit for the year ended 31 December 2016 and distribution of dividends.
- Statutory auditors' special report on related-party agreements and commitments referred to in articles L. 225-38 *et seq.* of the French Commercial Code *(Code de commerce)*.
- Ratification of the appointment of Marie-José Donsion as a member of the Board of Directors.
- Re-election of Marc Pandraud as a member of the Board of Directors.
- Re-election of Thierry Morin as a member of the Board of Directors.
- Appointment of Yannick Assouad as a new member of the Board of Directors.
- Approval of the principles and criteria for setting, allocating and awarding fixed, variable and exceptional components of the total compensation and benefits of any kind to be awarded to the Chairman and Chief Executive Officer.
- Consultation of shareholders on the components of compensation due or awarded in 2016 to the Chairman and Chief Executive Officer.
- Authorization granted to the Board of Directors to carry out a share buyback program.

RESOLUTIONS SUBMITTED TO THE EXTRAORDINARY GENERAL MEETING

- Authorization granted to the Board of Directors to reduce share capital by canceling shares.
- Powers to carry out formalities.

6.2.2 Proposed resolutions submitted to the annual general meeting of 23 May 2017

RESOLUTIONS SUBMITTED TO THE ORDINARY GENERAL MEETING

First resolution

(Approval of the Company's financial statements for the year ended 31 December 2016)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having considered the Company's financial statements for the year ended 31 December 2016, the Board of Directors' management report and the statutory auditors' reports, approves said financial statements as well as the transactions reflected therein and described in said reports.

In accordance with the provisions of article 223 *quater* of the French Tax Code *(Code général des impôts)*, the annual general meeting formally notes that no expenses or charges referred to in article 39–4 of said Code were incurred during the past financial year.

Second resolution

(Approval of the consolidated financial statements for the year ended 31 December 2016)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having considered the consolidated financial statements for the year ended 31 December 2016, the Board of Directors' Group management report and the statutory auditors' report on the consolidated financial statements, approves said financial statements as well as the transactions reflected therein and described in said reports.

Third resolution

(Allocation of profit for the year ended 31 December 2016 and distribution of dividends)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having noted that the Company's financial statements for the year ended 31 December 2016 show a profit of €767,143,826.77 decides, as recommended by the Board of Directors, to allocate the profit for the financial year as follows:

Profit for the period	€767,143,826.77
Prior retained earnings	€652,986,388.95
Allocation to legal reserve	€1,245,846.00
Distributable profit	€1,418,884,369.72
Dividend distribution (1)	€155,221,791.35

(1) The total dividend distribution is calculated on the basis of the number of shares carrying dividend rights as of 1 January 2016 and existing on the date of the Board of Directors' meeting adopting the proposed resolution and therefore granting dividend rights. The total may vary if the number of shares carrying dividend rights changes up to the ex-dividend date depending, for example, on the number of treasury shares held by the Company.

Accordingly, the annual general meeting decides to pay a dividend of €155,221,791.35 with regard to the 75,717,947 shares carrying dividend rights on 1 January 2016 and existing on the date of the Board of Directors' meeting adopting the proposed resolutions, corresponding to a distribution of two euros and five cents (€2.05) per share, it being specified that full powers are granted to the Board of Directors to set the definitive total amount of the dividend, the balance of distributable income and consequently the amount to be allocated to "retained earnings".

The shares will be traded ex-dividend as of 25 May 2017 and the dividend for the 2016 financial year will be paid as of 29 May 2017.

The dividend is eligible for the 40% tax relief available to individual shareholders domiciled for tax purposes in France as provided for in article 158.3-2° of the French Tax Code.

The dividend paid for the last three financial years was as follows:

Financial year	2014	2015	2016
Net dividend per share *(in euros)*	1.85 (2)	1.90 (2)	2.05 (2)

(2) Eligible in full for 40% tax relief available to individual shareholders domiciled for tax purposes in France as provided for in article 158.3-2° of the French Tax Code.

Fourth resolution

(Approval of the statutory auditors' special report on related-party agreements and commitments referred to in articles L. 225-38 et seq. of the French Commercial Code)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having considered the statutory auditors' special report provided for in article L. 225-40 of the French Commercial Code, in which no new agreement is identified, duly notes the information relating to the agreements entered into and the commitments made during the 2016 financial year and prior financial years and approved by the annual general meeting.

Fifth resolution

(Ratification of the appointment of Marie-José Donsion as a member of the Board of Directors)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having considered the Board of Directors' report, ratifies the appointment, decided on a provisional basis by the Board of Directors on 9 November 2016, of Marie-José Donsion as director, in place of Claire Pedini who resigned, for the remainder of the term of her office, *i.e.*, until the close of the annual general meeting to be held in 2018 to approve the financial statements for the year ending 31 December 2017.

Sixth resolution

(Re-election of Marc Pandraud as a member of the Board of Directors)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having considered the Board of Directors' report and noting that the term of office as director of Marc Pandraud expires on the date of this meeting, decides to re-elect him for a term of four (4) years expiring at the close of the annual general meeting to be held in 2021 to approve the financial statements for the year ending 31 December 2020.

Seventh resolution

(Re-election of Thierry Morin as a member of the Board of Directors)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having considered the Board of Directors' report and noting that the term of office as director of Thierry Morin expires on the date of this meeting, decides to re-elect him for a term of four (4) years expiring at the close of the annual general meeting to be held in 2021 to approve the financial statements for the year ending 31 December 2020.

Eighth resolution

(Appointment of Yannick Assouad as a member of the Board of Directors)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having considered the Board of Directors' report, decides to appoint Yannick Assouad as director for a term of four (4) years expiring at the close of the annual general meeting to be held in 2021 to approve the financial statements for the year ending 31 December 2020.

Ninth resolution

(Approval of the principles and criteria for setting, allocating and awarding fixed, variable and exceptional components of the total compensation and benefits of any kind to be awarded to the Chairman and Chief Executive Officer)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings pursuant to article L. 225-37-2 of the French Commercial Code, and having considered the Board of Directors' special report attached to the report provided for under articles L. 225-100 and L. 225-102 of the French Commercial Code, approves the principles and criteria for setting, allocating and awarding fixed, variable and exceptional components of the total compensation and benefits of any kind to be awarded, in the exercise of his term of office, to the Chairman and Chief Executive Officer.

Tenth resolution

(Consultation of shareholders on the components of compensation due or awarded in 2016 to the Chairman and Chief Executive Officer)

The annual general meeting, consulted in accordance with the recommendations of article 26 of the AFEP-MEDEF Corporate Governance Code (the Company's reference code pursuant to article L. 225-37 of the French Commercial Code), and voting in accordance with the quorum and majority requirements for ordinary general meetings, after considering the Board of Directors' report, votes in favor of the components of compensation due or awarded to Thierry Le Hénaff, Chairman and Chief Executive Officer, for the year ended 31 December 2016, as set out in said report.

Eleventh resolution

(Authorization granted to the Board of Directors to carry out a share buyback program for a period of 18 months)

The annual general meeting, voting in accordance with the quorum and majority requirements for ordinary general meetings, and having considered the Board of Directors' report, authorizes the Board of Directors, or any person duly authorized to act on its behalf, to purchase or arrange for the purchase of shares in the Company in accordance with articles L. 225-209 *et seq.* of the French Commercial Code, European Commission regulation no. 2273/2003 dated 22 December 2003 and Title IV of Book II of the general regulation of the French financial markets authority (*Autorité des marchés financiers* – AMF). The number of shares that may be held by the Company under this authorization at any given date may not be greater than 10% of the share capital. The 10% limit applies to the number of the Company's shares, which may be adjusted as necessary to take into account transactions that affect the share capital occurring after the present annual general meeting. The authorization is given under the following conditions:

(i) the maximum purchase price is €125 per share.

However, the Board of Directors may adjust the purchase price to account for the impact on the share price of transactions such as a capitalization of share premiums, reserves or earnings giving rise either to an increase in the par value of the shares or the issuance and award of free shares, a stock split or reverse stock split, or any other transaction affecting shareholders' equity;

(ii) the maximum amount that may be dedicated to this share buyback program will be €125 million;

(iii) under no circumstances can the Company hold, directly or indirectly, more than 10% of its share capital as a result of the purchases made pursuant to this authorization;

(iv) the shares redeemed and held by the Company shall have no voting or dividend rights;

(v) such shares may be purchased or transferred at any time, except from the date of a takeover bid until the end of the offer period, under the conditions and within the limits, particularly as regards volume and price, permitted by law at the date of the transaction in question, by any and all means, including on the market or over the counter, by way of block trades or by way of derivative financial instruments or warrants traded on a regulated or over-the-counter market, under the conditions permitted by the market authorities and at the times the Board of Directors or its delegated representative deems appropriate.

The annual general meeting decides that these share purchases can be made for any purpose permitted by law either now or in the future, and notably for the following purposes:

(i) implementing market practices allowed by the AMF such as (a) purchasing shares in the Company in order to hold them and subsequently tender them in exchange or as payment as part 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) purchasing or selling shares within the scope of a liquidity agreement entered into with an investment services provider and compliant with the Code of Conduct approved by the AMF, as well as (c) any market practice subsequently permitted by the AMF or by law;

(ii) putting in place and complying with obligations and in particular delivering shares upon the exercise of rights attached to securities giving immediate or future access by any means to shares in the Company, as well as carrying out any hedging transactions in respect of the Company's obligations regarding such securities, in accordance with the conditions provided for by the market authorities and at the times the Board of Directors or its delegated representative deems appropriate;

(iii) covering stock option plans granted to employees or executive officers of the Company or its Group;

(iv) granting free shares in the Company 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;

(v) offering employees the opportunity to acquire shares, whether directly or *via* a company savings plan *(Plan d'épargne entreprise)* under the terms provided for by law, and notably articles L. 3332-1 *et seq.* of the French Labor Code *(Code du travail)*; and

(vi) canceling all or part of the purchased shares in order to reduce the Company's share capital.

The annual general meeting grants full powers to the Board of Directors, with the possibility to sub-delegate such powers under the conditions set by law, to ensure the implementation of this authorization, and in particular to set the terms and conditions thereof, carry out the share buyback program and notably place all stock market orders, enter into any agreements, prepare and amend any documents, in particular information documents, carry out all formalities, including assigning or reassigning the purchased shares to the various purposes pursued, make all declarations to the AMF and any other bodies and, in general, do whatever may be necessary.

The annual general meeting decides that this authorization is granted for a period of eighteen (18) months from the date of this annual general meeting. It renders ineffective the unused portion of any prior authorization granted for the same purpose and in particular that given by the annual general meeting of 7 June 2016 in its 8th resolution.

RESOLUTIONS SUBMITTED TO THE EXTRAORDINARY GENERAL MEETING

Twelfth resolution

(Authorization granted to the Board of Directors to reduce the share capital by canceling shares for a period of 24 months)

The annual general meeting, voting in accordance with the quorum and majority requirements for extraordinary general meetings, and after considering the Board of Directors' report and the statutory auditors' special report, in accordance with the provisions of articles L. 225-209 *et seq.* of the French Commercial Code:

- authorizes the Board of Directors to reduce the share capital, on one or more occasions, in proportions and at periods that it deems appropriate, by the cancellation of any number of treasury shares up to a maximum of 10% of the Company's share capital per twenty-four (24) month period. The 10% limit applies to the number of the Company's shares which may be adjusted as necessary to take into account transactions that affect the share capital occurring after the present annual general meeting;
- decides that the difference between the purchase price of the canceled shares and their par value will be allocated to the "share premium" account or to any other available reserve account, including the legal reserve, within the limit of 10% of the reduction in share capital; and
- grants full powers to the Board of Directors, with the possibility to sub-delegate such powers under the conditions set by law, to carry out the reduction of the share capital resulting from the cancellation of shares and the above-mentioned allocation, and accordingly amend the Company's Articles of Association and carry out any necessary formalities.

This authorization is granted for a period of 24 months from the date of this meeting and renders ineffective any prior authorization granted for the same purpose.

Thirteenth resolution

(Powers to carry out formalities)

The annual general meeting grants full powers to the bearer of an original, a copy or an excerpt of the minutes of this annual general meeting for the purposes of performing all filing, publicity or other formalities that may be required.

6.3 BOARD OF DIRECTORS' REPORT ON THE RESOLUTIONS SUBMITTED TO THE ANNUAL GENERAL MEETING OF 23 MAY 2017

The Board of Directors proposes to submit the resolutions described below to the vote of the shareholders at the annual general meeting of 23 May 2017.

RESOLUTIONS SUBMITTED TO THE ORDINARY GENERAL MEETING

Approval of the annual financial statements (1st and 2nd resolutions)

The purpose of the **1st and 2nd resolutions** is to approve the Company's financial statements and the Group's consolidated financial statements for the year ended 31 December 2016, respectively.

In the 1st resolution, the Board recommends that you approve the Company's financial statements for the year ended 31 December 2016 as presented in the Board of Directors' management report, as well as all the transactions reflected or described therein. You are also asked to acknowledge that no expenses or charges referred to in article 39-4 of the French Tax Code were incurred during the past financial year. In the 2nd resolution, in accordance with the provisions of article L. 225-100 of the French Commercial Code, the Board recommends that you approve the consolidated financial statements for the year ended 31 December 2016, as well as all the transactions reflected or described therein.

Allocation of profit and distribution of dividends (3rd resolution)

The purpose of the **3rd resolution** is to decide the allocation of the Company's net profit for the year ended 31 December 2016 of €767,143,826.77, as presented in the Company's financial statements. The Board of Directors recommends that the profit be allocated as follows:

Profit for the period	€767,143,826.77
Prior retained earnings	€652,986,388.95
Allocation to legal reserve	€1,245,846
Distributable profit	€1,418,884,369.72
Dividend distribution (1)	€155,221,791.35

(1) The total dividend distribution is calculated on the basis of the number of shares carrying dividend rights as of 1 January 2016 and existing on the date of the Board of Directors' meeting adopting the proposed resolution and therefore granting dividend rights. The total may vary if the number of shares carrying dividend rights changes up to the ex-dividend date depending, for example, on the number of treasury shares held by the Company.

The payment of the dividend of €155,221,791.35 with regard to the 75,717,947 shares carrying dividend rights on 1 January 2016 and existing on the date of the Board of Directors' meeting adopting the proposed resolutions, would correspond to a distribution of two euros and five cents (€2.05) per share.

The shares would be traded ex-dividend as of 25 May 2017 and the dividend for the 2016 financial year would be paid as of 29 May 2017.

The dividend would be eligible for the 40% tax relief available to individual shareholders domiciled for tax purposes in France as provided for in article 158.3-2° of the French Tax Code.

The dividend paid for the last three financial years was as follows:

Financial year	2014	2015	2016
Net dividend per share *(in euros)*	1.85 (2)	1.90 (2)	2.05 (2)

(2) Eligible in full for 40% tax relief available to individual shareholders domiciled for tax purposes in France as provided for in article 158.3-2° of the French Tax Code.

The distribution of this two euros and five cents (€2.05) per share dividend would represent a 8% increase compared with 2016 and would reaffirm the importance of dividends as a key component of the Group's shareholder return policy. The recommendation takes into account the Company's performance in 2016 and reflects the Board of Directors' confidence in the Group's development prospects and in its solid cash flow generation and balance sheet.

Approval of the agreements and commitments referred to in articles L. 225-38 *et seq.* of the French Commercial Code (4th resolution)

In accordance with the law, the Board of Directors performed its annual review of agreements entered into and authorized during previous years, and which were implemented in the year ended 31 December 2016. It noted that (i) the only commitment agreed in 2016 and already approved by the annual general meeting is the commitment related to the early termination of the Chairman and Chief Executive Officer's term of office, and (ii) no new agreement or commitment that had not already received the approval of the annual general meeting was entered into during the 2016 financial year. In the **4th resolution**, the shareholders are invited to duly note the information relating to the agreements entered into and the commitments made during the 2016 financial year and prior financial years and approved by the annual general meeting, as set out in the statutory auditors' special report in section 6.1 of this document.

Composition of the Board of Directors: ratification, re-election and appointment (5th to 8th resolutions)

At its meeting of 27 February 2017, the Board of Directors noted that the terms of office as directors of Bernard Kasriel, Thierry Morin, Marc Pandraud and Philippe Vassor were due to expire at the close of the annual general meeting of 23 May 2017.

The Board of Directors would like to extend its warmest thanks to Bernard Kasriel and Philippe Vassor for their support during the different steps in the Group's transformation and their active contribution to the work of the Board of Directors, as well as the Nominating, Compensation and Corporate Governance Committee and the Audit and Accounts Committee, respectively, since the Company's stock market listing.

The Board of Directors also reminds shareholders of the appointment, decided on a provisional basis by the Board of Directors on 9 November 2016, of Marie-José Donsion as director and member of the Audit and Accounts Committee, in place of Claire Pedini who resigned.

Consequently, in the **5th to 8th resolutions**, the Board of Directors, on the recommendation of the Nominating, Compensation and Corporate Governance Committee, recommends the following ratification, re-elections and appointment.

Ratification of the appointment of Marie-José Donsion as a member of the Board of Directors (5th resolution)

In the **5th resolution**, the Board of Directors recommends that you ratify the appointment of Marie-José Donsion as director for the remainder of the term of office of Claire Pedini, *i.e.*, until the close of the annual general meeting to be held in 2018 to approve the financial statements for the year ending 31 December 2017.

Marie-José Donsion is an independent director and a member of the Audit and Accounts Committee. Ratification of her appointment would allow the Board of Directors to benefit from her experience as a chief financial officer and member of the Executive Committee of a major listed industrial group.

Marie-José Donsion attended all the meetings of the Board of Directors and of the Audit and Accounts Committee held since she was appointed.

Subject to the ratification of her appointment by the annual general meeting, the Board of Directors, on the recommendation of the Nominating, Compensation and Corporate Governance Committee, has decided to appoint Marie-José Donsion as Chairman of the Audit and Accounts Committee to replace Philippe Vassor, whose term of office expires at the close of this annual general meeting.

Marie-José Donsion's education and professional experience are set out in section 3.2.1.3 of this document.

Re-election of Marc Pandraud and Thierry Morin as members of the Board of Directors (6th and 7th resolutions)

In the **6th and 7th resolutions**, the Board of Directors recommends that you re-elect Marc Pandraud and Thierry Morin as directors for a term of four years expiring at the close of the annual general meeting to be held in 2021 to approve the financial statements for the year ending 31 December 2020.

Marc Pandraud is an independent director. In 2016, Marc Pandraud attended all the meetings of the Board of Directors.

Thierry Morin is an independent director and Chairman of the Nominating, Compensation and Corporate Governance Committee. In 2016, Thierry Morin attended seven of the eight meetings of the Board of Directors held, and all of the meetings of the Nominating, Compensation and Corporate Governance Committee.

These re-elections would allow the Board of Directors to further benefit from their experience as high level executives in the industry and banking sectors and their knowledge of Arkema and its major priorities.

The education and professional experience of Marc Pandraud and Thierry Morin are set out in section 3.2.1.3 of this document.

Appointment of Yannick Assouad as a member of the Board of Directors (8th resolution)

In the **8th resolution**, the Board of Directors recommends that you appoint Yannick Assouad as a director for a term of four years expiring at the close of the annual general meeting to be held in 2021 to approve the financial statements for the year ending 31 December 2020.

Yannick Assouad will be qualified as an independent director. Her appointment would allow the Board of Directors to benefit from her long-standing experience as an executive as well as her industrial expertise acquired during her career in the aeronautics sector.

Born in 1959, Yannick Assouad is a graduate of the *Institut national des sciences appliquées* of Lyon (France) and holds a PhD in aeronautical engineering from the Illinois Institute of Technology (ITT) in the United-States. She is Chief Executive Officer of Latécoère group.

She started her career in 1986 with Thomson-CSF (now Thalès) where she was head of the thermal and mechanical analysis group until 1998. She served then successively as Technical Director and then as Chief Executive Officer of SECAN, subsidiary of Honeywell Aerospace before being appointed as Chairman. In 2003, she joined Zodiac Aerospace, as Chief Executive Officer of Intertechnique Services, a post she held until 2008. Appointed to Zodiac Aerospace's Executive Committee that same year, she was selected to create the group's Services business segment, which she headed until 2010, when she was appointed Chief Executive Officer of its Aircraft Systems segment. In May 2015, she was appointed Chief Executive Officer of Zodiac Aerospace's newest segment, Zodiac Cabin. She has been appointed Chief Executive Officer of Latécoère group in November 2016.

Yannick Assouad is an independent director of the Board of Directors of Vinci.

At the close of the annual general meeting, five of the twelve members of the Board of Directors would thereby be women, *i.e.* 45% (excluding the director representing employees).

Approval of the principles and criteria for setting, allocating and awarding fixed, variable and exceptional components of the total compensation and benefits of any kind to be awarded to the Chairman and Chief Executive Officer (9th resolution)

In the **9th resolution**, and in accordance with article L. 225-37-2 of the French Commercial Code, the Board of Directors recommends that you approve the principles and criteria for setting, allocating and awarding fixed, variable and exceptional components of the total compensation and benefits of any kind to be awarded, in the exercise of his term of office, to the Chairman and Chief Executive Officer as defined by the Board of Directors on recommendation by the Nominating, Compensation and Corporate Governance Committee and presented in the Board of Directors' special report attached to the report provided for under article L. 225-100 of the said Code.

The components of the compensation of the Chairman and Chief Executive Officer and the related allocation criteria are determined at each renewal of his term of office, for the full term of office, by the Board of Directors on recommendation by the Nominating, Compensation and Corporate Governance Committee, which is mainly comprised of independent directors, in accordance with the recommendations of the AFEP-MEDEF Code. They were determined accordingly at the Board of Directors' meeting on 2 March 2016, subject to his reappointment as Chairman and Chief Executive Officer by the annual general meeting of 7 June 2016, and presented during the annual general meeting as part of the submission to shareholder approval of the re-election of Thierry Le Hénaff as a director. The compensation principles and criteria are set out in detail in section 3.4.2.1 of this document.

Consultation of shareholders on the components of compensation due or awarded to each of the Company's executive officer for the year ended 31 December 2016 (10th resolution)

In accordance with the recommendations of article 26 of the AFEP-MEDEF Code (the Company's reference code pursuant to article L. 225-37 of the French Commercial Code), the purpose of the **10th resolution** is to submit the components of compensation due or awarded to each of the Company's executive officer for the past financial year to the consultation of shareholders.

Accordingly, the Board of Directors recommends that you vote in favor of the components of compensation due or awarded for the year ended 31 December 2016 to Thierry Le Hénaff, Chairman and Chief Executive Officer, and only executive officer of the Company. These components are set out in detail in section 3.4.2.2 of this document.

Share buyback (11th resolution)

In 2016, the Company acquired 100,617 shares in the Company under the authorization to trade in the Company's shares granted by the 8th resolution of the annual general meeting of 7 June 2016. The shares were purchased to cover employee free share plans and ensure that performance shares could be awarded without a dilutive effect on share capital.

As the authorization granted to the Board of Directors by the annual general meeting of 7 June 2016 to carry out a share buyback program is due to expire shortly, in the **11th resolution**, the Board of Directors proposes that you renew its authorization to purchase or arrange for the purchase of shares in the Company at any time for a period of 18 months, **except from the date of a takeover bid until the end of the offer period**, at a maximum price of **€125** per share. The maximum amount that may be dedicated to this share buyback program would be €125 million.

This authorization would enable the Board of Directors to acquire a number of shares **up to a maximum of 10% of the Company's share capital**.

These share purchases could be made for any purpose permitted by law, and would primarily be allocated for the purpose of covering the Company's employee performance share plans.

This new authorization would render ineffective, from the date of this annual general meeting, any unused portion of the authorization granted in the 8th resolution of the annual general meeting of 7 June 2016.

Details of share buyback programs in progress or planned can be found in section 5.2.4 of this document.

RESOLUTIONS SUBMITTED TO THE EXTRAORDINARY GENERAL MEETING

Authorization granted to the Board of Directors to reduce share capital by canceling shares (12th resolution)

The Board of Directors recommends, in the **12th resolution**, that you renew the authorization granted by the annual general meeting of 2 June 2015, in accordance with the provisions of articles L. 225-209 *et seq.* of the French Commercial Code, to reduce the share capital, on one or more occasions, by canceling all or a part of the shares acquired under the share buyback authorization granted in the 11th resolution, up to a maximum of 10% of the Company's share capital for a period of 24 months.

The Board of Directors recommends that you grant it full powers, with the possibility to sub-delegate such powers under the conditions set by law, to carry out the reduction of the share capital resulting from the cancellation of shares and the above-mentioned allocation, and accordingly amend the Company's Articles of Association and carry out any necessary formalities.

The Board of Directors recommends that this authorization should be granted for a period of twenty-four (24) months from the date of the annual general meeting. This new authorization would render ineffective, from the date of this annual general meeting, the prior authorization granted for the same purpose.

Powers to carry out formalities

In the **13th resolution**, the Board of Directors recommends that you grant full powers to the bearer of a copy or an excerpt of the minutes of this annual general meeting for the purpose of performing all formalities that may be required.

This report contains the main provisions of the proposed resolutions. We thank you for considering issuing a favorable vote on these proposed resolutions.

The Board of Directors

6.4 STATUTORY AUDITORS' REPORT ON THE AUTHORIZATION TO REDUCE THE SHARE CAPITAL BY CANCELING SHARES

This is a free translation into English of a report issued in French and it is provided solely for the convenience of English-speaking users.

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.***	**ERNST & YOUNG Audit**
Tour EQHO 2, avenue Gambetta 92066 Paris-La Défense Cedex	1/2, place des Saisons 92400 Courbevoie – Paris-La Défense 1 S.A.S. à capital variable
Statutory auditors Member of the "Compagnie régionale de Versailles"	Statutory auditors Member of the "Compagnie régionale de Versailles"

Arkema

Extraordinary shareholders' meeting of 23 May 2017

Twelfth resolution

Statutory auditors' report on the reduction in capital

To the Shareholders,

In our capacity as statutory auditors of your company and in compliance with article L. 225-209 of the French Commercial Code *(Code de commerce)* in respect of the reduction in capital by the cancellation of repurchased shares, we hereby report on our assessment of the terms and conditions for the proposed reduction in capital.

Your Board of Directors requests that it be authorized, for a period of twenty—four months starting on the date the present shareholders' meeting, to proceed with the cancellation of shares the Company was authorized to repurchase, representing an amount not exceeding 10% of its total share capital, by periods of twenty-four months, by, in compliance with the article mentioned above.

We have performed those procedures which we considered necessary in accordance with 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 that the terms and conditions for the proposed reduction in capital, which should not compromise equality among the shareholders, are fair.

We have no matters to report as to the terms and conditions of the proposed reduction in capital.

Paris-La Défense, 27 February 2017

The statutory auditors

French original signed by

KPMG Audit ***Département de KPMG S.A.***		**ERNST & YOUNG Audit**
Bertrand Desbarrières *Partner*	François Quédiniac *Partner*	Denis Thibon *Partner*

INFORMATION ABOUT THE REFERENCE DOCUMENT

7

7.1 PERSON RESPONSIBLE FOR THE REFERENCE DOCUMENT AND PERSONS RESPONSIBLE FOR AUDITING THE FINANCIAL STATEMENTS **326**

7.1.1 Person responsible for the reference document 326

7.1.2 Declaration by the person responsible for the reference document AFR 326

7.1.3 Persons responsible for auditing the financial statements 327

7.2 PERSON RESPONSIBLE FOR THE INFORMATION **327**

7.3 CONCORDANCE AND CROSS-REFERENCE TABLES **328**

7.3.1 Concordance table 328

7.3.2 Cross-reference table 332

The different parts constituting the annual financial report are identified in the table of contents by the pictogram AFR

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 of Arkema.

7.1.2 Declaration by the person responsible for the reference document

"I hereby declare, having taken all reasonable care to ensure that such is the case, that the information in this reference document is, to the best of my knowledge, in accordance with the facts and contains no omission likely to affect its import.

I further declare that, to the best of my knowledge, (i) the financial statements have been prepared in accordance with the applicable accounting standards and give a true and fair view of the assets, liabilities, financial position and results of the Company and all of the companies included in the scope of consolidation, and (ii) the management report, consisting of the sections of this reference document listed in the cross-reference table on pages 332 and 333 of this reference document, includes a fair review of the development of the business, the results and the financial position of the Company and all of the companies included in the scope of consolidation as well as a description of the main risks and uncertainties to which they are exposed.

I have obtained a statement from the statutory auditors, KPMG Audit and Ernst & Young Audit, confirming that they have completed their work and verified information relating to the financial position and the financial statements contained in this reference document and that they have read the document in its entirety. Their statement does not contain any observations regarding this reference document".

Colombes, 30 March 2017

Thierry Le Hénaff

Chairman and Chief Executive Officer

7.1.3 Persons responsible for auditing the financial statements

Statutory auditor	Statutory auditor
KPMG Audit Department of KPMG S.A.	**Ernst & Young Audit**
Represented by Bertrand Desbarrières and François Quédiniac	Represented by Denis Thibon
Tour EQHO, 2 avenue Gambetta, CS 60055, 92066 Paris La Défense Cedex – France	1/2 place des Saisons, 92400 Courbevoie – Paris La Défense 1 – France
Appointed at the annual general meeting of 15 May 2014. Current term expires following the annual general meeting to be held to approve the financial statements for the year ending 31 December 2019.	Appointed at the annual general meeting of 23 May 2012. Current term expires following the annual general meeting to be held to approve the financial statements for the year ending 31 December 2017.

Substitute statutory auditor	Substitute statutory auditor
KPMG Audit IS	**AUDITEX**
2 rue Gambetta, 92400 Courbevoie – France	1/2 place des Saisons 92400 Courbevoie – Paris La Défense 1 – France
Appointed at the annual general meeting of 15 May 2014. Current term expires following the annual general meeting to be held to approve the financial statements for the year ending 31 December 2019.	Appointed at the annual general meeting of 23 May 2012. Current term expires following the annual general meeting to be held to approve the financial statements for the year ending 31 December 2017.

7.2 PERSON RESPONSIBLE FOR THE INFORMATION

Questions concerning the Group and its activities should be addressed to:

Sophie Fouillat, Vice-President, Investor Relations

Arkema

420, rue d'Estienne d'Orves

92700 Colombes – France

Telephone: +33 (0)1 49 00 74 63

7.3 CONCORDANCE AND CROSS-REFERENCE TABLES

7.3.1 Concordance table

Information required under Annex I of EC regulation No. 809/2004 of 29 April 2004		Reference document	
No.	**Heading**	**Reference**	**Page(s)**
1.	**Persons responsible**	**Chapter 7**	**325**
1.1.	Persons responsible for the information in the reference document	7.1.1	326
1.2.	Declaration by persons responsible for the reference document	7.1.2	326
2.	**Statutory auditors**	**7.1.3**	**327**
2.1.	Names and addresses of the Company's statutory auditors	7.1.3	327
2.2.	Statutory auditors resigned, removed or not reappointed during the period covered by the reference document	None	
3.	**Selected financial information**	**1.8**	**67**
3.1.	Selected historical financial information	1.8	67
3.2.	Selected financial information for interim periods	None	
4.	**Risk factors**	**1.7**	**46-66**
5.	**Information about the Company**	**5.1.1**	**292**
5.1.	The Company's history and development	5.1.1	292
5.1.1.	The Company's legal and commercial name	5.1.1	292
5.1.2.	Place of registration and registration number	5.1.1	292
5.1.3.	Date of incorporation and length of life of the Company	5.1.1	292
5.1.4.	Registered office and legal form of the Company, legislation governing its activities, country of incorporation, address and telephone number	5.1.1	292
5.1.5.	Important events in the development of the Company's business	5.1.1	292
5.2.	Capital expenditure	1.3	32
5.2.1.	The Company's main capital expenditure projects for each financial year for the period covered by the historical financial information up to the date of the reference document	1.3.1	32
5.2.2.	Main capital expenditure projects in progress	1.3.2	33
5.2.3.	Information on the Company's main future capital expenditure projects to which its management bodies are already firmly committed	1.3.3	33
6.	**Business overview**	**Chapter 1**	**13-68**
6.1.	Principal activities	1.1 and 1.2	14, 20
6.1.1.	Nature of operations and principal activities	1.1 and 1.2	14, 20
6.1.2.	Significant new products or services introduced onto the market	1.2 and 1.4	20, 34
6.2.	Principal markets	1.1 and 1.2	14, 20
6.3.	Exceptional factors influencing principal activities and principal markets	None	
6.4.	Dependence on patents and licenses, industrial, commercial or financial contracts or new manufacturing processes	1.4.3, 1.7.2.2, 1.7.2.3 and 1.7.2.4	36, 54, 56, 59
6.5.	Basis for any statements made by the Company regarding its competitive position	1.2	20

Information required under Annex I of EC regulation No. 809/2004 of 29 April 2004		Reference document	
No.	**Heading**	**Reference**	**Page(s)**
7.	**Organizational structure**	**5.1.2**	**293**
7.1.	Description of the Group and the Company's position within the Group	5.1.2	293
7.2.	List of the Company's significant subsidiaries	4.3.3 and 5.1.2	267, 293
8.	**Property, plant and equipment**		
8.1.	Existing or planned material property, plant and equipment	1.3.4	33
8.2.	Environmental issues that may affect the Company's use of property, plant and equipment	2.4	87
9.	**Operating and financial review**	**4.1**	**194-204**
9.1.	Financial position, changes in financial position and operating results during each financial year and interim period for which historical financial information is required	4.1	194
9.2.	Operating results	4.1.5	196
9.2.1.	Significant factors, including unusual or infrequent events or new developments, that materially affect the Company's operating income	4.1.1, 4.1.2, 4.1.3 and 4.1.4	194, 195
9.2.2.	Reasons for material changes in net sales or revenue	4.1.4, 4.1.5, and 4.1.6	195, 196, 198
9.2.3.	Governmental, political, economic, financial and monetary policies or factors that have materially affected, or could materially affect, directly or indirectly, the Company's operations	4.1.1, 4.1.2, and 4.1.3	194, 195
10.	**Capital resources**	**4.1.8**	**201-202**
10.1.	Information on the Company's capital resources (short and long term)	4.1.8 and 4.1.9	201, 203
10.2.	Source, amounts and description of the Company's cash flows	4.1.9	203
10.3.	Information on the Company's borrowing terms and funding structure	4.1.8.1	201
10.4.	Information on any restrictions on the use of capital resources that have materially affected, or could materially affect, directly or indirectly, the Company's operations	4.1.8.2	202
10.5.	Information on anticipated sources of funds required to honor principal future investments and significant property, plant and equipment expenses	4.1.8.3	202
11.	**Research and development, patents and licenses**	**1.4**	**34**
12.	**Trend information**	**4.2**	**205-206**
12.1.	Principal trends in production, sales, inventory, costs and selling prices from the end of the last financial year up to the date of the reference document	4.2.1	205
12.2.	Known trends, uncertainties, demands, commitments or events that could materially affect the Company's outlook for at least the current financial year	4.2	205
13.	**Profit forecasts or estimates**	**None**	
14.	**Administrative, management and supervisory bodies and executive management**	**3.2**	**151**
14.1.	Names, business addresses, functions and main activities outside the issuing company of (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 (*société en commandite par actions*); (c) founders, if the company has been established for fewer than five years; and (d) any member of executive management who is relevant to establishing that the issuing company has the appropriate expertise and experience for the management of the issuer's business. The nature of any family ties between any of those persons. In the case of each member of the administrative, management or supervisory bodies and 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 five years; (b) any convictions for fraud for at least the previous five years; (c) details of any bankruptcies, receiverships or liquidations for at least the previous five years; (d) details of any offense or official public sanction of such person by statutory or regulatory authorities and whether such person has ever been prohibited by a court of law from serving as a member of the administrative, management or supervisory bodies of an issuer or from participating in the management or governance of any issuer's business for at least the previous five years.	3.2.1.2	153
14.2.	Conflicts of interest, commitments related to appointments, restrictions on the transfer of holdings in the Company's share capital	3.2.1.1 and 3.2.3	151, 162

Information required under Annex I of EC regulation No. 809/2004 of 29 April 2004		Reference document	
No.	**Heading**	**Reference**	**Page(s)**
15.	**Compensation and benefits**	**3.4**	**171-183**
15.1.	Compensation paid and benefits in kind granted by the Company and its subsidiaries	3.4	171
15.2.	Total amounts set aside or accrued by the Company or its subsidiaries to provide pension, retirement or similar benefits	3.4.1, 3.4.2, 3.4.3 and note 19 to the consolidated financial statements	171, 173, 182, 242
16.	**Operating procedures of administrative and management bodies**		
16.1.	Expiration date of the current term of office and the period during which the person has served	3.2.1.2	153
16.2.	Members of the administrative, management or supervisory bodies' service contracts with the Company or its subsidiaries, providing for benefits upon termination or an appropriate negative statement	3.2.3.4	163
16.3.	Information on the Company's audit committee and compensation committee	3.3.4.1 and 3.3.4.2	168, 170
16.4.	Statement of compliance with the corporate governance regime in force in France	3.1	150
17.	**Employees**	**2.6**	**104-123**
17.1.	Number of employees at the end of each period covered by the historical financial information and breakdown of employees by main activity and location	2.6.2.1	105
17.2.	Shareholdings and stock options	2.6.2.5 and 5.2.6	116, 300
17.3.	Arrangements for involving employees in the capital of the Company	2.6.2.5 and 5.2.7	116, 300
18.	**Major shareholders**	**5.3**	**301-304**
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 Company'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	301
18.2.	Different voting rights or an appropriate negative statement	5.3.3	302
18.3.	Direct or indirect ownership or control over the Company	5.3.2	301
18.4.	Any arrangements, known to the Company, the operation of which may at a subsequent date result in a change in its control	5.3.2	301
19.	**Related-party transactions**	**5.1.3**	**294**
20.	**Financial information concerning the Company's assets and liabilities, financial position and profits and losses**	**4.3 and 4.4**	**207, 271**
20.1.	Historical financial information	4.3.2 and 4.4.2	209, 273
20.2.	*Pro forma* financial information	None	
20.3.	Financial statements	4.3.2 and 4.4.2	209, 273
20.4.	Auditing of historical annual financial information	4.3.1 and 4.4.1	207, 271
20.4.1.	Statement that the historical financial information has been audited	4.3.1 and 4.4.1	207, 271
20.4.2.	Other information in the reference document audited by the statutory auditors	None	
20.4.3.	Source of unaudited financial data in the reference document not extracted from the Company's audited financial statements	None	
20.5.	Date of the latest audited financial information	4.3.2 and 4.4.2	209, 273

Information required under Annex I of EC regulation No. 809/2004 of 29 April 2004		Reference document	
No.	**Heading**	**Reference**	**Page(s)**
20.6.	Interim and other financial information	None	
20.6.1.	Quarterly or half-yearly financial information published since the last financial statements and, where appropriate, the audit or review report	None	
20.6.2.	Interim audited or unaudited financial information, 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	None	
20.7.	Dividend policy	5.4.6	308
20.7.1.	Dividend per share	5.4.6	308
20.8.	Legal and arbitration proceedings	1.7.2.4 and note 21.2 to the consolidated financial statements	59, 250
20.9.	Significant change in the financial or trading position	None	
21.	**Additional information**	**Chapter 5**	**291-312**
21.1.	Share capital	5.2.1	294
21.1.1.	The amount of issued capital, the number of shares authorized, 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 outstanding shares at the beginning and end of the year	5.2.1	294
21.1.2.	The number and main characteristics of any shares not representing capital	None	
21.1.3.	The number, book value and par value of shares held by the Company, on behalf of the Company or by subsidiaries of the Company	5.2.4	296
21.1.4.	Convertible securities, exchangeable securities or securities with warrants	5.2.6	300
21.1.5.	Information about and terms of any acquisition rights or obligations over authorized but unissued capital or an undertaking to increase the capital	None	
21.1.6.	Information about the capital of any member of the Group which is under option or agreed conditionally or unconditionally to be put under option	None	
21.1.7.	History of share capital for the period covered by the historical financial information	5.2.2	295
21.2.	Memorandum and Articles of Association	5.1.1 and 5.5	292, 309
21.2.1.	Company purpose	5.1.1	292
21.2.2.	Provisions of the Company's Memorandum, Articles of Association, charter or bylaws concerning the members of administrative, management and supervisory bodies	3.2 and 3.3	151, 163
21.2.3.	Rights, preferential rights and restrictions attaching to each class of existing shares	5.5.4	311
21.2.4.	Action necessary to change shareholder rights	5.5.2	310
21.2.5.	Conditions, including conditions of admission, governing the manner in which annual general meetings and extraordinary general meetings are called	5.5.1	309
21.2.6.	Provisions of the Company's Memorandum, Articles of Association, charter or bylaws that would have an effect of delaying, deferring or preventing a change in control	5.5.2	310
21.2.7.	Provisions of the Company's Memorandum, Articles of Association, charter or bylaws governing the ownership threshold above which shareholdings must be disclosed	5.5.6 and 5.5.7	311, 312
21.2.8.	Conditions imposed by the Company's Memorandum, Articles of Association, charter or bylaws governing changes in the capital, where such conditions are stricter than is required by law	None	
22.	**Material contracts**	**1.5**	**41**
23.	**Third-party information, statements by experts and declarations of interest**	**None**	
24.	**Documents on display**	**5.1.1**	**292**
25.	**Information on investments**	**4.3.2, 4.4.2 and 5.1.2**	**209, 273 293**

7.3.2 Cross-reference table

This reference document includes all the items of the Company and Group management report as required by Articles L. 225-100 *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 contains all the information of the annual financial report referred to in Article L. 451-1-2 of the French Monetary and Financial Code *(Code monétaire et financier)* and Article 222-3 of the AMF general regulations (II).

In order to facilitate the reading of the management report and the annual financial report mentioned above, the following cross-reference table has been prepared to identify the sections constituting these reports.

Additionally, in accordance with AMF recommendation No. 2010-13, the cross-reference table helps to identify corporate social responsibility data required pursuant to Articles R. 225-105 and R. 225-105-1 of the French Commercial Code (III). The cross-reference table also helps to identify the required information in the Chairman of the Board of Directors' report pursuant to Article L. 225-37 of the French Commercial Code as approved by the Board of Directors on 27 February 2017 (IV).

Finally, the cross-reference table also lists the other documents and reports prepared by the Board of Directors, notably the Board of Directors' report drawn up pursuant to Article L. 225-37-2 of the French Commercial Code, as well as reports by the statutory auditors (V).

No.	Information	Reference
I	**MANAGEMENT REPORT**	
1	Position and activity of the Company and, where applicable, its subsidiaries and companies under its control, over the past financial year	1.2 and 1.3
2	Results of operations of the Company, its subsidiaries and companies under its control	4.1.5
3	Key financial performance indicators	1.8
4	Review of the business, results of operations and financial position (notably debt)	4.1 and 4.2
5	Progress achieved or difficulties encountered	4.2.1
6	Description of main risks and uncertainties (including the Company's exposure to financial and market risks)	1.7.2
7	Notes on the use of financial instruments and the Company's financial and market risk management policies and objectives	1.7.2.5
8	Significant events that have occurred since the end of the reporting period	Note 32 to the consolidated financial statements
9	Planned development and outlook of the Company	4.2
10	Research and development activities	1.4
11	Existing branches	Not applicable
12	List of positions held and duties performed by each executive director in all companies during the reporting period	3.2.1.2
13	Review of employee profit sharing and of stock options and free shares granted to employees	5.3.4
14	Total compensation and benefits in kind paid to each executive director during the reporting period [(1)]	3.4.1, 3.4.2, and 3.4.3
15	Commitments of any kind entered into by the Company in favor of its executive directors, corresponding to items of compensation, indemnities or benefits due or expected to be due as a result of the commencement, termination or change of duties or due post-termination, in particular pension commitments and other lifetime advantages	3.4.1, 3.4.2 and 3.4.3
16	Transactions by executives on the Company's securities	3.4.4
17	Information on the manner in which the Company takes into account the social and environmental impact of its operations	See III of cross-reference table

No.	Information	Reference
18	Corporate social and environmental responsibility and societal commitments in favor of sustainable development, the circular economy, the fight against food waste, anti-discrimination and the promotion of diversity	See III of cross-reference table
19	Collective bargaining agreements signed within the Company and their impact on its economic performance and on employee working conditions	2.6.4
20	Shareholdings in companies with registered offices 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 Note D to the consolidated financial statements
21	Transfer or disposal of shares undertaken to regularize cross shareholdings	Not applicable
22	Individual 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 general shareholders' meetings	5.3.1, 5.3.2, 5.3.5 and 5.3.6
23	Agreements signed between an executive or a significant shareholder and a Company subsidiary	Not applicable
24	Injunctions or fines for antitrust practices	1.7.2.4 and note 21.2.2 to the consolidated financial statements
25	Factors likely to have an impact 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 exercise of voting rights and share transfers, clauses of agreements brought to the Company's attention, pursuant to Article L. 233-11 of the French Commercial Code	5.5.2
	Direct or indirect shareholdings in the Company's share capital, of which it is aware under Articles L. 233-7 and L. 233-12 of the French Commercial Code	5.3.1, 5.3.2, and 5.3.4
	List and description of bearers of securities with special controlling rights	Not applicable
	Control mechanisms in place for an employee shareholding scheme where controlling rights are not exercised by the employees	Not applicable
	Agreements between shareholders of which the Company is aware and which can entail restrictions on the exercise of voting rights and share transfers	Not applicable
	Rules applicable to the appointment and replacement of members of the Board of Directors, and to amendments to the Company's Articles of Association	3.2.1.1, 3.2.3 and 3.3.2.2
	Powers of the Board of Directors, in particular regarding share issuance and buyback	3.3.1, 3.3.2.1, 5.2.4 and 5.2.5
	Company agreements which are amended or lapse in the event of a change of control [(2)]	1.5.4 and note 30.2 to the consolidated financial statements [(3)]
	Compensation agreements for members of the Board of Directors or employees who resign or are made redundant without any real or serious reason or as a result of a public offering	3.4.2.1 and 3.4.2.2
26	Company's management structure (only in the event of amendments)	Not applicable
27	Calculation and results of adjustment of conversion bases or of exercising of securities giving access to capital and stock subscription and purchase options	3.5.2 and 5.2.6
28	Information on share buyback programs	5.2.4
29	Summary table showing the authorizations to increase the share capital currently in force	5.2.5
30	Five-year financial summary	4.4.4
31	Dividends paid during the last three financial years and dividends eligible for the 40% tax rebate	5.4.6
32	Loans of less than two years granted by the Company, outside the scope of its main business activities, to micro-enterprises, SMEs or intermediate-sized enterprises and justified by the economic relations it has with the entities	Not applicable
33	Information on non-tax-deductible sumptuary expenses (Article 223 *quater* of the French General Tax Code [*Code général des impôts*])	None (see 6.2.2)
34	Details of trade payables (Article D. 441-4 of the French Commercial Code)	Note D8 to the annual financial statements

No.	Information	Reference
II	**ANNUAL FINANCIAL REPORT**	
1	Company financial statements	4.4.2 and 4.4.3
2	Consolidated financial statements	4.3.2 and 4.3.3
3	Statutory auditors' report on the parent company financial statements	4.4.1
4	Statutory auditors' report on the consolidated financial statements	4.3.1
5	Management report including, at minimum, the information mentioned in Articles L. 225-100, L. 225-100-2, L. 225-100-3 and L. 225-211 paragraph 2 of the French Commercial Code	See I of this cross-reference table, and in particular sections no. 4, 5, 7, 8, 15, 17, 20 and 21
6	Declarations by persons responsible for the annual financial report	7.1.2
7	Statutory auditors' fees	Note 31 to the consolidated financial statements
8	Report by the Chairman of the Board of Directors on the conditions of preparation and organization of the work performed by the Board, and on the internal control procedures implemented by the Company	See IV of this cross-reference table
9	Statutory auditors' report prepared in accordance with Article L. 225-235 of the French Commercial Code	3.6
III	**CONCORDANCE TABLE FOR SOCIAL AND ENVIRONMENTAL INFORMATION**	
1	**Key environmental and social indicators**	**2.1, 2.4, 2.6 and 2.8**
2	**Social information**	
	Employment	
	• Total headcount and breakdown by gender, age and region	2.6.2.1
	• New hires and departures	2.6.2.2
	• Compensation and changes in compensation	2.6.2.5
	Work organization (I)	
	• Organization of working time	2.6.2.3
	Employee relations	
	• Organization of social dialogue, particularly employee information, consultation and negotiation procedures	2.6.4.1
	• Collective bargaining agreements	2.6.4.3
	Health and safety (I)	
	• Occupational health and safety	2.3.2.4
	• Bargaining agreements signed with trade unions and employee representatives concerning occupational health and safety	2.3.2.4
	Training	
	• Training policies	2.6.3.1 and 2.6.3.2
	• Total number of training hours	2.6.3.1
	Equal treatment	
	• Measures to promote the employment and integration of people with disabilities	2.6.5.3
	• Measures to promote gender equality	2.6.5.2
	• Anti-discrimination policy	2.6.2.2, 2.7.3, and 2.7.4
	Work organization (II)	
	• Absenteeism	2.6.2.4
	Health and safety (II)	
	• Occupational injuries, particularly frequency and severity, and occupational illness	2.3.2.1 and 2.3.2.2
	Promotion and compliance with the provisions of the core conventions of the International Labour Organization regarding	
	• Freedom of association and the right to collective bargaining	2.7.3
	• Elimination of employment and occupation discrimination	2.7.3
	• Elimination of forced or compulsory labor	2.7.3
	• Abolition of child labor	2.7.3

No.	Information	Reference
3	**Environmental information**	
	Overall environmental policy (I)	
	• Organization of the Company to address environmental concerns, and, where applicable, environmental assessment or certification procedures	2.1 and 2.4.1
	• Initiatives taken to train and raise awareness among employees on environmental protection	2.4.1 and 2.6.3.2
	• Resources used to prevent environmental risks and pollution	2.4.1
	Pollution	
	• Measures to prevent, reduce or rectify emissions into air, water and soil that have a serious impact on the environment	2.4.4
	• Consideration of noise pollution and any other form of pollution specific to an activity	2.4.4.4
	Circular economy	
	• Waste prevention and management (measures to prevent, recycle, reuse, recover in other ways and eliminate waste; actions to prevent food waste)	2.4.4.3 and 2.7.4
	• Sustainable use of resources (water consumption and water supply according to local constraints; consumption of raw materials and measures taken to improve their efficient use; energy consumption, measures taken to improve energy efficiency and use of renewable energy sources)	2.4.2
	Climate change	
	• Significant emissions of greenhouse gases generated by the Company's operations	2.4.4.1
	Protection of biodiversity	
	• Measures to protect or develop biodiversity	2.4.3.2
	Overall environmental policy (II)	
	• Amount of provisions and guarantees for environmental risks	2.4.3.1 and note 20.3 to the consolidated financial statements
	Sustainable use of resources (II)	
	• Land use	2.4.3.1
	Climate change (II)	
	• Adaptation to the consequences of climate change	2.4.4.1
	Information on the technological accident risk prevention policy, 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 can be held liable	1.7.2.3 and 2.3.3
4	**Information on societal commitments to promote sustainable development**	
	Regional, economic and social impact of the Company's activities	
	• On employment and regional development	2.7.5
	• On local communities	2.7.5
	Relations with the people and organizations interested in the Company's activities, in particular job placement organizations, educational establishments, environmental associations, consumer associations and local communities	
	• Dialogue with stakeholders	2.7.6
	• Partnerships and sponsorship initiatives	2.7.6
	Subcontracting and suppliers (I)	
	• Consideration of social and environmental issues in the procurement policy	2.7.4
	Subcontracting and suppliers (II)	
	• Scale of subcontracting and consideration of social and environmental responsibilities of suppliers and subcontractors	2.7.4
	Fair practices	
	• Steps taken to prevent corruption	2.7.3
	• Steps taken to promote consumer health and safety	2.3.5
	• Steps taken to protect and promote human rights	2.7.3

No.	Information	Reference
IV	**REPORT BY THE CHAIRMAN ON THE BOARD OF DIRECTORS' WORK AND INTERNAL CONTROL PROCEDURES**	
1	Composition of the Board of Directors and gender balance	3.2.1.1 and 3.2.1.2
2	Conditions for the preparation and organization of the work of the Board of Directors	3.3.2, 3.3.3, and 3.3.4
3	Internal control and risk management procedures put in place by the Company, in particular those relating to the preparation and treatment of accounting and financial information for the parent company 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 refers to a corporate governance code drawn up by business organizations: provisions that were disregarded and the reasons, as well as how the code may be consulted	3.1
6	Where applicable, the reasons for the Company disregarding all the provisions of a corporate governance code and rules respected in addition to the legal requirements	Not applicable
7	Specific conditions for shareholder participation in general shareholders' 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 kind awarded to executive directors	3.4
9	Mention of the publication of information required under Article L. 225-100-3 of the French Commercial Code	See I.25 of this cross-reference table
V	**OTHER DOCUMENTS**	
1	Statutory auditors' report prepared in accordance with Article L. 225-235 of the French Commercial Code	3.6
2	Special report of the statutory auditors on related-party agreements and commitments	6.1
3	Proposed agenda for the annual general meeting of 23 May 2017	6.2.1
4	Proposed resolutions submitted to the annual general meeting of 23 May 2017	6.2.2
5	Board of Directors' report to the annual general meeting of 23 May 2017	6.3
6	Board of Directors' report as provided for under the 9th resolution submitted to the annual general meeting of 23 May 2017 (pursuant to Article L. 225-37-2 of the French Commercial Code)	3.4.2.1
7	Declaration that the social and environmental information required in the management report in respect of legal and regulatory commitments has been properly disclosed	2.8.5
8	Statutory auditors' report on the authorization to reduce the share capital through cancellation of shares	6.4

(1) This includes compensation and employee benefits granted by the Company and its subsidiaries, including in the form of allocation of share capital, debt securities, or securities giving access to the Company's share capital. 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 in which they have been established.

(2) Except if this disclosure, other than where required by law, would have a significant negative impact on the Company's interests.

(3) The material contracts will need to be reviewed to establish whether or not they include clauses on change of control.

GLOSSARY

Term	Definition
Absolute indicator	An indicator expressed in absolute value (in tonnes of emissions, in million cubic meters or terawatt-hours of consumption).
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.*, with the ability to retain molecules of a gas or substance in solution or suspension on the surface of a solid).
Adsorption	The retention of molecules of a gas or substance in solution or suspension on the surface of a solid.
AIMS	Arkema Integrated Management System, an audit system that includes the Group's own requirements as well as those featured in standards endorsed by the Group, such as ISO 9001, ISO 14001 and OHSAS 18001. In order to obtain external certifications, AIMS audits are conducted by mixed teams made up of Group auditors and auditors from a third-party accreditation body.
Amine	A compound obtained by substituting monovalent hydrocarbon radicals for one of the hydrogen atoms of ammonia.
ARECS	South Korea's Act on the Registration and Evaluation of Chemical Substances, Article 15 of which sets out the registration process for chemical substances.
BREF CWW	Best available techniques REFerence document – Common Waste Water.
Carbon nanotube	Cylindrical structure consisting of coils of one to several dozen graphite planes, with a diameter ranging from 10 to 100 nanometers, and a few microns in length.
CEFIC	The European Chemical Industry Council.
Chloromethane	A molecule obtained by substituting one atom of chlorine for one of the hydrogen atoms of methane and notably used in the manufacture of fluorinated derivatives and silicone.
CO_2	Carbon dioxide.
COD	Chemical oxygen demand, a parameter for measuring water pollution by organic materials, the decomposition of which consumes oxygen.
Copolyamide	A polyamide obtained from two or more types of monomer.
CoRAP	The European Union's Community Rolling Action Plan, part of REACH.
Crosslinking	The process by which transverse bonds are created to change a linear polymer into a tridimensional polymer.
Debottlenecking	A modification made to an industrial facility in order to increase production capacity.
Diatomites	Unicellular micro-organisms used in their fossil state (diatomites) by the chemical industry for their filter aid properties.
DMAEA	Dimethylaminoethyl acrylate.
DMDS	Dimethyldisulfide.
EC regulation 1107/2009	Regulation (EC) No. 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the authorization, commercialization, use and control of plant protection products within the European Community.
ECHA	The European Chemicals Agency, which is responsible for overseeing the REACH system.
EDA	Copolymers and terpolymers made from ethylene and acrylic esters.
EFPI (Environmental Footprint Performance Indicator)	The relative indicator used by the Group to offset the impact of changes in production scope or volume and to monitor changes in its environmental performance with respect to the Group's 2025 targets compared with 2012.

Term	Definition
Elastic Bonding	Elastomeric adhesive technology used primarily in hardwood flooring, transportation, assembly and flexible packaging applications.
Emulsions	Binders for paints, adhesives and varnishes produced by polymerization of monomers (acrylic, vinyl and other) and forming a stable dispersion in water of polymer particles which, coated and dried, form a continuous film.
Functional polyolefins	Ethylene-derived polymers used as binding agents in multilayer food packaging and in industrial applications.
GHG	Greenhouse gas.
GHS	The Globally Harmonized System of Classification and Labeling of Chemicals, a major United Nations initiative designed to replace the various chemical classification and labeling standards used in different countries with a global system based on consistent criteria.
GWP (Global Warming Potential)	An index measuring the impact of a given mass of gas in terms of contribution to global warming, expressed in relation to carbon dioxide.
H_2S	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 chlorofluorocarbons (CFCs), following the introduction of the Montreal Protocol.
Hot melt PSA (Pressure Sensitive Adhesives)	Pressure sensitive hot melts.
Hot melts	Thermoplastic adhesives.
HPV	High Production Volume, an international ICCA program designed to deliver globally-harmonized data sets and initial hazard assessments for around 1,000 chemical substances.
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	The International Council of Chemical Associations.
Impact modifiers	Additives introduced into certain products, in particular PVC, to make them more impact-resistant.
Incentive scheme in France	A scheme set up to complement the profit-sharing plans required under French law in all of the Group's companies in France. It gives all employees a share of Group profits and provides incentives to meet certain performance objectives that promote the Group's growth. Schemes vary from subsidiary to subsidiary but most are based on the same principles. Incentives consist of (i) a bonus based on economic results, and (ii) a performance bonus defined by each facility in line with its specific objectives.
Initiators	Products used to initiate chemical reactions.
Intensive indicator	An indicator of intensity relative to production volumes.
Interface agents	Products used in the formulation of additives.
IRT	*Institut de recherche technologique*, a French technological research institute.
ISO 14001	An international standard that defines the criteria for introducing an environmental management system in companies.
Kyoto Protocol	An international agreement, entered into by 84 countries on 11 December 1997 in Kyoto (Japan), which was intended to supplement the May 1992 United Nations Framework Convention on Climate Change (UNFCCC). The Kyoto Protocol entered into effect on 16 February 2005.
Latex	Binders for paints, adhesives and varnishes produced by polymerization of monomers (acrylic, vinyl and other) and forming a stable dispersion in water of polymer particles which, coated and dried, form a continuous film.

Term	Definition
Mercaptans	Thio-alcohols and phenols.
Methyl methacrylate	An essential raw material in the manufacture of polymethyl methacrylate (PMMA) pellets and sheets 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.
Molecular sieves	Synthesized mineral products used to purify liquids and gases by the selective adsorption of molecules.
Non-woven	Textiles whose fibers are aligned in a random fashion.
NOx	Nitrogen oxides.
ODP (Ozone Depletion Potential)	An index measuring the impact of a given mass of gas in terms of contribution to the depletion of the ozone layer, expressed in relation to the impact of a chlorofluorocarbon.
OECD	Organization for Economic Co-operation and Development.
Organic peroxides	Oxidizing organic products used as initiators for polymerization 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 filter aid properties.
Photocure resins	Synthetic resins that harden under the effect of ultraviolet light.
PMMA	The ISO code for polymethyl methacrylate.
Polyamide	A polymer obtained by the reaction of a diacid on a diamine, or from the polymerization of a monomer with both an acid and an amine function.
Polyamide 10 (PA10), Polyamide 11 (PA11), and Polyamide 12 (PA12)	Thermoplastic polyamides, whose monomers have 10, 11 and 12 carbon atoms, respectively.
Polyethylene	A plastic obtained by the polymerization of ethylene.
Polymer modified binders	Adhesives based on hydraulic binders.
Polymerization	The union of several molecules of one or more compounds (monomers) to form a large molecule.
Polymers	Products made by polymerization.
Polyphthalamide (PPA)	A thermoplastic material from the polyamide family, obtained by polymerization of aromatic diacids and aliphatic diamines, and characterized by a high melting point and high mechanical rigidity.
PPRT	Technological Risk Prevention Plan *(plan de prévention des risques technologiques)*, a government designed and implemented plan introduced by French Act No. 2003-699 of 30 July 2003 and the relevant application decrees, which strengthened the obligations imposed on companies operating Seveso sites in France. PPRTs aim to control urban development around potentially dangerous sites and to limit the impact of potential accidents.
PRB	Permeable reactive barrier, an *in situ* technique for polluted site and soil remediation.
Processing aids	Products that improve the processability of polymers during molding and extrusion.
Product life cycle	The various processing stages of a material, from raw material extraction through to management of end-of-life.
PSI	Process safety incidents.

Term	Definition
PTFE	The ISO code for polytetrafluoroethylene.
PVC	The ISO code for vinyl polychloride or polyvinyl chloride.
PVDF	The ISO code for polyvinylidene fluoride.
RCMS	The Responsible Care® Management System.
REACH (Registration, Evaluation and Authorization of Chemicals)	Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the registration, evaluation, authorization and restriction of chemicals, which came into force on 1 June 2007.
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 *"Engagement de progrès®"* (Commitment to progress).
SDGs	The Sustainable Development Goals, also known as the Global Goals, a United Nations worldwide initiative to end poverty, protect the planet and ensure peace and prosperity for all (UN definition).
SDS	Safety Data Sheet.
Sebacic acid	A diacid derived from castor oil, used as an intermediate in the manufacture of bio-based polymers, plastics, lubricants, and anti-corrosion agents.
Seveso III Directive	European Directive No. 2012/18/EU of 4 July 2012 on the control of major-accident hazards involving dangerous substances.
SO_2	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 dioxides.
Spin-Off of Arkema's Businesses	The transaction that is the subject of the prospectus which received from the French financial markets authority *(Autorité des marchés financiers – AMF)*, visa No. 06-106 on 5 April 2006.
SPOM	Suspended particulate organic matter present in water that can be recovered by physical or mechanical means, such as filtration and sedimentation.
Stabilizers	Additives used to preserve a given composition of a product.
Surfactants	Compounds that increase the spreading and wetting properties of a liquid by lowering its surface tension.
SVHC	Substance of Very High Concern, a chemical substance that has been placed on the candidate list for authorization under REACH.
UIC	*Union des industries chimiques* (Union of Chemical Industries). The professional body of the chemical industry in France.
Ultrafiltration	A system of filtration on the scale of one hundredth of a micron.
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 a raw material for EVAs (functional polyolefins).
VOC	Volatile organic compound.

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