



# Performance Products

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Pierre Chanoine, Executive Vice President

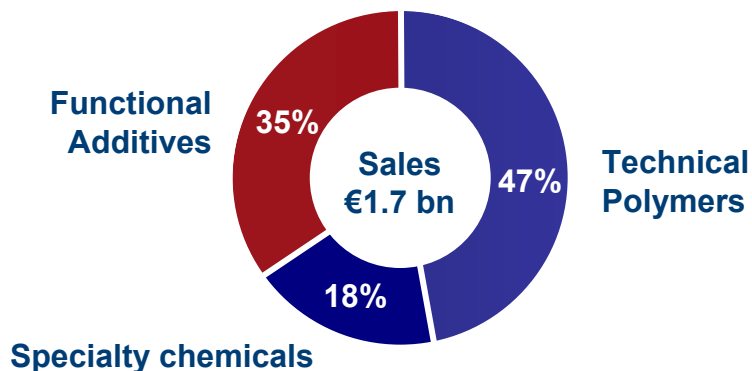
 September 23<sup>rd</sup> 2008

# Segment overview

- Among world leaders in niche markets
- Innovative chemical solutions
- Growth supported by R&D
- Portfolio simplified through M&A
- Strong improvement of results since 2005

(€m)	2006	2007
Sales	1,784	1,723
EBITDA	156	184
EBITDA margin	8.7%	10.7%
Rec. operating income	71	97
Capital employed	1,047	1,005
Capex	87	83
Employees	6,279	5,143

## Sales by business unit



## Strategy



# Dramatic improvement of results

(€m)	1H'06	1H'07	1H'08	Δ*
Sales	923	916	857	(6.4%)
EBITDA	83	104	119	+14.4%
EBITDA margin	9%	11.4%	13.9%	
Recurring operating income	39	61	77	+26.2%

- ▄ +6.4% sales at constant exchange rate and scope of business
- ▄ Sales price increases in each of the business units to offset increase in raw material costs
- ▄ Strong contribution from new products and new projects
- ▄ Benefits from restructuring plans
- ▄ Negative impact from €/€ exchange rate
- ▄ Slowdown of the US construction business and increase of tin affect Functional Additives performance

## Projects contributing to EBITDA growth in 1H'08

### ▄ Growth

- +2kT/yr of PVDF production capacity in Calvert-City (US)
- Capacity extension of the molecular sieves production in Inowroclaw (Poland)
- Debottleneck of tin stabilizers in Beijing
- New products launched (clear polyamides, biobased polyamides, photovoltaic films, etc.)

### ▄ Productivity

- Polyamides in Europe
- Functional Additives in Europe and North America

### ▄ Portfolio management

- Divestment of urea formaldehyde resins
- Acquisition of SNF Italia activated carbon bed business

Realignment of the segment support EBITDA growth



# In-depth transformation

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**6%  
EBITDA  
margin**

**2005**

## Refocus the portfolio

- €300m of sales divested
- (15%) headcount reduction excluding portfolio management
- Optimize assets
- Better resource allocation in R&D

**11%  
EBITDA  
margin**

**2007**

## Build on a strong platform

- New products launched supported by R&D
- Continue to grow business in Asia
- Targeted acquisitions
- Strict cost discipline

**14 to 15%  
EBITDA  
margin**

**2010**

 **Building a specialty chemicals segment** 



 ***Technical Polymers***

# Arkema Technical Polymers

## Polyamides (PA)

- Polyamide 11 & 12



- Poly ether block amide elastomer



- Thermal adhesive copolyamides



## Fluorinated

- Polyvinylidene fluoride (PVDF)



## Functional polyolefins

- Compounds



Automotive



Electric



Medical, Hygiene



Oil & Gas



Electronic



Textile



Sports & Leisure



Home Appliances



Optical



Furniture



Industrial

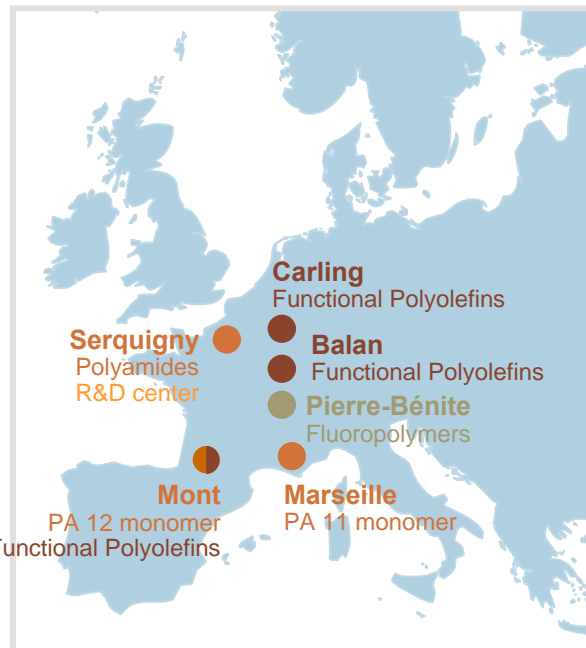


Packaging

# Global footprint



**19% of segment sales**



**55% of segment sales**

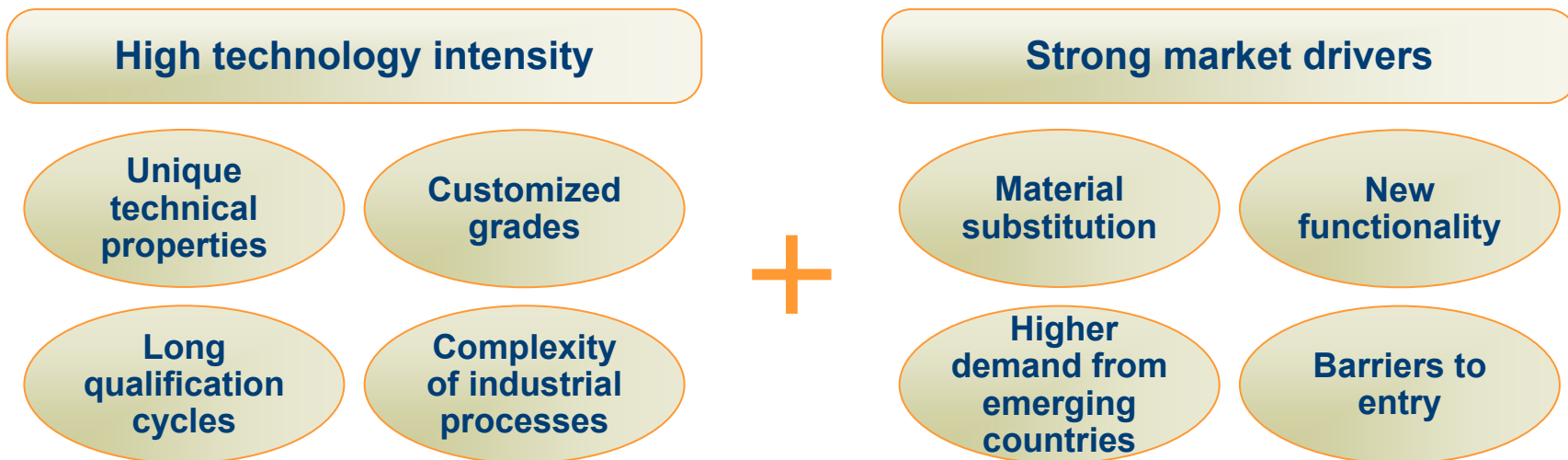


**22% of segment sales**

*Rest of the world: 4% of segment sales*

# Value creating business model

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## ▀ Serving a wide range of end-markets

Offshore, textile, consumer products, sporting goods, automotive, hydraulic and pneumatic equipment, medical, cosmetics, films, coatings, wire and cable, chemical processing, packaging, plastics modification, adhesives...

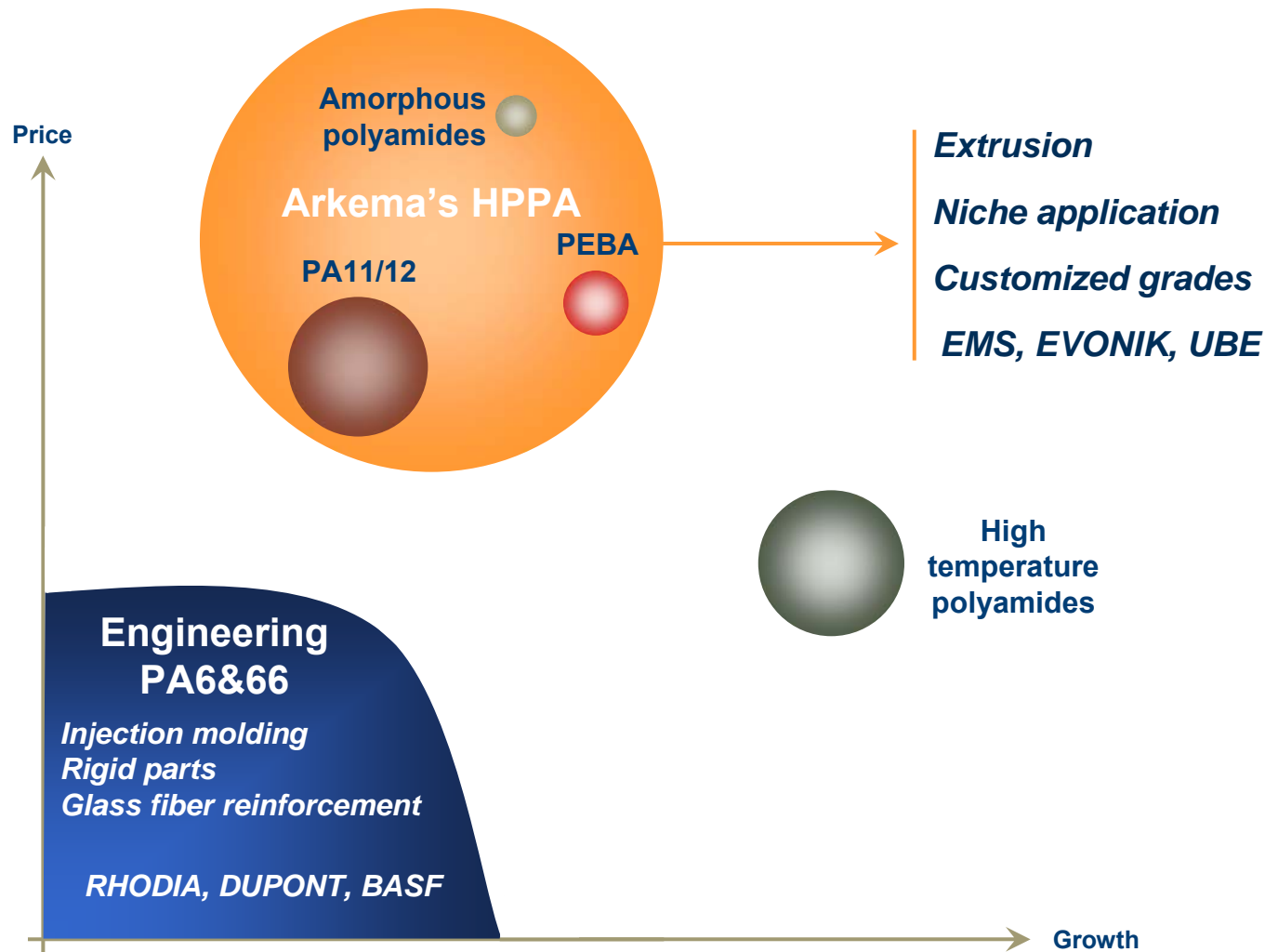
High specialty niches with growth potential: 4 to 10%





 ***High performance polyamides***

# Polyamides 11&12: high performance polyamides



# PA11&12: outstanding technical properties

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## Extrusion – flexibility - toughness



### **Flexibility**

*From soft rubber-like behavior to rigid nylon-like behavior*



### **Toughness**

*All around toughness even at low temperature*



### **Chemical resistance**

*Superior than other polyamides*



### **Lightness**

*The lightest of low polyamides*



### **Weather resistance**

*Long lifetime under UV exposition*



### **Processability**

*Good Melt Fluidity, high speed of recrystallisation, better flexibility than other polyamides (extrusion), dimensional stability*

# Profitable niche markets



Truck Tubing  
&  
Pneumatic  
Systems



Electrical/Electronics

Oil & Gas Pipes



Automotive  
Tubing  
& Connectors



Sports Equipment

# Arkema's HPPA: dual sourcing



**petroleum**  
- fossil resource -



**lauryl lactame**  
- monomer -

POLYMER SYNTHESIS



**Rilsan® A**  
- Polyamide 12 -



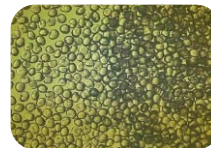
**castor plants**  
- renewable resource -

HARVESTING



**amino 11**  
- monomer -

POLYMER SYNTHESIS



**Rilsan® B**  
- Polyamide 11 -

Alternative raw materials sourcing

Unique bio-based properties offer new opportunities

2006  
**Bioplastics**  
Awards  
Winner

# Rationalizing European production

## **Serquigny**

PA11 & 12

Reduction of 49 positions

€13 m capex in new products

## **Mont**

Monomer PA12

+40% orgasol® capacity



## **Bonn**

Site closure

Reduction of 83 positions

## **Marseille**

Monomer PA11

Reduction of 48 positions

+10% production capacity

**Improve competitiveness**

# Accelerating growth and expanding portfolio

## Develop bio-based applications

- Rilsan® 11 P210 (2005)
- Pebax® R New (2007)
- Platamid® RNew (2007)
- O&G Deep Blue (2009)
- A11 Based Orgasol® (2009)

## High temperatures polyamides

- Injection PA High Tc (2008-2009)

## Specialty niches and differentiation

- Rilsan® Clear (2006)
- Pebax® SP (2007)
- Transparent Pebax® (2007)
- Crosslinkable Copolyamides (2006)
- Laser Sintering Grades (2006)
- Orgasol® Caresse (2007)





 **PVDF**



# KYNAR® PVDF at a glance

- ❖ **Coleader worldwide**
- ❖ **Integrated production sites in Europe and North America**
- ❖ **New site in China in 2010**
- ❖ **Main end markets: architectural, coatings, chemical processing industry, energy, oil & gas**

## Technical properties



### **Toughness**

*High thermo-mechanical properties  
The strongest fluoropolymers*



### **Chemical resistance**

*Chemical resistance to most acids & halogens  
Low permeability to most gases and liquids*



### **Lightness**

*On of the lightest fluoropolymers*



### **Weather resistance**

*Exceptional UV and radiation stability*



### **Processability**

*Remarkable melt-processability  
Solvent process is also possible, especially with Kynarflex®*

# Market drivers for profitable growth

Drugs,  
vaccines,  
medicines



Oil & Gas



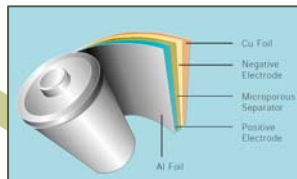
Photovoltaic  
modules

**Kynar®**  
Polyvinylidene Fluoride

**+6% market growth**



Cool roofing



Next generation  
batteries



Potable water

# Technical Polymers: a high-value specialty business

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## 2005-2008: Realign business

- Reducing fixed costs
- Refocusing portfolio of products
- Redefining R&D priorities
- Differentiating our products

## 2008-2010: Develop growth platform

- Selective extensions
- Position innovation on emerging opportunities (photovoltaic, renewable, nanotechnology, etc.)
- Increase manufacturing presence in Asia

 **Creating value using our unique competitive advantages** 