



# Solvay Specialty Polymers

## More products with more performance™

Augusto Di Donfrancesco

*General Manager,  
Specialty Polymers*



April 24, 2012

# AGENDA

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- 1 • **Our positioning and strengths**
- 2 • **Our strategy**
- 3 • **Our growth ambition**



# 1. Our positioning and strengths



# Solvay specialty polymers at a glance

## Balanced sales in three key regions

### 2011 Net Sales

€ 1,251m

### 2011 REBITDA

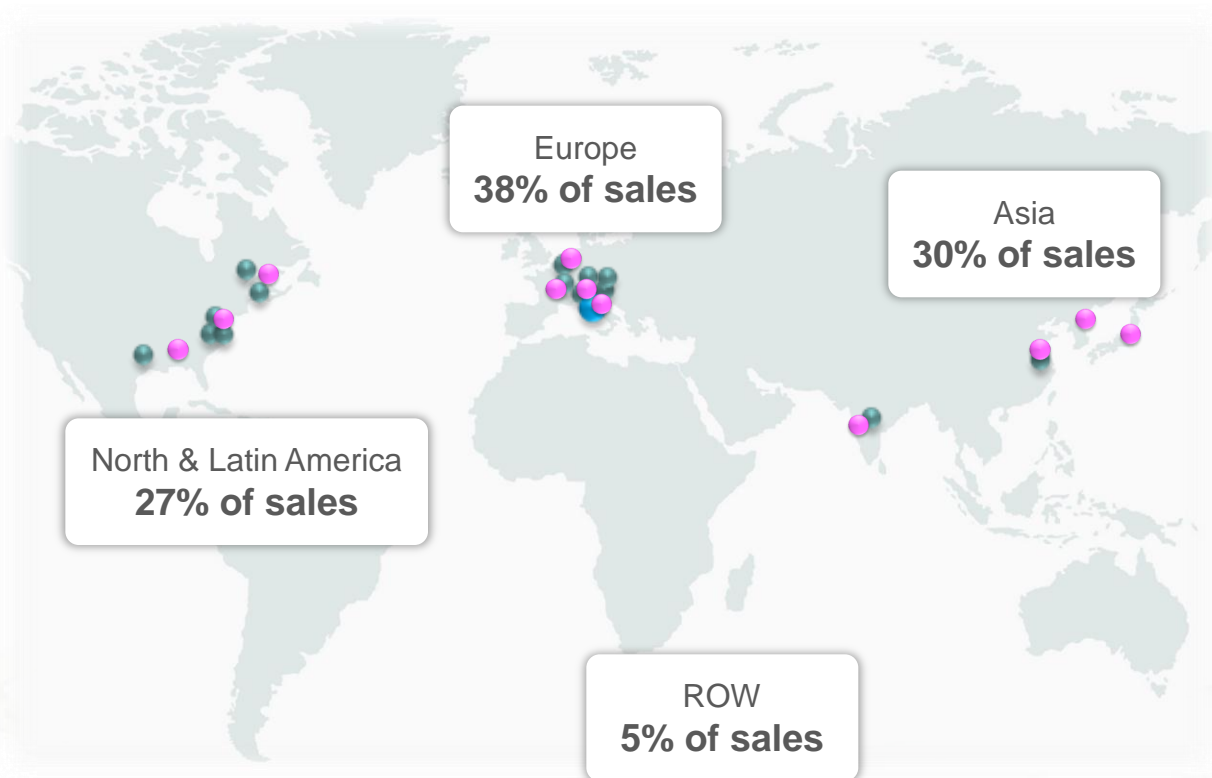
€ 365m

### Close to Customers and Markets

- 1 Global Business Unit
- 11 RD&T Centers
- 14 Industrial Sites

### Business Strengths

- 40+ Proprietary Technologies
- 300+ Commercial Employees
- 450+ RD&T Specialists
- 1500+ Products
- 2500+ Employees Worldwide
- 2900+ Patents in Force
- 4000+ Customers



Headquarters – Bollate, Italy

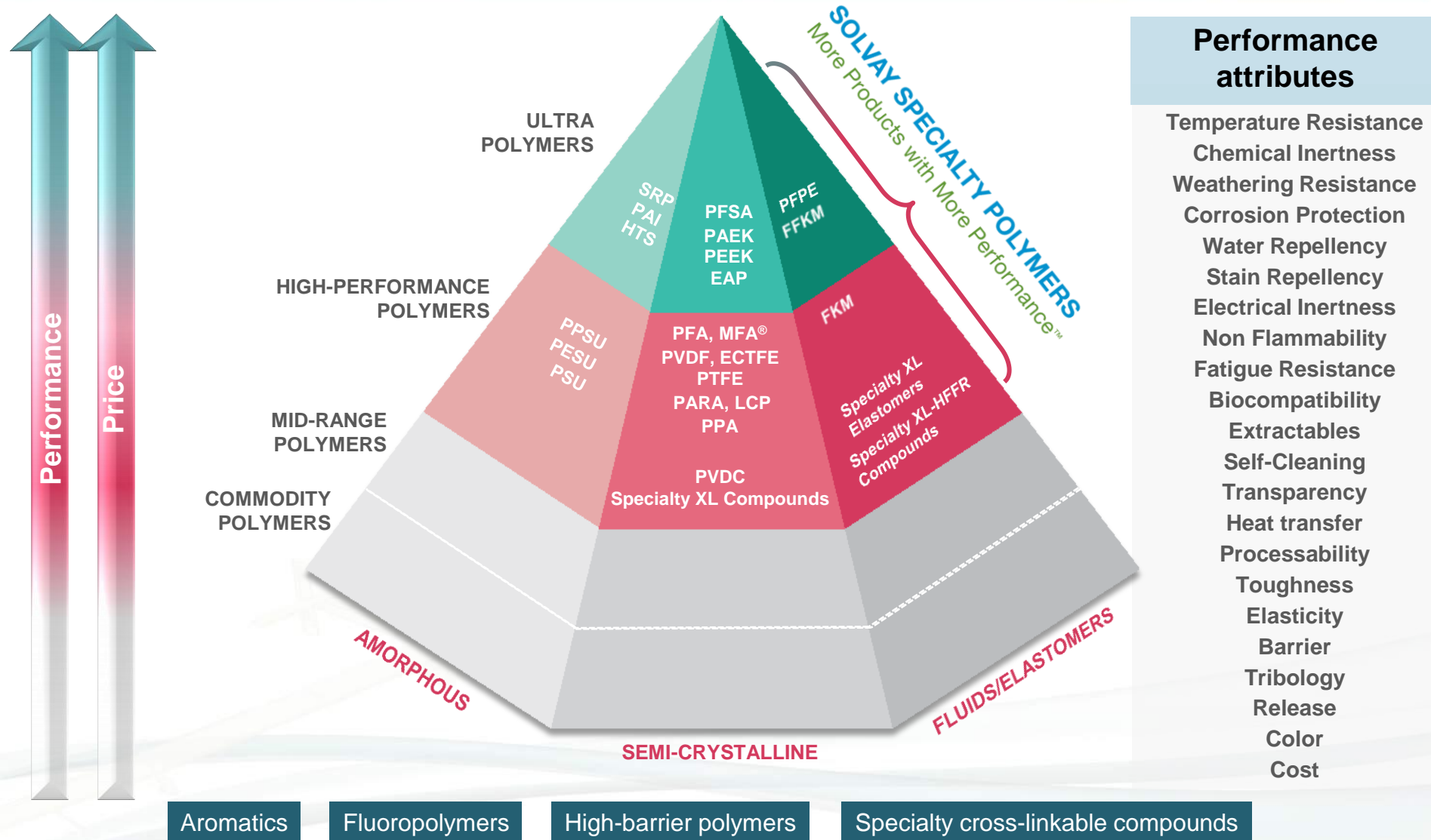
Manufacturing sites

14

RD&T centers

11

# Leading at the top of the pyramid with the widest product portfolio

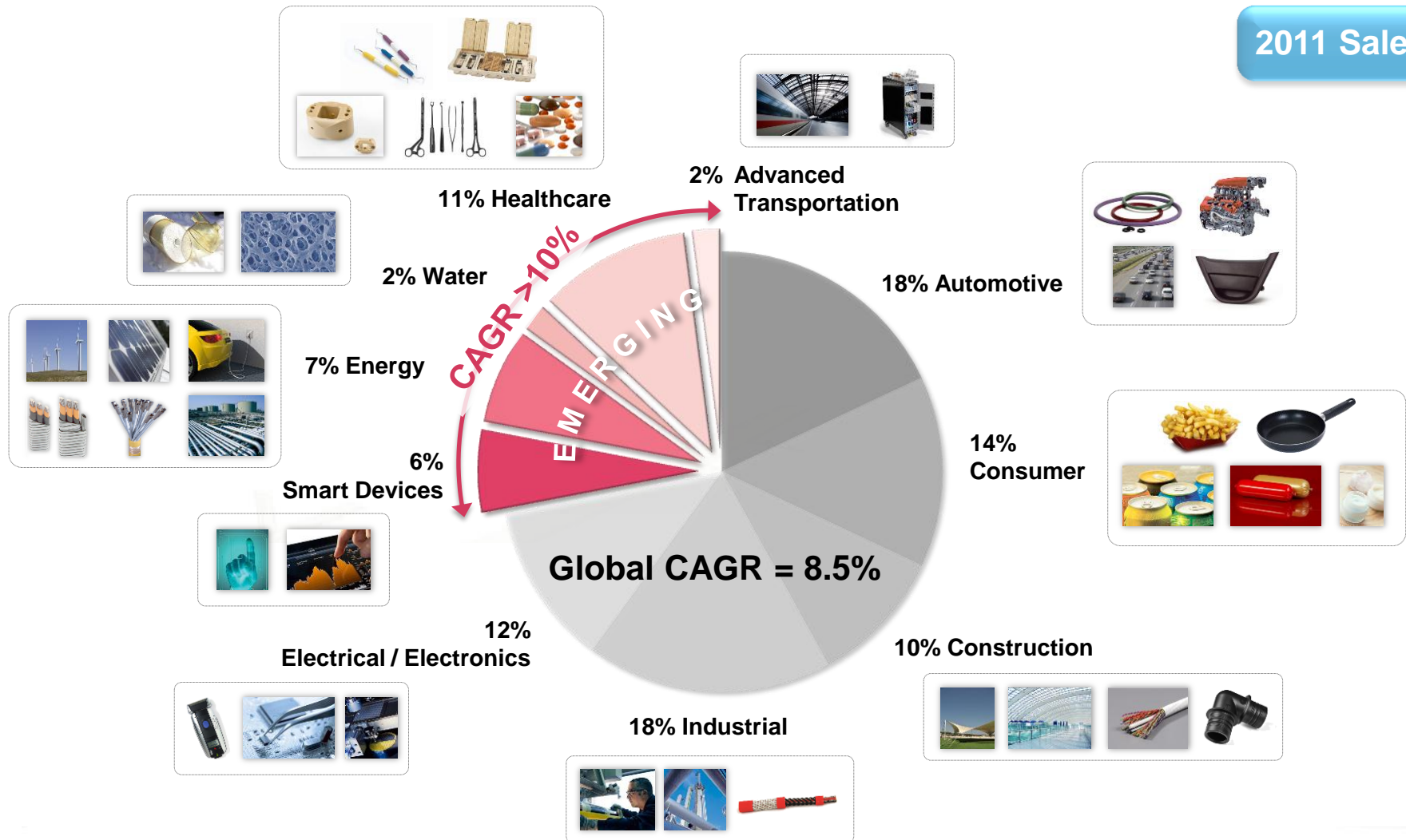


**Built on four product technologies**

# Serving well-diversified and highly dynamic markets

Emerging markets will be 60% of top line growth by 2016

2011 Sales



## 2. Our strategy



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# A new organization and a well-defined strategy

## Our Strategy

### The New Solvay Specialty Polymers

- New organizational model and management team
- Focused market strategy
- Operational excellence commitment

1 Focus growth in emerging and fastest growing markets

2 Develop faster growth in Asia

3 Reinforce our global innovation platform

4 Drive performance excellence

5 Explore acquisitions and partnerships

6 Engage global workforce





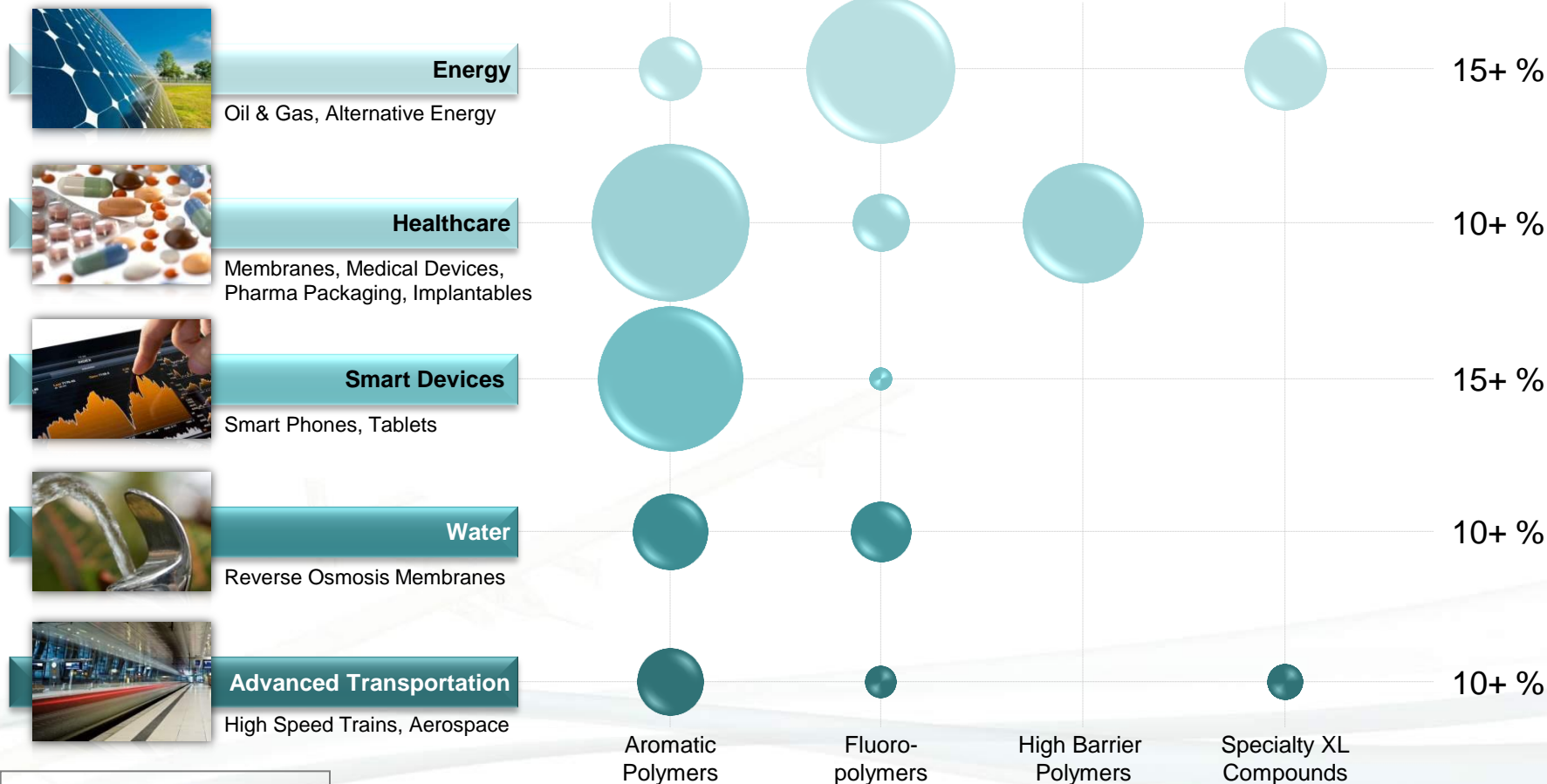
# Sustainable growth driven by megatrends

## Focusing on most-dynamic growth markets

Sales by Emerging Market

Bubble Size: Net Sales

2011/2016 CAGR

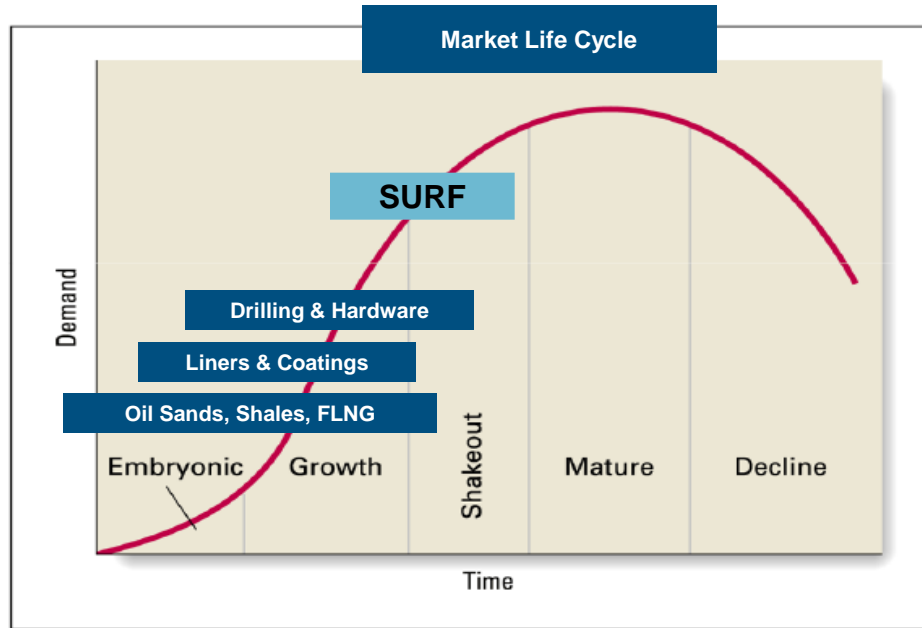


Solvay's own estimates

Strength from four product technologies

# Oil & Gas, an exciting emerging fast growing market

## Solvay: Market leader and innovator



**10+ % CAGR 2011/16**

Solvay's own estimates

## Key market drivers

- Increasing global demand for fossil fuels
- Deep water exploration expected to double by 2015
- Rehabilitation of existing onshore pipeline infrastructure

## Key product focus

- PVDF
- Specialty XL Compounds
- PEEK, PPA, PFA/MFA®, ECTFE
- FKM, FFKM

Subsea  
Umbilicals,  
Risers,  
Flowlines  
(SURF)



Drilling and  
Hardware



Liners and  
coatings  
against external  
corrosion, and  
subsea thermal  
insulation



Oil sands,  
shale and  
Floating  
Liquified  
Natural Gas



# An exciting SURF\* segment within Oil & Gas market

## **SURF – Solvay is the market leader and innovator**

- Major investment potential in subsea sector  
~ \$150-200 billion by 2015 and SURF market is around 10% of this
- Our specialty polymers used as barrier layer in SURF flexible pipes



RISER

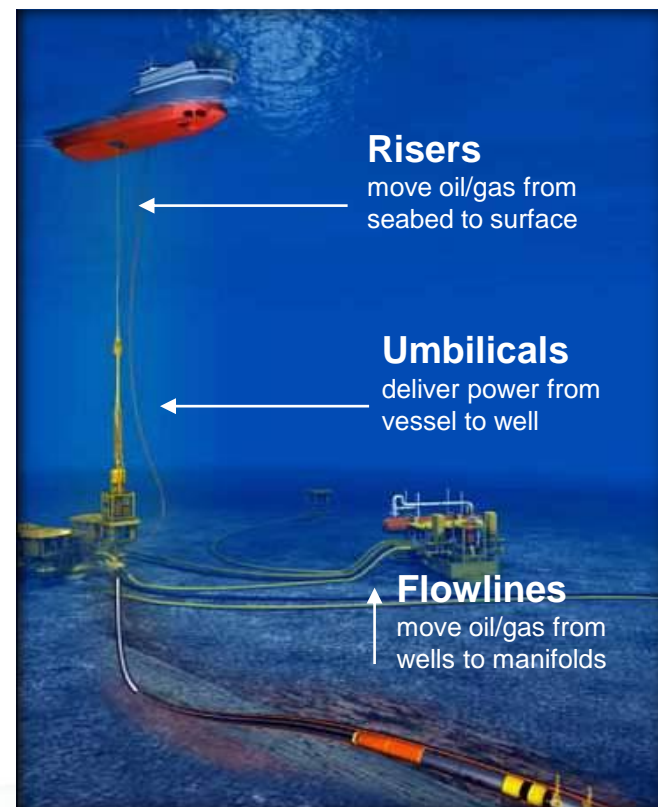


FLEXIBLE FLOWLINE



UMBILICAL

- Few competitors, large entry barriers, innovation driven



## **Solvay has a strong position with all the subsea industry players**

Subsea Umbilicals, Risers, Flowlines (SURF)

# Increasing capacity to serve market growth

**Asset optimization through Operational Excellence and new capacity expansion**

**Overall Equipment Efficiency is delivering 15-60% capacity increase per unit with marginal investment**

## New Capacity Expansions

**Tavaux, France**

**PVDF – Q2 2012**  
+50% capacity increase

**Spinetta, Italy**

**FKM – Q2 2012**  
+100% capacity increase

**Changshu, China**

**Compounding – Q2 2012**  
**New Plant – 2014**

- **FKM** +60% capacity
- **PVDF** +30% increase

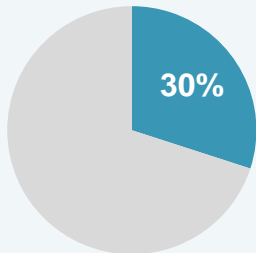
Capacity increases as a % of initial product site capacity

# Developing faster growth in Asia

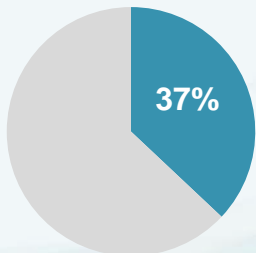
**60% of strategic capital investment will be in Asia over next five years**

## Specialty Polymers Sales in Asia

2011



2016e



**PEEK, PESU**

Panoli, India

**Micronized PTFE**

Changshu, China



**Compounding**

**NEW** – Changshu, China  
2012

**PVDF/FKM**

**NEW** – Changshu, China  
2014



**R&D Centers**

**NEW** – Savli, India  
Q2 2012

Shanghai, China  
Onsan, S. Korea  
Fuji City, Japan

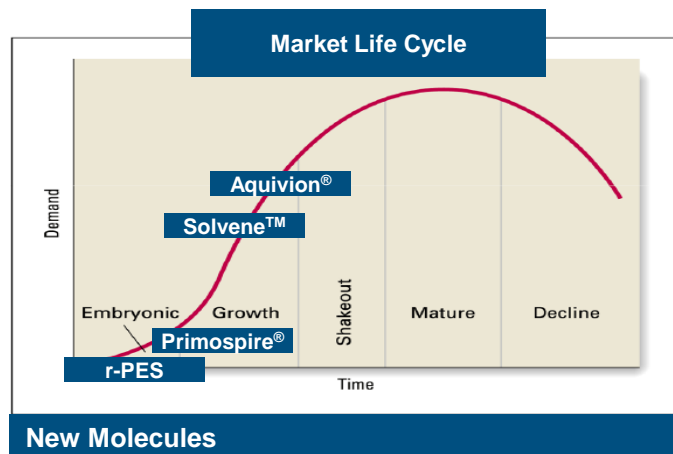




# Reinforcing our global innovation platform

## Transforming Molecules to Money

### Inventing the Future: New Products and New Applications



**A healthy Development Pool with 800 projects with ~ €700 M potential sales (probability assessed at +70%) in 2016**

# Operational excellence commitment

## A new “Way of Working”

### Overall Equipment Efficiency (OEE)

New Production System  
15-60% capacity expansion  
per unit with  
marginal investment

### Research, Development & Technology Excellence

Disciplined Project Management  
Functional Excellence Focus

### Commercial Excellence

Capturing the full potential  
with renewed focus on pricing

**Unlocking significant profit growth potential**



# Attentive to acquisitions and partnership opportunities

## Dual Strategy for External Growth

### Molecules Strategy

**Expand the existing portfolio at the top of the pyramid**

**Ex: Gharda (PEEK); Mississippi Polymers (SRP)**

### Product Form Strategy

**Expand into high value added  
downstream activities leveraging our unique polymers and capability**

**Ex: Ajedum (Films); Solvicore (Fuel Cells)**

# Unlocking revenue synergies from the combination with Rhodia



**Immediate cross-selling opportunities  
with Rhodia Engineering Plastics**

**RD&T platform in bio-polymers and  
high performance polyamides**

**Asset optimization  
across regions**



**SOLVAY**  **Rhodia**

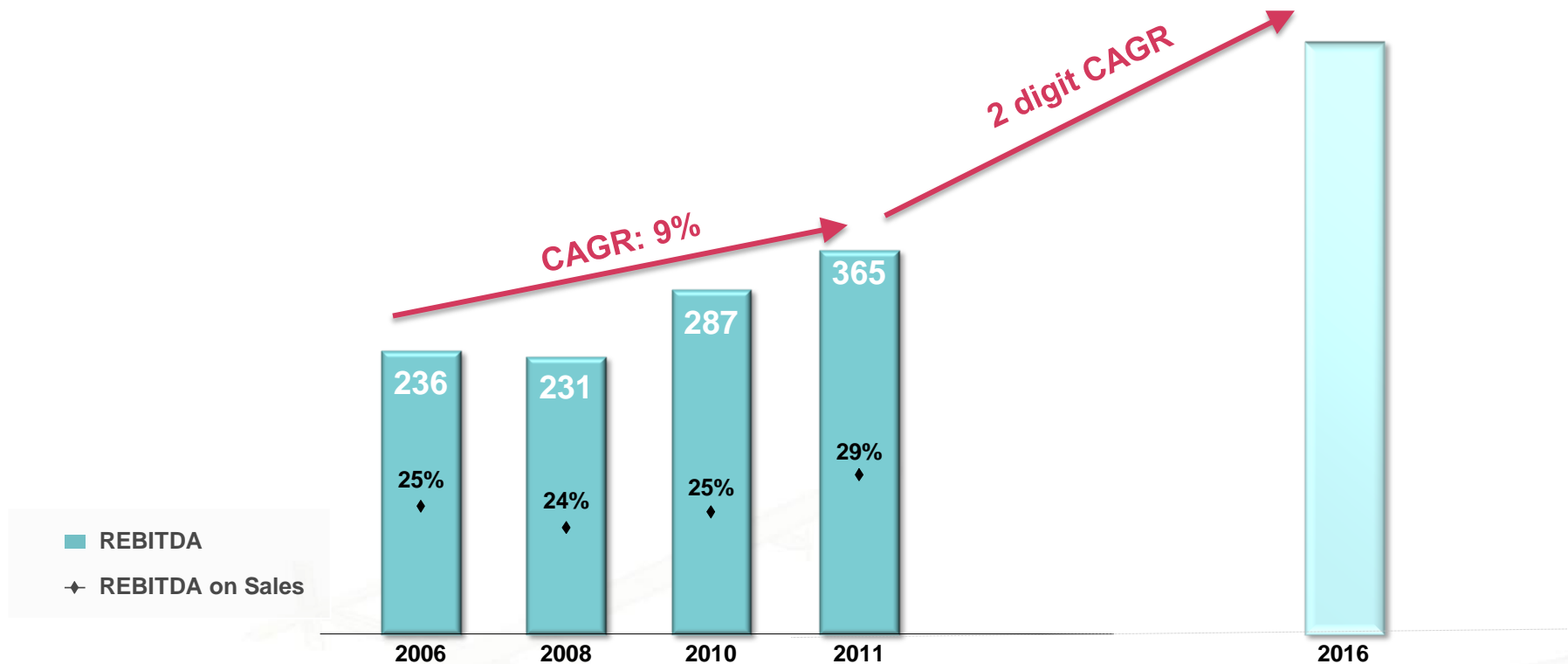
# 3. Our growth ambition



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# A strategy proving successful for growth

**Solvay Specialty Polymers moving to the next level of growth**



**A key contributor for the Solvay Growth ambition**

[www.solvay.com](http://www.solvay.com)



a Passion for Progress®

# Appendices



[www.solvay.com](http://www.solvay.com)

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# Over 35 product brands

## **Spire® Ultra Polymers**

**AvaSpire®** PAEK  
**KetaSpire®** PEEK  
**PrimoSpire®** SRP  
**EpiSpire®** HTS  
**Torlon®** PAI

## **Solviva® Biomaterials**

**Zeniva®** PEEK  
**Proniva®** SRP  
**Veriva®** PPSU  
**Eviva®** PSU

## **Sulfone Polymers**

**Radel®** PPSU  
**Acudel®** mod. PPSU  
**Veradel®** PESU  
**Udel®** PSU

## **Semi-Aromatic Polyamides**

**Amodel®** PPA  
**Ixef®** PARA

## **Fluorinated Fluids**

**Fomblin®** PFPE  
**Galden®** PFPE  
**Solvera®** PFPE  
**Fluorolink®** PFPE

## **Fluoroelastomers/ Perfluoroelastomers**

**Tecnoflon®** FKM  
**Tecnoflon®** FFKM

## **Partially-Fluorinated Polymers**

**Halar®** ECTFE  
**Solef®** PVDF

## **Fluoropolymer Coatings**

**Halar®** ECTFE  
**Hyflon®** PFA/MFA®  
**Hylar® 5000** PVDF  
**Hylar®** PVDF

## **Fully-Fluorinated Polymers**

**Algoflon®** PTFE  
**Polymist®** PTFE  
**Hyflon®** PFA/MFA®  
**Hyflon®** AD

## **Polymer Processing Aids**

**Tecnoflon® NM** FKM  
**Solef® 11010** PVDF

## **Liquid Crystal Polymers**

**Xydar®** LCP

## **High-Barrier Polymers**

**Diofan®** PVDC  
**Ixan®** PVDC

## **Cross-Linkable Compounds**


**Polidienne®** XLPO  
**Cogegum®** XLPO-HFFR  
**Polidan®** PEX/XLPE

## **Specialties**

**Aquivion®** PFSA  
**Solvane™** EAP  
**Solef® 80 000** e-PVDF  
**Torlon® AI** PAI for Coatings  
**Virantage®** Tougheners



# Pyramid Acronyms



• EAP	ElectroActive Polymer	• PEEK	Polyetheretherketone
• ECTFE	Ethylene-chlorotrifluoroethylene	• PFA/MFA®	Perfluoroalkoxy (propyl, methyl)
• FKM	Fluoroelastomer	• PFPE	Perfluoropolyether
• FFKM	Perfluoroelastomer	• PFSA	Perfluorosulfonicacid Polymer
• HTS	High-Temperature Sulfone	• PPA	Polyphthalamide
• LCP	Liquid Crystal Polymer	• PSU	Polysulfone
• PAEK	Polyaryletherketone	• PESU	Polyethersulfone
• PAI	Polyamideimide	• PPSU	Polyphenylenesulfone
• PARA	Polyarylamide	• PTFE	Polytetrafluoroethylene
		• PVDC	Polyvinylidene Chloride
		• PVDF	Polyvinylidene Fluoride
		• SRP	Self-Reinforcing Polyphenylene
		• XL Compounds	Cross-linkable Compounds
		• XL-HFFR Compounds	Cross-linkable Halogen Free Flame Retardant Compounds

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