



# GLOBAL EXPERT IN ELECTRICAL POWER AND ADVANCED MATERIALS

MARCH, 2017

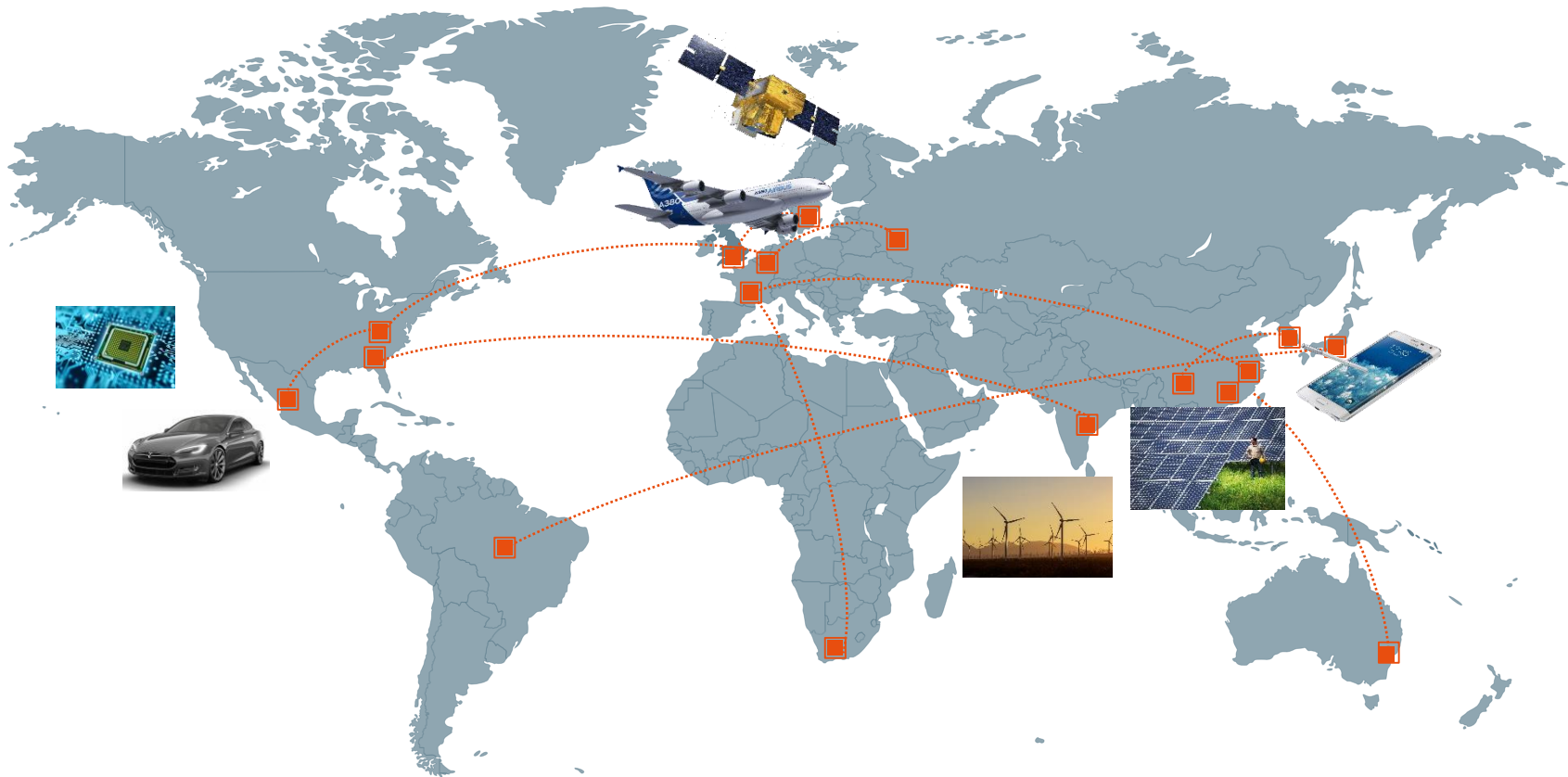


# MERSEN: OUR MISSION

**WE DEVELOP  
THE BEST TECHNOLOGIES FOR  
THE INDUSTRIES OF THE FUTURE**






**WE PROVIDE INDUSTRIAL COMPANIES AROUND THE  
WORLD WITH INNOVATIVE SOLUTIONS ENHANCING THE  
PERFORMANCE OF THEIR PRODUCTS AND SERVICES**


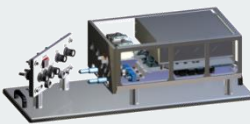


# AN ORGANIZATION MORE ALIGNED WITH OUR MARKETS NOW IN PLACE AND DELIVERING INITIAL BENEFITS



ADVANCED MATERIALS

Anticorrosion equipment	
Graphite specialties	
Power transfer technologies	
<b>INDUSTRIAL SYNERGIES</b>	
Lower capex	Production transfers

Electrical Protection & Control	
Solutions for Power Management	
<b>MARKETING &amp; SALES SYNERGIES</b>	
Alignment with two sales models	Knowledge of the electrical market

ELECTRICAL POWER

# ... WITH A LARGE CUSTOMER PORTFOLIO

- **CLIENT PROXIMITY**  
(>65% “ON-DEMAND” PRODUCT)
- **REGULAR AFTER MARKET REPLACEMENT** (~65% OF SALES)
- **HIGH BARRIER OF ENTRY**
  - High quality
  - Homologation & standards
  - Worldwide presence
- **LARGEST CUSTOMER :**  
< 4% OF SALES
- **10 LARGEST CUSTOMERS :**  
< 13% OF SALES

KEY CUSTOMERS

*Non exhaustive List*

# ... WITH FINANCIAL COMPLEMENTARY MODEL



<b>ADVANCED MATERIALS</b>		<b>ELECTRICAL POWER</b>
<ul style="list-style-type: none"><li>▪ CAPITAL INTENSIVE (DEPRECIATION: 7,4% OF SALES)</li><li>▪ HIGH EBITDA ON AVERAGE (5Y): 17%</li><li>▪ LOW CURRENT EBIT MARGIN BUT STRONG LEVERAGE (OVERCAPACITY IN GRAPHITE + LOW LEVEL IN CHEMICAL)</li><li>▪ CASH RICH WITH SOME CASH COW</li></ul>	<p><b>QUICK ADAPTABILITY TO ECONOMIC ENVIRONMENT</b></p> <p><b>STRONG CASH GENERATION</b></p> <p><b>OPERATIONAL EXCELLENCE PROGRAM</b></p>	<ul style="list-style-type: none"><li>▪ LOW CAPITAL INTENSIVE (DEPRECIATION : 2,4% OF SALES)</li><li>▪ HIGH EBITDA ON AVERAGE (5Y): 14%</li><li>▪ STABLE HIGH MARGIN</li><li>▪ CASH RICH WITH SOME CASH COW</li></ul>

# OUR STRATEGIC PILLARS

Improve **synergies**  
within and between the  
business segments

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## Build on our **3 new positions**

Asia    Technology & Innovation    Operational Excellence

Maintain best **safety**  
practices (TRIR <1)

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Continue to deploy the  
**Operational Excellence plan**



## Expanding markets

Solar    Wind    Electronics  
Transportation

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## More efficient **innovation**

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Targeted **acquisitions**

# A TECHNOLOGY POSITION TO IMPROVE THE EFFICIENCY OF THE GROUP'S R&D



## TRANSFORMING R&D PROJECTS INTO COMMERCIAL SUCCESSES



Hybrid switch and DC fuse for EVs



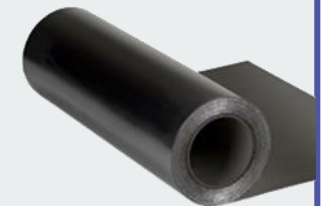
Optical mirrors for laser technologies



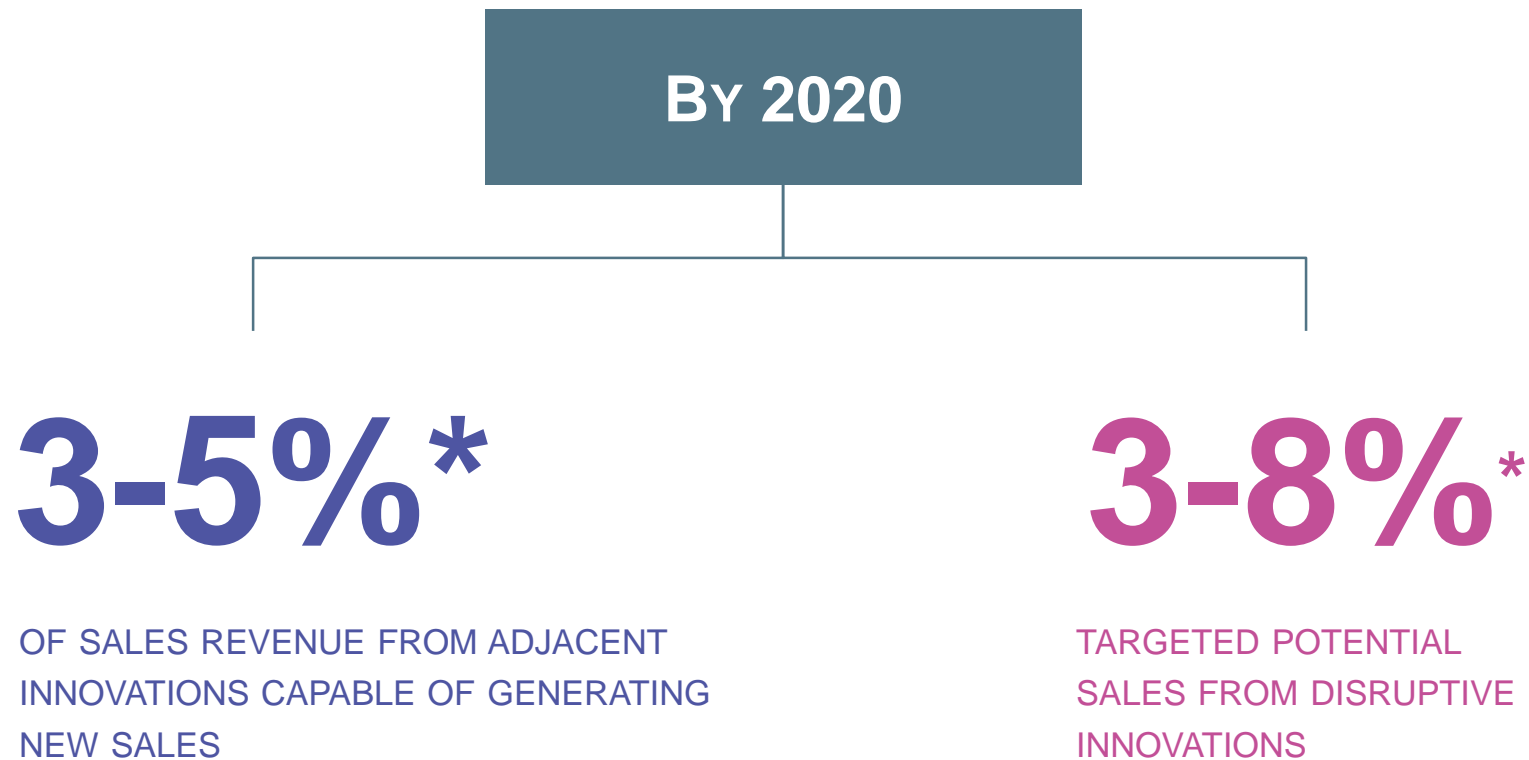
UL-standard surge protection solutions for the US market



Flexible and rigid felt insulation for semiconductor electronics



# TRANSFORMING R&D PROJECTS INTO COMMERCIAL SUCCESSES



\*Compared with 2016 sales



# OPERATIONAL EXCELLENCE: A WAY TO DEPLOY OUR STRATEGY WHILE BEING MORE COMPETITIVE



## ■ IMPROVING COMPETITIVENESS

- Reducing purchasing costs
- Enhancing product design-to-cost process
- Reducing fixed costs

## ■ DEPLOYING OPERATIONAL EXCELLENCE STANDARDS

- Improving the efficiency of our production processes
- Optimizing WIP and inventory to maintain excellent cash management

## 2016 OUTCOMES

- *Operational excellence plan ahead of schedule*
- *Capex discipline (<€30m)*
- *Fixed costs cut by 5%\**
  
- *Shorter time-to-market in the aeronautics business*
- *Inventory reduced by €16m like-for-like*

**Get every employee engaged  
in continuous improvement**

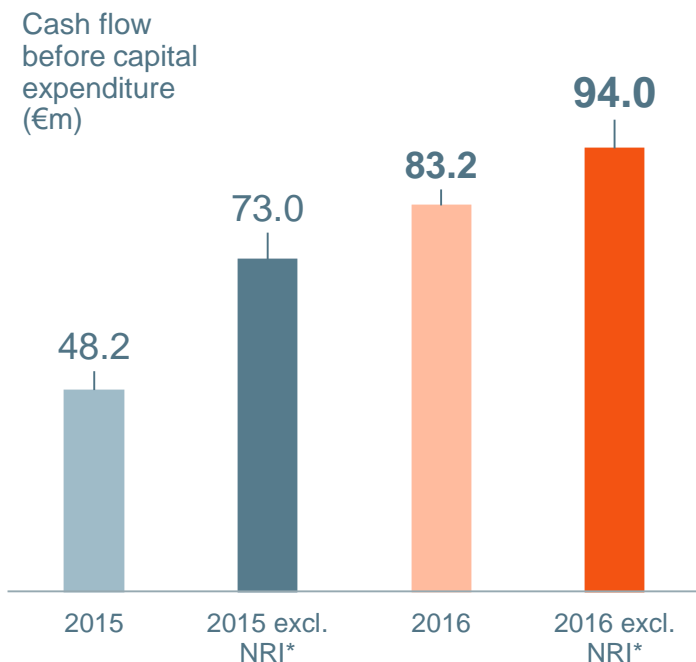
\* Excluding bonuses

# ...THAT WILL CONTINUE IN 2017 AND 2018

	2016	2017 estimated	2018 estimated	Total	Initially projected
<b>Cost savings (€m)</b>	<b>16.5</b>	[13-16]	[11-13]	[42-45]	[40-45]
Impact on the P&L before tax (€m)	<b>(22)</b>	(10)		(32)	(35)
Impact on cash flow* (€m)	<b>(5)</b>	(25)	(5)	(35)	(35)

\*Including capex

# LEADING TO A VERY HIGH OPERATING CASH FLOW...



\*Excluding non-recurring items (operational excellence plan and Transform) and cash-flow from discontinued operations

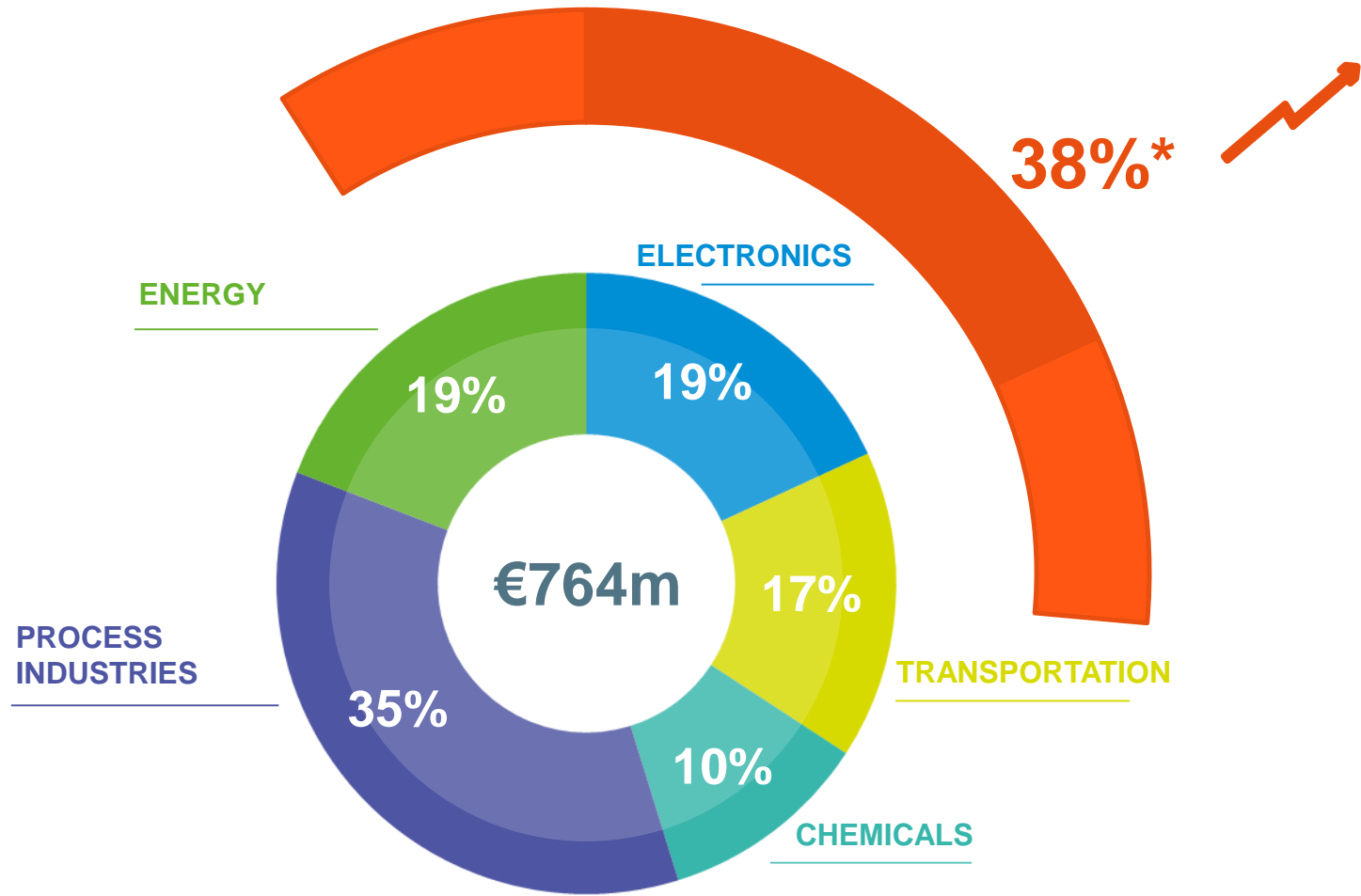
- OPTIMIZED INVENTORY LEVELS
- LOW INCOME TAX PAID
- CAPEX DISCIPLINE



Free cash flow yield <sup>(1)</sup>  
8.1%

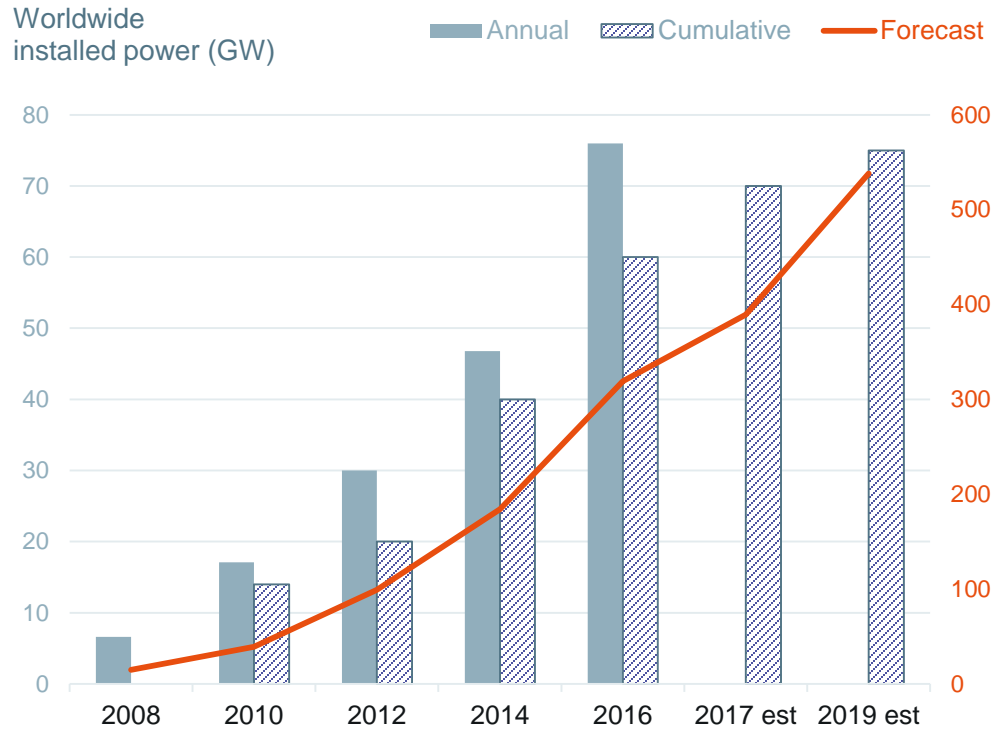
<sup>(1)</sup> Operating cash flow after capital expenditure before non-recurring items/sales

# MAJOR POTENTIAL OVER THE MID-TERM IN OUR EXPANDING MARKETS



\*Including power electronics

# SOLAR: A YEAR OF TRANSITION IN 2017 BEFORE RESUMING GROWTH



Sources: Photon Consulting (Dec. 2016); GTM Research (Dec. 2016); Mercom Capital (Dec. 2016)

## 2016 sales: €40m

- **Late-2016 inventory build-up** at solar cell manufacturers is temporarily impacting Mersen
- **"New" countries getting involved** in solar power: India, Middle East, etc.
- **Significant potential ahead** for Mersen, led by investment needs for solar industry players



1. Polysilicon manufacturing



2. Ingot production



3. Panel protection



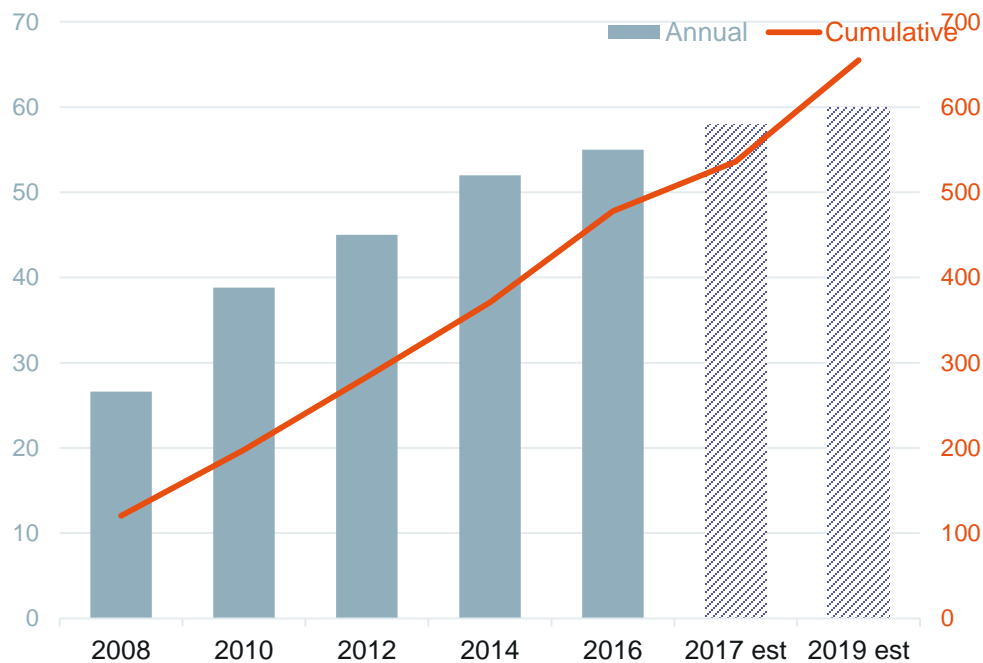
4. Power electronics



# WINDPOWER IS DRIVING GROUP SALES, THANKS TO A VERY BROAD INSTALLED BASE



Worldwide installed power (GW)



Sources: Make - 2016

**2016 sales: €45m**

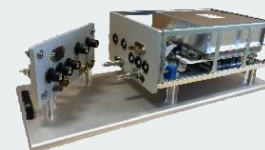
- A steadily growing market, with a very large **installed base**
- Mersen is positioned **with all of the generator manufacturers, in every geography**
- Major potential to capitalize on our after-market expertise



**1. Generator power supply and signal transfer systems**



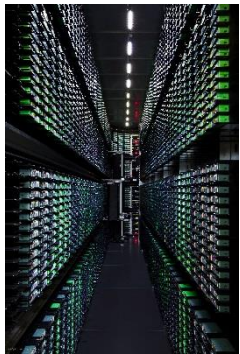
**2. Lightning protection**



**3. Power electronics**



# MAJOR POTENTIAL IN THE ELECTRONICS MARKET



Data centers



LED



Power device

+ 4-6%/year

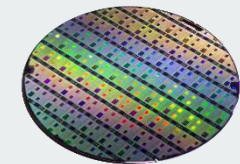


2016 sales: >€40m

- A more than €350-billion market, driven by **new applications**
- Mersen is the **traditional supplier to semiconductor fabs**
- Extensive **ability to engineer new products** tailored to demand



1. Production of silicon single crystals



2. Active layer deposition

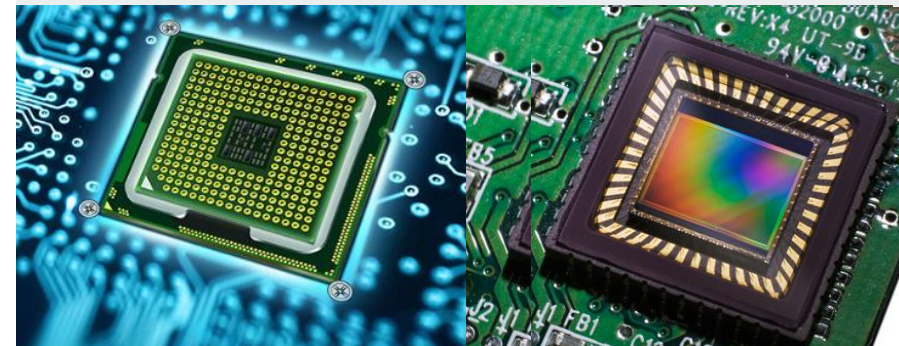
CMOS

MEMS

CCP

CPU

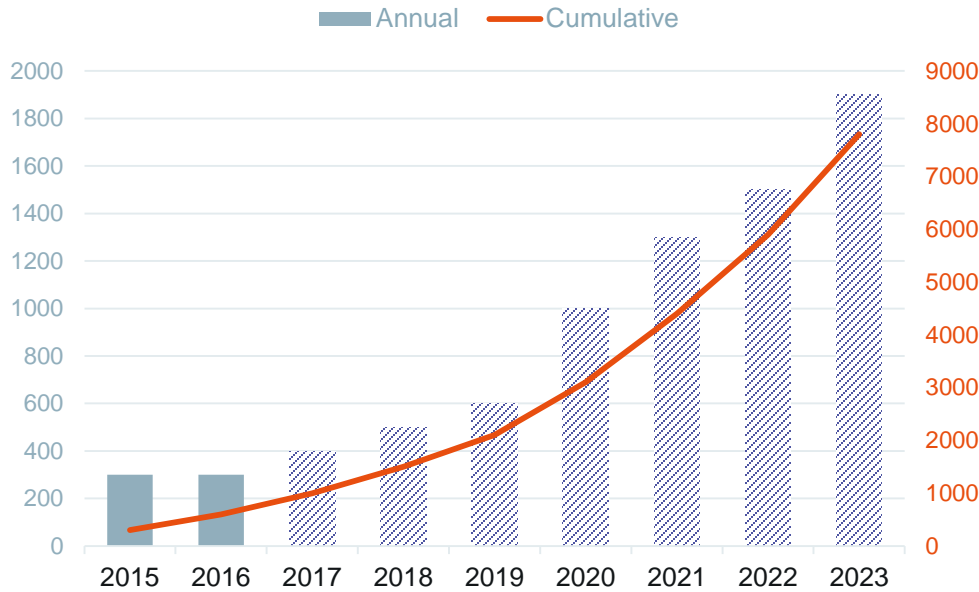
NAND



# A COMPREHENSIVE RANGE OF PRODUCTS FOR PREMIUM ELECTRIC VEHICLES



Estimation nombre de véhicules électriques par an (en k)



2016 sales: €10m

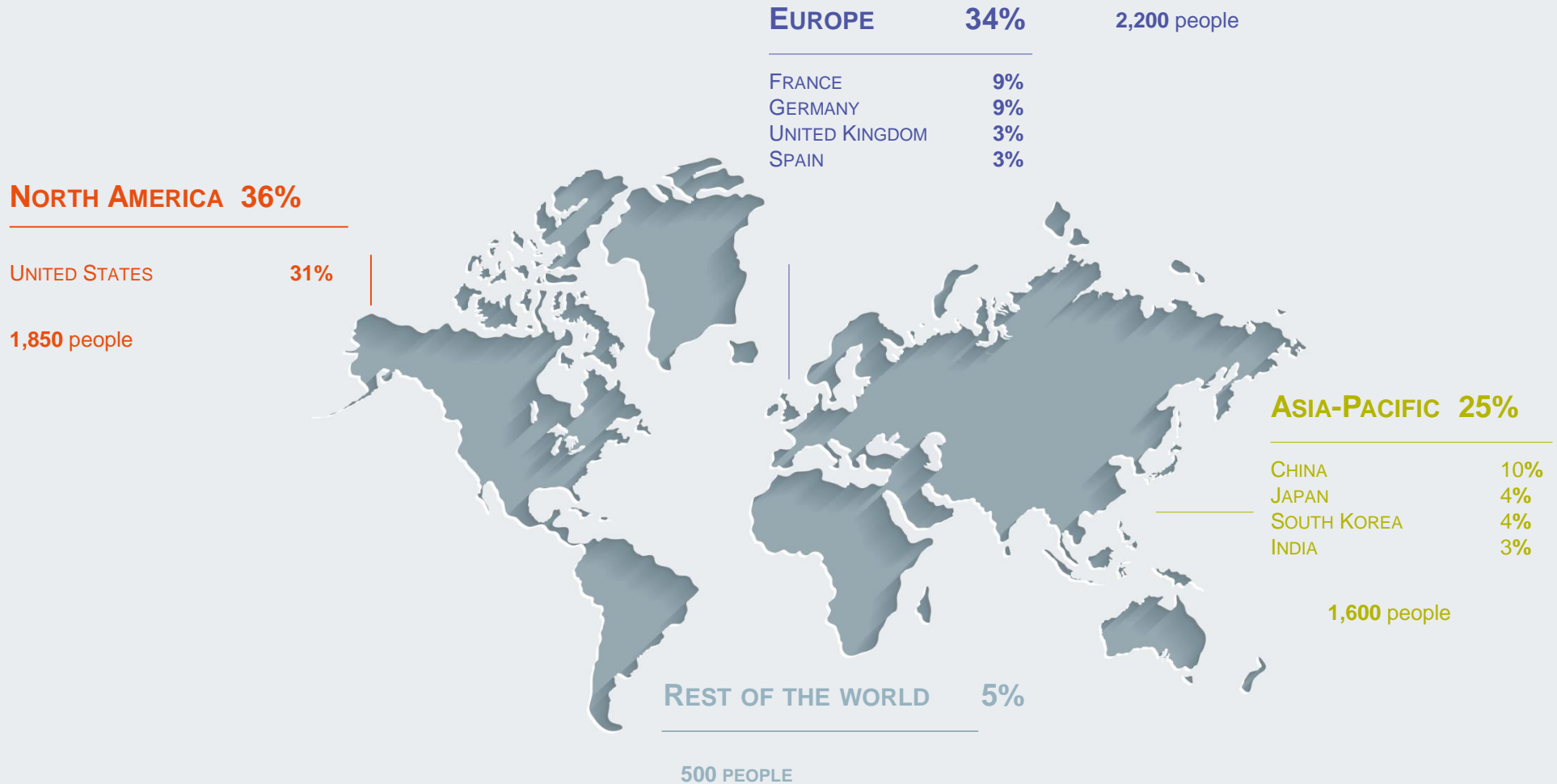
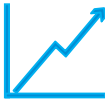
- A **booming market**, with growth potential of above 20% a year
- Our **technology/market intelligence** has identified potential market opportunities for Mersen
- **R&D and innovation** has led to the design of the disruptive Xp technology, with major potential

Sources: IDTechEx & Yole reports, 2015



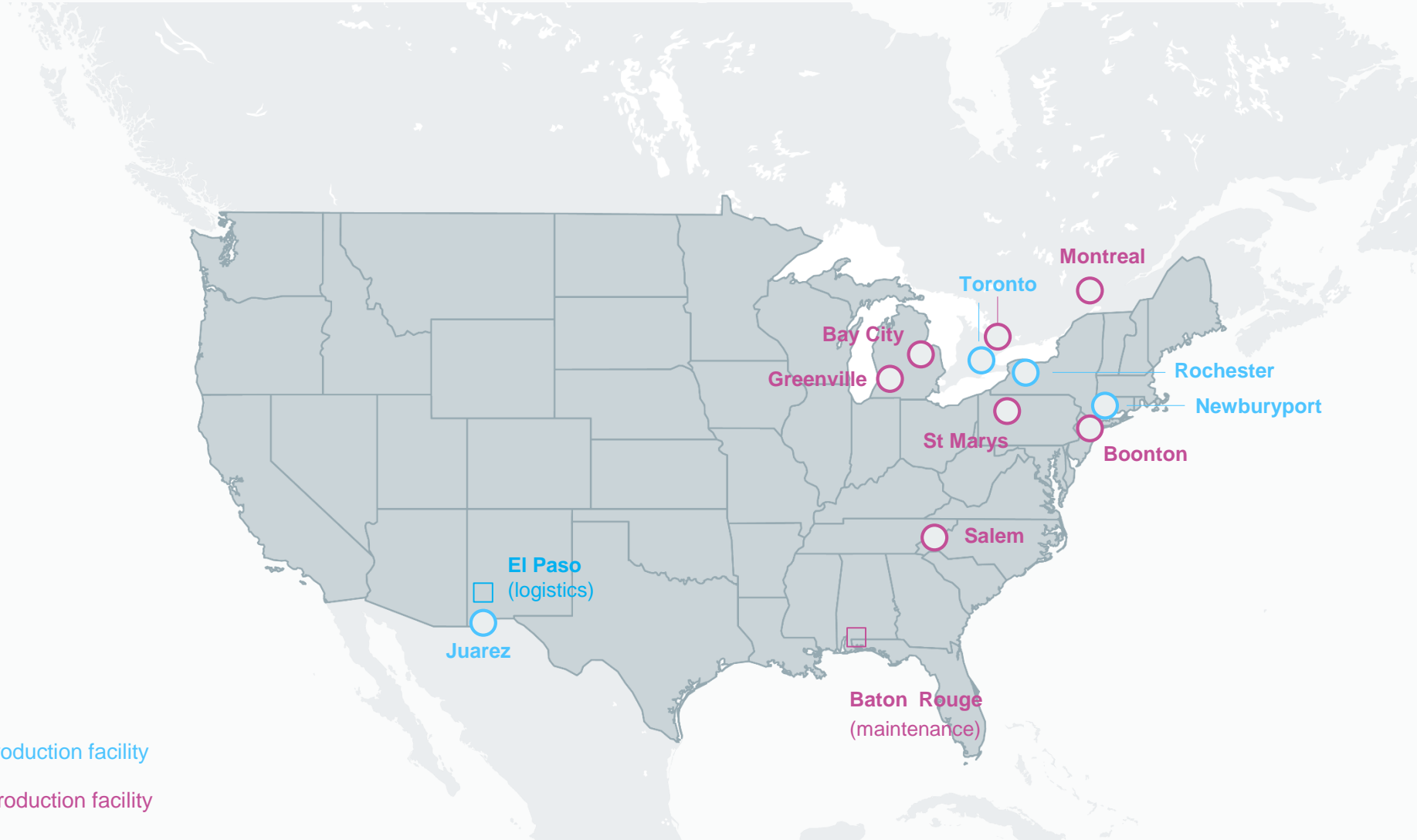


# A POTENTIAL SUPPORTED BY OUR GLOBAL FOOTPRINT, A SOURCE OF STABILITY AND OPPORTUNITIES



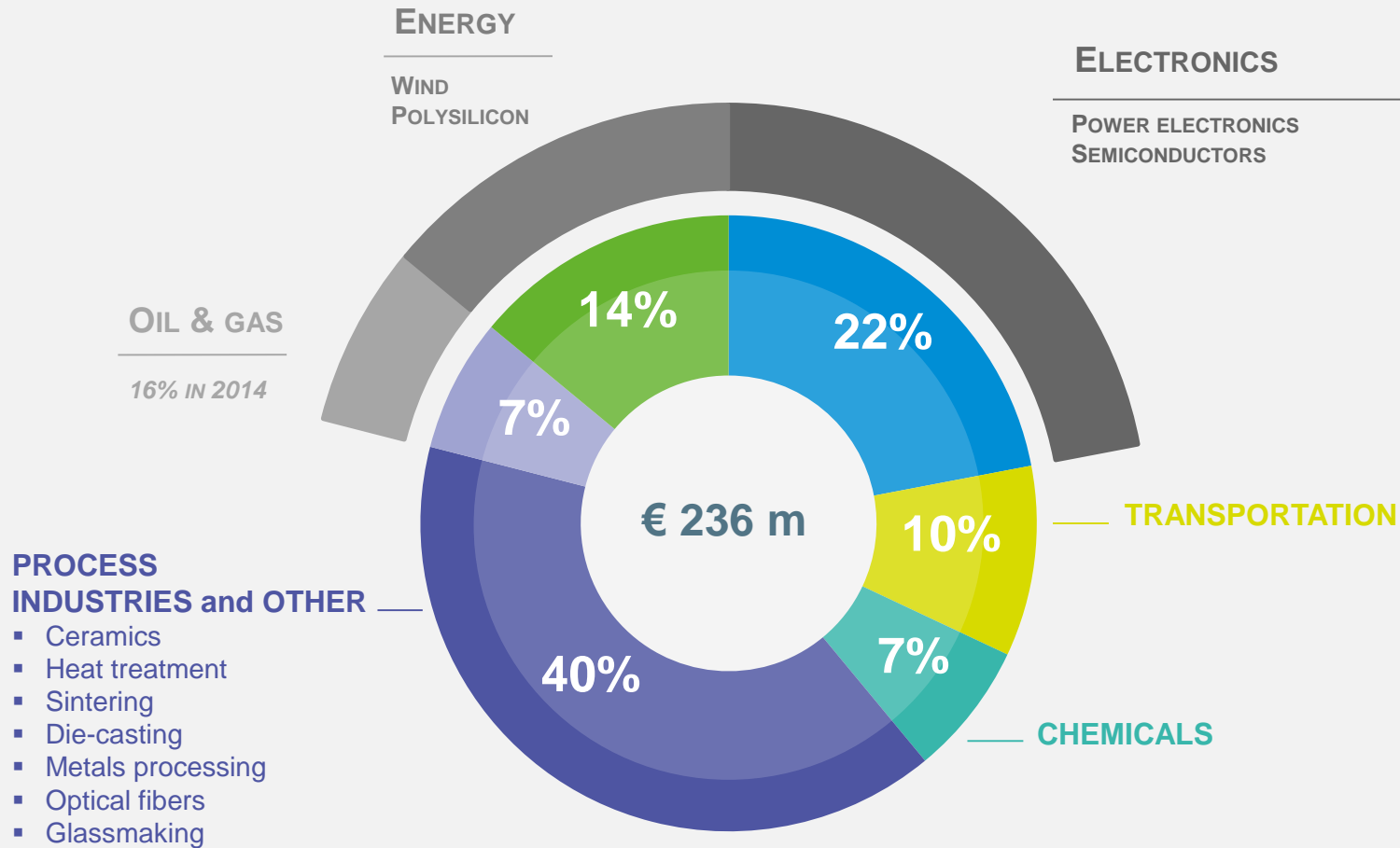
Number of employees at December 31, 2016  
Sales as a % of 2016 figures

# UNITED STATES: A MARKET FULLY COVERED BY OUR LOCAL PLANTS



- EP production facility
- AM production facility

# UNITED STATES: A MAJOR POTENTIAL IN HIGH-TECH MARKETS AND A POSSIBLE REBOUND IN OIL&GAS



Based on 2016 sales in the United States



## CURRENT TARGETS

- Power electronics (bolt-ons and consolidation)
- Fuses (consolidation)
- Materials (expertise)

### ■ ACQUISITIONS

- 2012: Eldre €30m
- 2014: Cirprotec €10m
- 2016: ASP €5m
- 2017: Harbin €2m

### ■ DISPOSALS

- 2013: Non-core businesses in anticorrosion €20m
- 2016: Brazing technologies €5m
- 2017: High-power switches €5m

OVER THE PAST FIVE YEARS

# 2017 GUIDANCE: GROWTH IN SALES AND MARGIN IN THE CURRENT MARKET ENVIRONMENT

## GENERAL BACKDROP

- Geopolitical uncertainty could weigh on capital expenditure and affect trade (especially in Europe and the United States)

## MERSEN

- Stabilized chemical market
- Expanding markets and geographical areas development
- Impacts of the step-up of the operational excellence plan

Like-for-like **growth** in sales of between 0% and 2%  
**Growth** in operating margin before non-recurring items of between  
50 and 100 bps



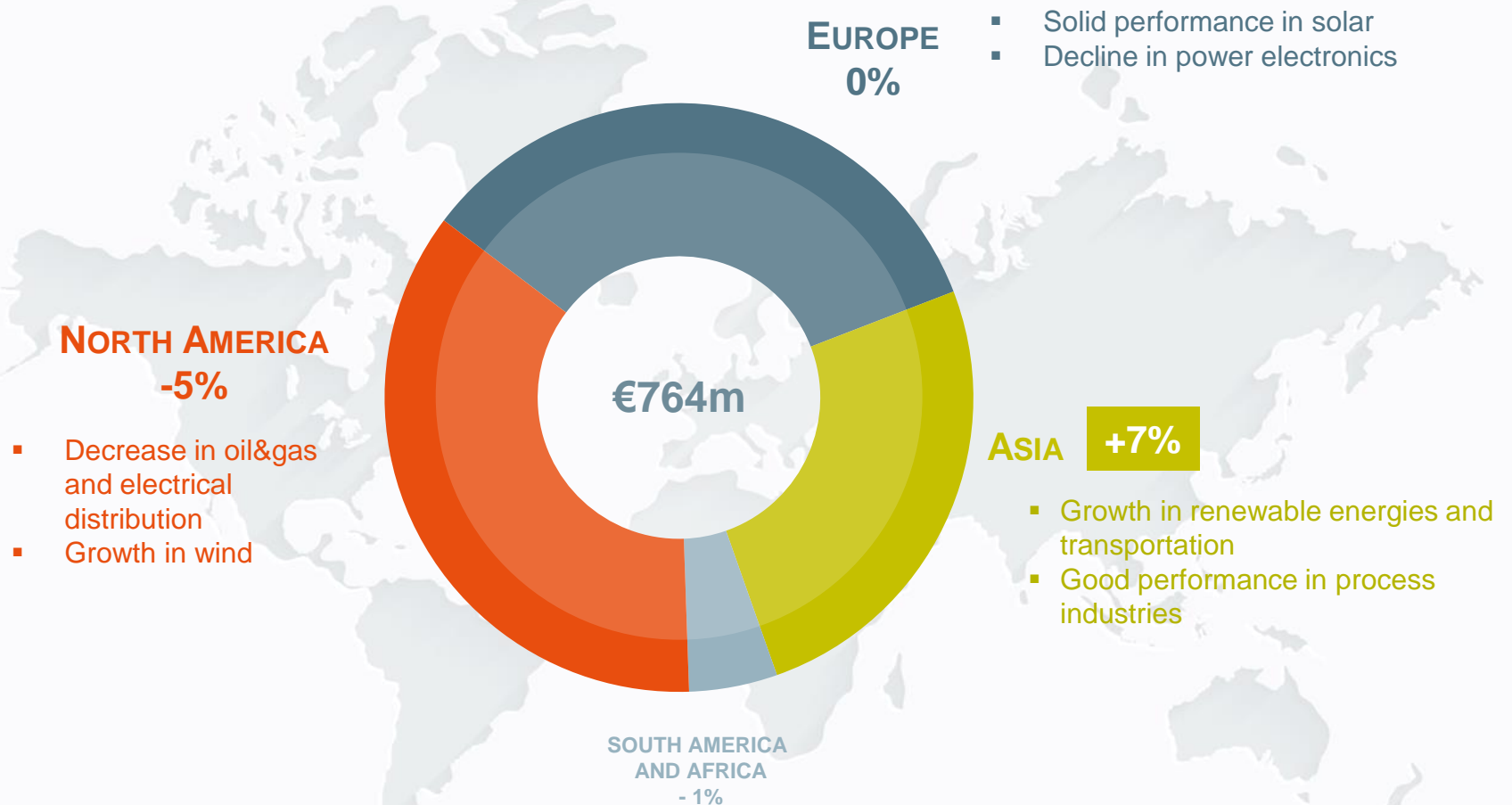
# CONTENTS

## ■ 2016 RESULTS

# A POSITIVE YEAR IN 2016

- SALES IN LINE WITH 2015
- FIRM OPERATING MARGIN, THANKS TO THE COMPETITIVENESS PLANS
- HIGHER NET INCOME AFTER SIGNIFICANT NON-RECURRING COSTS
- VERY HIGH CASH FLOW DRIVING A SHARP REDUCTION IN DEBT

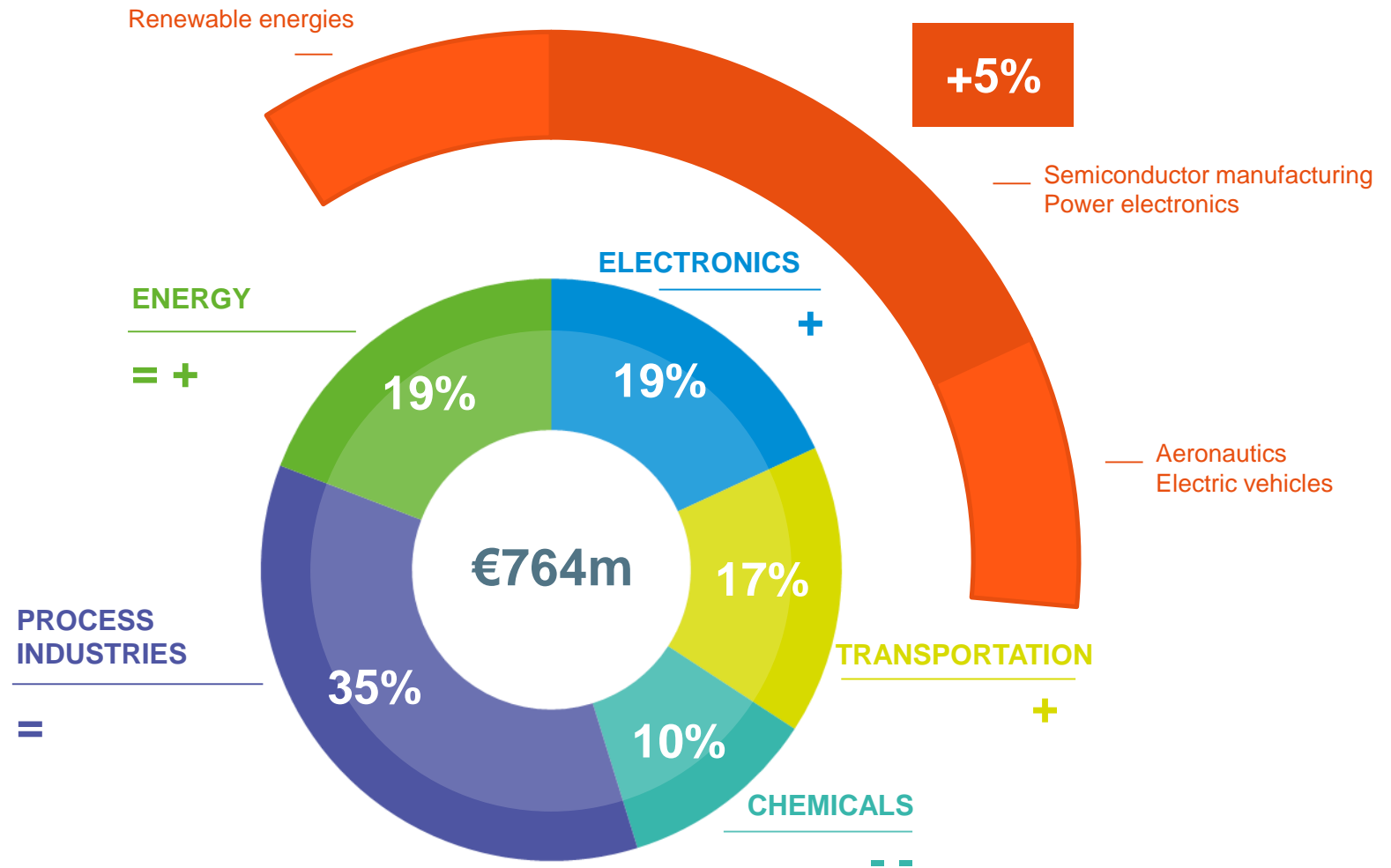
# A YEAR SHAPED BY SUSTAINED GROWTH IN ASIA...



2016 sales in €m - organic growth vs. 2015



# ...AND ROBUST GROWTH IN OUR EXPANDING MARKETS



2016 sales in €m

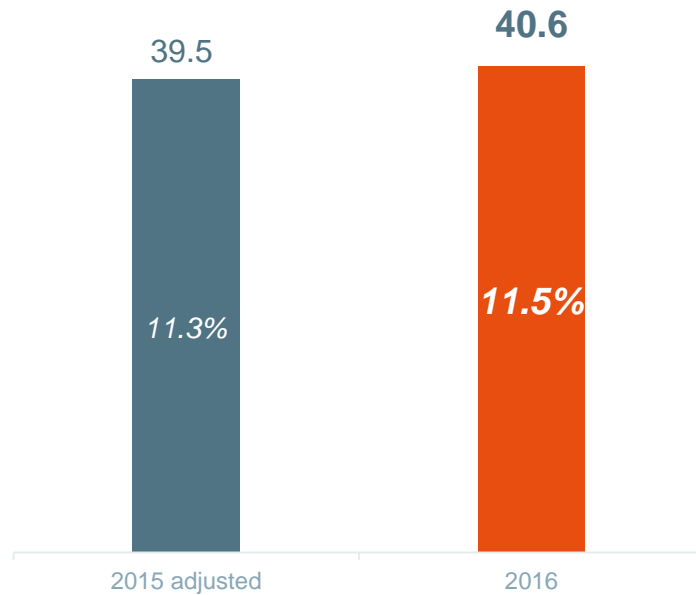
# A SIGNIFICANT IMPACT FROM THE COMPETITIVENESS PLANS...

As a %

<b>2015 operating margin before non-recurring items</b>	<b>7.9%</b>
Volume/mix effects	-0.5%
Price effect	-0.6%
<b>Impact from the competitiveness plans*</b>	<b>+2.3%</b>
Inflation and other	-1.3%
<b>2016 operating margin before non-recurring items</b>	<b>7.8%</b>

\*Net impact of the Transform plan and the operational excellence plan

# HIGH OPERATING MARGIN BEFORE NON-RECURRING ITEMS IN EP, A MORE CHALLENGING SITUATION IN AM



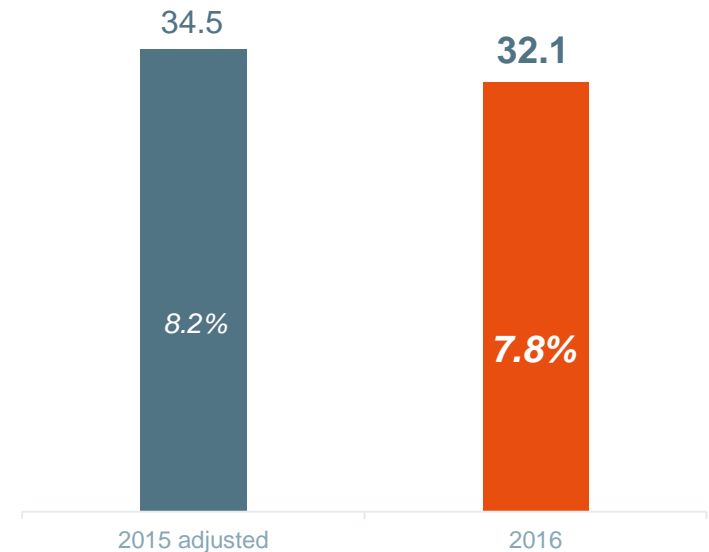
## Electrical Power

- Productivity gains
- Negative price/mix effects

**2016 EBITDA margin: 13.9%**

Operating income before non-recurring items (€m)

Operating margin before non-recurring items (%)

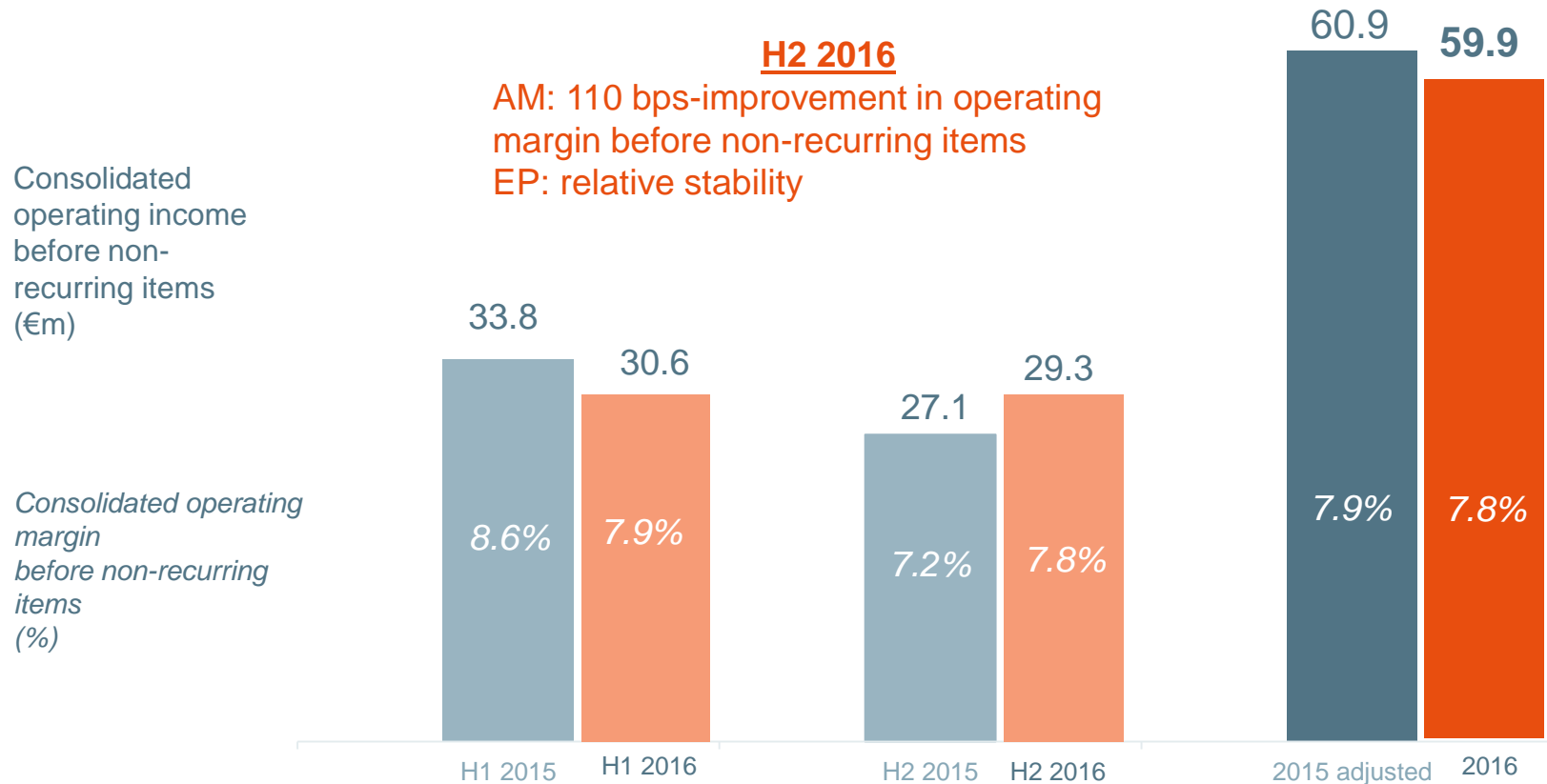


## Advanced Materials

- Productivity gains
- Negative price/mix effects
- Improvement in H2

**2016 EBITDA margin: 14.6%**

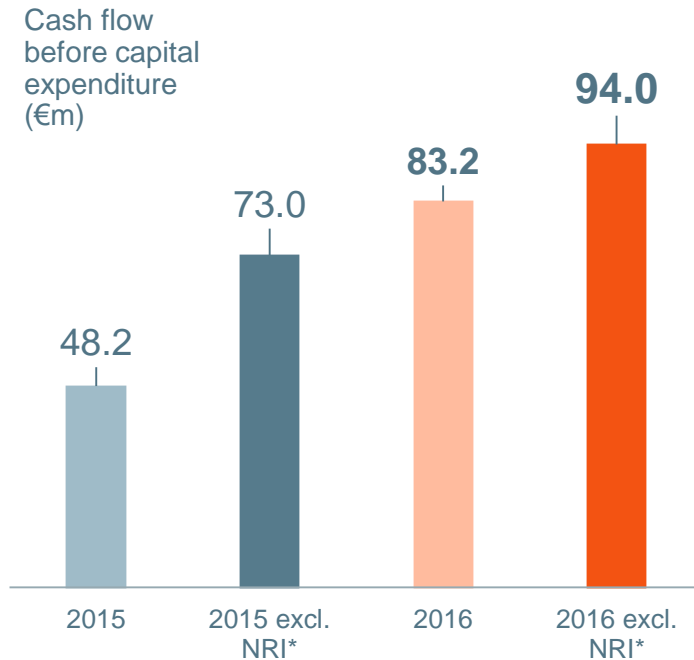
# GROWTH IN CONSOLIDATED MARGIN IN THE SECOND HALF OF 2016, WITH A NOTICEABLE IMPROVEMENT IN THE AM SEGMENT



# HIGHER NET INCOME FOR THE YEAR

In €m	2016	2015 adjusted	
<b>Operating income before non-recurring items</b>	<b>59.9</b>	<b>60.9</b>	
% of sales	7.8%	7.9%	
Non-recurring income and expense	(26.5)	(21.6)	■ Of which €22m for the operational excellence plan
Amortization of intangible assets	(1.2)	(1.1)	
Net financial income/(costs)	(11.0)	(12.5)	
Income tax	(11.9)	(19.1)	■ Effective tax rate excluding the operational excellence plan: 30%
<b>Net income from continuing operations</b>	<b>9.3</b>	<b>6.6</b>	<b>+41%</b>
Net income/(loss) on assets held for sale/discontinued operations	(6.1)	(4.0)	■ Mainly the high-power switches business
<b>Net income</b>	<b>3.2</b>	<b>2.6</b>	<b>+23%</b>
<b>Net income attributable to Mersen shareholders</b>	<b>1.8</b>	<b>1.3</b>	

# VERY HIGH OPERATING CASH FLOW...



\*Excluding non-recurring items (operational excellence plan and Transform) and cash-flow from discontinued operations

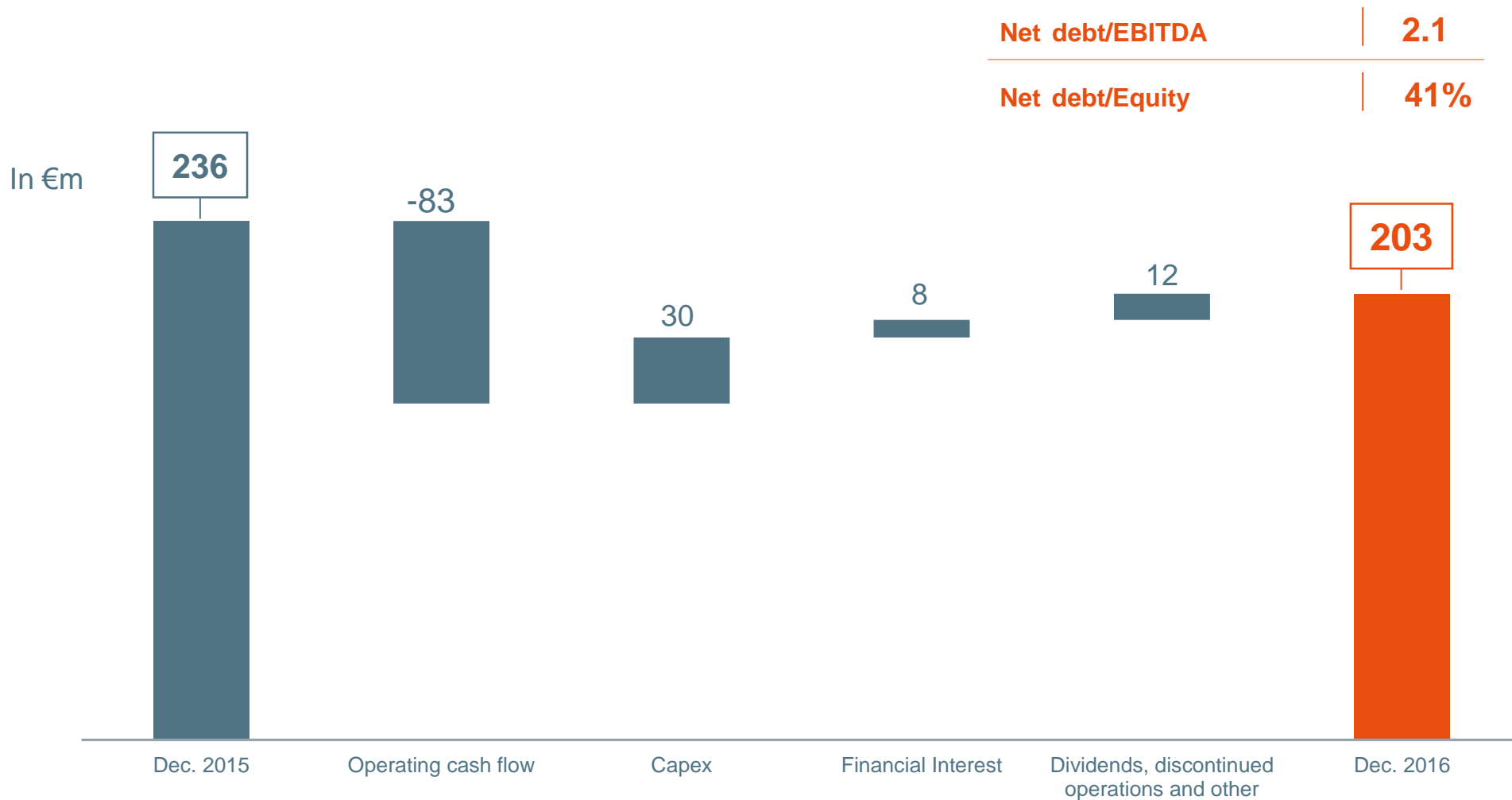
- OPTIMIZED INVENTORY LEVELS
- LOW INCOME TAX PAID
- CAPEX DISCIPLINE



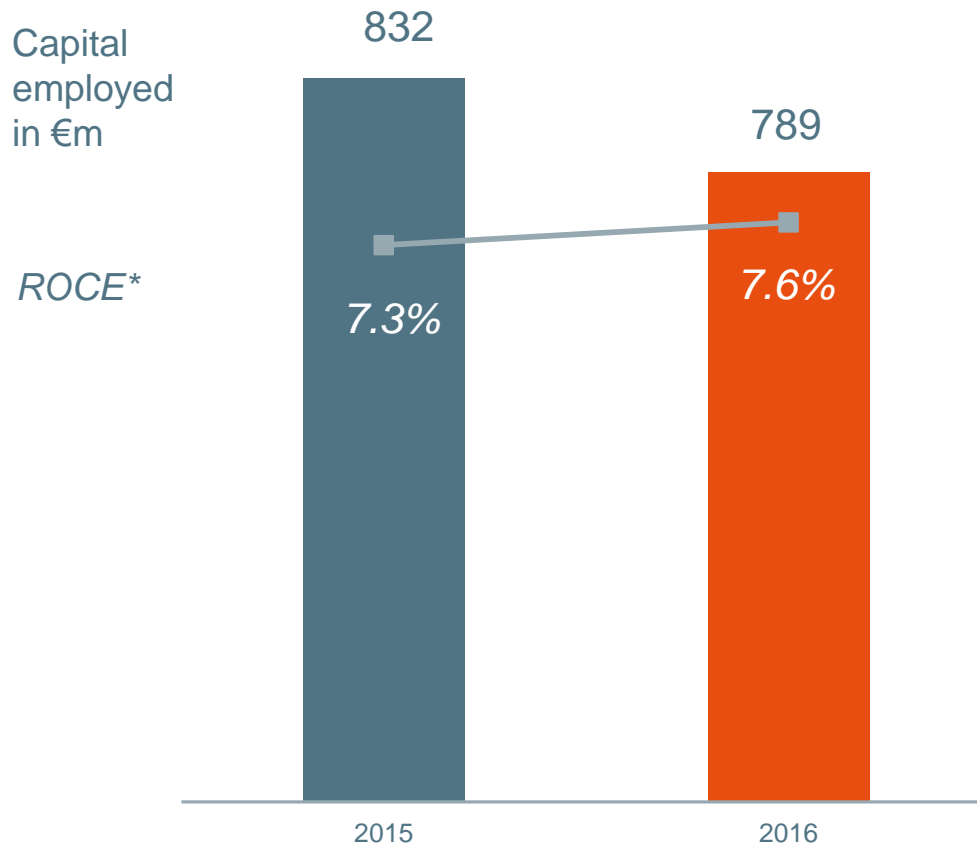
Free cash flow yield <sup>(1)</sup>  
8.1%

<sup>(1)</sup> Operating cash flow after capital expenditure before non-recurring items/sales

# ...DRIVING A SHARP REDUCTION IN DEBT



# SLIGHT GROWTH IN ROCE



## ■ ADVANCED MATERIALS

< 10%

- Overcapacity in graphite
- Chemicals in the trough of the cycle

## ■ ELECTRICAL POWER

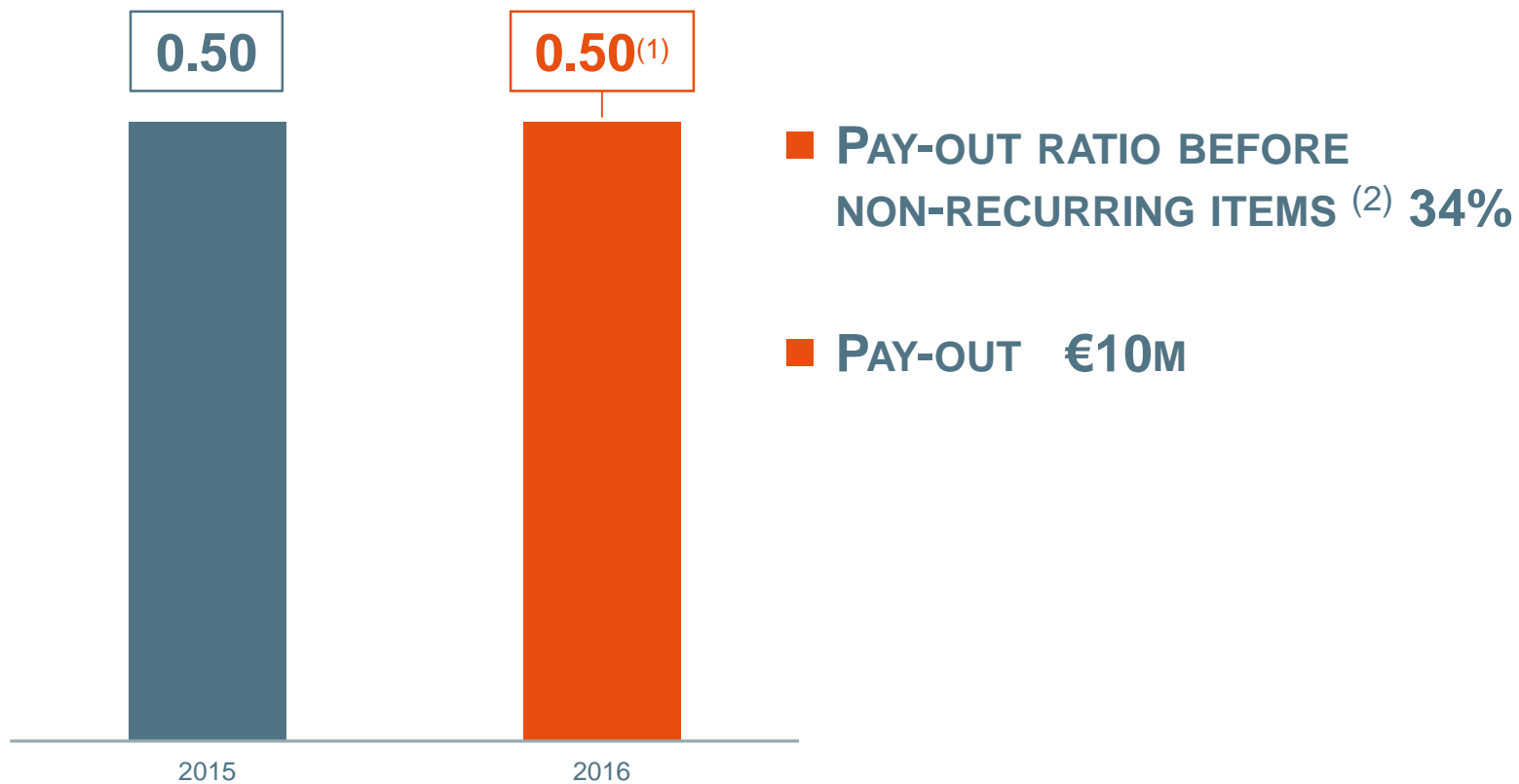
> 15%

- Low capital intensity
- High operating margins

\* Operating income before non-recurring items and tax/Capital employed



# RECOMMENDED DIVIDEND OF €0.50 A SHARE



(1) Subject to shareholder approval at the Annual General Meeting

(2) Net income from continuing operations excluding the operational excellence plan

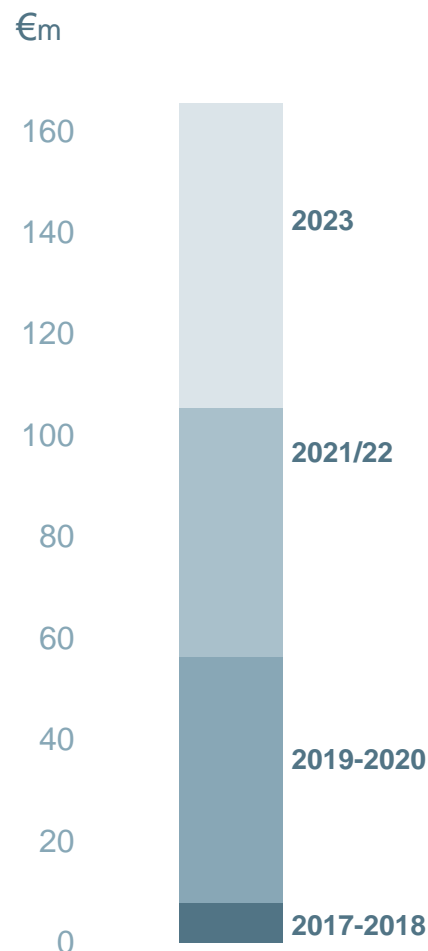


# APPENDICES

- DEBT STRUCTURE
- POST-RETIREMENT BENEFIT OBLIGATIONS
- CUSTOMER PORTFOLIO

# BALANCE SHEET

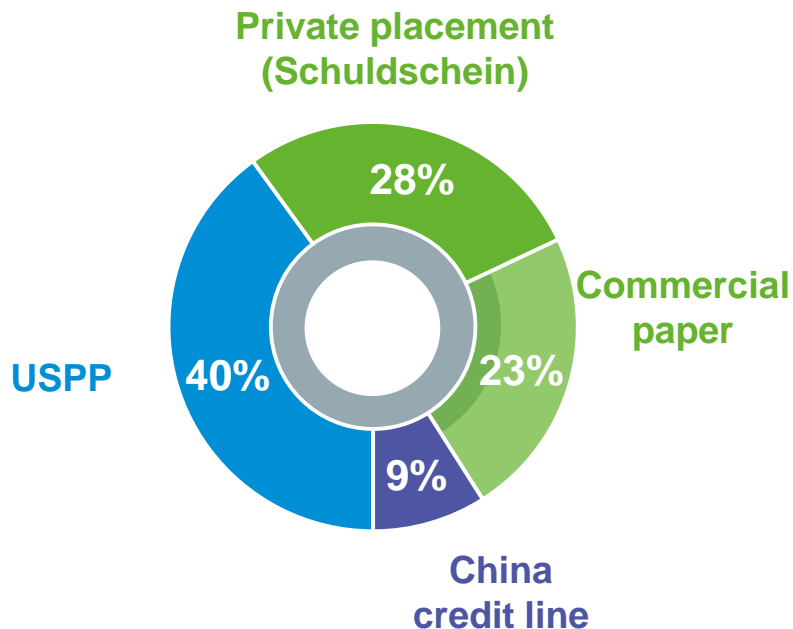
## 5-YEAR MATURITY PROFILE\*



\* Based on drawdown confirmed credit lines

## SOURCES OF FINANCING

(INCLUDING COMMERCIAL PAPER)



## LEVERAGE

NET DEBT/EBITDA

At Dec. 31, 2016 2.1

Bank covenants 3.5

**Unused confirmed lines: €188m**

*(including the back-up lines available in the commercial paper program)*

# DOLLAR AND INTEREST-RATE IMPACTS

## ■ 10% APPRECIATION IN THE DOLLAR

- Sales increase by approx. €20m
- Debt increase by approx. €7.5m
- Non significant impact on Operating income before non-recurring items, ROCE and leverage ratio

## ■ 100-BP INCREASE IN US RATES, BOTH SHORT AND LONG-TERM

- Non significant impact on cost of debt thanks to fixed rates notably on USPP
- Post-retirement benefits decrease by approx. €10m