



GLOBAL EXPERT IN ELECTRICAL POWER AND ADVANCED MATERIALS

JANUARY, 2018

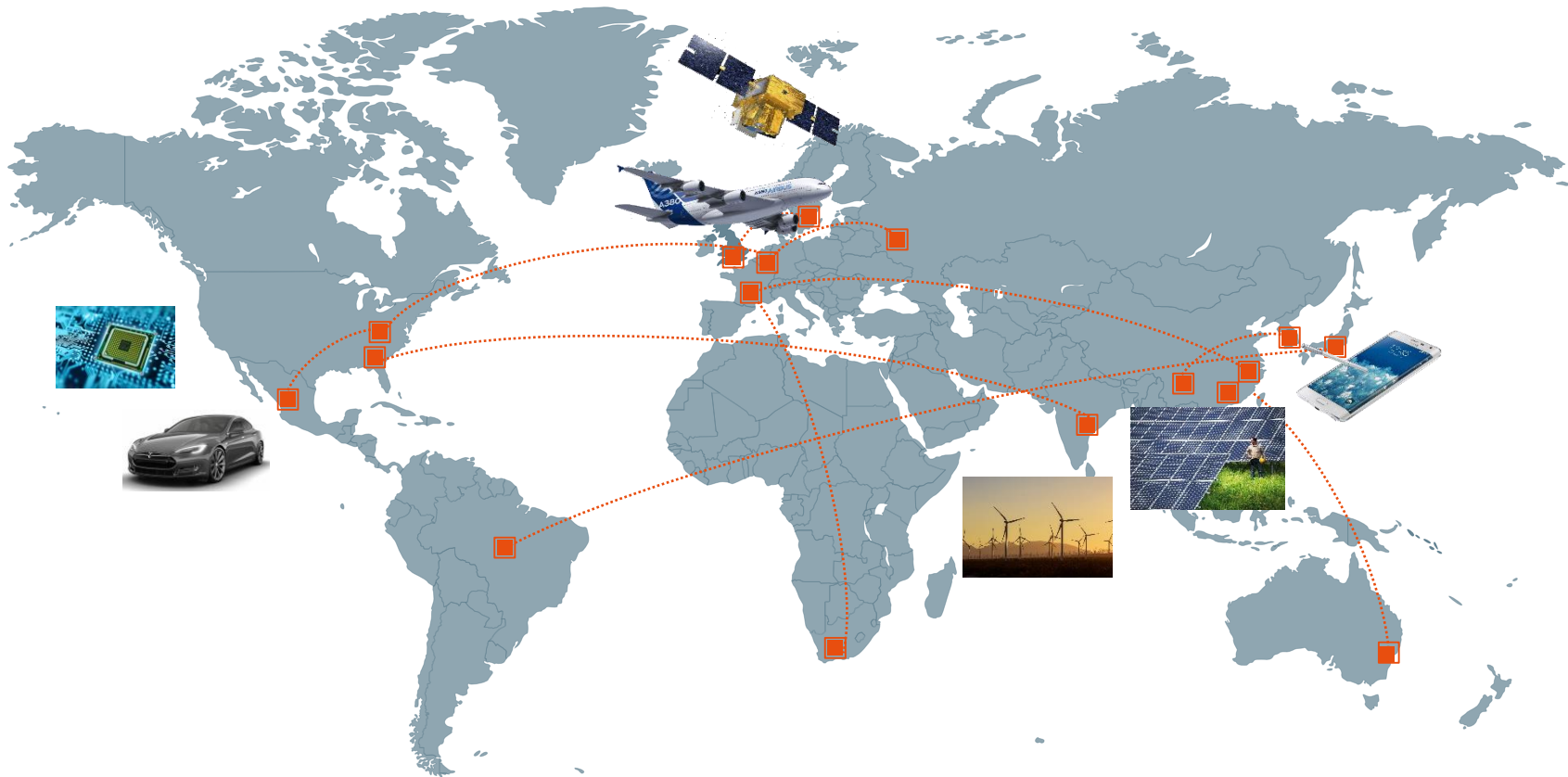


MERSEN: OUR MISSION

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



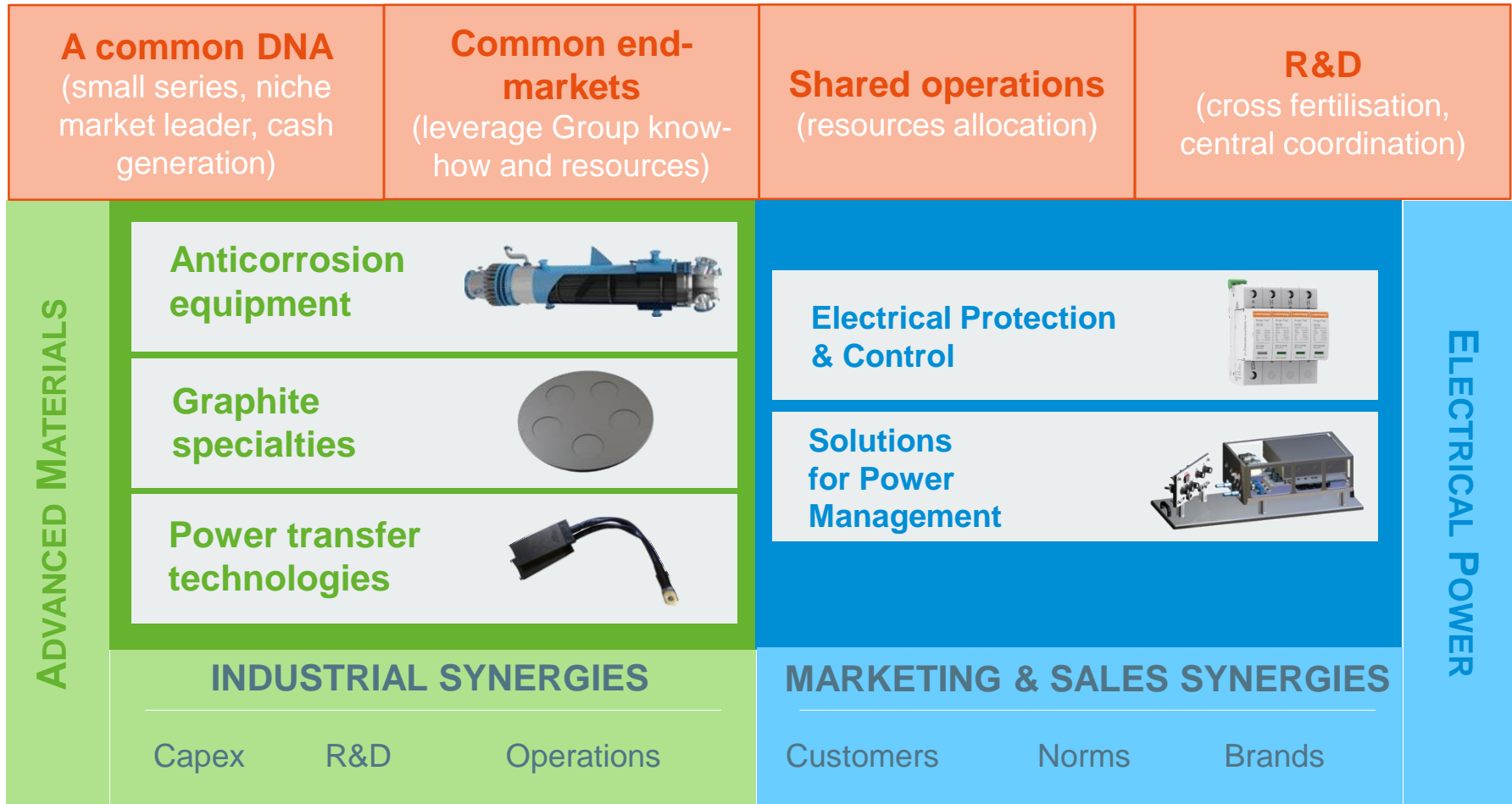
**WE PROVIDE INDUSTRIAL COMPANIES AROUND THE
WORLD WITH INNOVATIVE SOLUTIONS ENHANCING THE
PERFORMANCE OF THEIR PRODUCTS AND SERVICES**



OUR STRATEGIC PILLARS



AN ORGANIZATION ALIGNED WITH OUR MARKETS AND DELIVERING SYNERGIES



STRONG LEADERSHIP POSITIONS WITH C. 15-30% MARKET SHARE IN ALL ACTIVITIES

ADVANCED MATERIALS

ANTICORROSION EQUIPMENT

#1-2 WW POSITION (Graphite products)

Competition: SGL Carbon (Ger)

GRAPHITE SPECIALTIES

#1-2 WW POSITION (High temperature application)

Competition: Toyo Tanso (Jp), Tokai Carbon (Jp), SGL Carbon (Ger), Schunk (Ger)

POWER TRANSFER TECHNOLOGIES

#1-2 WW POSITION (Brushes for industrial motors)

Competition: Morgan AM (UK), Schunk (Ger)

ELECTRICAL POWER

ELECTRICAL PROTECTION & CONTROL

#2 WW POSITION (Industrial fuses)

#1 WW POSITION (Current collection for railways)

Competition: Eaton (US), Littelfuse (US), private German players

SOLUTIONS FOR POWER MANAGEMENT

#1 WW POSITION (Passive components for power electronics)

Competition: Eaton (US), Rogers (US), Methode (US), Lytron (US)

A STRONG CUSTOMER'S PORTFOLIO



- CLIENT PROXIMITY
(**>65% "ON-DEMAND" PRODUCT**)



- REGULAR AFTER MARKET REPLACEMENT (**~65% OF SALES**)

- HIGH BARRIER OF ENTRY
 - High quality
 - Homologation & standards
 - Worldwide presence

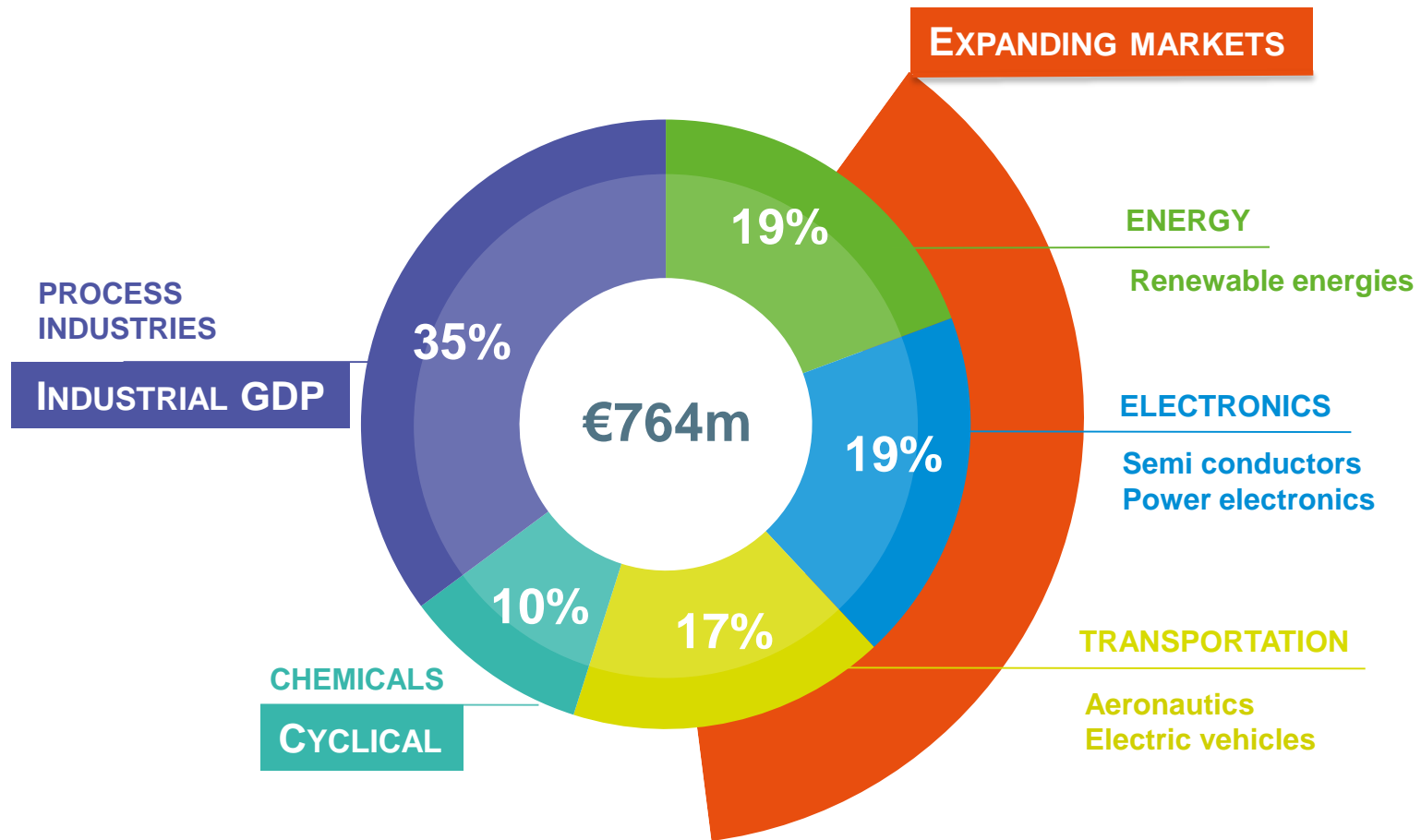
- LARGEST CUSTOMER:
< 4% OF SALES

- 10 LARGEST CUSTOMERS:
< 13% OF SALES

SAINT-GOBAIN	ALSTOM	ARKEMA	CREE	WACKER
ArcelorMittal	GE	AIR LIQUIDE	SIEMENS	NORDEX
BELMONT EDM	BOMBARDIER	BAYER	APPLIED MATERIALS	SIEMENS
SAMSUNG	BART	DOW CORNING	Infineon	LONGI 隆基
WESCO	THALES	KEM ONE	Schneider Electric	SMA
	SAFRAN		SAMSUNG	中环光伏 ZHONGHUAN SOLAR

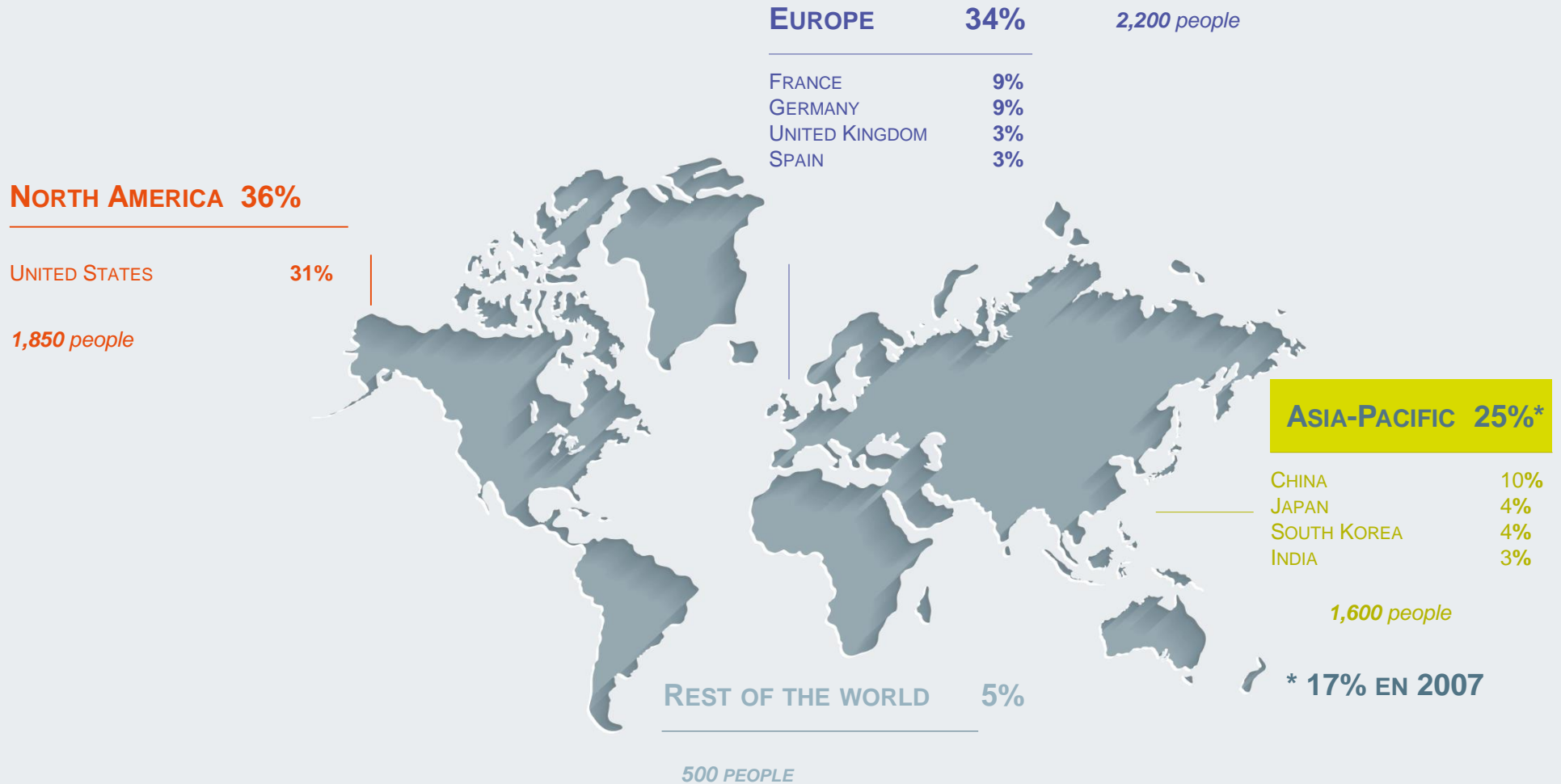
Non exhaustive List

POSITIVE LONG-TERM MARKET TRENDS



FY 2016 Sales in €million

A GLOBAL FOOTPRINT, SOURCE OF STABILITY AND OPPORTUNITIES WITH A STRONG PART IN ASIA



Sales as a % of 2016 figures

Number of employees at December 31, 2016


EFFICIENT R&D SET UP TO MAXIMISE INNOVATION POTENTIAL




- **NEW POSITION OF CTO (2016) TO FASTER DECISION MAKING AND INCREASE EFFICIENCY**
- **SEGMENT'S CTOs TO DEVELOP SYNERGIES BETWEEN BUS**

Exemples of innovation

Disruptive innovation



Hybrid switch and DC fuse for EVs



Xp series®

Optical mirrors for laser technologies



Adjacent innovation



UL-standard surge protection solutions for the US market



Flexible and rigid felt insulation for semiconductor electronics



A LEANER AND MORE COMPETITIVE STRUCTURE



■ COMPETITIVENESS PLAN

- Reorganization of the manufacturing footprint serving chemicals
- Streamlining of product lines in EP
- Reducing fixed costs

■ OPERATIONAL EXCELLENCE

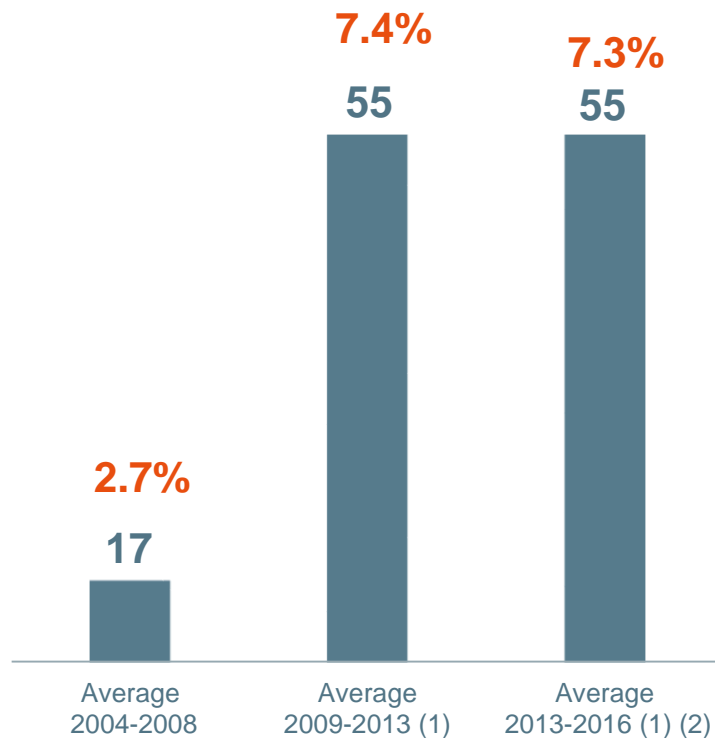
- A new position at management level (2016)
- All sites involved, with a special focus on safety and lean culture (quality, inventory turns, delivery time) for LT benefits

<i>Competitiveness plan</i>	2016	H1 2017	2017 <i>announced*</i>	2018 <i>announced*</i>	Total <i>announced*</i>
Cost savings (€m)	16.5	8	[13-16]	[11-13]	[43-45]
Impact on the P&L before tax (€m)	(22)	(3)	(10)		(32)
Impact on Cash-flow** (€m)	(5)	(8)	(25)	(5)	(35)

* announce in March 2017

** including capex

STRONG CASH-FLOW GENERATION



FCF yield in %: Free cash-flow/ Sales

Free cash flow in €m: Operational Cash-flow - Capex

■ FORTHCOMING DRIVERS :

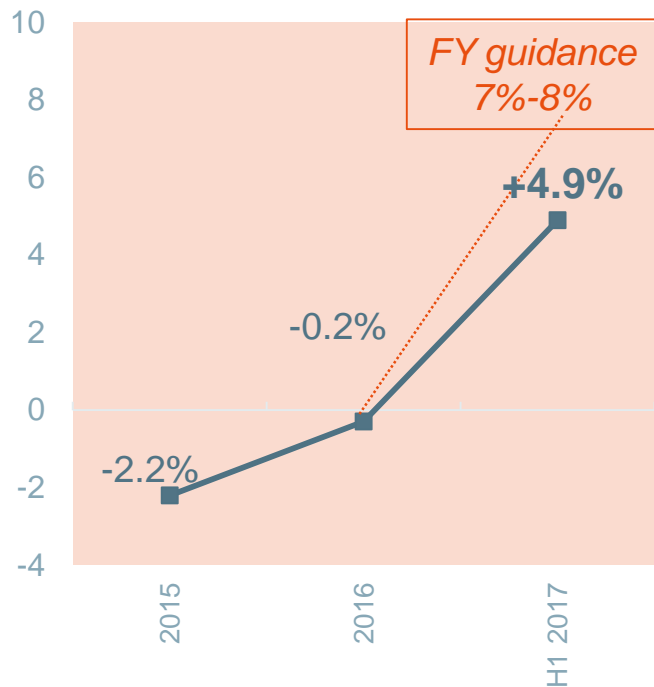
- Operational excellence
- Lean culture

(1) Continuous activity
(2) excl. Exceptional items

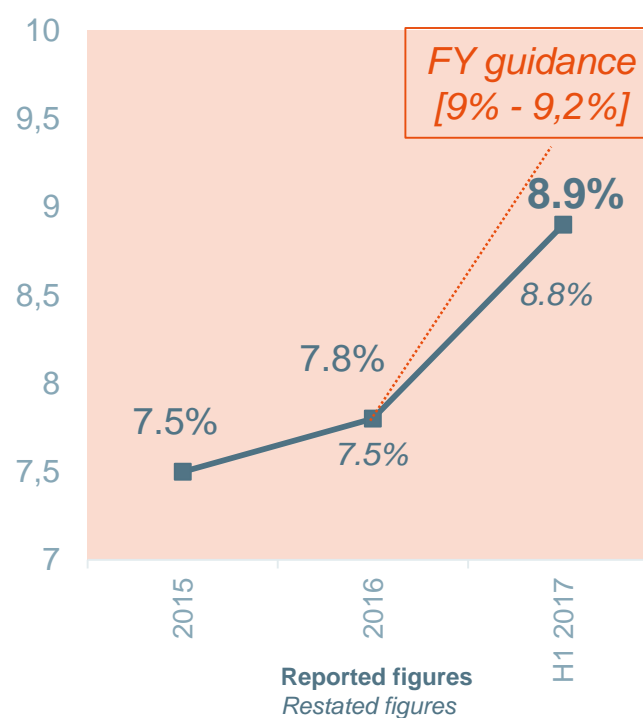
A RECENT TURN-AROUND ...

... THANKS TO THE EFFECTIVENESS OF MEASURES IMPLEMENTED FOR 2 YEARS (ORGANIZATIONAL STRUCTURE, COMPETITIVENESS PLANS)

ORGANIC GROWTH IN SALES

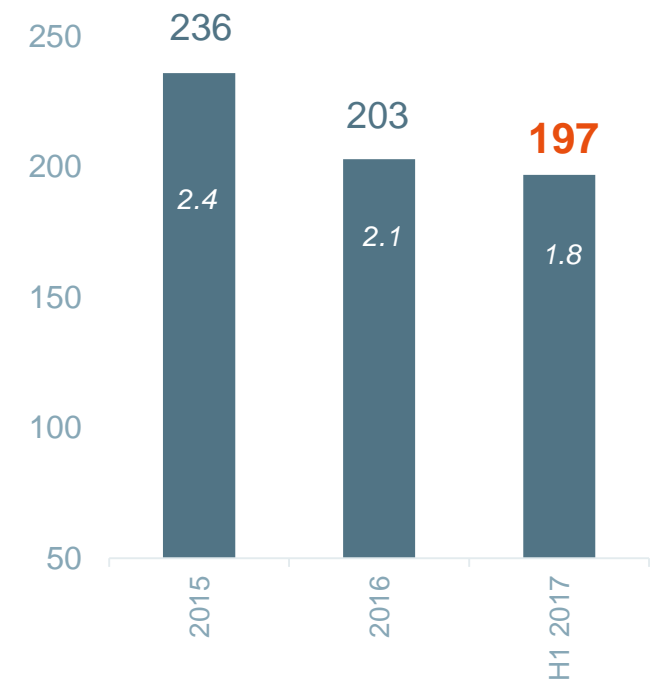


CURRENT OPERATING MARGIN



NET DEBT IN €M

Net debt / EBITDA



A SOUND ACTIVITY IN BOTH SEGMENTS IN H1 2017

ELECTRICAL POWER

+3%

- Growth in Power Electronics and Process Industries
- Electrical distribution improvement at the end of the semester but still lower than last year

ADVANCED MATERIALS

+6%

- Growth in electronics, aeronautics, chemicals and process industries (notably, strong contribution of glass forging for smartphones)
- Renewable energies stable

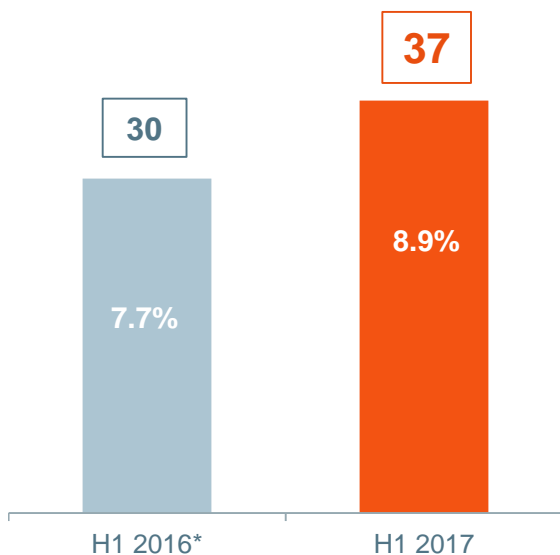
€412m

+5%

Sales H1 2017 in €million – organic growth vs H1 2016

STRONG INCREASE IN PROFITABILITY IN H1 2017

in €m and % of sales



In %

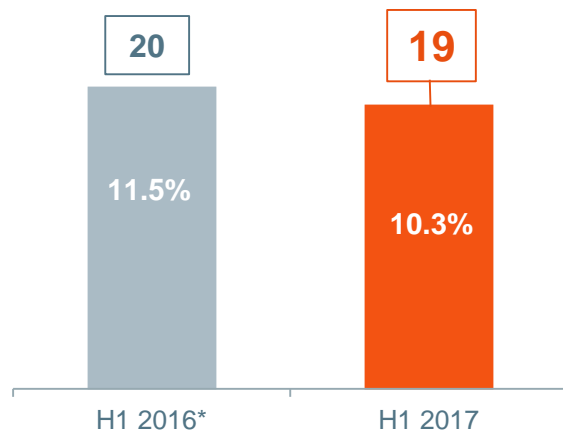
<i>EBITDA margin H1 2016*</i>	12.7%
Current Operating margin H1 2016*	7.7%
Volume /mix effects	+0.8%
Price impact	-0.4%
Competitiveness	+1.9%
Inflation	-1.1%
Current Operating margin H1 2017	8.9%
<i>EBITDA margin H1 2017</i>	13.6%

* Restated (cf. press release)

STRONG VOLUME IMPACT ON ADVANCED MATERIALS SEGMENT IN H1 2017

■ ELECTRICAL POWER

IN €M AND % OF SALES

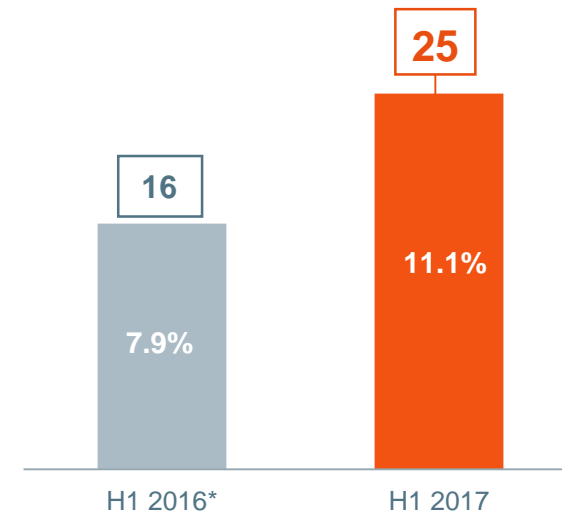


- UNFAVORABLE MIX EFFECTS
- LIMITED GAIN FROM COMPETITIVENESS PLANS

■ ADVANCED MATERIALS

IN €M AND % OF SALES

Current Operating Margin

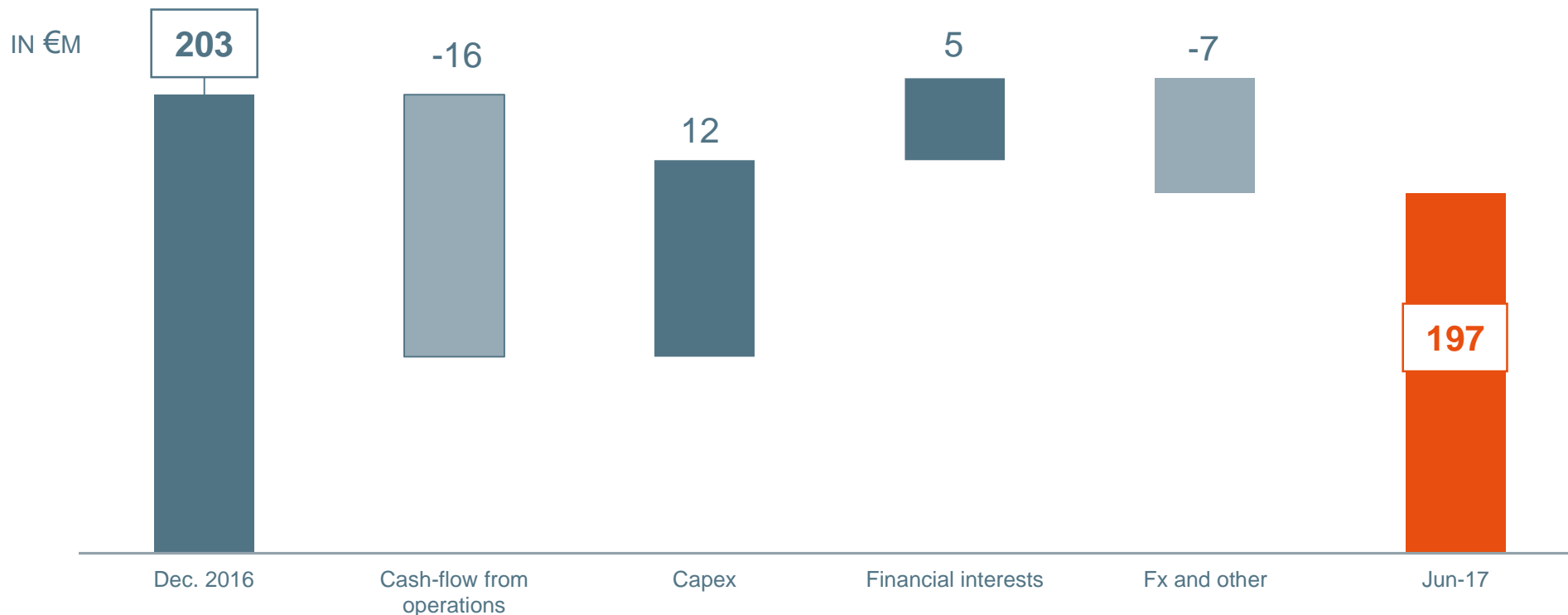


- POSITIVE VOLUME EFFECT
- UNFAVORABLE GRAPHITE PRICE EFFECTS
- GAIN FROM COMPETITIVENESS PLANS

* Restated (cf. press release)

DECREASE IN NET DEBT IN H1 2017

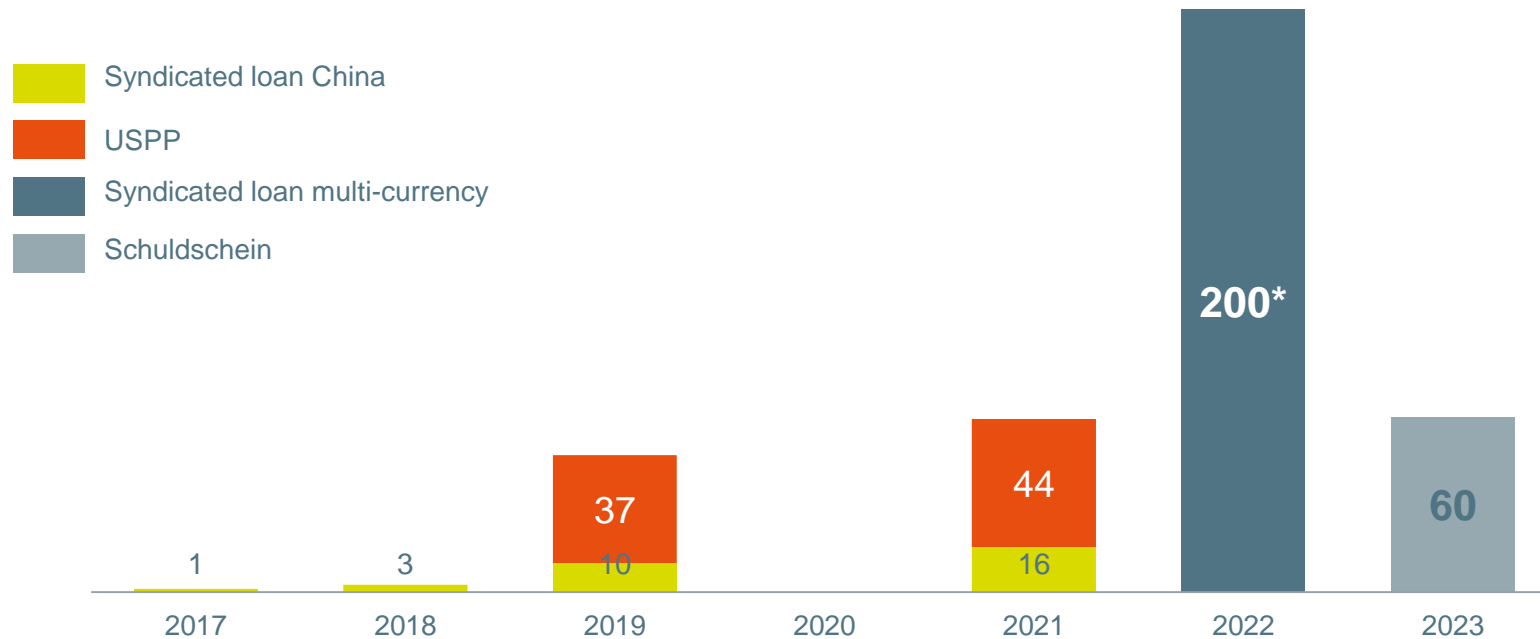
Net Debt/EBITDA	1.8
Net Debt/Equity	42%



* Operating cash flow after capital expenditure before non-recurring items/sales

A SOLID BALANCE SHEET WITH A RECENT EXTENSION OF THE DEBT MATURITY

CONFIRMED LINES IN €M AT JUNE 30, 2017, AFTER REFINANCING*



After refinancing*
Maturity > 5 years

Unused confirmed lines after commercial paper coverage: €170m

*July 18, 2017

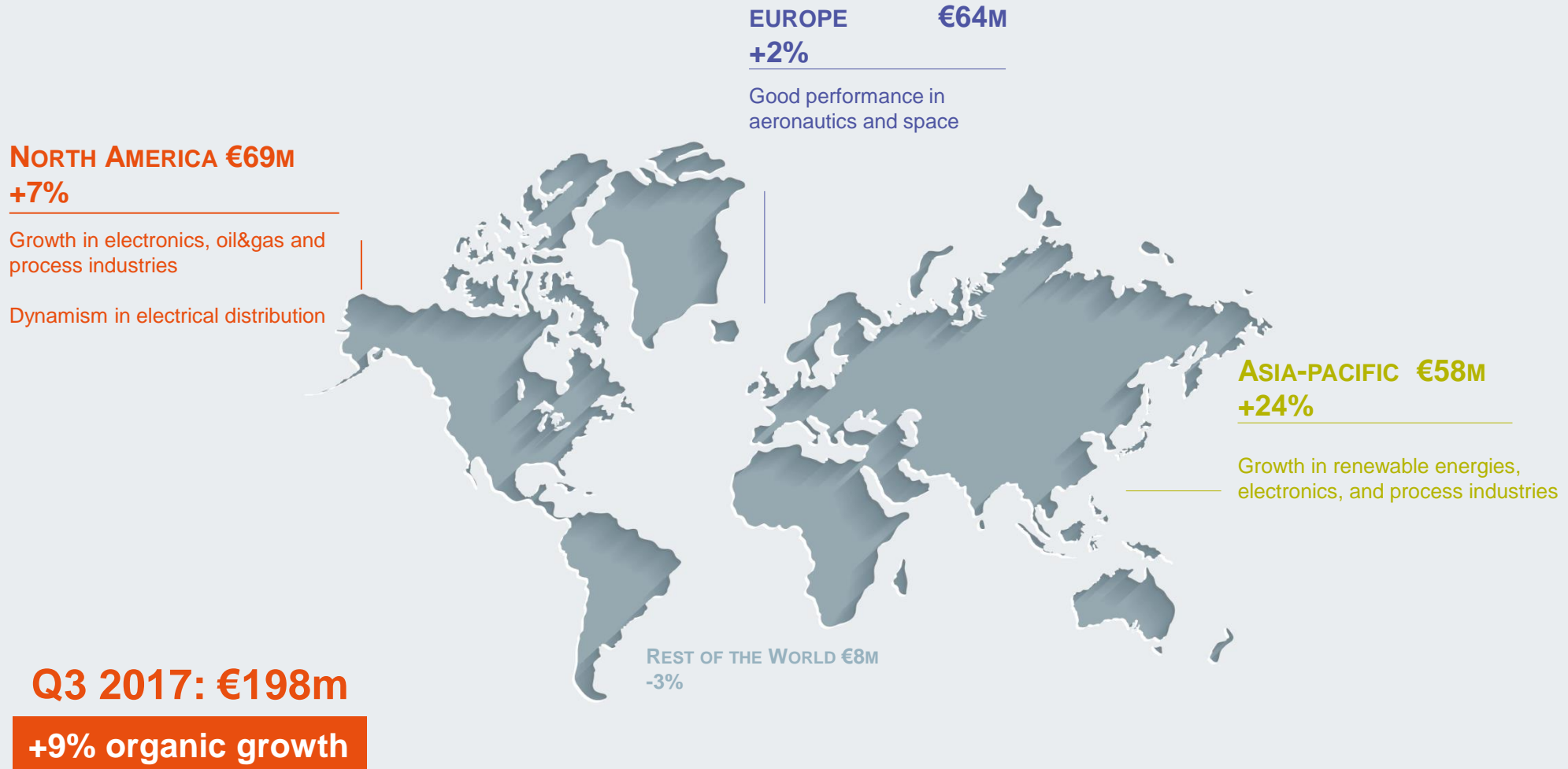


THIRD QUARTER 2017

- SALES

- FY GUIDANCE

A QUARTER MARKED BY A STRONG GROWTH IN ASIA AND AN IMPROVEMENT IN NORTH AMERICA



2017: ANNUAL ORGANIC GROWTH AND PROFITABILITY GUIDANCE RAISED AGAIN

- STRONG PERFORMANCE IN THE FIRST 9 MONTHS
- FAVORABLE ECONOMIC ENVIRONMENT
- PROMISING OUTLOOK FOR OUR GROWTH MARKETS
- ON-GOING COMPETITIVENESS PLANS

	DISCLOSED IN MARCH 2017	RELEASED ON JULY 19, 2017	RELEASED ON OCTOBER 25, 2017
ORGANIC GROWTH IN SALES	[0-2%]	[3-5%]	[7-8%]
CURRENT OPERATING MARGIN GROWTH	[50-100 POINTS]	[80-130 POINTS]	[150-170 POINTS]

2016 RESTATED* : 7.5%

* Disposal of high-power switch business



ESG

- **CORPORATE GOVERNANCE**
- **CORPORATE SOCIAL RESPONSIBILITIES**

MERSEN'S ESG PERFORMANCE

- RATED AS “ADVANCED” IN 2016 BY ETHIFINANCE, INDEPENDENT AGENCY SPECIALIZED IN ESG ASSESSMENT, WITH AN OVERALL SCORE OF 64%.



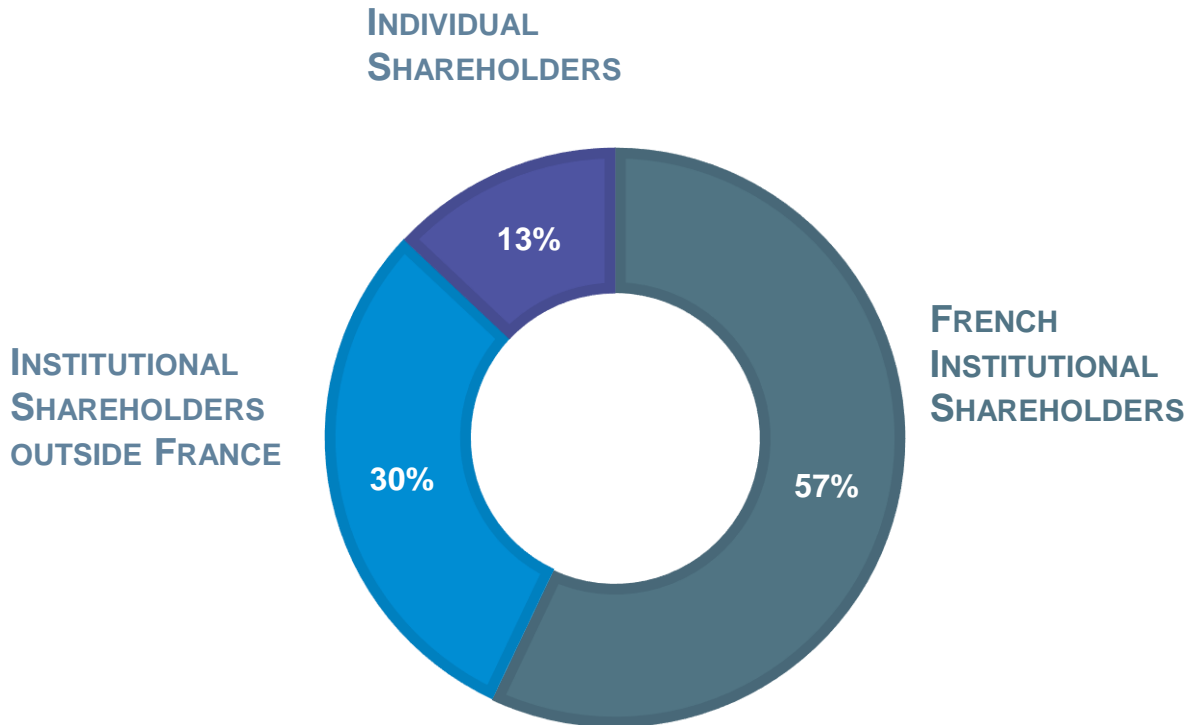
- SIGNATORY OF THE UN GLOBAL COMPACT SINCE 2009



- PART OF GAIA INDEX



SHAREHOLDING STRUCTURE (JUNE 2017)



Main shareholders As of Dec. 2017

➤ ARDIAN	17.7 %
➤ BPIFRANCE INVESTISSEMENT	15.5 %
➤ SOFINA	8.2 %

STRONG GOVERNANCE

- **A DUAL STRUCTURE (CHAIRMAN OF THE BOARD, CEO)**
- **A BOARD OF DIRECTORS WITH 13 MEMBERS**
 - 2 representatives of Ardian
 - 2 representatives of Bpi
 - 1 representative of Sofina
 - 8 independent including 1 employee representative
- **3 SPECIALIZED COMMITTEE (Audit & Account, Strategy, Governance & remuneration)**
- **ABIDES BY THE AFEP-MEDEF'S CODE OF CORPORATE GOVERNANCE**
- **RISK MAPPING PROCESS** carried out every year under board supervision
- **INTERNAL AUDIT ORGANIZATION** under audit & account committee supervision

STRONG COMMITMENT TO HUMAN CAPITAL

■ WORKING CONDITIONS

- Safety is a Group top priority
- Ethic code released in 10 languages
- Signatory of the UN Global Compact since 2009

■ SKILLS DEVELOPMENT

- Mersen Academy
- HR Information System

■ HR ROADMAP FOR 2016-2020 MAINLY FOCUSED ON:

- Reinforcing a common culture around values
- Mobilizing collective intelligence through an organization promoting collaboration
- Further strengthening the management culture

MERSEN'S VALUES

Collaboration

Excellence

Agility and
entrepreneurial spirit

People-Conscious

Partnering with our
customers

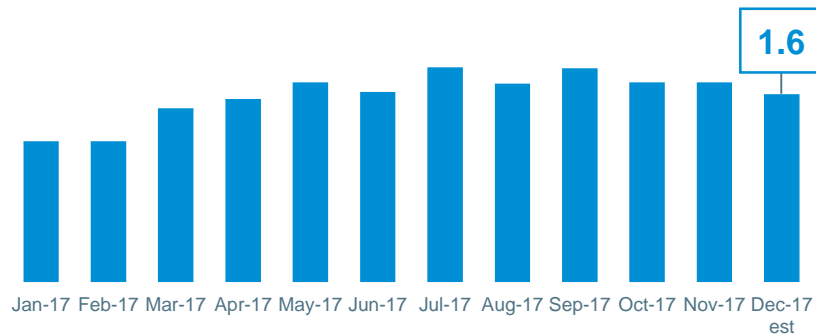
RELATED PARTIES

- **ETHIC CODE ALSO APPLIES TO CUSTOMERS AND SUPPLIERS**
- **CUSTOMER KPI USED IN EVERY PLANT**
 - On time delivery to promise / to request
 - Quote follow up
- **SUPPLIER**
 - Selection process with CSR criteria for new suppliers
 - Supplier quality rate
- **LOCAL MANAGEMENT STRUCTURES REFLECT THE DIVERSITY**
 - 91% of plant managers are local

MAINTAIN BEST PRACTICES IN SAFETY

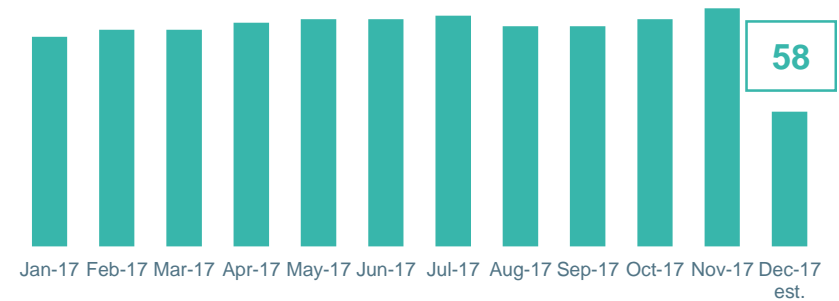
Frequency rate (Mersen + Temp)

Cumulative number of lost-time occupational accidents per million man-hours



Severity rate (Mersen + Temp)

Cumulative number of working days lost to occupational accidents per million man-hours



ENVIRONMENTAL POLICY

■ CLEAR COMMITMENTS STATED IN A GLOBAL ENVIRONMENTAL POLICY

- Compliance with regulations
- Identification of potential hazard
- Each plant has a plan to recycle and minimize consumption
- Eco-design

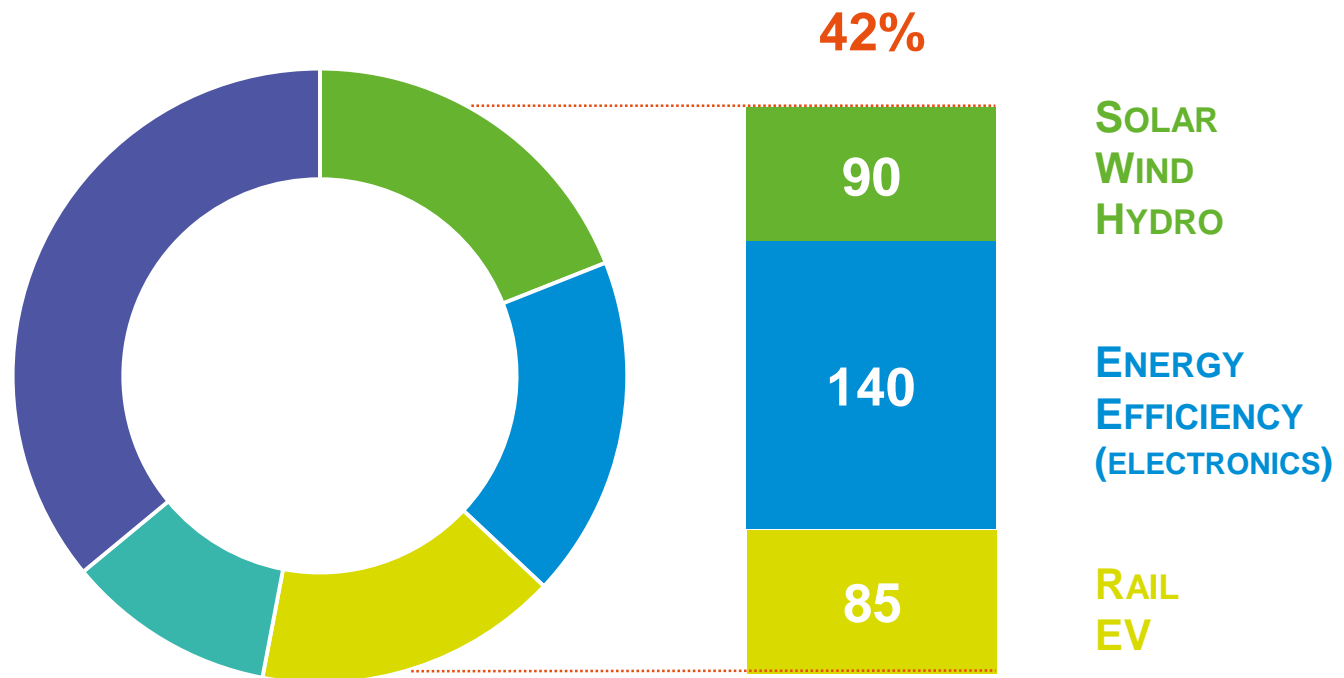
■ ENVIRONMENTAL MANAGEMENT SCHEME

- Management procedures deployed through a network of trained correspondent with the supervision of the risk and audit organization
- 52% of industrial plants* are ISO 14001 certified

* Included in the reporting – 2016 figures

ENVIRONMENT – POSITION ON GREEN MARKETS

■ STRONG POSITION ON « GREEN » MARKETS:



Based on 2016 sales figures



APPENDIX

- **MERSEN INSIDE**
- **H1 2017 FINANCIAL RESTATEMENT**
- **CONTACTS**

MERSEN IN THE SOLAR ENERGY (SALES €40M IN 2016)

SOLAR ENERGY

CRYSTAL GROWTH

- POLYSILICON MANUFACTURING**
 - Graphite anticorrosion systems for HCl synthesis
 - Furnace insulation
 - Graphite electrodes
- INGOT MANUFACTURING**
 - Furnace insulation
 - Graphite crucible
 - Machined graphite parts
 - Graphite heater
 - Furnace lining

PANEL PROTECTION & PERFORMANCE

- ELECTRICAL PROTECTION**
 - Fuses and fuse holders
 - Surge protection
 - Smart switches
- POWER CONVERSION**
 - Bus bar
 - Semiconductor fuse
 - Cooling device

The infographic features a central 3D isometric illustration of a city skyline with solar panels and power lines, symbolizing the integration of Mersen's products into the solar energy sector.

MERSEN IN THE WIND ENERGY (SALES €45M IN 2016)

WIND ENERGY

POWER GENERATION

- Slip ring assemblies
- Brush-holders
- Power and grounding brushes

BLADE ORIENTATION

- Carbon brushes for pitch motors
- Signal transfer systems
- Brush-holder and brush-rocker assemblies

ELECTRICAL PROTECTION

- Bus bars
- Cooling devices
- Surge Protective Devices (SPD)
- Fuses and fuse gears

POWER CONVERSION

- Bus bar
- Semiconductor fuse
- Cooling device

MERSEN IN ELECTRONICS (SALES €140M IN 2016)

SEMI CONDUCTORS

SEMI CONDUCTOR MANUFACTURING

- SILICON INGOT PRODUCTION CRYSTAL GROWTH**
Ultra pure furnace insulation, Graphite crucible, Graphite heater
- EPITAXY & ACTIVE LAYER DEPOSITION**
High purity SiC coated graphite carriers
- WAFER PROCESSING LITHOGRAPHY PLASMA ETCHING ION IMPLANT**
Graphite windows for ion implant, Electrostatic chucks for photo-lithography, Wafer carriers in ultra-pure graphite for plasma etching
- PACKAGING**
High precision machined jigs

SEMI CONDUCTOR PERFORMANCE

- POWER CONVERSION**
Bus bar, Semiconductor fuse, Cooling device

MERSEN IN THE AERONAUTICS (SALES €40M IN 2016)

AERONAUTICS

LIFE ON-BOARD	AUXILIARY MOTORS	ELECTRICAL POWER GENERATION AND DISTRIBUTION	AIR CONDITIONING						
	 Pump carbon brushes  Brush-holders  Flange gaskets	 Cooling devices  Bus bars	 Shaft seals  Dynamic seals  Bearing / Guides  Flange gaskets						
BRAKING	 Carbon / Carbon composite discs								
TECHNICAL PERFORMANCE	FLUID CONTROLS					STARTER / GENERATOR	ENGINE COMPONENTS		ACTUATION
	 Bearing / Guides  Pump vanes  Bursting disks  Dynamic seals  Flange gaskets	 Carbon brushes  Brush-holders  Slip ring assemblies	 Vane guides  Shaft seals	 Carbon brushes  Brush-holders  Brakes / Torque limiters					

MERSEN IN THE ELECTRIC VEHICLE (SALES €10M IN 2016)

ELECTRIC VEHICLE



BATTERY MANAGEMENT

- Fuses
- Cooling devices
- Bus bars

BATTERY PROTECTION / SAFETY

- Hybrid DC protection
- Fuses

POWER CONVERSION

- Cooling devices
- Bus bars

MERSEN IN RAIL (SALES €75M IN 2016)



MERSEN IN CHEMICALS (SALES €75M IN 2016)

FERTILIZER

PHOSPHORIC ACID CONCENTRATION



Graphite
Polytube



Graphite Polybloc
with Riglor®
reinforcement



Graphilor® 6-meter-long tubes
in a single piece with carbon
fiber-wrapping

PHOSPHORIC ACID DEFLUORATION



Graphite columns



PTFE columns

PHOSPHORIC ACID PROCESS AND UTILITIES



Stainless steel, nickel alloys
or titanium shell and tubes
heat exchangers



RESTATEMENT

- DISCONTINUED OPERATION (HIGH-POWER SWITCHES AND CONTACTORS)
- AMORTIZATION OF REVALUED INTANGIBLE ASSETS NOW RESTATED IN CURRENT OPERATING INCOME (BEFORE NON-RECURRING ITEMS)

BEFORE

	H1 2016	H2 2016	2016
Sales	387.2	376.4	763.6
Current Operating Result	30.6	29.3	59.9
<i>Current Operating Margin</i>	7.8%	7.8%	7.8%
Non-recurring income and loss	(3.5)	(23.0)	(26.5)
Amortization of revalued intangible assets	(0.7)	(0.5)	(1.2)
Operating Result	26.4	5.8	32.2

AFTER

	H1 2016	H2 2016	2016
Sales	384.9	374.1	759.0
Current Operating Result	29.3	28.0	57.3
<i>Current Operating Margin</i>	7.6%	7.5%	7.5%
Non-recurring income and loss	(3.5)	(23.0)	(26.5)
Operating Result	25.8	5.0	30.8

CONTACTS

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■ [MERSEN.COM/INVESTORS/PROFILE](https://www.mersen.com/investors/profile)

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