



MERSEN: A SUSTAINABLE GROWTH TRAJECTORY

MAY 2018

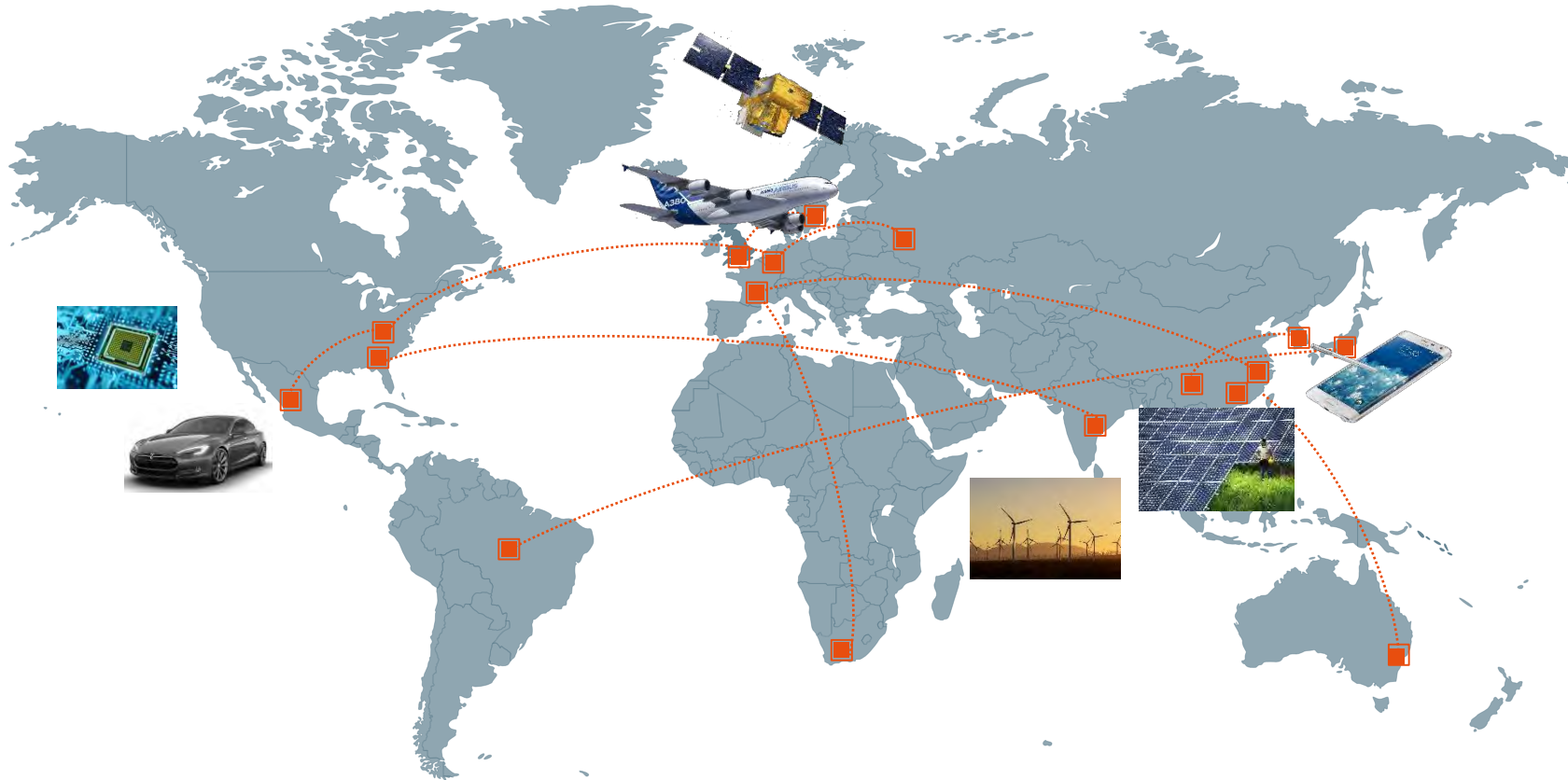


MERSEN: OUR MISSION

**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**



MERSEN: AN EFFICIENT GROUP AND LEADER IN ITS MARKETS

SHARED BUSINESS MODEL

Small production batches, leader in niche markets, high cash generation

SHARED END-MARKETS

leveraging the Group's expertise and resources

SHARED MANUFACTURING SITES AND SALES NETWORK

Resource allocation

R&D

Cross fertilization, Central coordination

LEAN

Operational excellence
Business processes
Project-based organization

ELECTRICAL POWER



ELECTRICAL PROTECTION & CONTROL

World's no. 2 in industrial fuses

SOLUTIONS FOR POWER MANAGEMENT

World's no. 2 in passive components for power electronics

ADVANCED MATERIALS



ANTICORROSION EQUIPMENT

World's no. 1-2 in graphite equipment

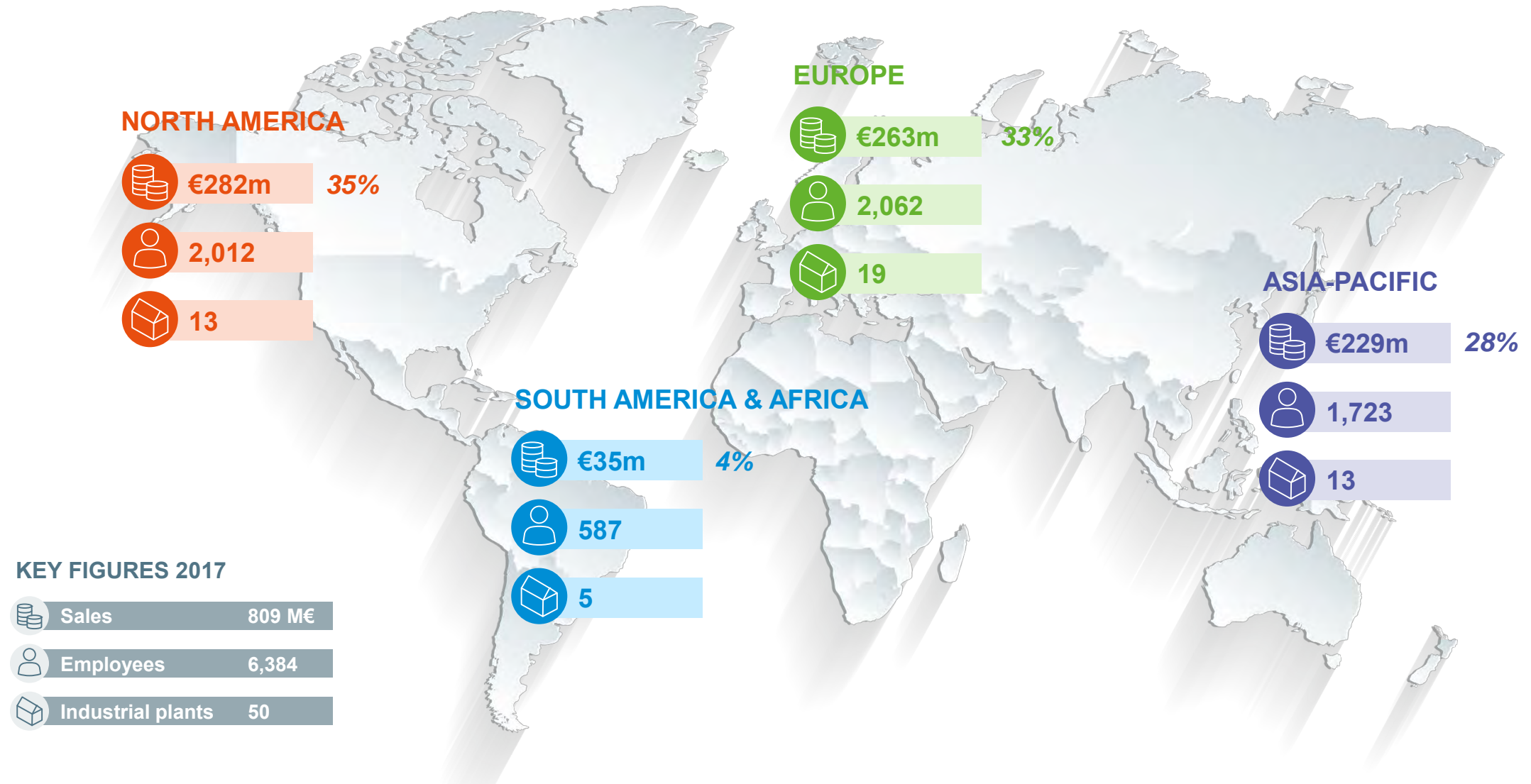
GRAPHITE SPECIALTIES

World's no. 1-2 in high-temperature applications

POWER TRANSFER TECHNOLOGIES

World's no. 1-2 in brushes for industrial motors

A GLOBAL FOOTPRINT, SOURCE OF STABILITY AND OPPORTUNITIES



SAME POLICY IN EVERY PLANT AROUND THE WORLD

CONTRIBUTING TO THE DEVELOPMENT OF TERRITORIES

Presence in 35 countries
Knowledge of local challenges
Social dialogue

2017

90% plant managers with local nationality

WORKING TOGETHER TO KEEP EVERYONE SAFE

Training, Prevention, Golden rules
Health & Safety Weeks
Safety Audits

2017

4,000 safety inspections
LTA1* **1.4** – LTA2* **4.1**

ENHANCING SKILLS AND UNITING EMPLOYEES

Mersen Academy

2017

1,800 active accounts

* LTA1 : number of lost-time occupational accidents per million man-hours – LTA2 : with and without lost time

SUPPORT THE ACHIEVEMENT OF MERSEN'S STRATEGIC PROJECT WITH THE TEAMS

INCREASE THE SENSE OF BELONGING

to Mersen nad its attractiveness by reinforcing **its common culture based on its values**

PURSUE THE DEVELOPMENT

of Group's human capital by relying on our **technical expertises**

RALLY COLLECTIVE INTELLIGENCE

Through an **organization that promotes collaboration**

IMPLEMENT

a **motivating compensation policy**

OUR VALUES

EXCELLENCE

COLLABORATION

PEOPLE-CONSCIOUS

AGILITY & ENTREPRENEURIAL SPIRIT

PARTNERING WITH OUR CUSTOMERS

EMBEDDING OUR ETHICAL PRACTICES TO CREATE AN EXEMPLARY MODEL

EMBEDDING OUR ETHICAL PRACTICES

Appointment of a **Chief Compliance Officer** in 2017 reporting to the Executive Management

*Reports to the **Audit & Accounts Committee***

Quarterly committee “**Ethics & Compliance**”

Annual review with an outside expert to ensure quality

Available in **14 languages**

e-learning module followed by **3,600 employees** in 2017 (**5,000** as of today)

Specific **anti-bribery** training module for managers

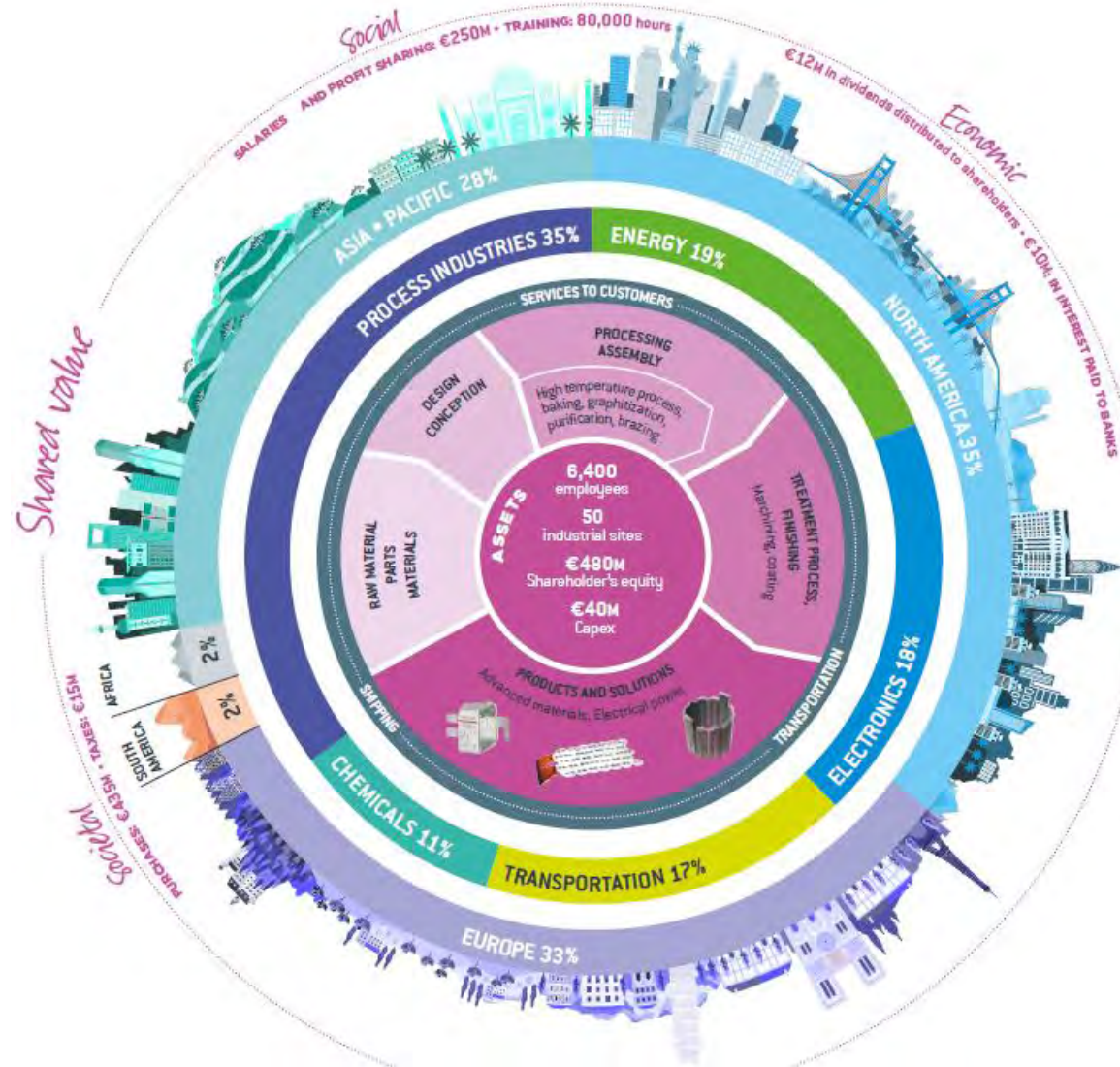
Whistleblowing system

RELEASE AND APPROPRIATION OF GROUP'S CODE OF ETHICS

Signatory since 2009



A VALUE-CREATING BUSINESS MODEL



TOWARD A LIGHTER TRACE ON THE WORLD

FROM PRODUCTS DESIGN TO WASTE MANAGEMENT



Eco-design

R&D teams training

Specification with environmental impact reduction targets



Purchasing policy

Eco-sustainable redesign to cost

Environmental criteria in supplier selection



Energy consumption

In 2017

+6% gas & electricity*

(vs +8% sales*)



Pollution & waste management

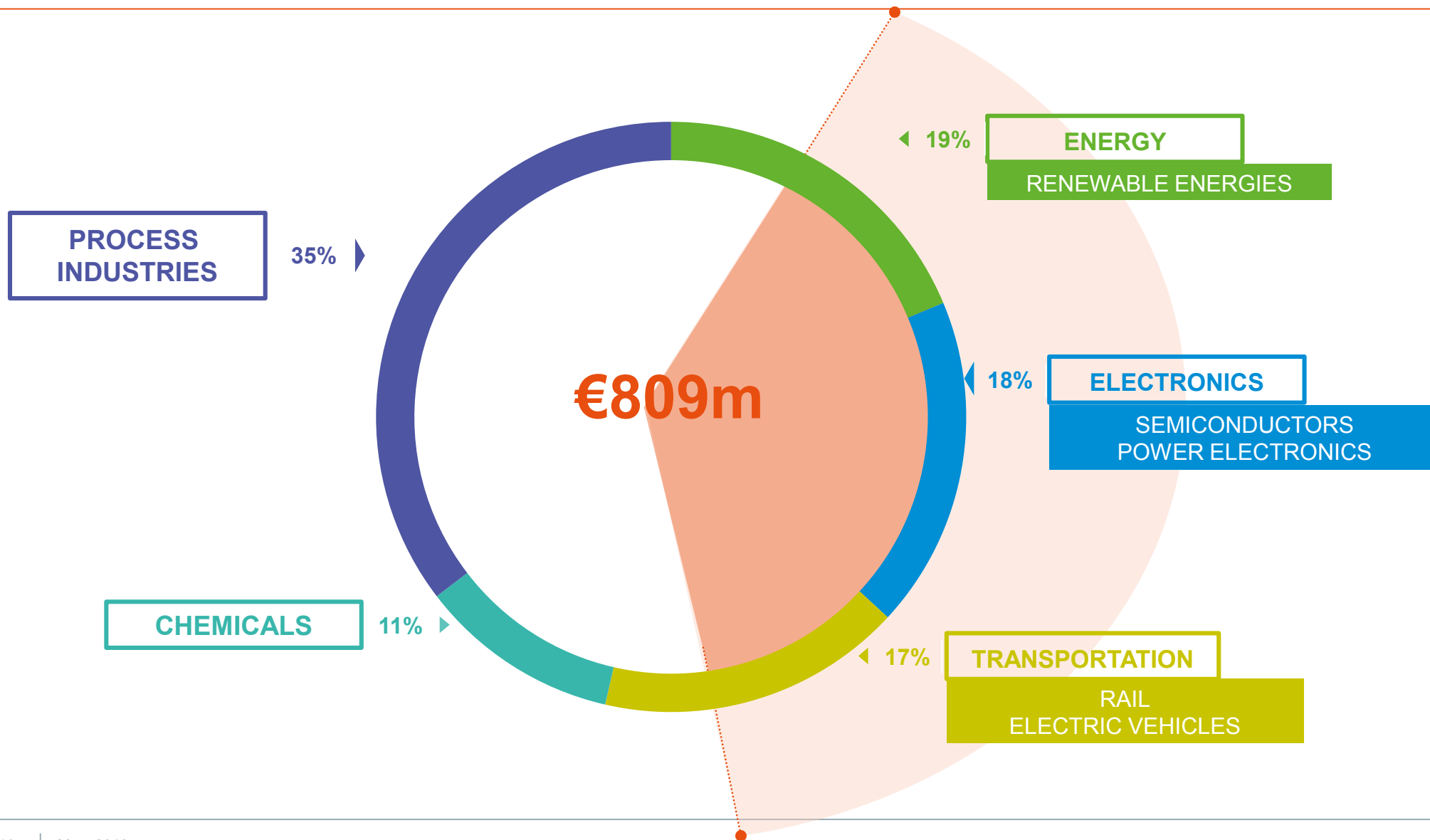
In 2017

€1.3m provisions for environmental risks

Proportion of waste recycled: +5 points vs 2016

*At constant perimeter

40% OF OUR MARKETS LINKED TO SUSTAINABLE DEVELOPMENT



STRONG CUSTOMER'S PORTFOLIO

Client proximity
>65% on-demand products

Regular after-market replacement
65% of sales

Largest customer
~3%

High barriers to entry

PROCESS
INDUSTRIES

SAINT-GOBAIN

ArcelorMittal

LafargeHolcim

BELMONT
EQUIPMENT & TECHNOLOGIES
EDM Divisions of Cleary Developments, Inc.

SAFRAN
AEROSPACE DEFENCE SECURITY

OH

CHEMICALS

ARKEMA

AIR LIQUIDE

Bayer

DOW CORNING

سابك
sabic

TRANSPORTATION

ALSTOM

GE

BOMBARDIER

TRANSNET

INDIAN RAILWAYS

THALES

ELECTRONICS

CREE

SIEMENS

APPLIED MATERIALS

Infineon

Schneider Electric

SAMSUNG

Veeco

ENERGY

WACKER

GE

NORDEX

SIEMENS

LONGI 隆基

HSC

DRIVEN BY FAVORABLE UNDERLYING MARKET TRENDS

ENERGY

RENEWABLE ENERGIES

Solar and wind power
Battery-based energy storage
(solar power, electricity grid)

ELECTRONICS

ENERGY EFFICIENCY DIGITIZATION

Reducing energy consumption
Converting electrical power
(speed drives)
LED lighting
Calculation and storage power
Electronics/semiconductors

TRANSPORTATION

URBANIZATION MOBILITY ELECTRIFICATION

Electric vehicles
(including eBuses and eTrucks)
Batteries for electric vehicles
Aeronautics
Public transportation
(tramways, subways)

PROCESS INDUSTRIES

INDUSTRIALIZATION

General growth
for process industries
in Asia

TIGHTENING THE R&D FOCUS IN OUR GROWTH MARKETS

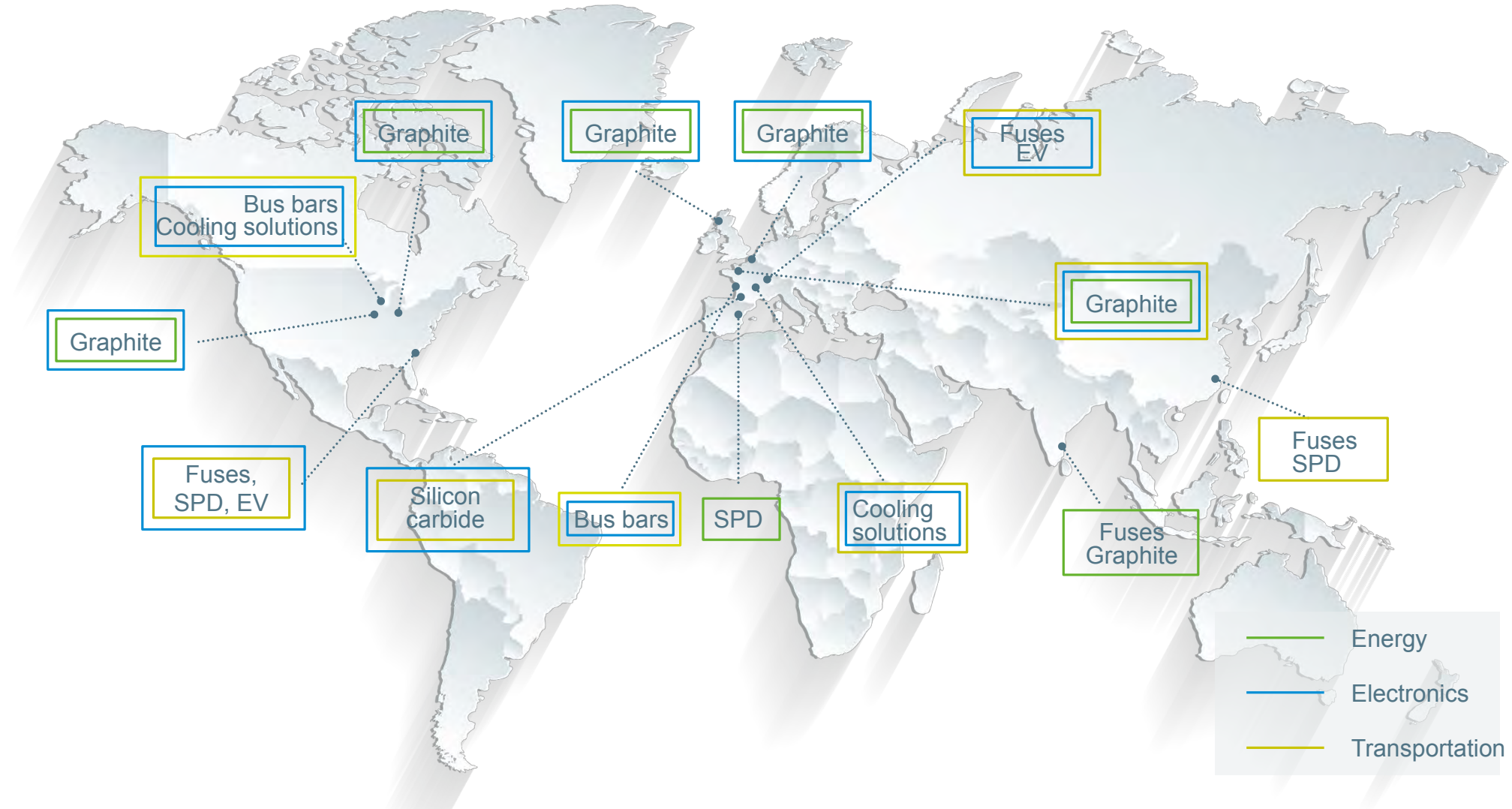
15 R&D centers

160 people

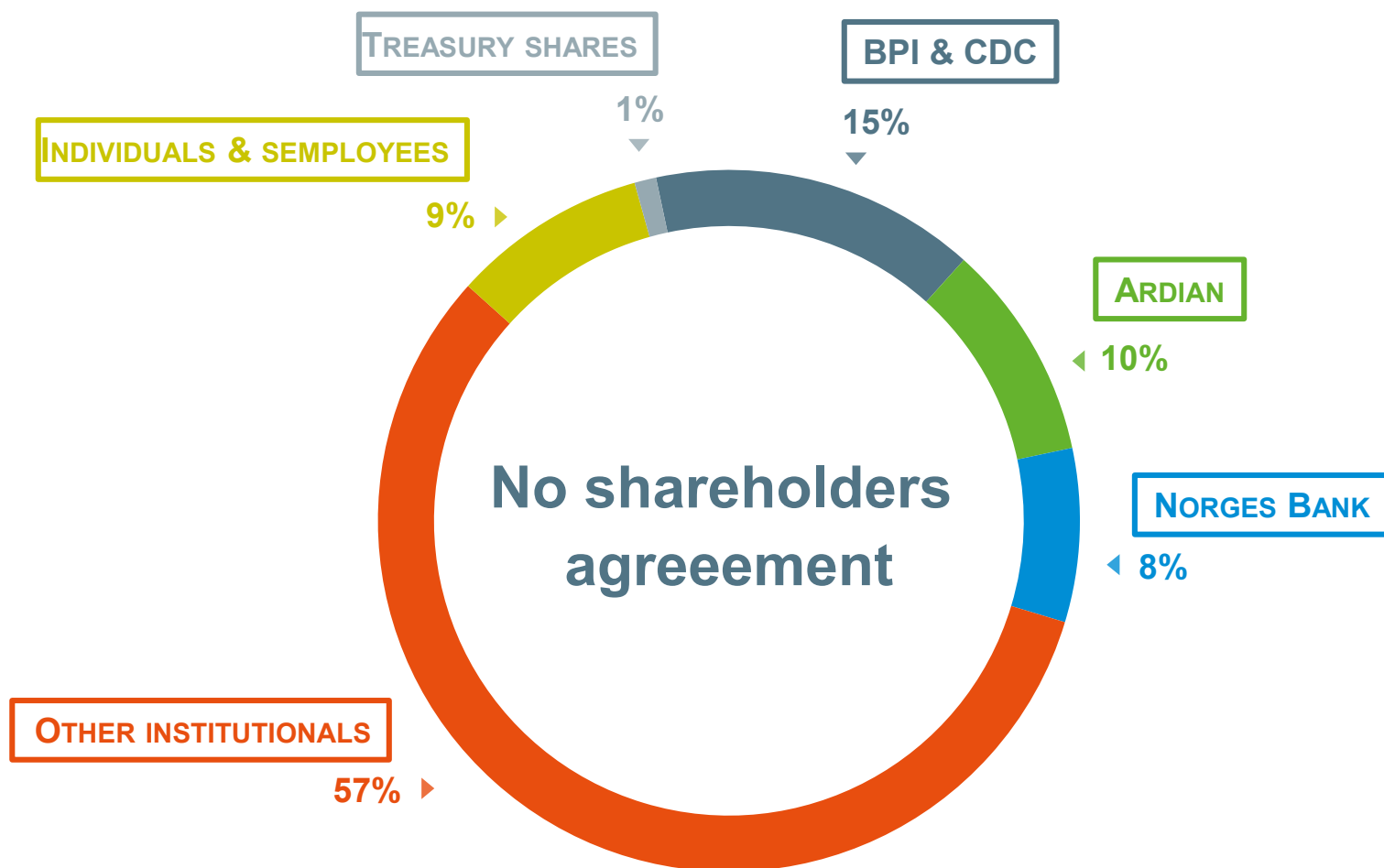
Centralized management

Partnerships with customers

Partnerships with universities/research centers



RECENT CHANGE IN SHAREHOLDING AND BOARD STRUCTURE



On March 15, 2018, Ardian and Sofina sold 11% of Mersen capital

ARDIAN
Decrease from 18%
↓
to 10%
of shareholding

SOFINA
decrease from 8%
↓
to 4%
of shareholding

MERSEN: A CORPORATE GOVERNANCE STRUCTURE BUILT ON BALANCE AND TRANSPARENCY



Abides by the
AFEP-MEDEF's code of
corporate governance



Dual structure
(Chairman of the Board,
CEO)



11 members
2 representatives of Ardian
2 representatives of BPI
6 independent members
1 employees representative



**3 specialized
committees**
(Audit & Accounts,
Strategy, Governance
& Remuneration)

In 2017

11 meeting | 91% attendance rate

Today

60% independents | 50% womens

PREVENTING RISKS POUR SECURE OUR DEVELOPMENT



Annual update of risk mapping

Under the supervision of the Board

Every 3 years audit by external experts

Specific Risks mapping (IS, EV, bribery)

Work in progress on ISR risk mapping



Internal audit Structure

Under the supervision of the Audit & Accounts committee

Internal Control Manual updated annually

On-going deployment of Continuous monitoring

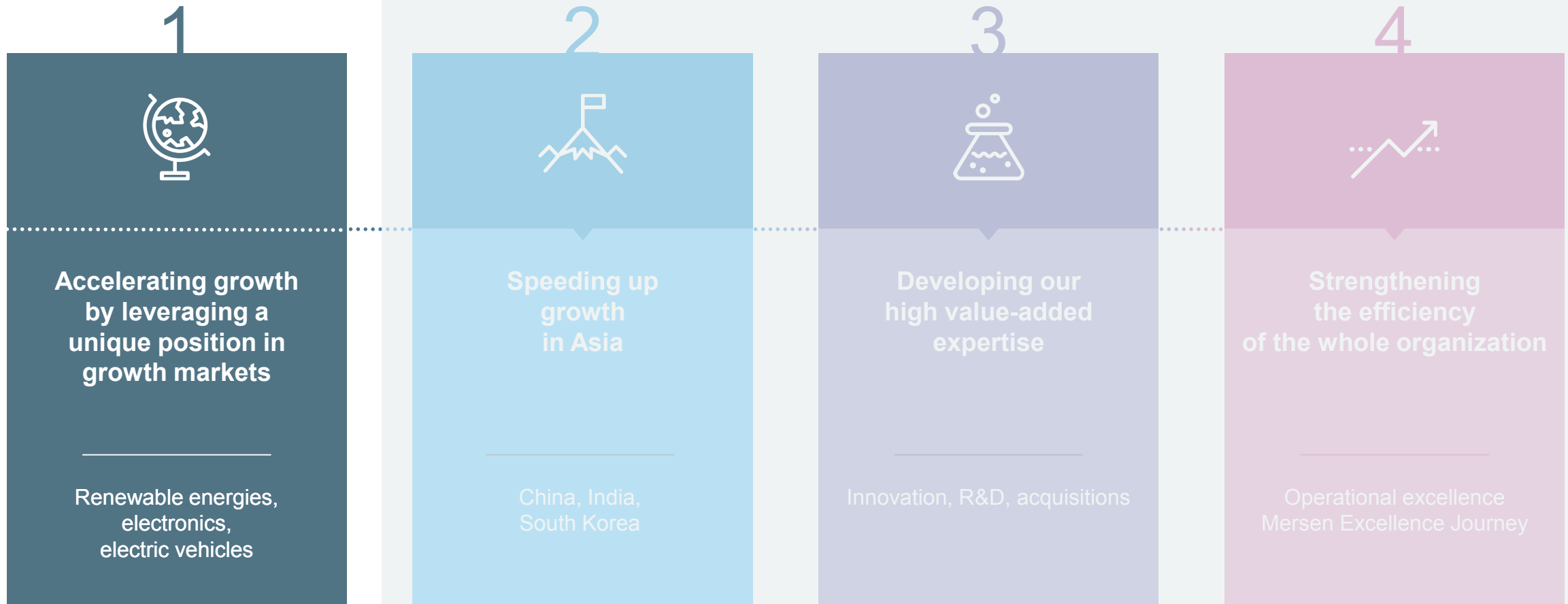
Cross audits: a pool of **71** internal auditors

MERSEN: A SUSTAINABLE GROWTH TRAJECTORY

1

PROFITABLE GROWTH DRIVERS

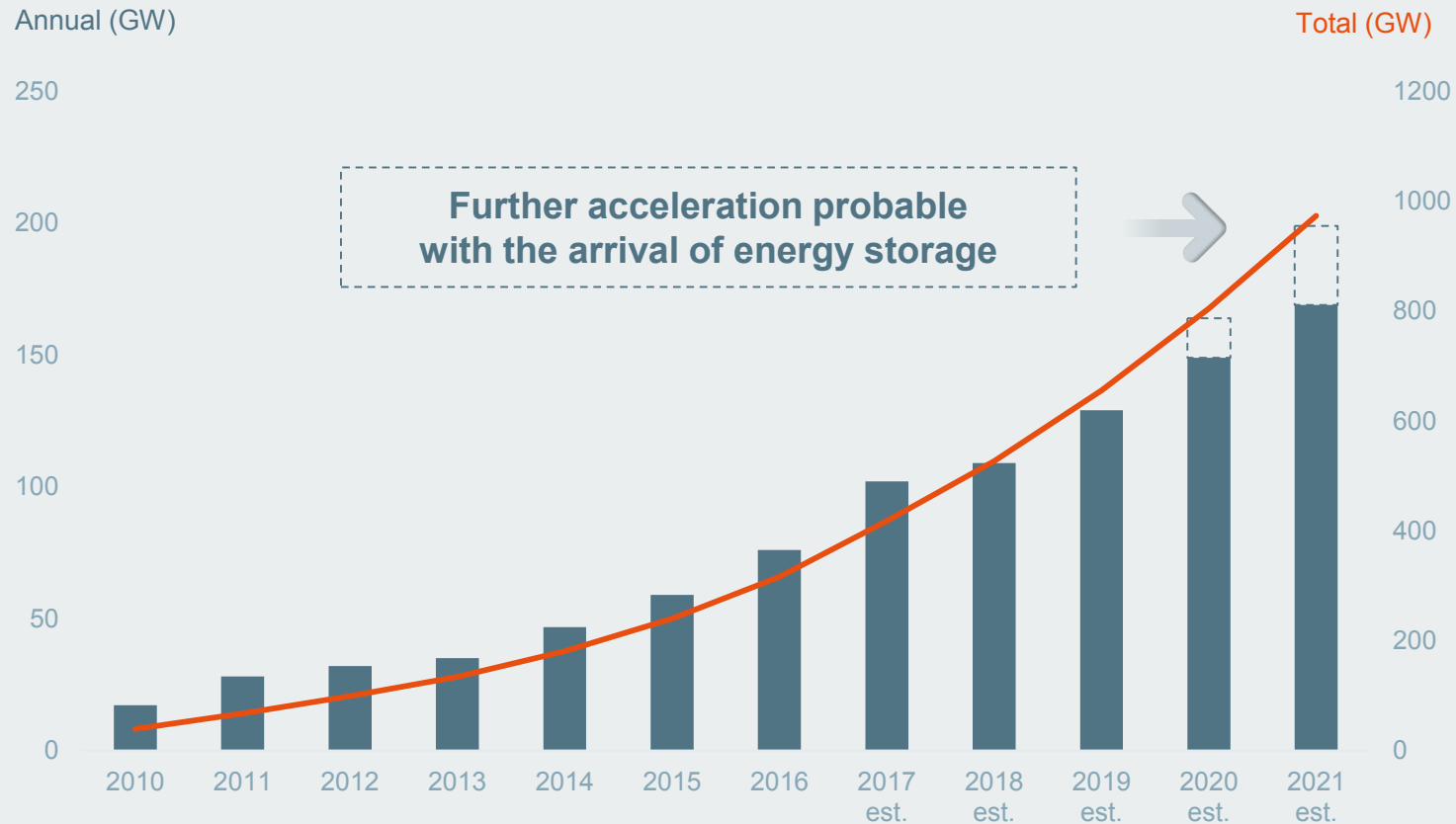
MERSEN'S PROFITABLE GROWTH DRIVERS IN THE MEDIUM TERM



SOLAR POWER: MAJOR POTENTIAL FOR THE LONG TERM



INSTALLATIONS CONTINUING AT A VERY BRISK PACE



Source: IHS Markit

THE LOWEST ENERGY PRODUCTION COST



-20%
3x cheaper

vs natural gas

than nuclear energy

Source: Lazard's 2017 Levelized Cost of Energy Analysis

MERSEN'S STRENGTHS IN THE SOLAR POWER MARKET



Polysilicon production



Graphite anticorrosion systems for HCl synthesis

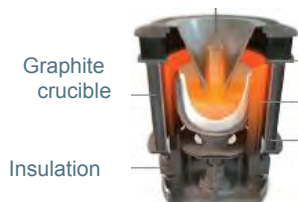


Insulation



Graphite electrodes

Ingots production



Graphite crucible

Insulation

Graphite machining
Graphite resistance
Furnace cladding

Electrical protection



Fuses and fuse holders



Surge protection



Smart switches

Energy conversion



Bus bars

Fuses for semiconductors

Cooling solutions

WACKER

HSC

OCI

GCL

LONGI 隆基

Jinko Solar

中环光伏
ZHONGHUN SOLAR

TOSHIBA

TMEIC
We drive industry

SAMSUNG

PRESENCE IN ASIA (70% of customer base)

FORMULATION of graphite applications

EXPERTISE in increasingly large parts

PRODUCTION CAPACITY (no. 1 worldwide)

GLOBAL PRESENCE (local market of panel builders)

RELATIONS with energy conversion OEMs

COMPREHENSIVE PROTECTION OFFERING for solar power

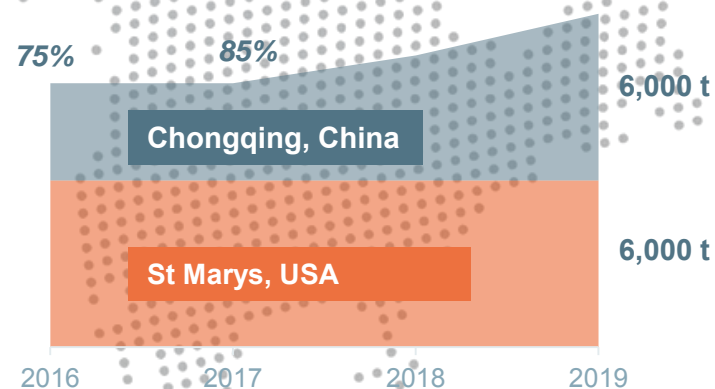
INNOVATIVE PRODUCTS for a market of the future: battery-based energy storage

MERSEN'S STRENGTHS IN THE SOLAR POWER MARKET



1 MEETING MARKET DEMAND FOR GRAPHITE

Production capacity/% usage rate



- FURNACES IN CHONGQING BROUGHT BACK ON STREAM
- GREATER FINISHING CAPACITIES IN CHINA
- OPTIMIZATION OF THE UTILIZED CAPACITY RATE

2 CAPTURING LOCAL SOLAR PANEL PROTECTION MARKETS

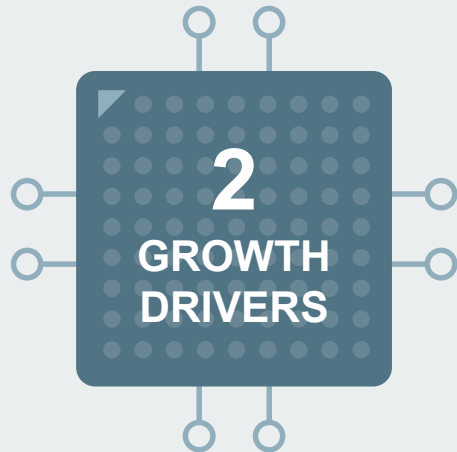
- ROLLING OUT A DEDICATED OFFERING FOR SOLAR POWER
- DEVELOPING PARTNERSHIPS WITH ENERGY CONVERSION OEMS
- LOCAL PRODUCTION, NOTABLY IN INDIA AND CHINA

THE ELECTRONICS MARKET DRIVEN BY 2 MAIN FACTORS



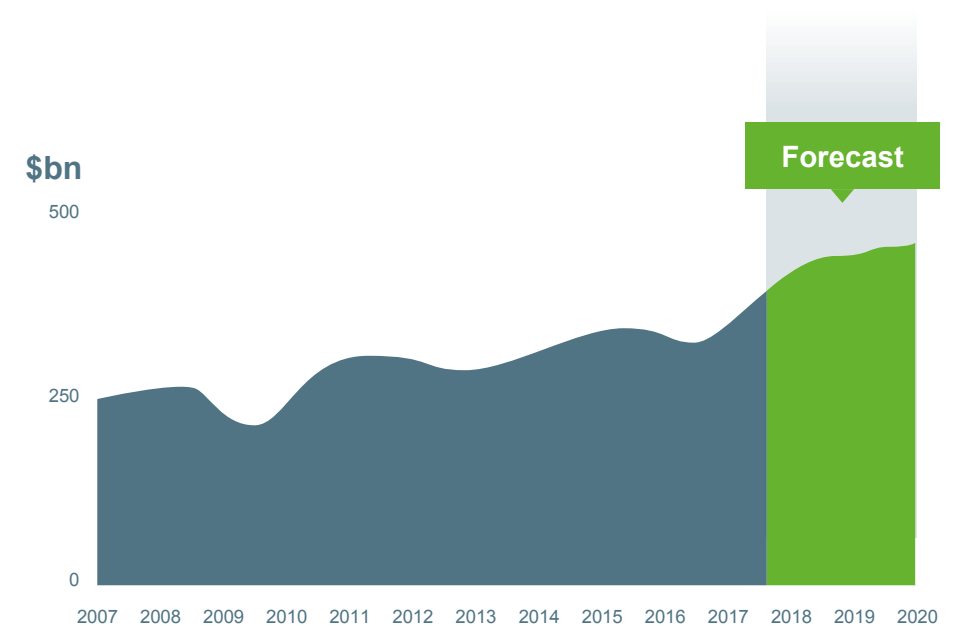
Growing digitization

Big data, mobility, Smartphone, IoT, Artificial intelligence



Energy savings and power conversion

GLOBAL SEMICONDUCTORS MARKET



Source: WSTS

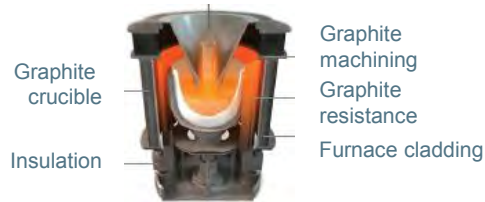
+20%
in 2017

+8%
in 2018 (estimate)

MERSEN'S STRENGTHS IN THE ELECTRONICS MARKET



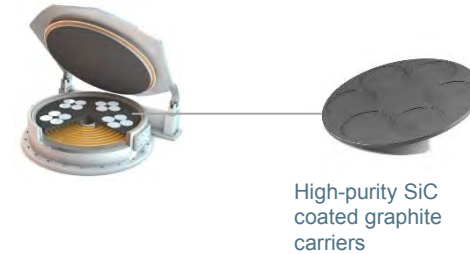
Ingot production



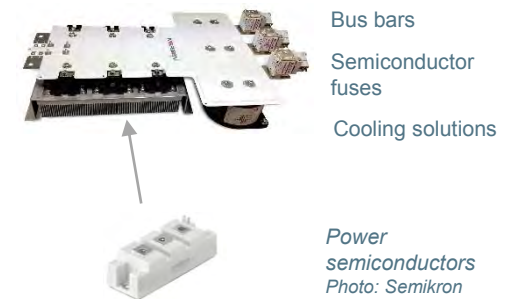
Wafer manufacturing



Epitaxy



Energy conversion



Power semiconductors
Photo: Semikron



PRESENCE IN THE UNITED STATES for the OEM market (semiconductors)

PRESENCE IN ASIA for the replacement parts market (emicon fab. in Taiwan and South Korea)

UNIQUE CAPACITY to partner the technological breakthroughs made by semiconductor machine manufacturers

UNIQUE OFFERING
of passive components
for OEMs

DESIGN CAPACITY
for OEMs

MERSEN'S CHALLENGES IN THE ELECTRONICS MARKET



PREPARING TO CAPITALIZE ON THE MOVE TO CHINESE PRODUCTION

Chinese government's plan to develop the semiconductor industry

Develop our high-tech manufacturing base

Draw on our production experience in the solar sector

CREATING NEW PRODUCTION CAPACITY IN ASIA

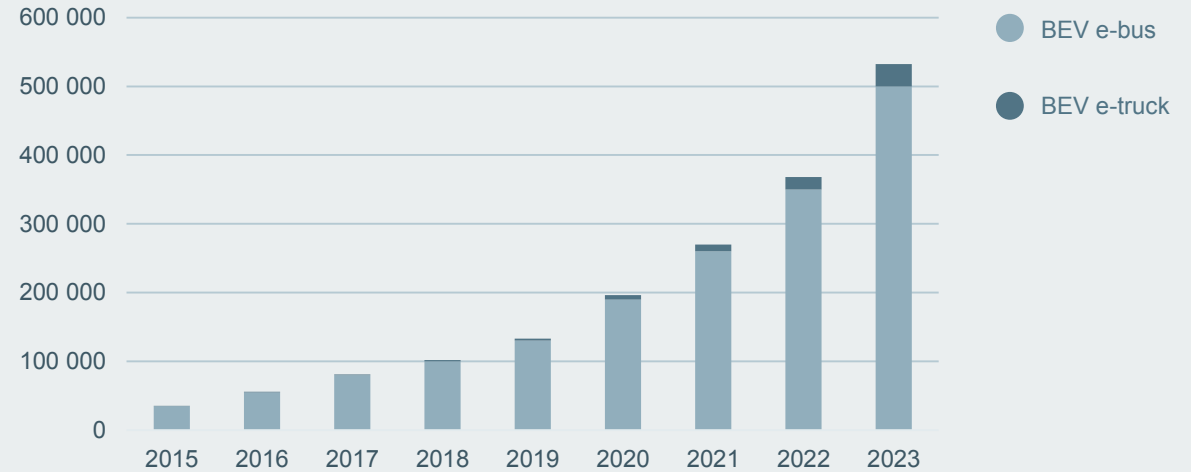
Power electronics and electrical protection in India for Western OEMs

Protection of fuses/batteries in China

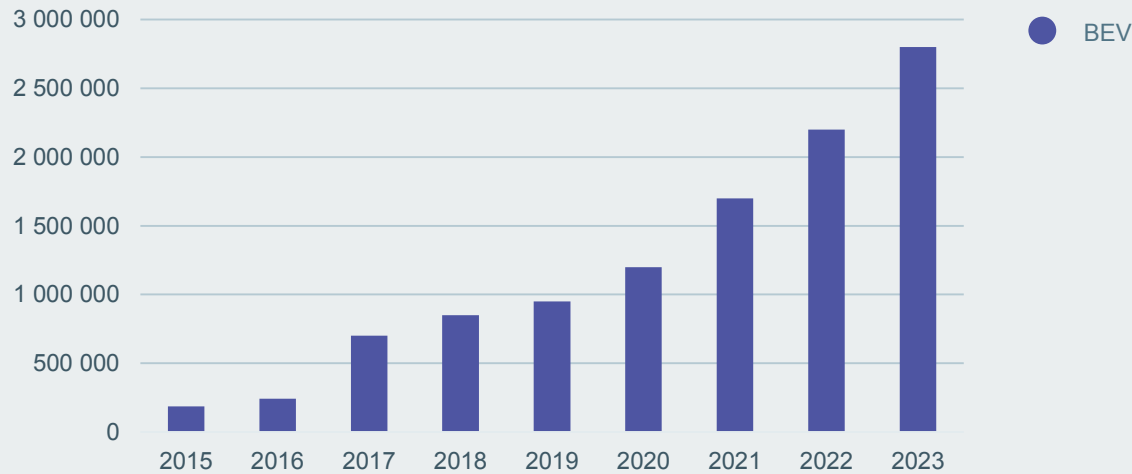
Extension of our power electronics capacity in China

Extension of our capacity for the semiconductors market in South Korea

ELECTRIC VEHICLES: A HIGH-END MARKET OF THE FUTURE



PASSENGER CARS



BUSES, TRUCKS & OTHER INDUSTRIAL VEHICLES



BEV: Battery Electric Vehicles

MERSEN'S STRENGTHS IN THE ELECTRIC VEHICLES MARKET



PASSENGER VEHICLES

High-voltage circuit protection (>600V)

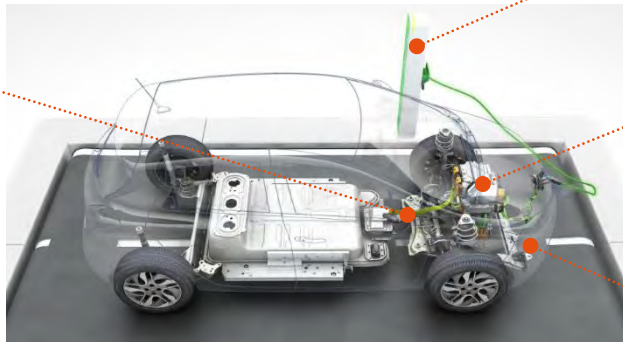


Illustration courtesy of Renault™

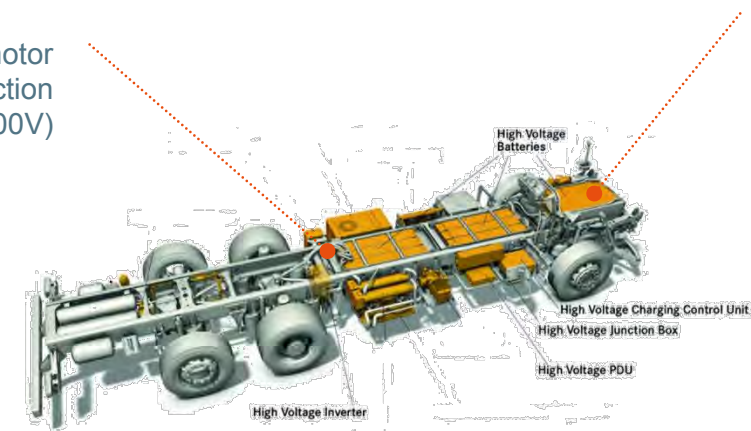
Charging station protection

Electric motor protection (>600-1,000V)

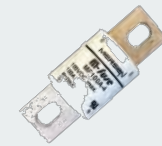
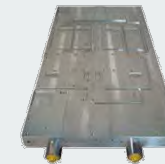
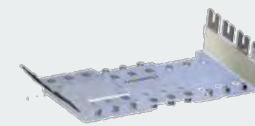
Auxiliary protection (12-48V)

HEAVY GOODS VEHICLES

Electric motor protection (>600-1,000V)



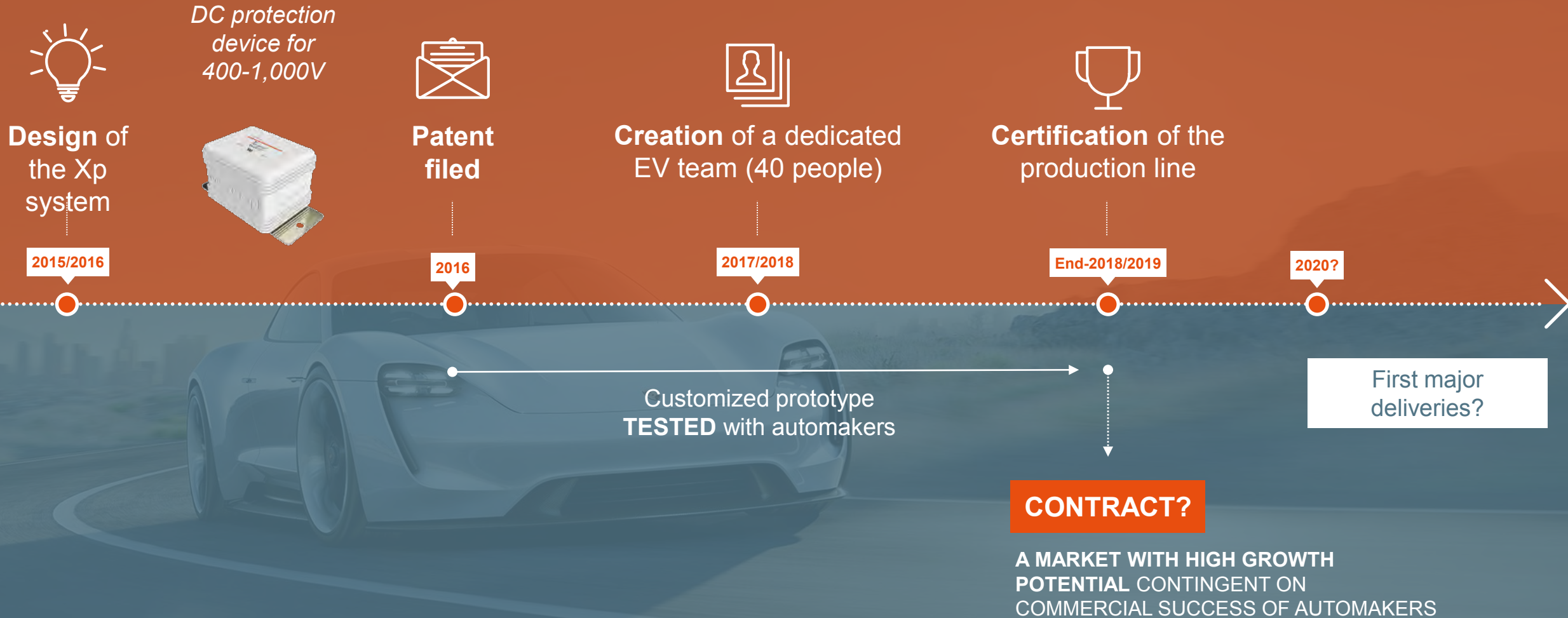
Energy conversion



A major challenge: **safety** for **high-end** passenger vehicles (>600-1,000V)

A **wide product range** for **high-power** electric motors (800-1,000V)

KEY DATES IN THE ELECTRIC VEHICLE MARKET



MERSEN'S PROFITABLE GROWTH DRIVERS IN THE MEDIUM TERM



1



Accelerating growth
by leveraging a
unique position in
growth markets

Renewable energies,
electronics,
electric vehicles

2



Speeding up
growth
In Asia

China, India,
South Korea

3



Developing our
high value-added
expertise

Innovation, R&D, acquisitions

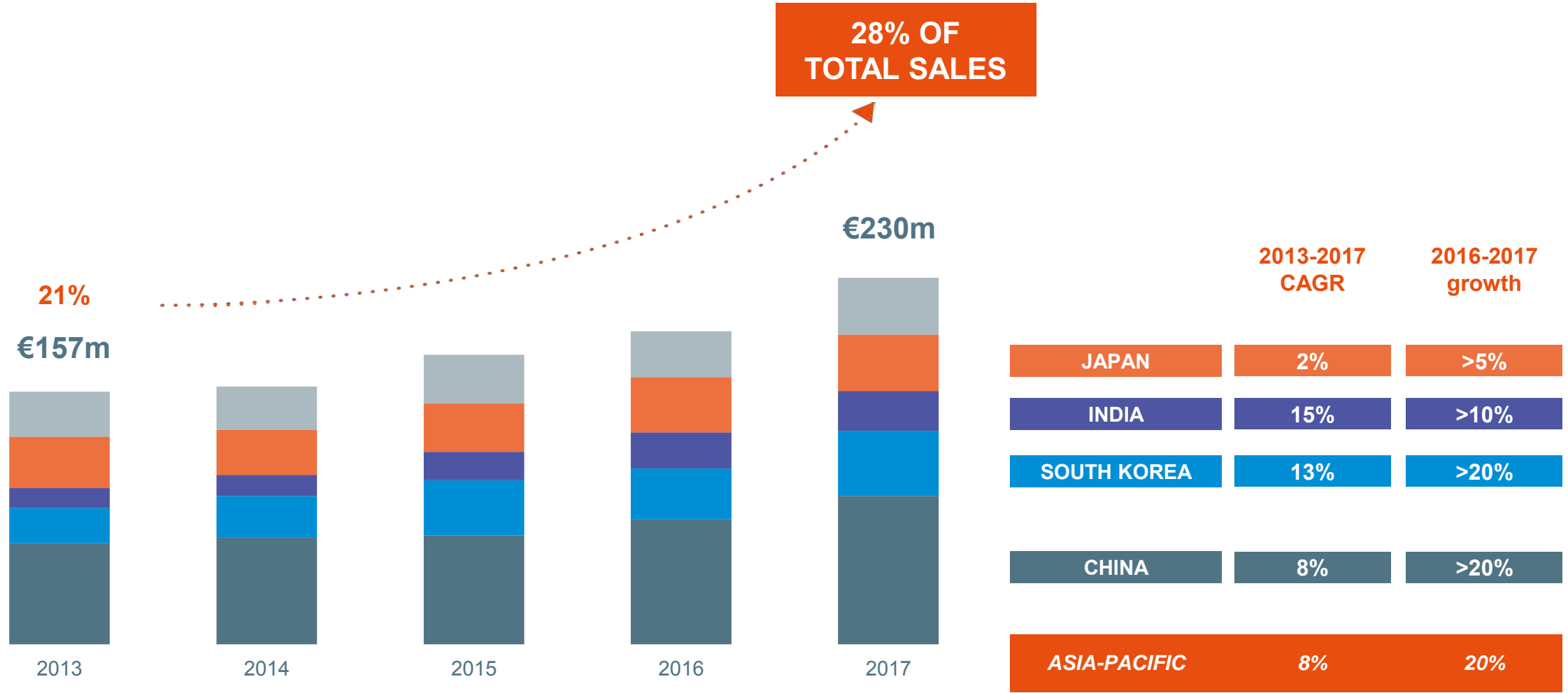
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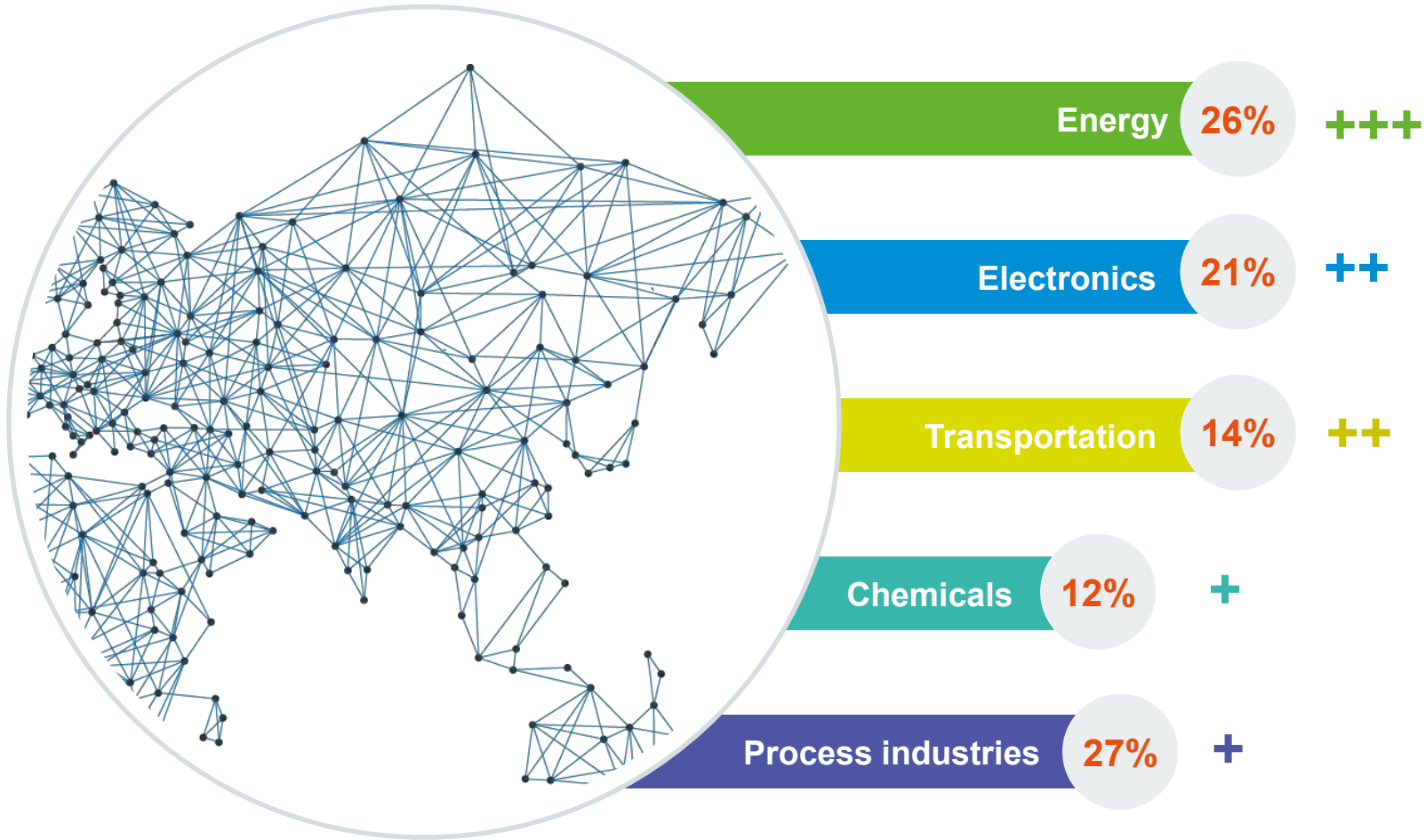
Enhancing the efficiency
of the whole organization

Operational excellence
Mersen Excellence Journey

ASIA: A MAJOR GROWTH REGION, WITH THE PACE ACCELERATING IN 2017



ASIA: A HIGH-GROWTH REGION WHERE MOST OF OUR GROWTH MARKETS ARE LOCATED



2017 SALES BY MARKET

CHINA



中国铁建



中环光伏

ZHONGHUAN SOLAR



LONGi 隆基

SOUTH KOREA



LG Siltron



SK hynix

INDIA

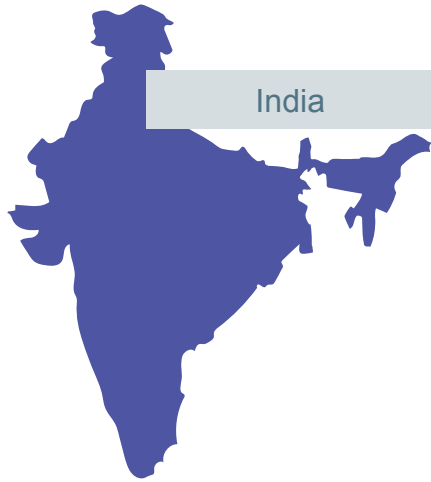


JAPAN



Leading Innovation >>>

READY TO CAPTURE FUTURE GROWTH...



PRODUCTION FACILITIES	1
WORKFORCE	250
2013-2017 CAGR	+15%

Future growth drivers: transportation, renewable energies, chemicals



PRODUCTION FACILITIES	9
WORKFORCE	1,300
2013-2017 CAGR	+8%

Future growth drivers: transportation, renewable energies, process industries

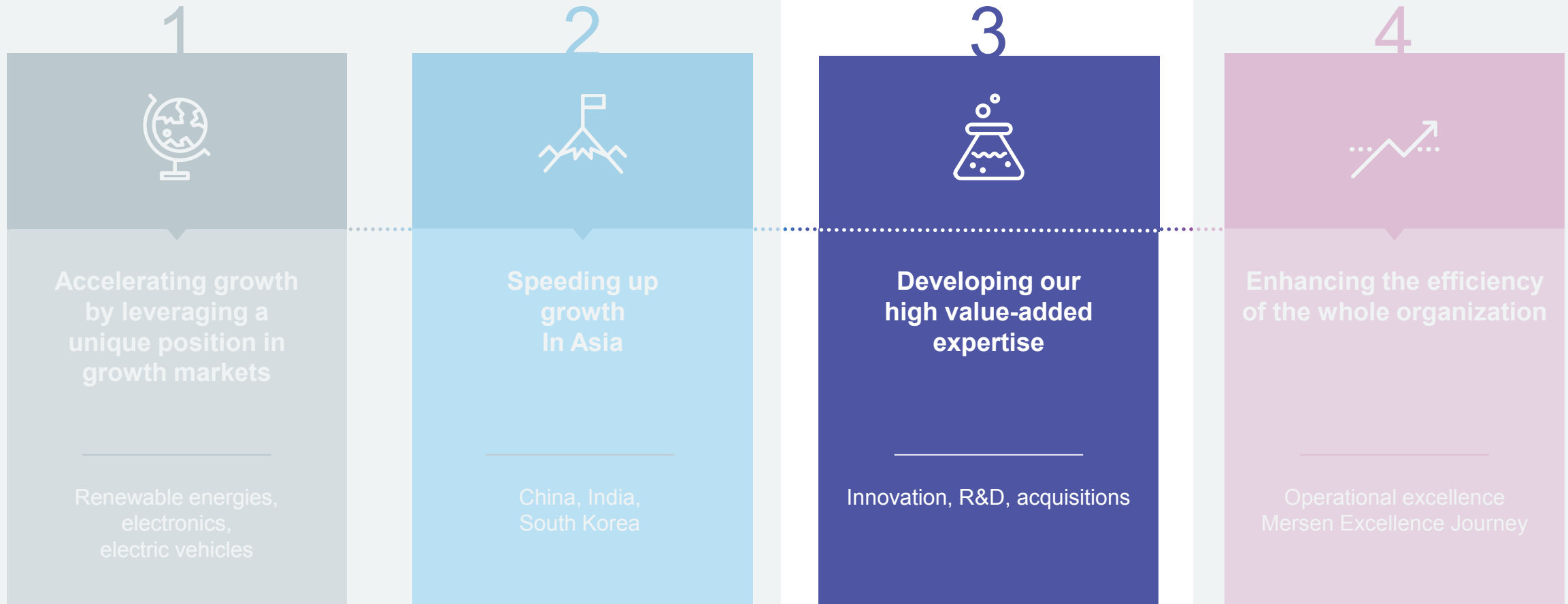


PRODUCTION FACILITIES	1
WORKFORCE	100
2013-2017 CAGR	+13%

Future growth drivers: electronics, energy storage, power electronics

...BY STRENGTHENING OUR PRODUCTION CAPACITY

MERSEN'S PROFITABLE GROWTH DRIVERS IN THE MEDIUM TERM



MERSEN PARTNERS ITS CUSTOMERS' CRITICAL DEVELOPMENTS



CUSTOMER

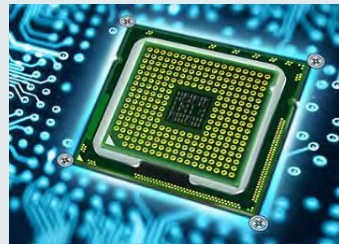


**NEW TECHNOLOGY FOR
MANUFACTURING
SEMICONDUCTORS**

CONTEXT

Increasing the storage capacity of
semiconductors

Need for a fast and effective
manufacturing process



CHALLENGES FOR MERSEN

Developing a very large carrier
(>1m) that is geometrically
perfect and SiC coated

Keeping up with volumes



GOALS

Investments in SiC coating,
purification and shape control
processes

**Future potential
> €10m**

MERSEN PARTNERS ITS CUSTOMERS' CRITICAL DEVELOPMENTS



CUSTOMER



**BATTERY PROTECTION FOR
ELECTRIC BUSES**

CONTEXT

Electrical protection for buses
600-1,000V

Extreme electrical and
mechanical solicitation conditions

**Need to adapt the
manufacturing range for fuses**



CHALLENGES FOR MERSEN

Adapting and optimizing an
existing industrial product for the
EV market

Providing production capacity in
China



GOALS

Serving the EV market in China
– particularly e-buses and
e-trucks

Building relations with new
customers

**First sales in 2015
Potential in the Chinese
and Western markets**

MERSEN PARTNERS ITS CUSTOMERS' CRITICAL DEVELOPMENTS



CUSTOMER

SAMSUNG

**SHAPING GLASS FOR
SMARTPHONES**

CONTEXT

Design of a new style of cell phone with a curved glass screen

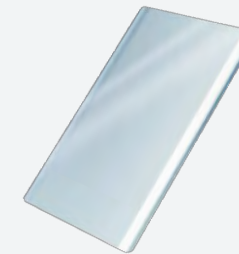
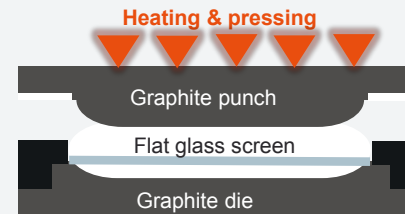
Need for glass with a perfect finish



CHALLENGES FOR MERSEN

Developing a specific graphite grade adapted to shaping hot glass

Highly innovative graphite grade



GOALS

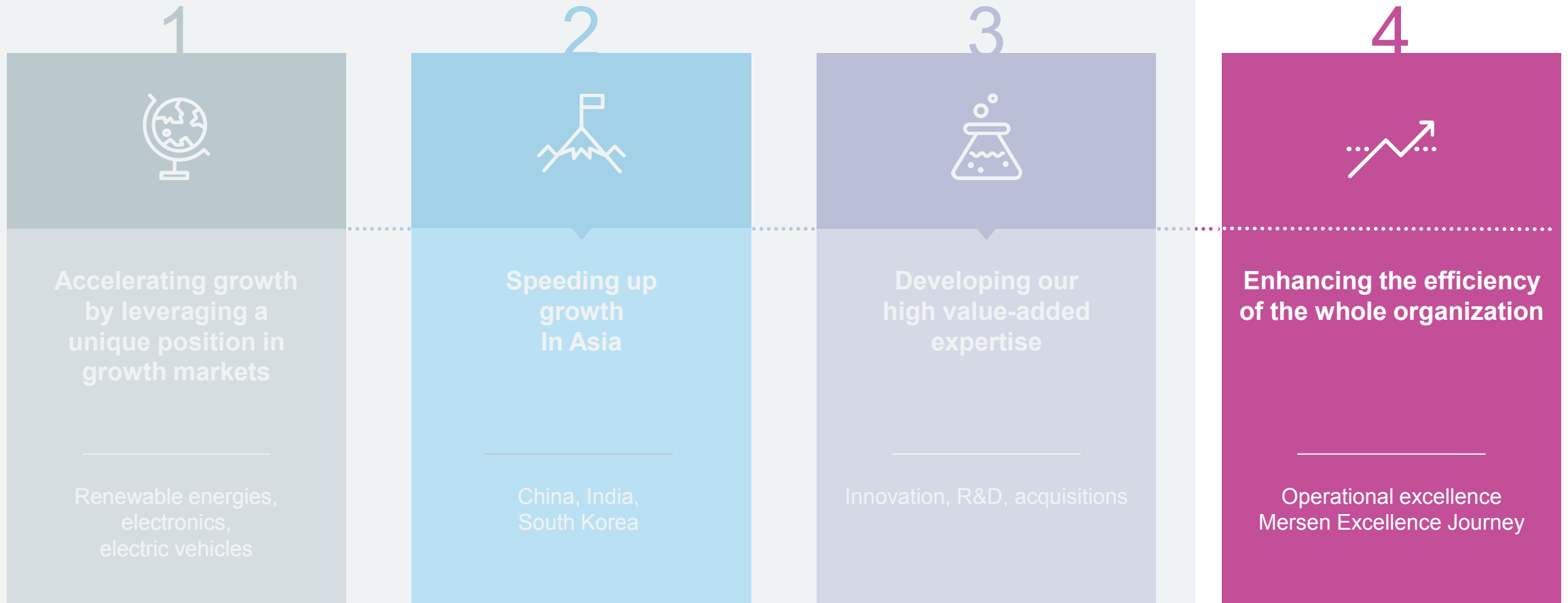
Ensuring a product lifespan adapted to the production rhythm and related costs

Production in the USA (St Marys)
Finishing in South Korea
Deliveries to South Korea, China and Vietnam

First sales in 2015

And now, developing the processes needed for new versions with 2 curved sides

MERSEN'S PROFITABLE GROWTH DRIVERS IN THE MEDIUM TERM



MAJOR IMPROVEMENTS IN RECENT YEARS...



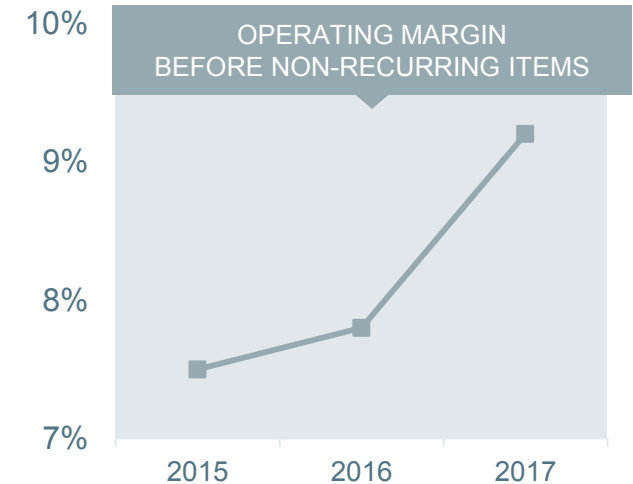
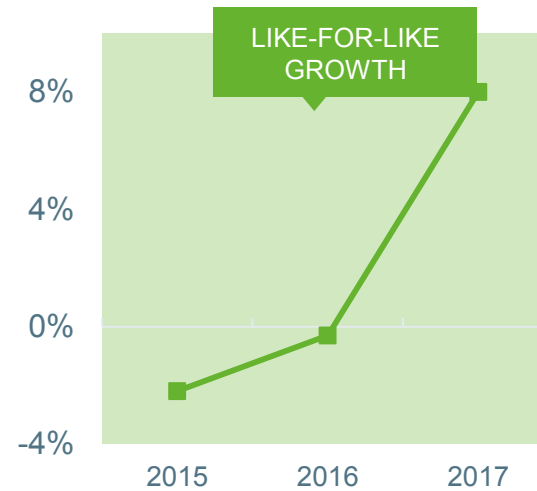
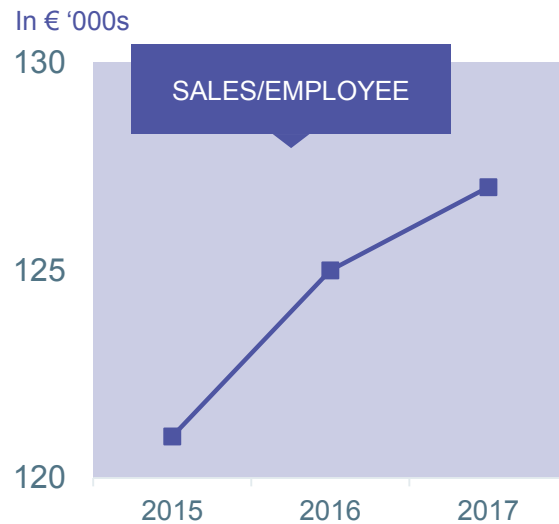
SIMPLIFICATION
of manufacturing organization
structures (mainly in Europe)

REORGANIZATION
of the Group
(5 BUs, CTO, Asia)

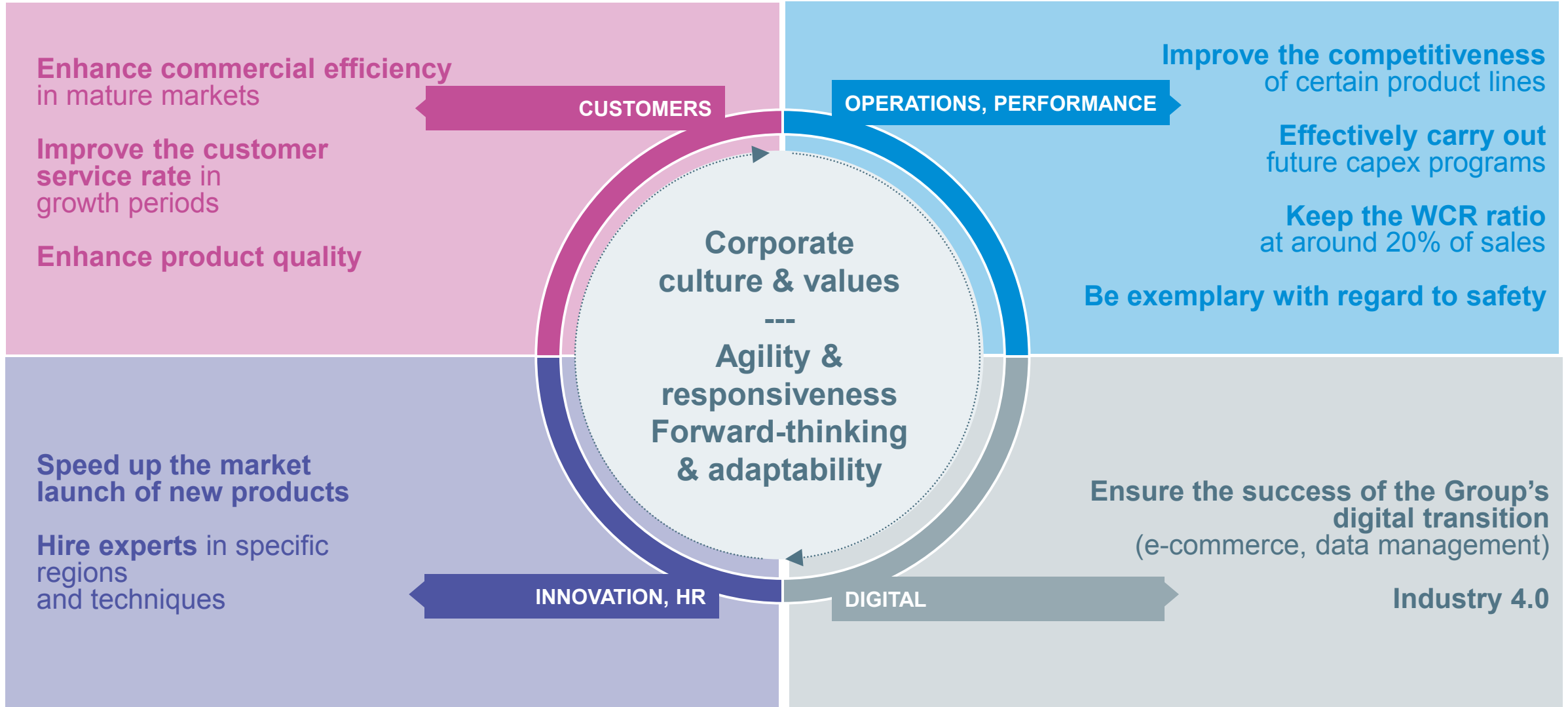
**GLOBAL
COMPETITIVENESS PLAN**

**THE
MERSEN
EXCELLENCE
JOURNEY**
Sales, R&D, HR, IT

...THAT ARE
YIELDING
RESULTS



THAT WILL CONTINUE WITH MERSEN EXCELLENCE JOURNEY



MERSEN: A SUSTAINABLE GROWTH TRAJECTORY

2

2018: ANOTHER YEAR OF GROWTH

2018: ANOTHER YEAR OF GROWTH

FAVORABLE OUTLOOK IN OUR GROWTH MARKETS

Solar power

Electronics

Aeronautics

PRICE INCREASE IN ADVANCED MATERIALS SEGMENT

A KEY YEAR FOR ELECTRIC VEHICLES

ADDITIONAL CAPEX TO PREPARE FOR 2019

Solar power, Asia +€10m

Electric vehicles (R&D) +€5m

US TAX REFORM

Effective income tax rate for
the Group **28% vs 33%**

2018: ANOTHER YEAR OF GROWTH

2018

**LIKE-FOR-LIKE GROWTH*
VS 2017**

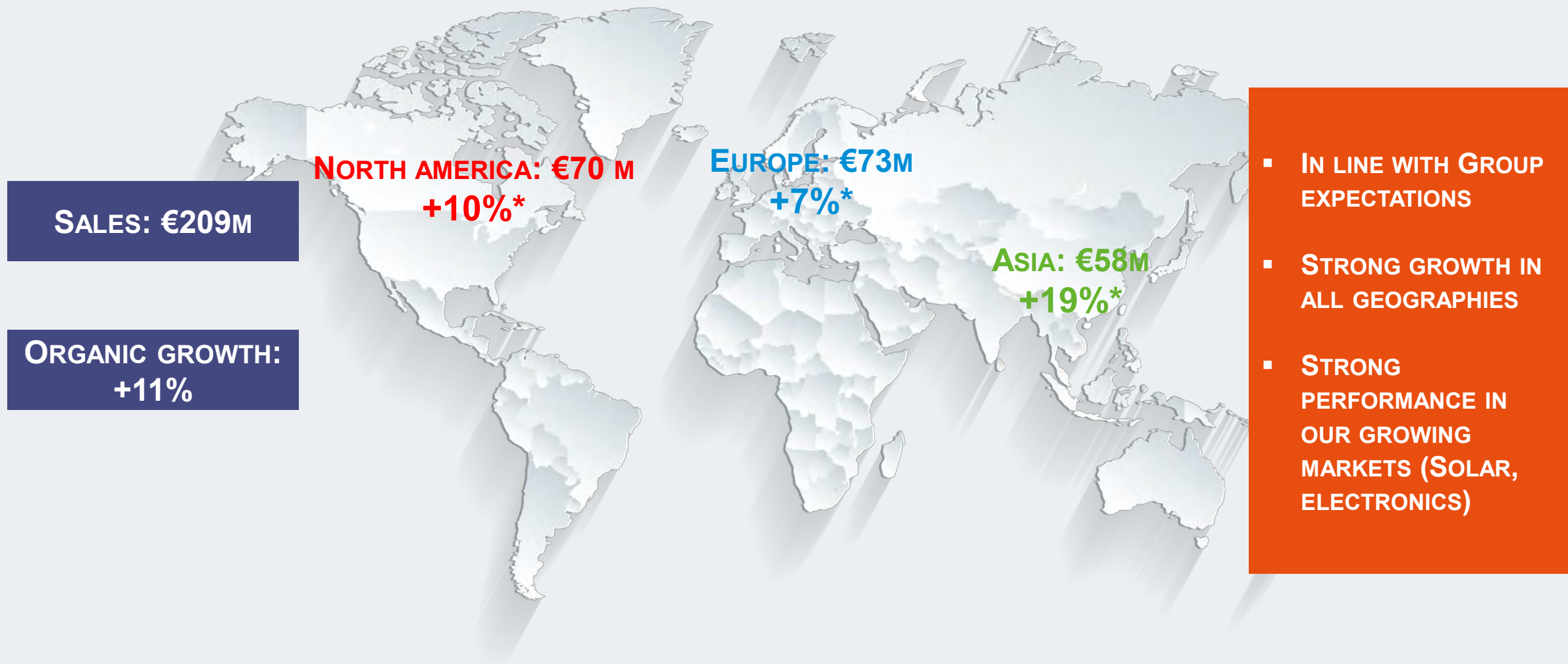
Between 3 and 6%

**OPERATING MARGIN
BEFORE NON-RECURRING ITEMS**

**Between 9.6 and
10.1% of sales
(vs 9.2 % in 2017)**

* Excluding the currency effect and impact of changes in scope of consolidation

Q1 2018: A VERY STRONG START OF THE YEAR...



* Organic growth

...WITH M&A ACTIVITY

CIRPROTEC

Acquisition of the remaining capital
(49%)

OBJECTIVE

Accelerate our development in the
power quality segment

IMPACTS IN 2018

Less minority interests
€10 additional debt



CALY TECHNOLOGIES

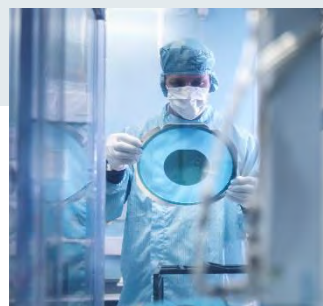
Acquisition of 49%

OBJECTIVE

Strengthen our expertise in
Silicon Carbide semiconductor
technology

IMPACTS IN 2018

ns (R&D mainly)



IDEALEC

Acquisition of 100%

OBJECTIVE

Consolidation in the busbars
market

IMPACTS IN 2018

2018 Sales: €4m (8 months)
Debt and Op. result: ns

