

Mersen • Annual Report 2014

—
Driving
Excellence
in Technology
—



Mersen • Annual Report 2014
CONTENTS

04 CORPORATE PROFILE



05 CORPORATE GOVERNANCE

06 HIGHLIGHTS OF THE YEAR



08 FINANCIAL HIGHLIGHTS

10 ROADMAP

11
MARKETS



- 12** ENERGY
- 14** ELECTRONICS
- 16** CHEMICALS & PHARMACEUTICALS
- 18** TRANSPORTATION
- 20** PROCESS INDUSTRIES

22 INTERNATIONAL



24
MEETING OUR
RESPONSIBILITIES



26 DIVERSITY



CHAIRMAN'S MESSAGE

Turning Vision into Reality

Luc Themelin,
Chairman of
the Management Board



Companies are sometimes accused of being too timid and lacking in ambition.

At Mersen, despite a lackluster 2014 and a still shaky economic environment, we are not afraid to be ambitious and our results confirm the validity of our approach. The past twelve months have strengthened our confidence in the key aspects of our strategy and convinced us that our objectives are within reach.

Affirmed since last year, these objectives are to deliver close to €1 billion in revenue by 2018 with a recurring operating margin of 12%. These figures weren't just pulled out of a hat. They reflect a precise analysis of each of our market segments, our strengths and the overall economic and business outlook. They are ambitious yet realistic, which means that we have to take an innovative, demanding and results-oriented approach.

Last year, with the launch of our Transform plan to optimize our manufacturing base, we took an important first step in the right direction. By reallocating production within the same geographies, resizing certain facilities and closing or disposing of certain businesses, the plan will create a new organization that will make Mersen more efficient and flexible while enhancing its ability to innovate and invest in the future.

At the same time, we will retain our natural competitive strengths, including our global leadership; our business approach melding technological expertise and continuous innovation; our presence in nearly 35 countries that keeps us close to our customers; and our industrial organization built around two core competencies and five markets. Together, these factors mean that we are optimistic for the future and proud to display our ambitions despite the sometimes low-key business environment. Far from sitting on our hands, we are seizing the reins of our destiny and deploying the resources required to maintain our competitive lead in the global marketplace.

Luc Themelin, Chairman of the Management Board

Serving five
promising
markets with
performance
and innovation

CORPORATE PROFILE

As a global expert in electrical specialties and graphite-based materials, Mersen designs innovative solutions to address our customers' specific needs, enabling them to optimize their manufacturing processes in promising markets such as energy, transportation, electronics, chemicals and pharmaceuticals, and process industries. Our expertise is structured around two centers of excellence – the Advanced Materials and Technologies segment (Materials) and the Electrical Components and Technologies segment (Electrical) – in which we hold positions as leader or co-leader in the global marketplace. Combining performance and innovation, this organization is supported by efficient manufacturing facilities and an international sales network that guarantees quality and local customer service every day.

Materials segment

A range of equipment based on graphite and ultra-high performance materials – including reactive metals and silicon carbide – for very demanding industrial environments that require resistance to high temperatures and corrosion.



Worldwide in
graphite-based
anti-corrosion
equipment



Worldwide
in high-
temperature
isostatic graphite
applications

Electrical segment

A range of electrical solutions and services for motors and generators that contribute to the safety and performance of electrical installations and power electronics.



Worldwide
in brushes and
brush-holders
for industrial
electric motors



Worldwide
supplier
of industrial
fuses

A corporate governance structure built on experience and synergies

Assisted by the Executive Committee, the Management Board and the Supervisory Board work together to define and rigorously apply the highest standards in terms of strategy, management and transparency.



Management Board

- 01 • Luc Themelin** • Chairman
- 02 • Christophe Bommier** • Group Vice President, High Temperatures
- 03 • Thomas Baumgartner** • Group Chief Financial Officer
- 04 • Didier Muller** • Group Vice President, electrical Applications and Chemical equipment

Executive Committee

- 05 • Thomas Farkas** • Group Vice President, Strategy and Development
- 06 • Estelle Legrand** • Group Vice President, Human resources
- 07 • Jérôme Sarragozi** • Group Vice President, Legal
- 08 • Charles-Henri Vollet** • Group Vice President, Purchasing and Information systems

Supervisory Board*

- Hervé Couffin** • Chairman
- Henri-Dominique Petit** • Vice-Chairman
- Isabelle Azemard**
- Yann Chareton**
- Catherine Delcroix****
- Carolle Foissaud**
- Dominique Gaillard**
- Jean-Paul Jacamon**
- Thierry Sommelet**
- Marc Speckaert**
- Ulrike Steinhorst**

* At March 10, 2015

** Subject to shareholder's approval

HIGHLIGHTS OF THE YEAR 2014

100 years

IN GENNEVILLIERS

In 2014, our historic plant in Gennevilliers, near Paris, celebrated its **100th birthday**. After surviving two world wars, the plant is now one of our centers of excellence, dedicated to specialty graphite solutions. To mark the occasion, former employees and local elected officials joined with management and employees in a ceremony on the plant's grounds.



Gennevilliers plant



Cirprotec

In 2014, Mersen acquired Cirprotec, a leading provider of lightning and surge protection devices based near Barcelona, Spain. The transaction has expanded our position in a segment with attractive growth prospects led by the ongoing improvements in power quality and safety.



Surge Protection Device



Photo Credit: ESA
Rosetta spacecraft

Audit

Mersen won the 2014 Special Jury Award for innovation in internal control, presented by the French Audit and Internal Control Institute (IFACI) in partnership with EY. The award honored our holistic approach to internal auditing, in particular the deployment of analytical and training applications and internal control's active involvement in operating issues.



Photo credit: ITER

Power converter

ITER

In Cadarache, France, the International Thermonuclear Experimental Reactor (ITER) project is building the world's largest experimental fusion-energy facility. Mersen has been awarded a contract worth around €2 million to supply key components for the reactor's **power converters**.

Transform

In early 2014, Mersen launched a global plan to optimize operating efficiency and increase flexibility, in a commitment to responding more effectively to the ever-changing global marketplace. As part of this process, production is being reallocated to centers of excellence. The Transform Plan will improve performance and flexibility while enhancing our ability to innovate and invest in the future.

Successful comet landing for Boostec®

With the Rosetta spacecraft, **Mersen's expertise traveled to outer space in 2014**. Installed onboard to prepare and record the voyage of the Philae robotic lander, the Osiris-PIAC camera mirrors manufactured by Mersen-Boostec are the first space instruments made entirely of sintered silicon carbide.

A streetcar named Mersen

The catenary-free light rail line in the Spanish city of Zaragoza is now equipped with Mersen static current collectors, **which recharge the supercapacitors in just 20 seconds** whenever the tram stops at a passenger station.

First sales of SiC Polyblocs

Developed by our R&D teams, **Polybloc** silicon carbide (SiC) block heat exchangers **deliver maximum purity**, which explains their popularity for pharmaceutical applications.

FINANCIAL HIGHLIGHTS

An encouraging future



Thomas Baumgartner
Chief Financial Officer

After a lackluster 2013 due to sluggish demand in certain markets, **2014 marked the beginning of a rebound for Mersen**, with a slight improvement in recurring operating margin and 2% organic growth over the year (excluding the chemical business impacted by the termination of a contract with Sabic).

The past twelve months have validated our strategic vision of building expansion on our leadership position and global footprint and capturing the growth in such promising markets as renewable energies and electronics. In particular, we enjoyed significant growth in the solar and wind power industries.

The acquisition of Cirprotec strengthened our presence in the power quality segment, which offers major growth potential. Lastly, the successful launch of our Transform plan to optimize our manufacturing base will make us more agile and flexible in the future, while consolidating our skills and capabilities in our centers of excellence. For all of these reasons, the outlook is encouraging for 2015, and we expect sales to increase by between 0 and 4%*. Recurring operating margin should also show a tangible improvement, to a targeted 8.6% to 9.4% of revenue. To achieve this objective, Mersen intends to pursue its targeted acquisitions strategy to further expand its offering and step up the pace of growth.

The Group therefore has every reason to be confident in 2015.

* at constant scope of consolidation and exchange rates

« Mersen demonstrated firm resistance and responsiveness in 2014, with operating income before non-recurring items amounting to €59.7 million, representing 8.2% of revenue, up from 2013. Once again, the Group also put in a very solid performance in terms of cash flow generation.»

Highlights

+2% organic growth in sales (excluding Chemicals)

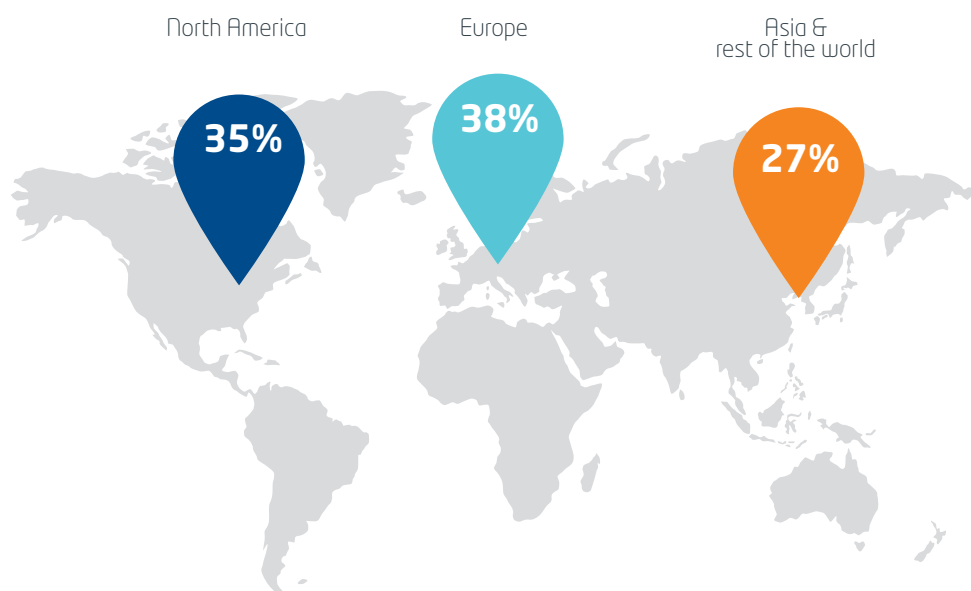
Slight improvement in recurring operating margin

Transform plan successfully deployed

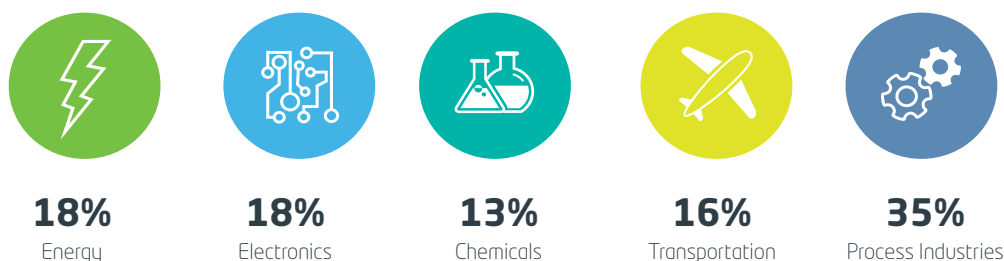
Strong cash flow before non-recurring items

Dividend up 11%

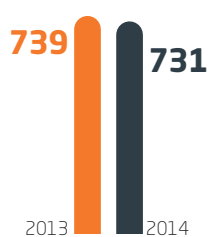
Sales by geographical region



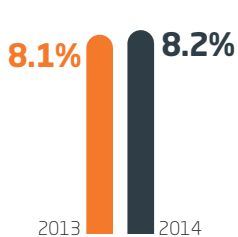
Sales by market



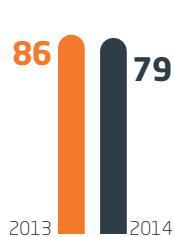
Consolidated sales (in millions of euros)



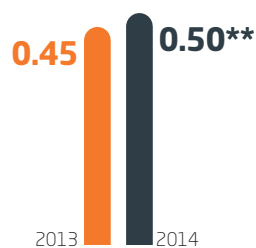
Recurring operating margin (as a % of sales)



Net cash generated by continuing operating activities* (in millions of euros)



Dividend (in euros)



* before capital expenditure and exceptional items

** subject to shareholders' approval

Asserting our vision for 2015–2018

Despite the turbulence and uncertainty experienced by our industries in recent years, **Mersen remains as resolutely forward-looking and growth-oriented as ever.**

Our 2018 roadmap will enable us to fulfill our ambitious vision by combining our expertise and market intelligence with a results-driven approach built on innovation and responsiveness.

Approximately
€1 billion
in revenue

12%
operating margin

12-14%
ROCE*
(before tax)

In favorable economic conditions



Why

such ambitious objectives

Because we hold **strong positions in all our markets**, with a 20 to 25% share and high technological content products in each one.

Because at least two of our markets offer **major growth potential**: renewable energy (solar power, which is now competitive in many countries, and wind), and electronics, which is being driven by a wide range of projects in such areas as rail traction and power transmission.

Because **our advanced expertise** and deep understanding of customer applications means that we can responsively offer solutions that are both innovative and effective.

Because our **efforts to streamline operations** make us more efficient.



How

we're going to meet them

By leading a bold **innovation** process, nurtured by the invaluable collaboration with our customers and resulting in the steady introduction of new products delivering real value.

By pursuing a **targeted acquisitions** strategy that will broaden and deepen our technological portfolio in leading edge market segments.

By deploying our **Transform** plan to align our manufacturing capabilities. This highly demanding process is designed to increase our profitability and flexibility in a shifting economic environment.

By **strengthening** our culture of operational excellence, which will **enhance** our competitiveness.



MARKETS

Energy. Electronics. Chemicals & Pharmaceuticals. Transportation. Process Industries.

Five markets, with five different sets of dynamics, served via a single approach combining expertise, innovation and a close-to-the-customer presence. From the lackluster chemicals market to the promising perspectives offered by renewable energies and electronics, Mersen had to demonstrate significant flexibility and responsiveness in 2014 to continue to strengthen its leadership around the world.

ENERGY

—
Global vision,
multi-local
execution
—

While we certainly haven't heard the last word from conventional energies, renewables drove most of the market growth in 2014. In the solar, wind and hydro power segments,

Mersen successfully capitalized on both its technical innovations and its in-depth understanding of customer issues to offer novel solutions that optimized performance while improving reliability and uptime.



MARKET FOCUS

HVDC power transmission

It's not enough to generate all the electricity that people need, you also have to transport it efficiently to where it will be used.

« Mersen worked with Alstom to co-develop the largest brush-rockers ever made. »



THE YEAR IN BRIEF

Enabling hydro PSP technology

Pump storage power (PSP) technology was a core factor in two major contracts won in 2014. Mersen supplies enormous brush-rockers capable of pumping water during off-peak periods and then acting as turbines to generate electricity when demand is high. The technology was successfully exported to Portugal with Voith and to Switzerland for a project to extend the largest pumped storage hydroelectric plant in the Alps. During the project, Mersen worked with Alstom to co-develop the largest brush-rockers ever made.

Staying the course with NAWSA

The North American Wind Service Alliance (NAWSA), the only integrated wind power service network in North America, continued to enjoy sustained demand in 2014. NAWSA regularly calls upon Mersen's skills and fast response capabilities to ensure maximum uptime and quality of service.

200,000 units for Europe's largest solar farm

Mersen is helping to build Europe's largest solar farm, located in the municipality of Cestas, near Bordeaux, France, which is scheduled to start operating at the end of 2015. Clemessy, the Eiffage subsidiary in charge of connecting the park to the national grid, has ordered electrical protection components especially adapted to photovoltaic applications, including low-voltage switches, surge protection systems, fuses and fuse holders, for a total of more than 200,000 Helioprotection® units..



High voltage direct current (HVDC) transmission is a power electronics technology used to enable electricity to travel over long distances. As **Yannick Moison**, Product Manager in our Power Electronics business, explains, «In Brazil, India and China, the inland power stations are located far from some of the large coastal cities, and in Europe the challenges include transporting power from offshore windfarms to the onshore grid via subsea cables and trading electricity between neighboring countries.»

Technology optimized by Mersen

In both cases, HVDC lines can efficiently carry the power, with a minimum of current loss. Mersen supports the power converters by supplying liquid cooling devices acclaimed for their robustness and reliability. «» «They are strategic projects, which

impact a country's infrastructure and where you have to be capable of designing the components, producing them in vast quantities and offering effective technical support throughout the development phase», adds Yannick Moison.

In 2014, for example, Mersen worked with Alstom on Phase II of the Champa HDVC link in India, which will carry power generated by a dam to several coastal cities. In Canada, thyristors used in the Lower Churchill project are being cooled with Mersen devices. Lastly, in Germany, where the national energy transition program is in full swing, our teams worked on the DolWin3 and Borwin3 North Sea windfarm projects.

Highlights

High voltage direct current (HVDC) transmission

Transporting up to 900 MW

ELECTRONICS

A year in in the spotlight

In 2014, as LEDs and microchips became increasingly prevalent and demand rose for power electronics to transform and distribute energy, **Mersen continued to leverage its expertise to serve the emerging electronic technologies that connect and brighten our lives.**

THE YEAR IN BRIEF

More performance for Applied's Varian system

Applied Varian, the world leader in ion implant technology, has called on Mersen's expertise for its semiconductor doping equipment. The purity of Mersen graphite enables more precise etching, which deepens the active layers, thereby improving semiconductor performance. In addition to this technical expertise, the collaborative venture was also based on our ability to provide local customer support, particularly in the United States and China.

Compact laminated busbars for semiconductor lithography

Mersen has been chosen by one of the world's leading manufacturers of photolithography equipment to design interconnection solutions for the new machine it is developing. Because the semiconductor etching process requires extremely high precision, at nanometer scale and very fast speeds, the connection system developed for the wafer carrier replaces cables with laminated busbars. This custom-engineered solution guarantees quick-fit mounting and long-term reliability.

Surging demand for power electronics in China

The installation of new production lines in China in 2012 enabled Mersen to strengthen its presence in the country and win a large number of contracts. Our exclusive fuse/busbar/cooler bundle attracted many new customers in industries as varied as railways, windpower, solar power, HVDC transmission and electric vehicles. These included both Chinese companies like Yongji, Tiankin and RXPE, and large manufacturers with Chinese facilities, such as TMEIC, Crompton Greaves and Xuji. The local plant also enables us to serve regional customers, such as Rotem and Semikron in South Korea, Hitachi in India and Fuji and Sanwa in Japan.



Power electronics module

Highlights

A fast-growing market

An MOCVD process that requires ultra-high-precision technologies

Products that require very frequent replacement



Photo credit: AIXTRON

MOCVD reactor

What is the outlook for the LED market?

Sabine Le Marquis, Compound Semiconductor Market Manager at Mersen, talks about the highlights of the promising but aggressively competitive LED market in 2014.

How is Mersen doing in the LED market?

Year after year, sales of our products continue to increase around the world, particularly in the United States and Asia, where we have an extensive presence alongside the leaders in high-performance LEDs. Our SiC-coated graphite wafer carriers for the metal organic chemical vapor deposition (MOCVD) process are in demand due to their excellent and even heat conductivity and resistance in a corrosive, very-high-temperature environment.

Is this one of the keys to the market?

Absolutely. MOCVD process represents 20 to 25% of an LED's total production cost. It is a process-critical step that manufacturers are constantly trying to optimize – and the properties of the graphite are one particular area where gains are possible, with solutions that are more efficient, but which demand extreme purity. **In particular, you have to be able to quickly manufacture new designs tailored to customers' lines and production cycles.**

How is Mersen's technology different from the others?

Our expertise is backed by years of R&D and partnerships with the industry's leading manufacturers. Because the MOCVD process demands very high performance, we have developed a specific grade of graphite for these applications and invested in coatings, calibration and high-precision machining.



CHEMICALS & PHARMACEUTICALS

Innovation-driven growth

In a multi-faceted industry with a wide range of markets, Mersen put in a modest performance in 2014, after two exceptionally good years. Nevertheless, we were able to distinguish ourselves on certain projects thanks to an approach combining expertise, innovation and purpose-designed engineering. Rather than simply repeating past successes, our teams met some particularly daunting technical challenges.

Turn-key PTFE-coated piping for an ExxonMobil plant

It took more than 500 hours of preliminary design covering seismic and wind risks as well as other stresses, but ExxonMobil's synthetic rubber plant in Singapore will meet all of the high-performance criteria demanded by the business. The Mersen-engineered solution comprised PTFE-coated piping specially adapted to corrosive fluids and already built into a 1.5-square-meter metallic framework in five modules. Composed of more than 180 three-meter long tubes of 300mm diameter, the \$2-million turn-key project included critical testing.

THE YEAR IN BRIEF

A world first in pre-assembled anticorrosion systems

Mersen was chosen by a Philadelphia-based producer of inhalation anesthetics to supply an exclusive turn-key anticorrosion solution combining an optimized design, process control, assembly and start-up services. The \$4.5-million contract concerns the purification of a synthetic fluorinated anesthetic for use in both humans and animals – an innovative application engineered to meet the customer's specific needs by leveraging a wide range of Mersen's capabilities.

Chlor-alkali around the world

Led by the need for regulatory compliance in Europe, strong demand in North America and new contracts with Union Chlorine and Oman Chlorine in the Middle East, Mersen continued to demonstrate its chlor-alkali expertise in 2014, in particular with the supply of burners needed to produce hydrochloric acid and turn-key assemblies designed specifically for the oil, gas and water treatment markets.



Photo credit EXXON

Singapore EXXON MOBIL plant

CASE STUDY



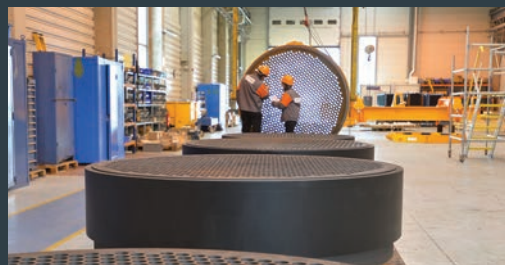
Olivier Samson
Project manager

Record-breaking heat exchangers for Saudi Arabia

Interview with **Olivier Samson**

The project

In Saudi Arabia, **Mersen is helping to build Ma'aden's new phosphoric acid plant** scheduled for commissioning in 2016. The project's prime contractor, South Korea's Hanwha Engineering & Construction, has ordered 13 graphite tube heat exchangers, each comprising 920 seamless 5.5-meter tubes.



Pagny-sur-Moselle workshop

The challenge

Mersen is the only company capable of producing 6-meter long tubes without seams, which reduces the risk of major breakage. But more than the length, the real challenge was to deliver 13 exchangers in just one year.

Mersen's solution

A dedicated workshop was set up at the Pagny-sur-Moselle facility in France to assemble several units simultaneously. An ultra-precise process was implemented to streamline the flow and output as soon as the graphite was received. In addition, throughout the project, a Mersen team will stay in constant contact with Hanwha and Ma'aden in Seoul to manage relations with the various customers.

The Mersen difference

In addition to our excellent understanding of Korean culture and organization, we offer better technology at a more competitive cost, with isostatic graphite tube sheets that are much more resistant than our rivals' extruded graphite.

Highlights

A €6-million contract

13 graphite tube heat exchangers

Record seamless lengths of up to six meters

A special workshop dedicated to the project in Pagny-sur-Moselle

Scheduled for delivery up to 2020

TRANSPORTATION

—
Ever farther
and even safer
—

« Mersen is one of only two suppliers in the world capable of producing components good enough for the A320 engines ».

Long a preferred partner in the development of mass transit, air and rail systems, Mersen also contributes its expertise to the aerospace industry, where performance and reliability are a must. **Recognized both for the effectiveness of its solutions and the quality of its products, the Group is honing its position as a specialist to meet new challenges and win new markets.**



Aircraft engine

MTU certification for the new A320

After the initial certifications earned in 2012, German aircraft engine component manufacturer MTU Aero Engines AG has once again acknowledged Mersen's expertise, this time for our high-temperature engine components. The certification came with the signature of a contract for the new A320 program. Mersen is one of only two suppliers in the world capable of producing components of that quality.

DIN 6701-2 certification for Mersen in Amiens (France)

After a year of preparation, Mersen Amiens, France has been certified in accordance with Germany's DIN 6701-2 standard following an audit by Bremen, Germany-based Fraunhofer IFAM. Earning the certification, which applies to adhesive bonding work in rail vehicle manufacturing, opens a major door to sales in the Germany-Austria-Switzerland market where DIN 6701-2 certification is required before the supply of any bonded rail vehicle components. The achievement will enable Mersen to strengthen its presence in Germany, where the Group already generates close to 10% of its revenue.

Euclid spacecraft explores the edge of the universe with Mersen

To map the universe's dark matter and energy, the Euclid spacecraft will use a large silicon carbide telescope whose mirrors and structure are supplied by Mersen. Silicon carbide is widely used in space applications on account of its light weight and exceptional thermomechanical stability. The first components were delivered in 2014.

THE YEAR IN
BRIEF

Around the world in a train

Widely acclaimed by rail system operators and manufacturers for its power protection, transmission and conversion solutions, Mersen successfully leveraged its Power Transfer for Rail Vehicles (PTRV) business to win new markets in 2014.

François Gréa, Vice President, PTRV, tells us why.



PTRV workshop team

How is Mersen's approach to the rail market different?

We are THE specialist in electrical solutions for rail systems. In addition to our third-rail shoes that can collect current in any configuration, we also offer solutions to protect the power supply lines with fuse boxes, as well as remote disconnect switches and earth return current units.



Is this what attracts your customers?

Yes. That and our global market coverage, which enables us to serve customers in some one hundred countries with the same superior expertise and responsiveness. Both manufacturers and transit operators trust us to guarantee quality, service continuity and safety for their systems.

How can you guarantee the same fast response everywhere?

All of the products are engineered in France then transferred to local teams for sourcing and assembly. Our Design Authority team follows one of the world's most demanding standards, the IRIS* certification plan, which allows us to apply the same discipline to every project.

Which markets were the most active in 2014?

We're continuing to make gains in China, in the new subway systems, where we are still the market leader, and on the CRC CRH380 trains. Also in Asia, we deepened our positions with Japanese manufacturers Toshiba, Kawasaki and J-Trec for projects in Tokyo, Singapore and Bangkok. As well, we're starting to win contracts in the Middle East where there are serious infrastructure needs, for example in Dubai, Saudi Arabia and Qatar.

In Europe and America, light rail is on a roll...

That's right, we're working with Alstom on the development of a new solution for the Citadis Spirit light rail vehicle. In Europe, which remains our biggest market, tramways are highly popular for their ability to enhance the interoperability of a city's transit systems.

Highlights

A comprehensive offering of electrical solutions

Project design engineering centralized in France

A robust network guaranteeing sourcing, assembly and quality management around the world

Positions strengthened in Japan, China and the Middle East in 2014

PROCESS INDUSTRIES

Focusing on energy
performance

In every industry, from metalworking to glassmaking, from oil, gas and mining to cement making, and from steelmaking to papermaking, energy performance is now a core issue for manufacturers.

In response to customer expectations, Mersen is investing in R&D to deliver innovative solutions to support the profound transformation in process industries around the world.

THE YEAR IN BRIEF

Integrated maintenance at Marcegaglia Ravenna

Since 2010, our Motor Maintenance Service has been supporting Marcegaglia, the world's leading steel products manufacturer, with output of more than 5.3 million tonnes a year. The core facility in the integrated maintenance contract is Marcegaglia's largest production plant based in Ravenna, Italy. In 2014, it once again called on the expertise of Mersen teams to optimize performance by completely reconditioning motors onsite, renovating existing brush-holders and supplying new brushes and brush-holders.



Speed drive

Increased demand for speed drives

Speed drives were in particularly strong demand in 2014, led by a worldwide need for energy efficiency. The bundled fuse/busbar/cooler solution won over new customers in Europe, North America and Asia.

Premium quality makes the difference in heat exchangers

Mersen supplies heat exchangers to pickle steel sheets used in certain applications that require a prior surface treatment, such as the galvanization of sheet metal for the automotive industry. While heat exchanger capacity was not increased during the year, Mersen was still able to set itself apart in the marketplace through its maintenance services and the replacement of graphite exchanges with more premium models in tantalum.

« Mersen's technology allows the conversion of electrical power into a form suitable for applications and a large variety of users ».



KH Sung

Mersen Korea Sales Manager



The Samsung Galaxy Note Edge shows off its curves thanks to Mersen



Photo credit
Samsung Electronics

Without knowing it, millions of consumers and hi-tech aficionados around the world are carrying a little bit of Mersen technology in their pockets or bags.

For the past ten years, we have been supplying the isostatic graphite used to make the molds for the plastic parts in the Samsung Galaxy line of smartphones. Driving this success has been the ELLOR® line of graphite blocks and blanks for EDM* electrodes, designed to cover the full range of EDM applications.

In 2014, a new milestone was reached with the launch of the Galaxy Note Edge, the first smartphone with a curved screen. «It took us three years of hard work to **successfully meet this technical challenge** by finding the extremely fine grain of graphite needed

to produce high-quality curved glass.» explains Ki-Hyuk Sung Sales Manager for Mersen Korea. With this revolutionary product, whose curved, multifunction screen allows users to navigate in an all new way among the various applications, Samsung hopes to maintain the lead it has built up against Apple in recent years.

«Obviously our Japanese and European competitors would love to take the contract from us, but **the quality of our isostatic graphite** and its strong resistance to oxidation, abrasion and thermal shocks are **helping us to maintain our leadership**», adds Mr. Sung. Not to mention the fact that Mersen has operated in South Korea since 1985 and is well versed in the practices of a business where a local presence is essential.

Highlights

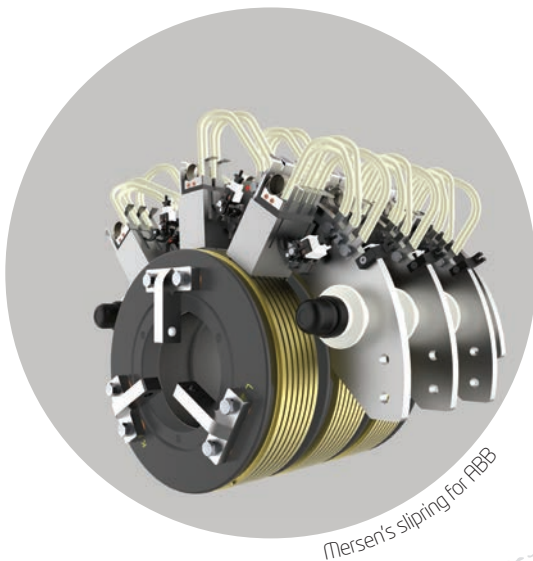
1985:
Mersen begins operations in South Korea

10 years
of partnership
with Samsung

A design especially engineered for the production of curved glass

* Electrical Discharge Machining

INTERNATIONAL



Serving ABB with multi-local production for global deployment

In 2014, a renewable three-year framework agreement was signed with ABB for the supply of a complete solution combining a slip-ring, brush-holder and carbon brush. It will be specially designed for ABB's new range of generators with unit capacity of between 1.5 MW and 3.5 MW, which can be used in the vast majority of wind turbine models currently sold around the world.

While our solution sharply reduces the need for maintenance on the most critical part of the generator, ABB's choice was also based on **our ability to manufacture identical products at several points around the world close to the end customer.**

The plants in Europe (especially Germany), Asia (China and India) and South America (Brazil) will therefore be spearheading this ambitious program, which is the result of five years of collaborative engineering studies between the two companies.

North America



14 sites

of which 4 sites
> 125 people

1 950 employees



2 R&D centers



South America



2 sites of
which 1 site

> 125 people

190 employees



Mitsui: a four- country win



Richard Scharbano

Fluoro Polymer trading
activity manager

An audit initiated in the United Kingdom leads to a project in Singapore managed from Japan with support from France. The contract awarded by Mitsui for ExxonMobil isn't just a new demonstration of the effectiveness of our PTFE* coated solutions; it also offers compelling evidence that a multi-local approach is a major advantage in today's markets. «We had hardly sold any PTFE in Japan before, so our French experts worked with our local subsidiary on the project's technical features,» explains Richard Scharbano, who

manages Mersen's PTFE business. Mersen Japan then took over with Mitsui to manage daily progress. «Nearly 500 emails were exchanged in 11 months. In Japan, when a question is raised, you have to answer it within 24 hours. So we got organized at the Pagny-sur-Moselle facility to be as responsive as possible, despite the time difference.» The teams' hard work and flawless coordination were rewarded by a \$2-million project.

*Polytetrafluoroethylene: corrosion resistant coating

Europe



24 sites

of which 4 sites
> 125 people

2 300 employees



5 R&D centers



Africa



3 sites

of which 1 site
> 125 people

260 employees



Asia Pacific



13 sites

of which 3 sites
> 125 people

1 570 employees



1 R&D center





MEETING OUR RESPONSIBILITIES

Innovation is not only driving our strategy, it is also being demonstrated in every aspect of our business, from team leadership to resource management around the globe. This comprehensive, sustainable approach entails a variety of initiatives, such as sharing environmental best practices, supporting continuous training, transmitting knowledge and ensuring that our facilities are safe.

ENVIRONMENT

Best practices at every stage

In a commitment to managing the impact of its operations on the environment, Mersen carefully tracks its products across their lifecycles, from design to production and end-of-life recycling.

- **ECO-DESIGN** / The design of new production lines and products is shaped by a wide range of criteria, including the choice of raw materials, the weight of packaging or reductions in the number of assembly steps and amount of waste.
- **WASTE RECOVERY AND REUSE** / Most process waste, such as graphite and copper, is reused or sold.
- **HEAT RECOVERY** / Several Mersen plants are equipped with systems to recover process heat and reinject it into the heating network.
- **END-OF-LIFE PRODUCT RECOVERY AND REUSE** / Mersen actively participates in the development of channels capable of recycling and reusing metals recovered from some of its end-of-life products, such as fuses and industrial brushes.
- **RECYCLING** / In Europe and the United States, Mersen is investing to improve packaging recycling at its facilities. Significant progress was made in 2014, to the point that certain facilities were recycling more than 60% of their waste.



SKILLS TRANSFER

Sharing expertise across the organization in India



Because our advanced **industrial expertise** is one of our key success factors, sharing and instilling skills across the organization is a constant concern. In India, where **we have employed more than 200 people on three sites since 1995**, the skills transfer process is carefully tracked by management and the human resources department. Mentoring teams and both in-house and offsite training courses are helping to smoothly induct new hires and prepare for coming retirements.

Highlights

An average
10.4 hours
of training
per employee
in 2014

4 safety visits
per site and
per month

TRAINING

In Juarez, onsite classes to earn equivalency diplomas

Employees at our plant in **Juarez, Mexico**, have been able to attend classes to prepare and earn elementary and middle school equivalency diplomas. A teacher certified by the Secretariat of Public Education is onsite two or three hours a day to support the volunteers through to the examinations. As the plant's human resources manager, Alfredo Arce, explains, «It's essential for us to support the emergence of new talent, attract the best people and encourage them to move up in the Mersen community. With this program, the teams are more motivated and fulfilled, both personally and in their jobs.»

At the rate of 30-35 participants per year over the past six years, nearly 200 people have already graduated, which will soon be extended with management education classes for managers.



3 questions
to Iris Qu

Safety Manager,
Electrical
Protection, China

SAFETY

"We're building a real culture of safety in China"

What are the main dangers in the production plants?

The main risks for employees are related to electricity, of course, but also to the handling of heavy loads and chemicals. In every case, we have installed safety equipment, like insulated handles and emergency cut-offs, and issued clear safety procedures that everyone is expected to follow – for example, concerning certain specified equipment or the use of forklift trucks for heavy loads.

What were the major measures taken last year?

In 2014, every Mersen facility in China performed safety cross-checks in addition of the Group's internal audits. We now have 12 local safety auditors who are regularly trained by our onsite experts. I train new auditors myself

in the primary principles, and then hold special sessions for all the procedures relating to operating machinery or handling chemicals.

In fact, the Yueqing plant received an award for its safety process.

That's right. We received the 2013-2014 Safety Challenge. Over the past three years, the number of incident-free days has steadily increased and now exceeds 1,200 thanks to the dedicated commitment of plant management. Their determination is also reflected in the substantial investments made in equipment and in successfully raising awareness among all our employees. We are building a real shared culture of safety, a concept that is still too rare in many Chinese factories.

DIVERSITY

Leveraging our multi-cultural strength in Boonton

« Our facility in Boonton, NJ in the United States perfectly illustrates our multicultural identity. »

Cedric Fontes Boonton Plant Manager

People of 28 different nationalities work side-by-side at our facility in Boonton, NJ in the United States..In day-to-day operations, the differences arising from this broad diversity of origins are being addressed by a purpose-designed organization.

In the area of communications, many managers are bi- or trilingual (mainly in English, Spanish and Portuguese), and courses are available for the 15% to 20% of employees who speak little or no English. Special care is taken in setting schedules, so that every employee can plan vacations around his or her holidays and beliefs. In the same way, food services offer something for everyone, regardless of dietary requirements, and the summer barbecue is organized so that every employee can participate.



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*"We wish to warmly thank
all those who have assisted
in the production
of this document"*

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