



# THE GROUP IN BRIEF

March 2024

**MERSEN**

*Mersen is a global expert in electrical power and advanced materials for high-tech industries.*

*With more than 50 industrial sites and 18 R&D centers in 33 countries around the world, Mersen develops custom-built solutions and delivers key products for clients in order to meet the new technological challenges shaping tomorrow's world.*

*For over 130 years, Mersen has focused tirelessly on innovation to accompany its clients and meet their needs.*

*Be it in wind power, solar power, electronics, electric vehicles, aeronautics, space or countless other sectors, wherever technology is progressing, you will always find a bit of Mersen.*



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04 • MESSAGE FROM LUC THEMELIN

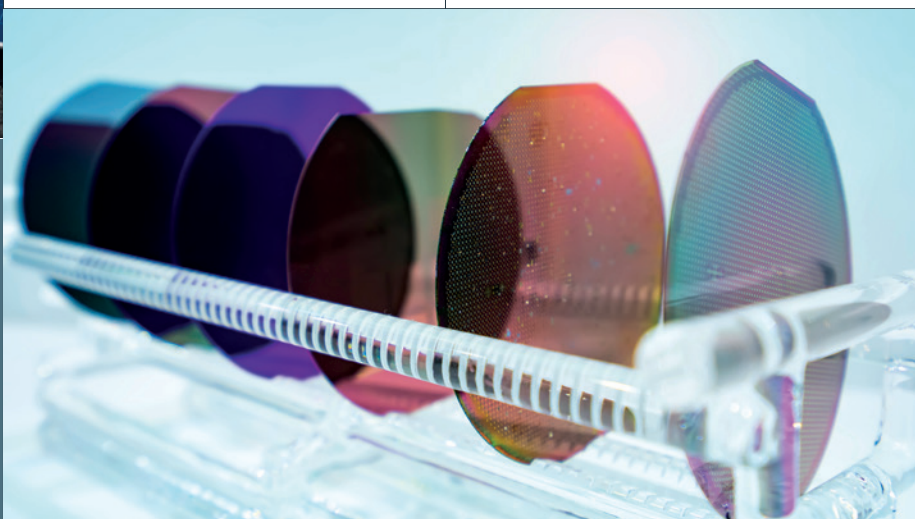
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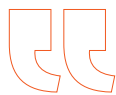
# MESSAGE FROM LUC THEMELIN

## CHIEF EXECUTIVE OFFICER OF MERSEN



Luc Themelin, 63, has been Chief Executive Officer of Mersen since May 11, 2016, after serving as Chairman of the Management Board from August 2011 to May 2016. He also sits on the Group's Board of Directors. He holds a PhD in ceramic materials science, and initially joined the Group in 1993 as an R&D engineer.

*2023: a turning point for Mersen.*



2023 marked a new turning point for Mersen with the presentation of its 2027 strategic roadmap. This is a major change in dimension for the Group, and attests to our strong positioning in the energy transition markets. We are present in renewable energy, electricity transmission and power conversion in general, with SiC semiconductors improving efficiency, and, of course, the boom in electric vehicles. The announcement of our roadmap was accompanied by a major investment plan to adapt our production base and rapidly increase our production capacity of materials and components for the electric vehicle market. Moreover, in May 2023, we successfully completed a €100 million capital increase with a view to maintaining our financial and strategic flexibility and consolidating our very solid financial structure.

Lastly, in early 2024, we added a CSR component to our roadmap to align our objectives with the same 2027 timeframe.

We achieved excellent results in 2023, with sales of €1.2 billion for organic growth of 13%, far exceeding initial forecasts. Sustainable development markets accounted for 56% of Group sales, with particularly strong growth in sales of SiC semiconductors and electric vehicles. Overall volume growth combined with good pricing power enabled us to achieve a sharp year-on-year increase in operating income before non-recurring items, taking into account the costs required to position ourselves in the electric vehicle market and to develop the new p-SiC technology for power semiconductors, as well as costs of ramping up production at the Columbia plant in the United States.





**+13%**

**ORGANIC SALES  
GROWTH IN 2023  
COMPARED TO 2022**



**26%**

**OF ENGINEERS  
AND MANAGERS  
ARE WOMEN**

Major new contracts with customers in the SiC semiconductor industry drove a significant increase in advanced payments, which led to very strong net cash flow from operating activities. Meanwhile, in line with our roadmap, we have significantly increased our capital expenditure, particularly at our Advanced Materials sites in the United States.

Our non-financial performance in 2023 was equally remarkable, with a particularly noteworthy 26% reduction in carbon emissions compared with 2022. On top of that, the proportion of women in engineering and managerial positions rose to more than 26%, while no less than 75% of our sales were EU Green Taxonomy eligible.

In light of this excellent performance, the Board of Directors will ask shareholders at the Annual General Meeting to approve a cash dividend of €1.25 for 2023, in line with the Group's policy.

In 2024, we will continue to implement our strategic plan with care and enthusiasm, bringing all our teams on board. I strongly believe that the year ahead holds further development for Mersen and will see even more value created for all our stakeholders.

**Luc Themelin**

*In 2024,  
we will continue  
to implement  
our strategic plan.*



# MERSEN IN A NUTSHELL & KEY FIGURES FOR 2023

A global expert in electrical power and advanced materials,  
Mersen partners companies around the world that drive today's industry  
and shape tomorrow's society.  
A committed partner and core technology provider.

## OUR SOLUTIONS

The Group develops tailor-made solutions and supplies key products across ten main product lines to meet new technological challenges.

- High-temperature graphite solutions
- High-temperature insulation
- Overcurrent protection
- Overvoltage protection
- Power conversion
- Motor brushes
- Signal transfer
- Power transfer
- Anti-corrosion equipment
- Advanced optics

# €1,211<sub>M</sub>

IN SALES

# 56%

FOR SUSTAINABLE  
DEVELOPMENT MARKETS

### EARNINGS

## €203<sub>M</sub>

EBITDA BEFORE NON-RECURRING  
ITEMS

## €137<sub>M</sub>

OPERATING INCOME  
BEFORE NON-RECURRING ITEMS

## €82<sub>M</sub>

NET INCOME ATTRIBUTABLE  
TO MERSEN SHAREHOLDERS

### DIVIDEND PER SHARE

## €1.25

Subject to shareholder approval  
at the Annual General Meeting

### FINANCIAL STRUCTURE

## 13.0%

RETURN ON CAPITAL EMPLOYED

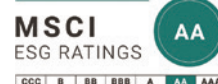
## 1.09

LEVERAGE

## OUR COMMITMENTS



**WOMEN'S  
EMPOWERMENT  
PRINCIPLES**  
Established by UN Women and the  
UN Global Compact Office



# MERSEN WORLDWIDE

**7,500**  
EMPLOYEES

**33**  
COUNTRIES

**51**  
SITES WORLDWIDE  
(of which 18 have more than 125 employees)

## NORTH AMERICA

**33%**  
EMPLOYEES

**14**  
MANUFACTURING SITES

**38%**  
OF SALES

## EUROPE

**37%**  
EMPLOYEES

**20**  
MANUFACTURING SITES

**33%**  
OF SALES

## ASIA-PACIFIC

**23%**  
EMPLOYEES

**13**  
MANUFACTURING SITES

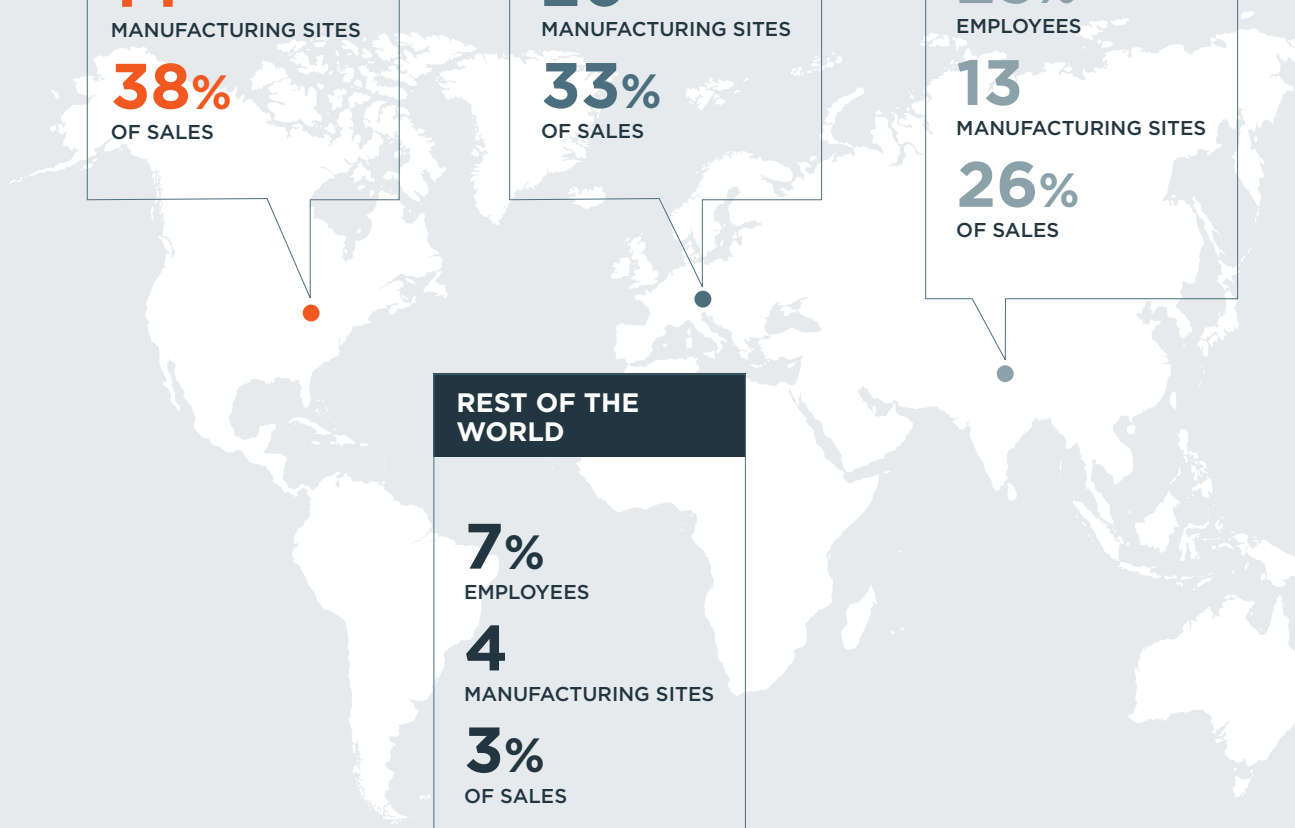
**26%**  
OF SALES

## REST OF THE WORLD

**7%**  
EMPLOYEES

**4**  
MANUFACTURING SITES

**3%**  
OF SALES



# HISTORIC DATES

## The revolution in electricity, where it all began

Mersen's roots lay in a technology that was about to play a decisive role in the coming electrical revolution: carbon arc rods. These would illuminate public spaces and large department stores from the 1870s.

Following on from lighting and arc lamps, electric motors gave the Group's founders opportunities to develop on an industrial scale. Electricity was being produced by dynamos in which the current was transmitted by sliding contacts in the form of small brushes made of carbon, another major market that would underpin Mersen's growth.

In addition, electrical networks also required distribution, control and protection equipment: Mersen rapidly became a leader in the electrical appliances industry.

### THE FOUNDATIONS



The adventure began with two entrepreneurs, Maurice Lacombe and Fabius Henrion. Their companies - Le Carbone and the Compagnie Lorraine de Charbons - merged in 1937 to give rise to the Carbone Lorraine group. These two entrepreneurs are the true founders of Mersen.



- **1891** Establishment of the Fabius Henrion factory, producing electric motors, dynamos and lamps



- **1892** Creation of Le Carbone in Paris, specializing in the manufacture of brushes for motors

- **1897** Opening of the first foreign subsidiary, in Germany



- **1937** Foundation of Carbone Lorraine



### NEW MOMENTUM

When France was liberated in 1945, Carbone Lorraine recovered most of its plants in working order. However, the Group emerged weakened from the global conflict.

It was now faced with a major challenge: modernize or disappear. Under the leadership of its new Chairman, Charles Malégarie, the Group rallied to return to the industrial presence it had enjoyed in the 1930s.

- **1950-1985** Resumption of worldwide distribution of products from Ferraz, a Lyon-based manufacturer of industrial fuses



- **1961** Construction of the Amiens plant to manufacture brushes for electric motors





## NEW HORIZONS

In the early 80s, the Group decided to reinvent itself. The aim was to move away from commonplace products and specialize in highly technical manufacturing methods.

At the same time, R&D efforts were more and more focused around customers so as to offer them tailor-made products. This important turning point is what shaped the Mersen Group as we know it today.

**1991** Acquisition of Stackpole's electrical applications and high-temperature assets (United States)

**1999** Acquisition of the Gould-Shawmut group's electrical protection division (American standard fuses)



**2005** Disposal of its automotive magnets business

**2007** Inauguration of the Chongqing plant, the Group's first industrial facility in China to produce isostatic graphite



**2008** Acquisition of Xianda (heat exchangers) and Mingrong Electrical Protection (MEP) (fuses), the Group's first acquisitions in China

Disposal of its rail and motorcycle braking business

Acquisition of Calcarb, world no. 2 in rigid graphite felts



**2009** Disposal of its automotive and household electrical appliance brush business

## A GLOBAL EXPERT

In 2010, the Group undertook to bring its identity in line with its new profile. Carbone Lorraine gave way to Mersen.

**2010** CARBONE LORRAINE BECOMES MERSEN

**MERSEN**

Acquisition of a majority stake in Boostec, a specialist in silicon carbide

Strengthening of the solar energy business with the acquisition of a majority stake in Yantaï

**2011** Acquisition of Eldre, a specialist in laminated and insulated bus bars

**2014-2018** Acquisition of Cirprotec, a specialist in lightning and surge protection devices (SPD)

**2018** Acquisition of Idealec, a leader in designing and manufacturing laminated bus bars

Acquisition of FTCap, a leader in designing and manufacturing capacitors

**2019** Acquisition of the Columbia site to manufacture isostatic and extruded graphite and insulation felts



Acquisition of Advanced Graphite Materials Italy, a specialist in the machining of graphite and carbon fiber insulation

**2020** Acquisition of GAB Neumann, a specialist in graphite and silicon carbide heat exchangers



# TRENDS AND OPPORTUNITIES

The energy transition is one of the greatest challenges of the 21<sup>st</sup> century, as the world faces the depletion of natural resources, a growing need for energy supply, and climate change.

The way forward is a structural transformation to reduce energy consumption and give green energy a greater share of our energy mix.

Mersen sees these underlying trends as opportunities to further support economic development and the global energy transition, delivering tailor-made solutions and key products to customers to help them rise to these new technological challenges.

## Supporting the development of renewable energies

In 2022, the global energy crisis accelerated the shift to renewable energies, resulting in strong growth in installed capacity, particularly photovoltaic solar power, wind power and hydroelectric power, the three main renewables.

By the end of 2022, global renewable energy production capacity stood at 3,372 GW<sup>(1)</sup>. Hydroelectric power, with a capacity of 1,256 GW, accounted for the largest share of the global total, followed by solar and wind power, which accounted for most of the remainder, with total capacities of 1,053 GW and 899 GW respectively.

According to the “Renewables 2023” report by the International Energy Agency (IEA), published on January 11, 2024, global annual renewable capacity additions increased by almost 50% in 2023 from 2022. Three quarters of this was for photovoltaic solar power. The IEA has predicted the strongest renewable power growth in 30 years over the next five years, with the aim of tripling global capacity by 2030.

China, in particular, is set to consolidate its leading position in the rollout of additional capacity. In 2022, it contributed almost half of all global additional capacity, and is expected to account for a record 55% of annual additional capacity worldwide by 2024.

Renewable energies are benefiting from favorable conditions, driven by proactive public policies aimed at reducing dependence on fossil fuels and developing clean energies.

This shift is set to continue as countries strive to contribute to greenhouse gas reduction targets, in line with the historic agreement reached by over 200 states at COP 28 in Dubai aimed at phasing out fossil fuels.

## Mersen is contributing to the boom in renewable energies: solar, wind and hydroelectric.

Thanks to its offering of solutions and products that help make these major energy sources possible, Mersen will benefit from the short- and medium-term potential of these markets. Its global presence at the heart of its markets is also a major advantage.

## Helping convert and transmit electricity

The development of high-performance storage and transmission solutions is crucial if renewable energies are to continue to rise.

Due to its intermittent nature, renewable power has to be converted so that it can be transmitted and stored.

Energy storage systems help balance electricity supply and demand on power grids and mitigate the intermittent output of renewables. Excess energy produced at certain times can be stored and then fed

(1) Source: International Energy Agency (IEA).

back into the grid when demand is higher. These systems also meet the needs of remote, off-grid areas.

In most cases, electrical energy cannot be stored or transmitted directly, so it is converted into the form required for its intended use – from direct current to alternating current, for example.

Thanks to power conversion, electricity from renewable sources can be transformed into an energy form that is subsequently fed into power grids, or stored and transformed back when it needs to be used.

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### **Power conversion is a key area of development for Mersen.**

The Group offers passive components for power management, as well as a wide range for optimizing the operation of power conversion and storage systems to make sure they are safe and reliable.

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### **Improve power conversion efficiency with silicon carbide semiconductors**

Silicon carbide (SiC) semiconductors, which perform better and consume less energy than their silicon (Si) counterparts, are increasingly becoming the go-to choice in the transition toward greater efficiency. They are used in the conversion systems of electric vehicles, energy storage, wind power and solar energy.

They are particularly essential in accelerating the adoption of electric vehicles, as they improve range and reduce battery charging times.

The SiC semiconductor market has seen only limited expansion in recent years, but is expected to see very strong growth of around 30% to 40% per year over the next three to four years, in line with the development of electric vehicles and 5G telecommunications.

It should exceed USD 5 billion by 2028, representing growth of over 20% per year.

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### **Mersen is a key player in the rise of SiC semiconductors.**

The Group's expertise in supplying the components needed to manufacture power semiconductors is virtually unique. Mersen's isostatic graphite and insulators ensure perfect control of the reaction at 2,400°C, to form very high-quality silicon carbide.

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### **Participating in the development of electric vehicles**

The electric vehicle (BEV, HEV or PHEV<sup>(1)</sup>) market is thriving, with both the passenger vehicle, and industrial and commercial heavy vehicle segments enjoying robust growth.

New electric car sales were expected to increase 35% year on year in 2023 to account for 18% of total car sales, compared with a share of less than 5% in 2020<sup>(2)</sup>.

Worldwide sales are concentrated in three major markets, with China in first place, accounting for over half of sales, followed by Europe and the United States.

Some emerging markets are also promising. In India, for example, the manufacture of electric vehicles and their components is ramping up, supported by a government incentive program of more than USD 3 billion in 2022<sup>(2)</sup>.

In the medium term, incentive policies should continue to support promising prospects. The scenario put forward by the International Energy Agency (IEA), which is based on current policies, projected a market share of 35% for electric cars in 2023. It also projects that China will retain its position as the largest market for electric cars, with 40% of total sales by 2030. The United States is expected to double its market share to 20% by the end of the decade as recent policy announcements drive demand, while Europe should maintain its current 25% share.

At COP 26, held in Glasgow in November 2021, some 30 countries, companies and carmakers pledged to work toward phasing out internal combustion engines (including hybrids and commercial vehicles) as early as 2035 in leading markets, and by 2040 worldwide.

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### **Mersen is contributing to the powerful momentum of the electric vehicle market.**

Thanks to its expertise in cutting-edge technologies and its long experience in sectors that share the same need for electrical protection and energy management, the Group has been developing and adapting its products (particularly fuses and bus bars) for several years to meet the battery protection and range requirements of electric vehicles.

(1) Plug-in Hybrid Electric Vehicle.

(2) Source: Global EV Outlook 2023 (IEA).

# BUSINESS MODEL

## MISSION

We provide manufacturers all over the world with innovative solutions to enhance the performance of their offer.

## AMBITION

Pursuing the development of solutions tailored to our customers' needs by **drawing on our expertise**.

Fostering growth in **buoyant sustainable development markets** by offering innovative and sustainable solutions.

Continuing to implement a competitiveness and performance program while taking a **socially responsible approach**.

Optimizing human capital development by providing a **motivating work environment**.

## OUR RESOURCES

### HUMAN CAPITAL

**7,500** EMPLOYEES  
IN 33 COUNTRIES

**100%** SITE MANAGERS  
RECRUITED LOCALLY

### INDUSTRIAL ASSETS

**51** MANUFACTURING  
SITES

**€176M** CAPITAL  
EXPENDITURE

### INTELLECTUAL CAPITAL

**18** R&D  
CENTERS

### FINANCIAL POSITION

**1.09** LEVERAGE

### ENVIRONMENTAL RESOURCES

**73%** ELECTRICITY CONSUMED  
FROM RENEWABLE SOURCES

## OUR BUSINESSES



**DESIGN,  
MATERIALS  
FORMULATION**



**ASSEMBLY**



**TRANSFORMATION  
INCLUDING BAKING,  
GRAPHITIZATION,  
PURIFICATION AND BRAZING**



**TREATMENT  
PROCESSES,  
FINISHING  
MACHINING, COATING**

## OUR EXPERTISE

### 2 AREAS OF EXPERTISE

#### ADVANCED MATERIALS

- ▶ Resisting very high temperatures
- ▶ Protecting against corrosion
- ▶ Transmitting power

#### ELECTRICAL POWER

- ▶ Protecting equipment and people
- ▶ Converting power

ADDED VALUE

# MEDIUM-TERM ROADMAP

## SOCIAL AND SOCIETAL

€350 IN FIXED SALARIES

89% EMPLOYEES SATISFIED WITH WORKING FOR MERSEN

€700M IN PURCHASING

## ENVIRONMENTAL

56% OF SITES CERTIFIED ISO 14001 (>125 P.)

70% OF WASTE RECYCLED

56% OF SALES GEARED TO SUSTAINABLE DEVELOPMENT

## ECONOMIC

€36M IN DIVIDENDS PAID

€25M IN INCOME TAX

€14M IN INTEREST PAID TO BANKS

### OUR CONTRIBUTION TO THE SUSTAINABLE DEVELOPMENT GOALS





# OUR EXPERTISE

Since its beginnings at the end of the 19<sup>th</sup> century, Mersen has gradually transformed into an industrial group with recognized expertise in two key areas – Advanced Materials and Electrical Power. The Group primarily develops innovative solutions tailored to its customers' needs.

## Advanced Materials segment

In the Advanced Materials segment, the Group operates across the entire value chain, from the formulation and manufacture of materials (graphite, silicon carbide, carbon fiber insulation and carbon-carbon composites) to the design of final products in line with customer needs.

It offers a range of solutions and products designed to perform the following principal functions:

### Resistance against very high temperatures

Mersen's range includes isostatic graphite equipment, carbon-carbon composites, flexible and rigid insulating felt, silicon carbide parts (for solar applications and semiconductors) and other refractory components, electrodes for electrical discharge machining and kiln linings. Since 2019 and the acquisition of the Columbia site (United States), the Group has also produced specialty extruded graphite.

**WORLD NO. 1<sup>(1)(2)</sup>**  
in high-temperature isostatic  
graphite applications.



### Protection against corrosion

This is provided by equipment using graphite, reactive metals or silicon carbide for the chemical, pharmaceutical and metallurgy industries.

**WORLD NO. 1-2<sup>(1)(2)</sup>**  
in graphite anticorrosion equipment.



### Electric power transfer

The Group's range provides stable and constant generation, flow and transformation of electrical current in industrial environments (steel, mining, etc.), energy (power plants, hydropower plants, wind farms, etc.) and transportation (rail, aeronautics, space and maritime). This function is carried out with brushes, brush holders and power slip rings used in generators and motors, and with pantograph strips and collectors and third-rail shoe systems for subways.

**WORLD NO. 1-2<sup>(2)</sup>**  
in brushes and brush holders  
for industrial electric motors.



### Main competitors (in alphabetical order)

- **Helwig Carbon** (United States) – brushes, brush-holders and pantograph strips.
- **Morgan Advanced Materials** (United Kingdom) – brushes, brush-holders and pantograph strips and flexible and insulating felt.
- **Schunk** (Germany) – isostatic graphite transformation, brushes, brush-holders, pantograph strips and carbon-carbon composites.
- **SGL Carbon** (Germany) – isostatic graphite, anticorrosion systems, extruded graphite and flexible and rigid insulating felt.
- **Tokai Carbon** (Japan) – isostatic graphite and extruded graphite.
- **Toyo Tanso** (Japan) – isostatic graphite, carbon-carbon composites.

€669M  
IN SALES

55%  
OF TOTAL SALES

# Electrical Power segment

The Electrical Power segment offers a range of solutions and products designed to perform the following principal functions across the entire electrical chain:

€542M  
IN SALES

45%  
OF TOTAL SALES

## Equipment and people protection

This function prevents the destruction of industrial and commercial electrical equipment, ensures an uninterrupted power supply and helps stabilize the electrical network. It is provided by overcurrent protection devices (such as industrial fuses) and by surge protection devices (to protect against damage from power surges).

The Group stands out for its ability to offer a wide and thorough range of products that meet various regional standards (e.g., UL, IEC, BS and DIN) and are aligned with the needs of the majority of its distributor and OEM customers.

## Power conversion

This function changes the nature, voltage, intensity or frequency of the current to meet very diverse applications, such as motor speed variation, solar and wind energy conversion, electric vehicle propulsion and the management of battery-based systems (electric vehicle or stationary storage).

To provide this, Mersen is the only group with an offering for power electronics industry players that includes high-speed fuses, cooling devices, laminated bus bars, and capacitors that are integrated around power electronics components or in the architecture of battery packs.

For the electric vehicle market, some Group sites are certified to International Automotive Task Force (IATF) standards.

**WORLD NO. 2<sup>(2)</sup>**  
in industrial fuses.



**WORLD NO. 1<sup>(1)(2)</sup>**  
supplier of components  
for the power electronics market.



## Main competitors (in alphabetical order)

- **Boyd Corp** (USA) – cooling devices
- **Dehn** (Germany) – surge protection devices
- **Eaton** (USA) – industrial fuses
- **ETI** (Slovenia) – industrial fuses
- **Littelfuse** (USA) – industrial fuses
- **Method** (USA) – bus bars
- **Phoenix Contact** (USA) – surge protection devices
- **Rogers** (USA) – bus bars
- **Siba** (Germany) – industrial fuses
- **TDK Electronics** (Japan) – capacitors
- **Wabtec** (USA) – current collector and earth current return units for rail transportation
- **WDI** (China) – bus bars

(1) Some businesses are covered by the regulations on the control of exports of dual-use items and technology.

(2) Internal source: the Group operates in niche markets. It draws on its in-depth sector expertise and the financial and technical documentation published by its competitors to establish its market position.

# OUR SOLUTIONS BY MARKET

Mersen provides solutions for all sectors in manufacturing, as well as all companies seeking efficiency and reliability.

## ENERGIES



Solutions and products for principal energy sources, and renewable energies in particular.

### Solar power

- Graphite and carbon fiber components for silicon ingot pulling which are needed to guarantee the purity of solar cells and to control the temperature of hot zones during crystallization.
- Isostatic graphite components for the deposition of blue anti-reflective coating on the surface of solar panels (PECVD process).
- A full range of solutions for the protection of photovoltaic panel installations (circuit breakers, fuses and surge protection devices).
- High-speed fuses, capacitors, laminated bus bars and cooling devices used for power conversion, which can be used in an integrated architecture.

### Wind power

- Carbon brushes and brush holders and slip ring assemblies for current collection for generators.
- Signal transmission systems, brushes and brush holders for yaw motors and grounding systems.

- Full range of fuses, fusegears, fuseholders and surge protection devices.
- High-speed fuses, capacitors, laminated bus bars and cooling devices used for wind power conversion.
- Maintenance services: technical diagnostics, equipment verification, installation and replacement of components.

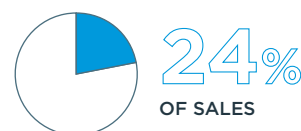
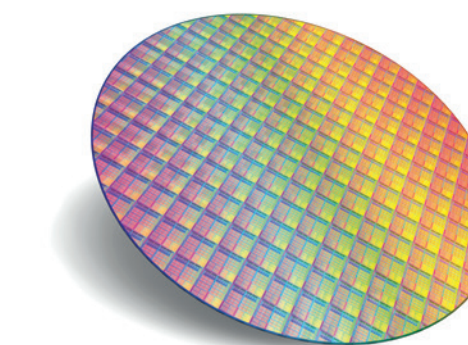
### Energy storage

- Direct current surge protection solutions with fuse-based devices and laminated bus bars to connect battery cells.
- High-speed fuses, capacitors, laminated bus bars and cooling devices used in power conversion.

### Conventional energies

- Power transfer solutions (brushes, slip ring assemblies, brush holders, and monitoring solutions).
- Power management: fuses and fusegears, cooling devices and laminated bus bars.

## ELECTRONICS



### Si and compound semiconductor manufacturing

- High-grade, ultra-pure graphite for the manufacture of semiconductors.
- Coated graphite supports for epitaxy and deposition phases of semiconductor active layers (CVD, MOCVD, ALD, etc.).
- Graphite parts for semiconductor manufacturing steps (lithography and ion implantation).

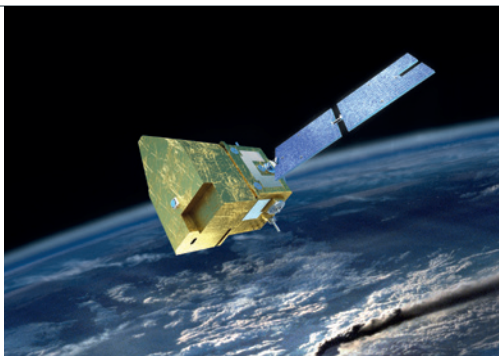
### SiC semiconductor manufacturing

- Rigid felt and graphite components for the PVT process.
- Polycrystalline substrates (p-SiC<sup>®</sup>) for Soitec's SmartSiC process.

### Power conversion

- High-speed fuses, capacitors, laminated bus bars and cooling devices used for power conversion, which can be used in an integrated architecture.

# TRANSPORTATION



## Rail

Solutions that meet the needs of rail infrastructure and rolling stock:

- High-speed fuses, capacitors, laminated bus bars and cooling devices used for power conversion, which can be used in an integrated architecture.
- Current collector devices (pantograph strips, third rail shoes), brushes and brush holders.

## Aeronautics

- Components for auxiliary motors, air conditioning, electrical power generation and distribution systems.
- Wear-resistant composite materials and brushes and brush holders designed for aircraft pressure systems.
- Optimal electronics cooling systems, low-inductance laminated bus bars, turbine blade positioning devices and components with lower friction rates.
- Materials and heat processing solutions for manufacturing processes for superalloy reactor blades.

## Electric vehicles

High-end BEV and industrial and commercial heavy vehicle markets:

- High-speed fuses and bus bars for battery modules and packs.
- Dedicated range of fuses to protect the electrical system supporting auxiliary functions.
- High-speed fuses, capacitors, laminated bus bars and surge protection devices for electric vehicle charging stations.

## Space

- Silicon carbide mirrors and structures for telescopes, particularly for observation satellites, but also for ground-based telescopes (ELT).

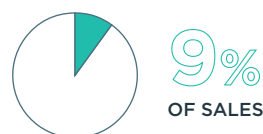


# PROCESS INDUSTRIES



A wide range of tailor-made products and solutions to meet the challenges of energy efficiency and electrical protection.

- **Metallurgy:** electrical and graphite solutions for foundries and furnaces, hot and cold rolling mills, galvanic lines and electrolysis systems.
- **High temperature furnace industry:** graphite refractories, thermal insulation and flexible graphite composite systems.
- **Sintering processes:** graphite refractory tools to withstand extreme pressure and temperature during processes.
- **Glass industry:** graphite solutions and grades specially designed for glass molding and handling.
- **Rubber and plastic:** solutions designed for very specific operations (extrusion, injection, high temperatures, constant or variable speed, etc.).
- **Pulp and paper:** electrical solutions (for pulping machines, winders, rollers, driers, etc.) and mechanical and sealing solutions (for pumps and other systems).



The Group offers equipment designed to meet the **most stringent production requirements**, in particular for phosphoric acid, chlor-alkali, active pharmaceutical ingredients, isocyanates, acid and specialty chemicals.

Made from graphite, SiC or reactive metals, its customized solutions:

- perform heat exchange and reaction functions: **heat exchangers**;
- transfer highly corrosive and high-temperature fluids: columns, reactors, pressure vessels, piping, fittings and bellows.

# CORROSIVE CHEMICALS



# OUR STRENGTHS



100%  
OF PLANT MANAGERS  
RECRUITED LOCALLY

## Local relationships worldwide

Mersen works side-by-side with its customers all over the world. The Group draws on its production base of 51 manufacturing sites in 33 countries, overseen by local managers to facilitate interaction with local stakeholders.

The Group leverages its knowledge of its customers' challenges to offer innovative products and solutions, which are sometimes developed jointly.

4

VALUES

## Employees committed to shared values

Mersen's major strength is its 7,500-plus employees around the world who drive its development according to a strict code of ethics that guides all of the Group's activities and operations.

These values are driven by 12 principles of conduct and action:

- **Innovate for our customers:** deep understanding of customers & markets, customer orientation, co-development
- **People first:** health & safety, respect, people development
- **Cross collaboration:** trust, open-mindedness, collective intelligence
- **One step ahead:** continuous improvement, open to challenges, balanced achievement





18  
R&D CENTERS

180  
EXPERTS AND SPECIALISTS

210  
EMPLOYEES WORKING IN R&D  
AND INNOVATION



## Innovative answers to customer challenges

### R&D organization

Mersen's R&D organization is built around a lean central structure headed by the Group's Chief Technical Officer (CTO) to oversee the long-term vision and manage priorities in line with the company's strategy. Each activity splits its efforts between "everyday" innovations and very ambitious projects, in terms of both the challenges to be solved and the value of the developments in question for Mersen.

The Group devotes around 3% of its sales to research and development for products, materials and processes, and to technical sales efforts so as to constantly adapt its solutions or services to each customer's specific requirements. Most of this expenditure is financed internally.

The Group offers certain employees the option of professional careers focused primarily on the development of critical technical expertise for Mersen. Assembled in the Open Expert community, the role of these 180 experts and specialists is to ensure that the Group's internal scientific culture and know-how are leveraged and passed on.

### Partnerships to strengthen R&D

The Group relies on a network of partnerships and collaborations with external players such as universities and large national research centers, which play a key role in helping the company to develop core knowledge, without which the Group would be less efficient in delivering solutions to the increasingly complex problems which its customers need to solve.

### The Innovation Challenge

The Innovation Challenge is designed to encourage and reward individual or collective initiatives that can contribute to the Group's growth or improve its performance. It is an annual event and culminates in two prizes:

- the "Growth +" prize rewards a team for putting forward a successful growth project whose execution is already contributing significantly to Mersen's sales growth;
- the "Best Creative" prize rewards the best innovative idea whose future implementation could make a lasting contribution to the growth or improvement of the Group's net income.

### Eco-design

Since 2021, Mersen has strengthened its mastery of eco-design methodology. Going forward, electrical protection products across the entire range will be designed taking into account their environmental impact, during production, use and end-of-life recycling.

# FOUR PILLARS OF MEDIUM-TERM GROWTH

As a key player in manufacturing industries around the world, Mersen follows a strategy based on four main pillars:

# 1

## **Pursuing the development of solutions tailored to our customers' needs by relying on our high value-added expertise**

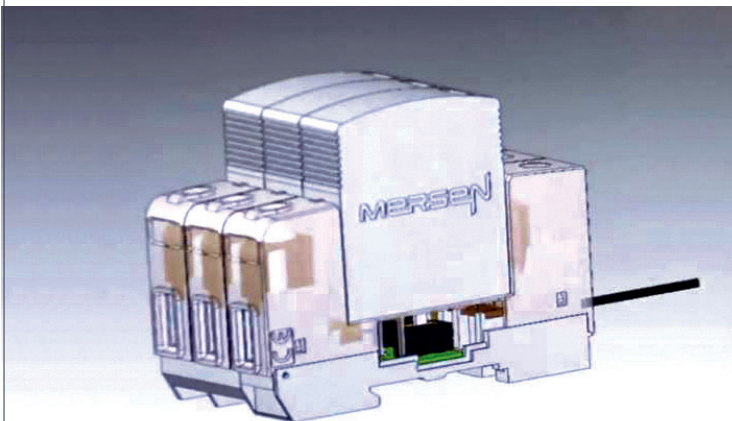
Mersen offers a wide range of products, services and solutions in our two areas of expertise – electrical power and advanced materials. To effectively address customers' specific needs, the Group draws on its network of 18 R&D centers located close to its customers across the world. This proximity gives Mersen unique insight into the challenges facing each player and enables the Group to offer custom-designed, innovative solutions backed by state-of-the-art technology. Mersen is also pursuing its policy of targeted acquisitions to provide its customers with an enhanced experience, consolidate its leadership positions and expand its operations in certain regions.



# 2

## **Fostering growth in buoyant sustainable development markets by offering innovative and sustainable solutions**

Mersen works closely with major industry players around the world, leveraging its international sales and manufacturing network. It focuses its efforts on markets with significant medium-term growth potential that contribute to the sustainable development of the planet, including from solar energy to electronics, energy storage and electric vehicles.



# 3

## Continuing to implement its competitiveness and performance program while taking a socially responsible approach

Mersen wants to gain in operational efficiency while promoting the security and safety of its plants and the people who work there and strengthening its ties with stakeholders in its host communities. The Group's overall performance is supported by a global operational excellence initiative for all parts of the company, from operations through to sales, with special emphasis on improving health and safety in the workplace and reducing the environmental footprint of its sites.



WE HAVE THE POWER TO ACT



*LIMITING OUR ENVIRONMENTAL FOOTPRINT AS MUCH AS POSSIBLE*

Reducing our environmental footprint is a complex challenge. We rise to it every day.



# 4

## Ensuring human capital development by building on Mersen's strong identity

Mersen promotes a culture where people are the bedrock of the Group and its development. It has built a robust, deep-rooted and attractive culture by offering employees genuine trust and accountability, and by respecting local cultures and fighting all forms of discrimination. Mersen is committed to helping its employees grow - while paying the utmost respect to human rights - and providing social protection for all.



# MEDIUM-TERM STRATEGIC PLAN

## OPERATIONAL AND FINANCIAL

In March 2023, Mersen presented its medium-term strategic plan described below. It was confirmed in March 2024.

### GROWTH MARKETS

Four markets representing 27% of sales in 2022 (SiC semiconductors, Si semiconductors, electric vehicles and renewable energies) are expected to generate around 45% of consolidated sales in 2027, with average annual growth of more than 20%.

This momentum is being driven by the following:

- The Group has developed **expertise in advanced materials that are essential to the manufacturing process of silicon carbide semiconductors**. It is working with key players in the sector to support their growth, sometimes based around major multi-year contracts. Mersen is also continuing its strategic partnership with Soitec to develop a new range of substrates for the electric vehicle market.
- In the **silicon semiconductor market**, the Group is positioned on the most sophisticated stages of the manufacturing process (ALD, ion implant) and will reap the benefits of its major ongoing investments in this market.
- For several years, Mersen's growth strategy in the **electric vehicle market** has involved reinforcing its teams, qualifying its sites on the 3 continents to automotive standards and entering into partnerships with automotive stakeholders. More specifically, it has signed a first agreement with battery manufacturer ACC and will be focusing over the coming years on the battery protection market, with a complete range of fuses.
- **The Group is a major supplier across the entire solar photovoltaics value chain**. In 2022, it exceeded the €100 million sales target it had initially planned to achieve by 2025. The Group will limit its solar production capacity in China in order to balance its production base more effectively between its different local end-markets.

The Group will continue to leverage its extensive expertise, global leadership position, international footprint and historical relationships with leading players to drive its growth in other markets (rail, aeronautics, corrosive chemicals, heat treatment, glass, etc.), where it expects to achieve average annual organic growth of 3%.

The Group's performance over the period will benefit from the expected volume effect, which should absorb higher depreciation and amortization expenses. In addition, Mersen's positioning as a provider of customized high-tech solutions could give it the pricing power necessary to offset possible impacts of inflation.

### Investment plan

The Group will deploy a targeted investment plan to support this growth, representing approximately €300 million for the 2023-2025 period, in addition to around €100 million for bolt-on acquisitions.

These investments will focus on boosting isostatic graphite and insulation felt production capacity, expanding four material finishing plants and enlarging three plants dedicated to fuses for electric vehicle market and one for busbars manufacturing in France for AAC.

These new projects will quickly begin producing a return on investment with projected ROCE of between 12.5% and 15.5% by 2027.

### Medium-term objectives

Thanks to this growth model and the momentum in sustainable markets, Mersen will reach a new dimension by 2027, with nearly 45% of its sales generated in the buoyant markets listed above. By 2027, the Group is aiming for:

- sales of around €1.7 billion;
- operating margin before non-recurring items of 12% of sales. This margin may vary by +/-50 basis points;
- recurring EBITDA margin of 19% of sales. This margin may vary by +/-50 basis points;
- ROCE of 13%, which may vary by +/-50 basis points.

# CORPORATE SOCIAL RESPONSIBILITY

In March 2024, the Group plotted out a new 2027 CSR roadmap, in line with its strategic objectives and with a view to growing its business in a responsible and sustainable way. Mersen's commitment to CSR is reflected in a number of objectives across the entire value chain, built on four pillars:

## Being responsible partners

### Ensuring responsible purchasing

- Maintain a minimum of 85% of external purchases with local suppliers
- Less than 5% of suppliers with a CSR score of less than 25

## Limiting our environmental footprint

### Limiting greenhouse gas emissions

- Reduce GHG emission intensity (scopes 1 and 2) by 35% (compared to 2022)
- Increase the share of renewable electricity to 80%

### Recycling waste

- Increase the share of waste recycled to 80%

### Limiting water consumption

- Reduce water consumption intensity by 15% (compared to 2022)
- Draw up a formal water conservation plan for all sites exposed to water stress

## Developing human capital

### Promoting equal opportunity and diversity

- Encourage gender balance and diversity in the workplace:
  - % of senior management positions held by women: 27%
  - % women engineers and managers:  $\geq$ 29%
  - Improve inclusion of people with disabilities: up 25% (compared to 2022)

### Promoting a social responsibility policy for all: 100% employee beneficiaries

- Provide social protection with a universal indemnity in the event of death in service
- Standardize profit-sharing schemes
- Adopt a minimum amount of paid leave in all countries

### Promoting well-being, health and safety at work

- Keep LTIR  $\leq$ 1.8 and SIR  $\leq$ 60
- Increase the number of management safety visits per employee by 30% (compared to 2022)

## Cultivating an ethics and regulatory compliance culture

### Ethics training

- Compulsory for new hires
- Compulsory refresher training every two years (individual or theme-based training by site)

### Cybersecurity training

- Compulsory for employees with a personal computer



# GOVERNANCE

## BOARD OF DIRECTORS

The Board of Directors determines the Company's overall strategy, overseen by its Chairman in close collaboration with Executive Management. As part of this role, it examines and approves the Company's strategic plans and activities.

It is assisted by two committees: the Audit and Accounts Committee (CAC) and the Governance, Appointments and Remuneration Committee (CGNR).

Two directors play a coordinating role in strategic issues and CSR.

**63%**  
PERCENTAGE OF  
INDEPENDENT DIRECTORS

**100%**  
AVERAGE ATTENDANCE RATE  
OF DIRECTORS  
AT SCHEDULED MEETINGS



**Olivier Legrain\***  
*Chairman of the Board  
and member  
of the CGNR*



**Emmanuel Blot**  
*Representative of  
Bpifrance Participations  
in charge of CSR issues  
and member of the CAC*



**Pierre Creusy**  
*Director representing  
employees and member  
of the CGNR*



**Michel Crochon\***  
*In charge of coordinating  
strategic issues and  
member of the CAC*



**Carolle Foissaud**  
*Member of the CGNR*



**Emmanuelle Picard\***  
*Member of the CAC*



**Luc Themelin**  
*Chief Executive Officer,  
Mersen*



**Denis Thiery\***  
*Chair of the CAC and  
member of the CGNR*



**Jocelyne Vassoille\***  
*Chair of the CGNR*

Board members (at the date of publication of the URD)

\* Independent director

## EXECUTIVE COMMITTEE

The Executive Committee is responsible for managing the Mersen group's operational affairs and meets every month to review the Group's financial and non-financial performance and decide on action plans in various areas (including human resources, IT, procurement, legal affairs and development) in line with its strategic priorities. The Executive Committee ensures that the Group's organization runs smoothly. To this end, it is closely involved in forecasting the human resources required for the continued development of its business activities. It defines the Group's sustainable development roadmap and ensures that it is applied at all levels of the company.

15 YEARS  
AVERAGE  
LENGTH OF SERVICE

30%  
WOMEN



**Luc Themelin**  
*Chief Executive Officer*



**Thomas Baumgartner**  
*Chief Financial Officer*



**Gilles Boisseau**  
*Executive Vice President,  
Electrical Power*



**Christophe Bommier**  
*Chief Technical Officer*



**Thomas Farkas**  
*Group Vice President,  
Strategy & Development*



**Jean-Philippe Fournier**  
*Group Vice President,  
Operational Excellence*



**Éric Guajioty**  
*Executive Vice President,  
Advanced Materials*



**Sylvie Guiganti**  
*Group Chief Information  
Officer*



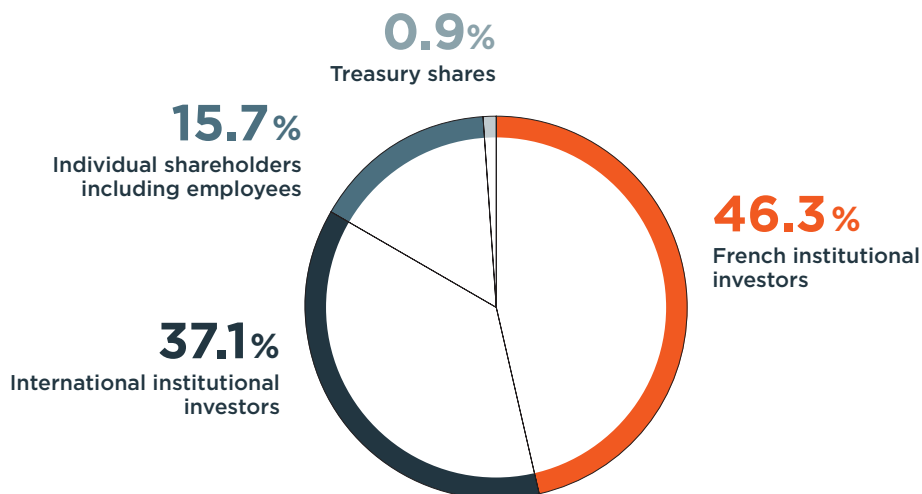
**Delphine Jacquemont**  
*Legal Vice President  
and Secretary  
of the Board of Directors*



**Estelle Legrand**  
*Group Vice President,  
Human Resources*

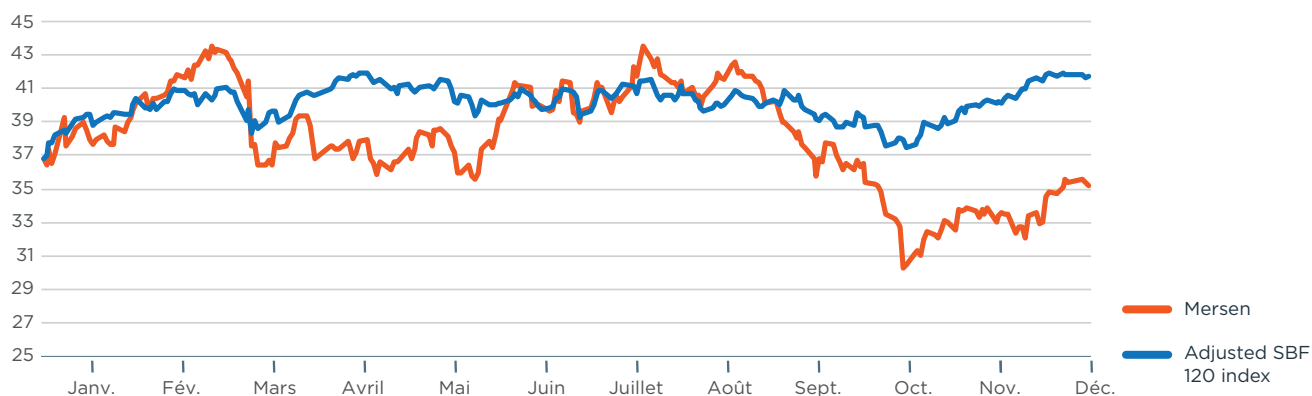
# SHARE OWNERSHIP & TRADING

## SHARE OWNERSHIP on December 31, 2023



**Number of shares: 24,418,312**

## SHARE PRICE in 2023



**On December 31, 2023: €35.20**

**Average daily transactions in 2023 : 100,692 shares**

## DIVIDEND PER SHARE in €\* **€1.25**

\* Subject to shareholder approval at the Annual General Meeting



## **GROUP HEAD OFFICE**

### **MERSEN**

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Tel.: +33 (0)1 46 91 54 00

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