Resolve to transform

Annual Review
22 | 23
Welcome

Leading the world

Financial results

Our five businesses
  Automation
  Automotive
  Renewable Energy
  Energy Distribution and High Precision
  Track

New headquarters

Trends, technology, R&D
  Product launches 2022/23

Culture, talent & values
  Executive Committee
  Board of Directors

Responsibility
  ESG Key Performance Indicators

Information for investors
We are pleased to report record annual results for the year. Our revenues and profitability show high demand for our products and the strengths of the organization to excel despite challenges throughout the year. LEM is preparing for the future, and our people are embracing change with determination and flexibility, working on innovative solutions in rapidly accelerating business environments. Our new headquarters in Meyrin, Geneva, is a major milestone for LEM, and the positive impact it has on our company and culture is featured in this Annual Review.

LEM’s long-term prospects are driven by megatrends such as electrification, decarbonization, renewable energy, automation, and mobility. We are investing in customer closeness and speed to market, and attracting new talent to capture opportunities emerging from these trends and to maintain our position as global market leader in electrical measurement. Our purpose is clear: We are helping customers and society to accelerate the transition to a sustainable future.

A successful, challenging year
We are delighted to report record annual results. Our revenues demonstrated the fundamental demand for our products and the strengths of the company operationally. The megatrends that drive our business are accelerating and offering many opportunities to capture substantial growth. We thank our teams around the world, who showed great flexibility and determination to find innovative solutions, so we can benefit from those advantageous circumstances.

We are further rolling out our new regional organization, moving decision-making closer to the customer and empowering local management in the regions. While the process is demanding, we are making good progress. The management team has achieved our aspired strength, competence, and experience to bring LEM to the next level. All leaders at LEM are invited to role model Blue Behaviors: with innovation and continuous improvement, customer orientation and growth, team player mindset and learner attitude.
This new 12,000-square-meter facility will allow us to meet growing customer demand globally and give us new skillsets and flexibility in our supply chain. Penang will be the main testing base for our integrated current sensor (ICS) products, which are in great demand from customers in our Automation, Automotive, and Renewable Energy businesses. Hiring is progressing well, and we will benefit from excellent local talent and experience, especially in the semiconductor area. We will start with 50 employees and expect to grow to 500 in a few years.

R&D and future technologies
More than half of our R&D investment goes into developing our core current sensor products and the rest into developing new products for new and adjacent markets. In addition to developing product lines, our R&D teams have developed three entirely new platforms, in metering, integrated current sensing, and smart grid. This is impressive and substantiates our investment. In 2022/23 we launched 9 products. We continue to build specific competence centers across our sites in Geneva, Lyon, Beijing, and Sofia. Our R&D teams provide a diversified skillset and ingenuity, plus the determination to constantly develop new solutions. Investing in integrated current sensors has proven to be the right move, and we are building out this capacity. Our software competency is also increasing across sites. In addition, we are working on the development of AC measurement for smart grid and highly sophisticated magnetic sensing technology.

Challenges due to the pandemic started with lockdowns in China in April and May and then again in November, followed by the sudden lifting of restrictions in December. This stalled production in China, intensified component shortages, and challenged our supply chains. We were unable to deliver on all orders in China and around the world. Teams were highly solution oriented in establishing second sources. They also stepped up communication with longstanding and new customers and suppliers, working together openly and diligently on the best possible solutions as well as fair allocations across customers. Trust and strong relationships were key here, especially as competition increased. Remarkably, we emerged from these challenges stronger than ever. This was a major achievement for the LEM team.

New headquarters — change made visible
We moved to our new headquarters in Meyrin, Geneva, in April 2022 and celebrated this together with our 50th anniversary during the Inauguration Day in November. For LEM Geneva, located since 1988 in offices at the CTN industrial park in Plan-les-Ouates, our new headquarters is a major milestone in LEM’s corporate transition.

Our new headquarters has a global coordination function, empowers regional teams to execute efficiently, and makes us flexible to capture growth. It brings together more than 250 employees with a rich variety of expertise in a modern and sustainable working environment – ideal for innovation, which is core to our DNA. In the light, clean, open spaces of the building, our culture and our ambition are visible.

Our geographic footprint
We aim at a sufficiently diversified geographic footprint to enable full supply assurance in each region as well as a natural currency hedge. In the US, our reinforced leadership team pursues new opportunities in EVs and the EV charging infrastructure. Malaysia will be the seventeenth country in which we operate and will further balance our global footprint. Construction at the Penang site is on time, and we expect to be ready for production early 2024.
Welcome

Robust results
This year’s record performance reflects yet again the fundamental global trend towards decarbonization and electrification, but also our corporate culture of innovation and agility to respond to customer demands. We achieved our record results despite lockdowns in China, supply chain difficulties, and geopolitical challenges. Sales increased by 8.8% from CHF 373.4 million last year to CHF 406.4 million this financial year. Without the foreign exchange impact, sales would have increased by 12.6%. EBIT increased by 4.3% to CHF 92.2 million, while the EBIT margin decreased to 22.7% from 23.7% in 2021/22. We posted a net profit of CHF 75.3 million, up from CHF 72.4 million last year.

Our balance sheet is strong and we continue to generate healthy cash flow. Based on these excellent results for the year 2022/23 and the long-term fundamentals for the business, the Board of Directors proposes a dividend of CHF 52 per share, up from CHF 50 per share.

Strategic focus and outlook
We are investing in next generation applications and partnerships with customers in adjacent markets that are closely connected to current measurement. We are pleased with the steady, organic growth at LEM that yields success and motivation year after year for all stakeholders. In the financial year ahead, our growth will continue, with the opening of LEM Malaysia and with our metering and integrated circuit sensors businesses reaching the next level. In the future, we look forward to further applications in automotive, metering, and electrical safety, with new sensors for intelligent EV charging, for renewable energy storage plants and robotics, and for functional safety.

Thank you
On behalf of the Board of Directors and the Executive Management, we thank our shareholders and our employees, customers, suppliers, and partners for the confidence they have placed in us. Our talented teams worldwide have demonstrated yet again their commitment and ingenuity – and the resolve to contribute to the transformation taking place at LEM. Our performance is also due to the trusted relationships we have developed with customers, suppliers, and business partners with whom we work closely to bring new innovative products to market. All of us at LEM are inspired by a common purpose: helping our customers and society accelerate the transition to a sustainable future. We hope you enjoy this Annual Review and learn something new about LEM.

Andreas Hürlimann
Chairman of the Board of Directors

Frank Rehfeld
Chief Executive Officer
life

Our new headquarters in Meyrin, Geneva, and our celebrations of LEM’s 50th year as a company there in November 2022 were full of positive energy and inspiration for the future. LEM talent, investors, customers, partners, and key stakeholders can see and feel transformation underway. We are proud to report record performance again this year.

energy

Behind the numbers, the new premises, and stellar events are LEM people. Skilled individuals with a strong sense of resolve keep our company improving and growing. Although at times over the past year, the pandemic and component constraints depleted our energy and disrupted our plans, LEM people persevered by remaining strong, caring, and positive.

motion

The electronic sensor industry is changing fast, being shaped by continuous technological breakthroughs. The rapid rise in the electrification of the world is driving change faster than ever before. We are focused and moving fast to capture growth opportunities in all of our markets, pursuing our purpose: to help our customers and society accelerate the transition to a sustainable future.
Leading the world in electrical measurement

A leading company in electrical measurement, LEM engineers the best solutions for energy and mobility, ensuring that our customers’ systems are optimized, reliable, and safe.
Our 1,700 people in 17 countries transform technology potential into powerful answers. We develop and recruit the best global talent, working at the forefront of megatrends, such as renewable energy, mobility, automation, and digitization.

With innovative electrical solutions, we are helping our customers and society accelerate the transition to a more sustainable future.
Financial results

Record financial performance
Sales in the financial year 2022/23 totaled CHF 406.4 million up by 8.8 % from CHF 373.4 million; at constant exchange rates, sales increased by 12.6 %. We achieved this despite lockdowns in China, supply chain difficulties, and geopolitical challenges.

LEM’s diversity of applications across multiple sectors of the global economy provides a steady flow of orders and a prudent spread of risk. We also benefit from a good geographic spread of business and in terms of relative share, the regions remained stable with China at 38.9 % of sales, EMEA at 31.4 %, Rest of Asia at 17.5 %, and Americas at 12.3 %. All regions grew by one digit growth, except for Americas, which grew by 32.9 %, mainly due to the impact of government policies on the demand for electric vehicles.

Top-line growth of 8.8%, and an EBIT margin of 23.1% are indeed pleasing. Without the foreign exchange impact, sales would have increased by 12.6%.

During the financial year 2022/23, orders were down by 19.3 % at CHF 465.2 million compared with CHF 576.4 million in 2021/22. The full year book-to-bill ratio reached 1.14, down from 1.54.

Gross profit was up by 8.4 % at CHF 192.2 million (CHF 177.3 million), while the gross profit margin decreased slightly to 47.3%, sales price increases being offset by purchase price increases.

SG&A costs were up by 14.1 % to CHF 68.1 million (CHF 59.7 million) and accounted for 16.8 % of sales (16.0 %). This increase reflects our digitalization projects (investment in software and hardware), external consulting support for several key initiatives, and recruitment of additional talent.

We continue with our long-term investment in future applications, with R&D up in absolute terms by 9.5 % to CHF 32.2 million (CHF 29.4 million), or flat at 7.9 % of sales.

EBIT increased by 4.3 % to CHF 92.2 million from CHF 88.4 million, primarily due to improved sales. Our reported EBIT margin was down, at 22.7 % compared with 23.7 % last year.

The negative impact of foreign exchange translations was CHF 1.9 million, compared to CHF 2.7 million last year, mainly due to depreciation of the EUR. The Group tax expenses of CHF 13.6 million represent a tax rate of 15.3 %.

We posted a record net profit for the year of CHF 75.3 million, up from CHF 72.4 million last year. The profit margin decreased to 18.5 % compared with 19.4 % last year.
### Key figures 2018/19 to 2022/23

#### in CHF millions

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</tr>
</thead>
<tbody>
<tr>
<td>Orders received</td>
<td>320.5</td>
<td>322.4</td>
<td>362.0</td>
<td>576.4</td>
<td>465.2</td>
</tr>
<tr>
<td>Book-to-bill ratio</td>
<td>1.00</td>
<td>1.05</td>
<td>1.20</td>
<td>1.54</td>
<td>1.14</td>
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<tr>
<td>Sales</td>
<td>321.6</td>
<td>307.9</td>
<td>301.0</td>
<td>373.4</td>
<td>406.4</td>
</tr>
<tr>
<td>Gross margin</td>
<td>146.5</td>
<td>142.7</td>
<td>140.6</td>
<td>177.3</td>
<td>192.2</td>
</tr>
<tr>
<td>in % of sales</td>
<td>45.6%</td>
<td>46.4%</td>
<td>46.7%</td>
<td>47.5%</td>
<td>47.3%</td>
</tr>
<tr>
<td>EBIT</td>
<td>64.8</td>
<td>58.3</td>
<td>60.9</td>
<td>88.4</td>
<td>92.2</td>
</tr>
<tr>
<td>in % of sales</td>
<td>20.1%</td>
<td>18.9%</td>
<td>20.2%</td>
<td>23.7%</td>
<td>22.7%</td>
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<tr>
<td>Net profit for the year</td>
<td>52.4</td>
<td>60.7</td>
<td>55.6</td>
<td>72.4</td>
<td>75.3</td>
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<td>EPS basic (CHF)</td>
<td>45.97</td>
<td>53.27</td>
<td>48.79</td>
<td>63.48</td>
<td>66.12</td>
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<td>Dividend per share (CHF)</td>
<td>42.00</td>
<td>40.00</td>
<td>42.00</td>
<td>50.00</td>
<td>52.00</td>
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<tr>
<td>Operating cash flow</td>
<td>53.5</td>
<td>73.6</td>
<td>50.9</td>
<td>50.4</td>
<td>87.4</td>
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<td>Investing cash flow</td>
<td>-14.8</td>
<td>-14.7</td>
<td>-13.5</td>
<td>-21.0</td>
<td>-26.9</td>
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#### In CHF millions, %

<table>
<thead>
<tr>
<th>Category</th>
<th>31.3.2019</th>
<th>31.3.2020</th>
<th>31.3.2021</th>
<th>31.3.2022</th>
<th>31.3.2023</th>
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</thead>
<tbody>
<tr>
<td>Net financial cash/(debt)</td>
<td>4.5</td>
<td>10.2</td>
<td>-1.6</td>
<td>-23.5</td>
<td>-21.8</td>
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<tr>
<td>Shareholders’ equity</td>
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<td>117.4</td>
<td>131.9</td>
<td>161.2</td>
<td>173.6</td>
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<tr>
<td>Equity ratio (in % of assets)</td>
<td>60.5%</td>
<td>51.0%</td>
<td>49.9%</td>
<td>53.5%</td>
<td>53.0%</td>
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<tr>
<td>Market capitalization</td>
<td>1’459.2</td>
<td>1’210.7</td>
<td>2’082</td>
<td>2’554</td>
<td>2’241</td>
</tr>
<tr>
<td>Employees (in FTEs)</td>
<td>1’477</td>
<td>1’497</td>
<td>1’575</td>
<td>1’716</td>
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1 Proposal of the Board of Directors to the Annual General Meeting of Shareholders on June 29, 2023.

### Sales per business

#### in CHF millions

<table>
<thead>
<tr>
<th>Year</th>
<th>Automation</th>
<th>Renewable Energy</th>
<th>Automotive</th>
<th>Energy Distribution &amp; High Precision</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018/19</td>
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<td></td>
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<tr>
<td>2019/20</td>
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<td>2020/21</td>
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<tr>
<td>2021/22</td>
<td></td>
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<tr>
<td>2022/23</td>
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</tr>
</tbody>
</table>

### Regional sales breakdown

#### in CHF millions

<table>
<thead>
<tr>
<th>Year</th>
<th>China</th>
<th>EMEA</th>
<th>Rest of Asia</th>
<th>Americas</th>
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</thead>
<tbody>
<tr>
<td>2018/19</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2019/20</td>
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<td>2020/21</td>
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<td>2021/22</td>
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<tr>
<td>2022/23</td>
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</tbody>
</table>
Financial results

Strong cash flow and balance sheet
Cash flow from operating activities was CHF 87.4 million (CHF 50.4 million), and free cash flow was CHF 60.5 million (CHF 29.4 million). This reflects the healthy financial situation. Our balance sheet remains strong with limited net debt of CHF 21.8 million. As of 31 March 2023, total assets increased to CHF 327.5 million. Shareholders’ equity reached CHF 173.6 million, representing an equity ratio of 53.0 % (53.5 % as of 31 March 2022).

Outlook
Our businesses have proven successful and will benefit as the megatrends of decarbonization and electrification continue to be fundamental growth drivers.

The building and staffing of our new production plant in Malaysia is advancing well, and we plant to start production by early 2024. We continue to invest in R&D at between 8 % – 10 % of sales, ensuring LEM has the right new technologies and applications for customers.

For the mid and long term, we are confident about our company’s growth. Demand remains high for our products, as they play an important role in the acceleration of the shift towards sustainability. We see many opportunities to capture future growth. In the short term, however, growth may be affected in some businesses and regions by market adjustments and component shortages. There may be slowdowns resulting from geopolitical tensions as well. Therefore, we will remain vigilant for the next 12 months. Nevertheless, we see our orderbook normalizing towards the 3-4 months visibility that we had before the supply chain challenges started.

8.8 %
Sales growth

22.7 %
EBIT margin % of sales

75.3 m
Record net profit
Our five businesses
We are working on innovative solutions and increasing speed to market, to capture opportunities in accelerating markets driven by the electrification of the world.
The electronic sensor industry is changing fast and being shaped by continuous technological breakthroughs and new opportunities connected to the electrification of the world. The fundamental macroeconomic trends behind this momentum are driving change faster than ever before.

**Heritage market, linked to industrial manufacturing**

Automation focuses on sensors for machine equipment that converts electrical energy into mechanical energy in a controlled way. As the core business is motor drives for industrial manufacturing and for production lines, Automation is connected to the industrial investment cycle. Components shortages and supply chain disruptions continued to prove challenging for global manufacturing.

**Financial performance**

Full-year sales totaled CHF 136.3 million, an increase of 4.6%. At constant exchange rates, sales improved by 8.2% compared to full-year last year. The Q4 performance was CHF 33.7 million, 2.3% better than last year.

We have seen strong demand for our products in manufacturing equipment such as tooling machines, robotics, and conveyor belts.

Extreme weather conditions caused by global climate change are driving demand for sensors going into applications such as coolers and heat pumps for consumer markets.

**Outlook**

The Automation business depends largely on the manufacturing investment cycle and is one of our more traditional businesses. This market will continue to grow in the years to come. Our ICS product family for small drives and robotics is fast becoming well established in the marketplace.

On the consumer side, the market for small and medium power applications including tooling machines and heating, ventilation, air conditioning (HVAC) products such as fans, coolers, and heat pumps is increasing. Energy savings are a major climate-related growth driver, and we anticipate continuous growth in this area.

A general slowdown might be on the horizon. While this remains to be seen, we remain confident that our product mix across a large variety of applications and our diversified geographical footprint will allow us to reduce the impact on our business.
INDUSTRIAL PRODUCTION
Automation sensors are used in industrial manufacturing equipment such as tooling machines, robotics, and conveyor belts for production lines.

CONSUMER RELATED
Energy savings are driving demand for sensors in heating, ventilation, air conditioning (HVAC) products such as fans, coolers, and heat pumps.
Vigorous growth in all markets
Markets for battery electric and plug-in hybrid vehicles (EVs) were dynamic as demand increased rapidly while component shortages remained. Demand was driven by new brands on the market, government subsidies and CO₂ emissions targets, and increasing charging infrastructure. In response to semiconductor and component shortages, our teams worked closely and diligently with customers and suppliers to maximize demand fulfillment and accelerate the end-user EVs adoption rate.

Last year, demand for our products was strong, and customer order intake was high throughout the year, especially during the first half. There were positive signals across regions: China and Rest of Asia are driving nicely and the US growing. Europe suffered from exchange rates and allocations impact. We faced strong supply chain constraints as well as pandemic setbacks in China in the first and fourth quarters. Despite this, we had vigorous growth in all markets.

In 2022/23 we launched one new product for DC/DC converters, four new products for motor control, and two new products for battery management, which will support further growth in Automotive.

Financial performance
The business showed impressive results for both Q4 and the full year, despite lockdowns and supply constraints. Full-year sales totaled CHF 100.7 million, an increase of 17.4 %. At constant exchange rates, sales improved by 19.0 % compared to full-year last year. The Q4 performance was CHF 25.4 million, 9.1 % better than last year. Global fundamental demand for EVs remained strong, and we delivered to most players in the market.

Future trends
Fundamental transformation of the automotive industry towards electrification is unprecedented and well underway. Electric and hybrid vehicles require a higher number of current sensors than combustion engine powertrains, spurring an exponential growth for the demand of sensors. There will be short and long-term growth opportunities, as LEM offers unparalleled experience in automotive current sensing, with the largest portfolio in the industry.

From a supply point of view, global semiconductor players are investing significantly in capacity increases, which will gradually improve the supply and demand balance. Additional opportunities will appear in adjacent markets such as 2–3 wheelers. We expect growth to continue.

The next aim of the automotive market will be to contribute to better efficiency in electricity management globally. One way to achieve this ambition is to allow energy flowing from vehicles back into the grid infrastructure and into electric powered tools. While such vehicle-to-grid or vehicle-to-load systems still require solutions to technical challenges, this represents a new area of opportunity for LEM.
BATTERY MANAGEMENT
Highly accurate and reliable sensors provide all the required information to improve the efficiency and safety of the charging and discharging process of the battery management system.

MOTOR CONTROL
Pressing the accelerator pedal sends a signal to motor control to pull power from the batteries in order to increase torque and speed. Reliable sensors are integrated in the inverter module to measure current signals at very high speeds to assure smooth, jerk-free acceleration.
Growing markets
Our Renewable Energy business has shown good performance overall, the market is expected to continue growing for the upcoming years. The market is led by sensors for grid and hybrid solar applications. Consolidation has taken place in Europe, and the market has largely moved to Asia and especially China. We are well positioned in the market and work with the big players.

Solar, wind, energy storage
While our first sales of sensors for industrial photovoltaics were in 1992, today there are new opportunities for the sale of current sensors in hybrid solar inverters, as more and more photovoltaics are installed around the world. Similarly, our first sales of sensors for wind turbines in Germany were in 1990, we now sell products for highly complex wind park projects often in offshore locations. There is increasing demand for commercial energy storage, with very large systems to store energy in battery parks used to provide flexibility for the electricity network.

Financial performance
Sales increased only by 1.6% to CHF 67.0 million. This was mainly due to component shortages and a strong foreign exchange effect. Without the latter, we would have grown by 6.3%. In Q4 sales totaled CHF 16.7 million, 1.4% higher than Q4 last year. We had good demand for our products, with China as the major market for our solar products. With the global trend of decarbonization continuing, the prospects remain promising.

Outlook
We see new opportunities in consumer markets for solar as people install more photovoltaics at home with hybrid solar applications, which allow for temporary power storage in a battery. As a favorite clean renewable energy, solar has the potential to significantly reduce carbon emissions produced by traditional energy and thus help mitigate catastrophic global warming. Technological innovation will further reduce the overall cost of photovoltaic systems and so boost the deployment along with our sales. With the expansion of giga-scale battery facilities for energy storage to offset power peaks and drops in the grid, LEM will have new opportunities for sales. We expect the solid performance in Renewable Energy to continue.

With the expansion of giga-scale battery facilities for energy storage to offset power peaks and drops in the grid, LEM will have new opportunities for sales.
SOLAR INVERTER
Every house with a photovoltaic system needs an inverter to convert the solar DC electricity into AC electricity.

LDSR measures AC and DC leakage currents in transformerless photovoltaic systems to ensure the safety of people and installations. Primarily used on the DC side of the inverter, HMSR SMS measures AC and DC currents with high accuracy and high immunity to external interference. On the AC side, newly launched LWSR supports a lower levelized cost of energy (LCOE).
Our five businesses
Energy Distribution and
High Precision

Impressive growth in Energy Distribution
The Energy Distribution business has seen the strongest growth this past year. Applications for our sensors in this business can be grouped into three areas.

DC meter for fast-charging EV stations
We have had a major success with the roll-out of our DCBM integrated DC meter for electric vehicle fast-charging stations. A seamless plug-and-play charging experience and cost transparency is a must for mass EV adoption, and the number of customers for our DC Meter is continuously increasing.

As the leading supplier for such technology, LEM developed this type of DC meter and earned certification. On top of our testing and calibration skills that guarantee top quality products to our customers, we have developed our own in-house expertise in metrology to comply with European and US regulatory authorities. While the market for DC metering essentially started in 2021 in Germany, now other European and American markets are adopting similar requirements.

Power monitoring
Our well-known Rogowski coil sensors, which are used for measuring AC current in power lines, are experiencing high demand related to improving grid reliability.

Sophisticated high-precision equipment
Our High Precision sensors are essential for manufacturing equipment and test benches, and for MRI scanners, for which our products have been the standard for decades. Our new product range of the IN family is adopted by more and more players in the market.

Financial performance
Energy Distribution and High Precision sales increased by 22.3 % to CHF 59.4 million year on year. Without the foreign exchange impact, we would have performed 27.6 % better than last year. The Q4-on-Q4 performance was also quite impressive, as it increased by 25.2 % to CHF 16.6 million.

We gained many new customers signing orders for products in EV charging stations and energy grid applications. Global investments in e-mobility infrastructure drive the strong performance of our DC meter product, with Europe and the US contributing to major growth.

Outlook
We expect continued healthy growth, although component shortages will remain for some time. We continue to invest in DC metering to offer our solutions in new markets. With the CDSR device we are venturing into the market of AC wall boxes, where we have existing customers and foresee to further extend our customer base. We will likely see growth coming from grid technology providers deploying our Rogowski coils in their AC grids. We are continuously improving our MRI sensors as the technology advances.

A seamless plug-and-play charging experience and cost transparency is a must for mass EV adoption, and the number of customers for our DC Meter is continuously increasing.
DC FAST-CHARGING STATION FOR ELECTRIC VEHICLES

DC fast chargers provide power to the car battery directly and quickly, which is essential for convenient long-distance driving and for fleets.

The AC/DC power module enables the conversion from alternating current to a direct current. Sensors ensure the control loop function, which regulates the stability and power of power modules.
Our five businesses

Track

**Long-term market, slower growth**

The first LEM products in the 1970s were sensors in locomotives for trains, trams, and trolleys. Our traction business includes on-train sensors that control and protect signals to power converters and inverters that regulate energy for air-conditioning, heating, lighting, electrical doors, or ventilators. Our trackside sensors are for infrastructure along the rails such as in substations, crossing gates, track circuits, control and safety systems, signaling and point machines. These minimize train service interruptions due to equipment breakdown and reduce lifecycle costs.

**Financial performance**

With a year-on-year growth of 0.4%, sales remained nearly flat at CHF 43.0 million. However, the foreign exchange impact was considerable. At constant currencies, Track would have grown by 5.7%. In our last quarter, the business grew by 3.1% to CHF 11.6 million. With its project-based long investment horizons, Track remains stable. We saw extra demand coming from the EU, which is renewing its energy meters in various countries.

**Fundamental long-term investments**

Today, while growth is not as fast as that of new trending areas, our legacy Track business continues to show solid year-over-year growth. Electric trains will continue to replace diesel trains, and many countries are investing in electrification of railroads, and more public transport is required. These are fundamental long-term infrastructure investments by governments as well. LEM has major market share in this business.

**Energy metering for railroads**

In Europe where railroads move across national boundaries often, our specially designed Energy meter for traction measure how much energy is used by whom, and how much energy moves to the grid if a train breaks.

**Outlook**

There are two fundamental changes taking place around the word: transformation from diesel to electric locomotives, and an increase in electric public transportation, such as tramways and trolleybuses. Both require long-term government investment in infrastructure, which takes time to secure, regulate, and implement. India and China are investing in rail infrastructure, as are Germany and France. We expect the solid growth in Track to continue.
**TRACTION**

LEM Traction sensors are used in converters to regulate speed and power of locomotives as well as in auxiliary systems such as ventilation, lighting, etc. In addition, our products are used for energy metering to make sure the electricity use is precisely accounted for.

**TRACKSIDE**

Privatization of rail networks means new requirements such as monitoring tracks to minimize service interruptions. Our new HTRS family of sensors features DC and AC measurement with the same performance in an ultra-compact, robust design.
Our new headquarters is an essential part of our business transformation and brings us forward to where we want to be as a company.
What triggered your move to this brand-new location?
Frank Rehfeld (FR) This new headquarters is a milestone for us. Over many years LEM grew profitably to just below 300 million in annual revenue, and we realized that to go over this threshold, we needed to multiply volumes and go into new applications. From a cultural point of view, LEM needed a new inspiration, a new behavior, a new ambition, and even a new purpose. The idea of moving to a new building was born in 2018 when, after more than 30 years, our rental contract at our former headquarters in Planles-Ouates, Geneva, was expiring. Our research led us to HIAG Real Estate and to you, Hannes, at CCHE. For me and the whole team, the move to this building was breathtaking. In this light and transparent environment, the energy levels accelerated from day one.

What are the key architectural features of the building?
Hannes Ehrensperger (HE) It is a pleasure to hear this. For us the story began several years earlier with Yves Perrin at HIAG Real Estate. We had the vision of a human campus at this site, where technology and people could create together. Hewlett Packard was our first partner. One day Yves Perrin said that he found the company we were looking for. It was LEM. In terms of architecture, this building is special. It is the representative headquarters of LEM, where people arrive by taxi from the airport on one side of the building. It is also an industrial research and prototyping center, where trucks deliver materials on the other side. Normally, people who work downstairs, where the production lines are, would rarely come to the upper floors to meet the Executive Management, and the executives would only go down to visit from time to time. Here it is another world. Fitting everyone together and finding an expression for this new way of working was an adventure. LEM had the idea to make the canteen the heart of the building, a place where all teams can mingle in the same space. Everyone here feels they are working on something together. This building is not only a place where people work, but also where the company is being represented to customers, suppliers, and other stakeholders. It is not spectacular, but it has attitude and style. I think LEM can identify with this unique building.

FR I agree. It was important to us to have a headquarters that fits our Swiss culture of under-promise and over-deliver. You have been introducing inspirational elements for our teams, with the spiral staircase for instance, and very successfully created a special feeling here with stone, steel, glass, and wood.

HE This staircase is truly unique. These are the first 100% algorithmic stairs we have done for an office building. I am proud of this. The complexity of this piece had an influence on the process of production and, in a way, represented the spirit of LEM: be a frontrunner for complex developments.

FR Design for manufacturing is a relevant topic for us as well. When you develop prototypes, you need to think from the very beginning how to manufacture them later.
How does this building reflect transformation at LEM?

**FR** This new headquarters is an essential part of our business transformation. We began changing our organization, from an industry-automotive set up to a regional organization with five business and overarching functions, at the same time as we moved into this building. We needed a regional organization, where headquarters is not taking all the decisions but rather focuses on strategy and lets the regions execute with more agility and speed than we could do from the HQ. The state-of-the-art equipment here is also an upgrade towards a more digital way of communicating and working.

Can you describe a few key phases of the project?

**HE** In the initial phase, all negotiations regarding our concept and arguments, price and timeline took place between HIAG and LEM. Once LEM accepted and signed the agreement, we had to obtain all building permissions and ensure we would not go over budget. This meant working intensely with LEM, a company we did not know well at the time and trusting them to make important decisions very quickly on issues such as fire, security, and technical operations. When construction began, the pandemic hit. At times I wondered if we would make it on time. Geneva stopped all work on construction sites. There were delays, but we handled it well. By the final phase of construction, collaboration was excellent. With this complicity, we delivered the building on time.

What about sustainability?

**HE** We try to be highly advanced in terms of sustainability. Building elements have different lifecycles. The structure has a cycle of 100 years, the façade 50 years, the technical elements from 30 to 50 years. In this building, everything can be separated, and nothing is glued, except perhaps the carpet. Old elements can be removed easily in case things need to be changed. We used the central heating system of the campus to heat the building and we bought certified wood.

The connection between two cultures, business and production, is also seen in the connection between the inside and the surroundings. The outside features and the landscape were an important part of this project. There are rooms below the garden, so we designed the garden to let natural light in. I am looking forward to seeing all the trees in bloom again.

**FR** Our purpose at LEM is to accelerate the transformation of the world and our customers towards a more sustainable future. This building helps us do this. We have reduced our CO2 emission by more than 50 %, compared to our former offices. This is substantial because we have given ourselves the target of net zero in all three Scopes by 2040.

How important was this move in your strategic development?

**FR** Everybody wants to attract and retain the best people, but how? By providing them a work environment they enjoy. I think the spirit of innovation can be felt when you enter our headquarters. This moves us into a completely different league for attracting more talented people, and for retaining people here in the region. This light, this transparency, but also the technology that we have installed – it is just fun to be here. It is nice to see what this headquarters evokes emotionally in people. My family was excited when they saw the building. Perhaps not too many people working at LEM for years, sometimes decades, expected that they would ever work in such an environment. We are really making a statement.

I think the spirit of innovation can be felt when you enter our headquarters.

Frank Rehfeld
It has now been slightly over a year since you moved here. What has been the feedback so far? How would you summarize your experience at HQ?

FR We proudly invite people here. We even have school classes visit to see the working environment. We have seen improved energy levels in people here and see communication increasing. People meet more. Our HR department organizes many events in the canteen. We do townhalls that can be broadcast across the world via state-of-the-art equipment. This headquarters brings us forward to where we want to be, and we are radiating this image to the world.

Damien Pestel Maintenance Deputy Manager

These are beautiful workshops. Not just the machinery and equipment but also the windows that open onto nature. However, I would like to underscore the importance of the two lower floors for the company: the energy and focus, the positive attitude and dedication of everyone in production. What we do here is the foundation for everything that takes place upstairs.

Massimilliano Quaglia Group Functional Safety Manager

I really like the environment here. It feels calm. The building is light and open to the outside. Today I went for a run over lunch. This gives me energy.

I am extremely happy with the road we have taken, from the decision to move to this just-in-time delivery during the pandemic. This was a huge challenge, but the result is overwhelming. Extremely well done. Congratulations from the entire LEM team to you, Hannes, and your whole team.

By the way, this place is setting standards across the whole organization. The new LEM headquarters was inaugurated in the year of our 50th anniversary: We gave this, so to say, as a present to ourselves for our anniversary. A company with this track record deserved such a present. Many thanks for your ideas, contributions, and guidance throughout the process.
Cecilia Albo Senior Accountant
The building is beautiful and clean, but its elevated position gives it a special feeling – like a citadel or the guardian of the area. The canteen is lively, with the terrace overlooking the Jura. I often go for a run with colleagues on lovely trails through the vineyards.

Wen Liu Site Purchasing Manager
I would describe HQ as refreshing. It makes it easy to work openly and flexibly with people from different cultures who have different opinions. I can react quickly with other teams such as supply chain and production. This HQ reflects how the leadership team is preparing for big transformation at LEM – and a very positive future.

José-Manuel Mestre Rosa Facility Manager
It’s a challenge moving furnishings around every day, keeping everything in this new building functioning, and making sure my team is happy. We often need to find spontaneous solutions. I’ve been at LEM for over 30 years, so I’ve lived the transformation.

Marion Tibessart Head of Business Applications
I feel good vibes here. The clean design and pure materials are calm and relaxing. I started working at LEM in this building, and it really fits the mindset of the company. Positive, modern, with the latest technologies and IT – we are producing products for the future here.
Our global R&D team focuses on developing innovative solutions to support our customers worldwide. We are pleased to announce the launch of 9 products this past year.
Megatrends drive long-term growth

Megatrends and their transformative global forces continue to build a solid base for our future growth. The future of mobility and infrastructure development, the future of energy as decarbonization and digitalization, and the rise in industrial automation trends are key drivers for business opportunities.

Our strong heritage is in Track and Automation, where we are market leader. We have significant growth potential in Renewable Energy and High Precision. Our fastest growing sector in the mid and long-term are Automotive and Energy Distribution.

Renewable energy systems, electric and hybrid vehicles, and sustainable technologies are important growth drivers of the global current sensor market. LEM has opportunities in electric powertrains, the miniaturization of components, and the deployment of the Internet of Things with current sensors. Across our five businesses, we see the demand for improved communication capabilities, a deeper integration level, and an increased level of safety and security resulting in additional sensor functionalities.

Technology trends

Higher power densities drive new current sensing technologies

The more powerful the motor in a smaller component, the higher the power density. Thus, increasing power density is a critical factor for increasing performance, as space constraints are present in virtually all our applications.

Two technologies, silicon carbide and gallium nitride, are enabling higher switching frequencies in power density and thus a reduction in the size of inductors and capacitors. We are investing significant time and energy on evaluating, gaining access to, and mastering future sensor technologies.

The increased demand for small sensors capable of handling high levels of power density led to the emergence of integrated current sensors (ICS) over the last decade. They are the technology of choice for our applications thanks to their ability to sense relatively high currents using a very compact footprint.

Electrification of vehicles, new sensor applications

By 2028, 50% of annual car production will employ hybrid and electric powertrains. In addition, electric and hybrid vehicles require a higher number of current sensors than combustion powertrains, spurring an exponential growth for the demand of sensors: from about 125 million current phases measured in 2020, LEM estimates that the market will grow more than three times, to reach about 450 million in 2028.

On-board chargers, DC/DC converters, and DC chargers play a key role in energy distribution and management of hybrid and electric powertrains. On-board chargers allow recharging the battery with an AC socket at home or a charging station. DC/DC converters transform high voltage from the battery to a lower voltage for on-board applications such as air conditioning and electric power steering. DC metering is becoming mandatory in the EU and the US markets, as regulators want customers to pay only for the power load of the battery of the vehicle, not power line losses. Electrical safety is also becoming increasingly important to protect customers in case of charging station malfunction.

Ever higher voltage levels up to 800V make the battery system the heart of hybrid and electric powertrains. Accurate battery management systems have become increasingly important to ensure reliable driving range information and that battery cells are well maintained.

Stringent safety standards and autonomous driving

Automated driving functions are realized with interconnected systems using Automated Driving Assistance Systems (ADAS). These systems replace part of the driver’s usual decision making, keeping them and others safe from hazards. ADAS are implementing functional safety defined by the ISO 26262 standard. We are introducing this standard LEM sensors in electrical vehicles powertrain systems.
**Smart grid, new market for current sensing solutions**

Our energy system is undergoing radical transformation as millions of electric vehicles hit the road and terawatts of renewable energy capacity are installed. While essential to decarbonize our energy system, these changes create significant challenges. First, the intermittent nature of wind and solar energy force grid operators to provide flexibility in the system. Second, the rapid growth of Distributed Energy Resources (DER) is decentralizing the distribution network, increasing the complexity of operation. A smarter grid is needed to reliably integrate intermittent renewable energies and DERs.

LEM provides best-in-class sensors and solutions that measure electrical parameters along the network, allowing accurate monitoring, controlling, and automation of the grid.

**Ongoing R&D investments**

We continue to invest to assure growth long term, with R&D investments in 2022/23 of CHF 32.2 million, up from CHF 29.4 million the year before. Several trends prevail in driving our investments: the increasing global demand for electromobility and the related e-charging infrastructure; the need to measure energy flows in smart grids; requests from Automotive customers for functional safety through third-party assessments; and the overall demand for tailored and highly customized solutions in high volume applications.

Our technology and product roadmaps reflect short-, medium-, and long-term investments to underpin our broad product portfolio. Our innovation team is conducting research activities and feasibility studies and prototyping rapidly. We are engaging with external research and innovation partners to propel our technology pipeline for future product building blocks. Product development teams in Geneva, Lyon, Sofia, and Beijing are developing new products in close cooperation with our customers in the regions.

This is leading us from a traditional, electromagnetic sensors company to a broader business of various integration levels. Examples are the HMSR and the DC meter for charging stations. A deep understanding of integrated sensors in analog mixed signal silicon platforms and highly miniaturized systems including their complex packages are fundamental success factors for these types of products. The DC meter features an ethernet interface and enables a high integration level into the customer product. Early customer involvement and the ability to quickly provide prototypes for customer feedback were the driving forces behind the successful market introduction of the DC meter.

Our broad engineering skillset led us to produce functionally safe sensors to protect customer products and users from system and vehicle malfunction. The demand for residual current detection associated with charging solutions is visibly taking off.

Our R&D team provides a diversified skillset, ingenuity, and particular design capabilities resulting from a deep and extensive understanding of specific application demands. Developing products for our five businesses allows us to leverage synergies to produce systems, modules, and highly integrated monolithic sensors. This gives us the agility to master the value creation from the sensor and sensor interface IC design all the way up to the full sensor and customer application.

**Our R&D teams**

LEM engineering teams are located at five sites worldwide today. The global presence of R&D enables us to be close to our customers and to benefit from local talent to strategically grow our teams. Engineering growth in 2022/23 focused on ICS and semiconductor expertise and software. We added considerable analog design, IC-test development, package and material engineering, application engineering and software algorithm capabilities in Geneva, Lyon, and Sofia.
The R&D teams in both Geneva and Lyon focus on advanced product and technology development, ICS and software development. The main product families cover drives for our five businesses, residual current detection at different integration levels, DC metering, battery management, and highly integrated field sensors.

In Sofia we develop Rogowski coils for smart grid applications. Our portfolio has been expanded with a highly customized product, the ARH, a Rogowski for high temperature applications. We started enhancing the embedded software capabilities in Sofia to enable software enhanced module development.

Product development in Beijing focuses on Automotive, Renewable Energy, Track, and Automation. We launched several open loop sensors for motor control and a flux gate battery management sensor, the CAB 1500, significantly increasing our portfolio of customer specific Automotive applications. Several ASIC projects continue to ensure supply during the ongoing semiconductor shortage.

Our R&D team in Machida, Japan, supports our regional customer base with excellent application knowledge especially in digital servo drives.

While teams in the different locations have their unique application and technology focus, we are working across locations by sharing our engineering business process, best practice, and our internal and external engineering training. We foster cross-site product development.

Technical focus and product launches
We are running product projects in battery management, ICS for Renewable Energy, smart infrastructure, drives and traction. New market needs are emerging around electrical safety. Residual current detection is becoming more and more prominent as a trend, driven and enforced by regulations and standards. Examples are the detection and monitoring of current overload in DC charging as well as in photovoltaic and data centers.

We conducted a process assessment to produce the DC meter 600 Amp and certified it according to the MID module D. This allows LEM to deliver DC meters at fast charging EV stations directly to our German customers and forego an additional interim certification step. Our teams continue to work on the lower cost, high volume 100 Amp DC meter.

Rogowski sensors are in strong demand in smart grid applications. We updated existing traction products via testing and validation to be compatible with new standards, and in China we engineered new sensors for trackside monitoring. Our efforts were recognized by the granting of 21 patents. Significant investments in technology and product development over the recent years continue to produce the desired results. In 2022/23 we launched 9 products.

Outlook
In 2023/24 we will focus our R&D investments along the major growth trajectories. Resources and capabilities investments will be allocated, in particular, in the following engineering domains: systems and application engineering, program management, software development, and test and validation engineering. Our ICS domain will be strategically grown to enhance system modelling and simulation support as well as analog and digital IC design. A focused and balanced competence level will accelerate critical innovation steps, enabling a broad and customized product and solution portfolio.

The trend of increased sensor functionality and deep integration leads to higher complexity of our products. Compliance with Automotive SPICE, functional safety, and cybersecurity standards require an adequate development process maturity as well as critical engineering capabilities, such as system engineering, and requirements management to deliver products effectively and reliably.

Embedded software is increasingly integrated into LEM measurement systems including DC metering, battery monitoring, and residual current detection, requiring a balanced hardware and software resourcing of the product development teams. A strategic technology platform approach will drive development efficiency and support time to market.
Product launches 2022/23

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<thead>
<tr>
<th>Product</th>
<th>Business</th>
<th>Application</th>
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<tbody>
<tr>
<td>HOF</td>
<td>Energy Distribution &amp; High Precision</td>
<td>Robots/servo drives</td>
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<tr>
<td>HMSR DA</td>
<td>Energy Distribution &amp; High Precision</td>
<td>Robots/servo drives</td>
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<tr>
<td>HAH2DR</td>
<td>Automotive</td>
<td>DC/DC converters</td>
</tr>
<tr>
<td>HAH6DR</td>
<td>Automotive</td>
<td>Motor control</td>
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<td>HSTDR</td>
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<tr>
<td>HC16F</td>
<td>Automotive</td>
<td>Battery management</td>
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<tr>
<td>CAB 1500-C</td>
<td>Automotive</td>
<td>Battery management</td>
</tr>
<tr>
<td>CAB SF 1500-C</td>
<td>Automotive</td>
<td>Battery management</td>
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**HMSR DA**
The HMSR DA is the first integrated current sensor on the market with a sigma delta bitstream output. The digital output can reach 11 to 13 bits of effective resolution. Using the HMSR package, it provides 5.0kV isolation and correct measurement down to 4A nominal. The small footprint, high integration, and flexible output make it a convenient replacement for shunt solutions in servo drives and robots.

**HAH2DR / HAH6DR**
The HAH2DR measures currents in bi-directional 400V to 800V DC-DC boost converters in plug-in hybrid electric vehicles. Used in combination with HAH6DR, it measures the three-phase current in the inverter driving the electric motor and in a three-phase generator that recharges the battery. These two products are good examples of custom-made products offering high level of integration in highly constrained spaces.

**HC16F**
Another addition to the family of motor control current sensors is the HC16F. This is a light and compact single-phase current sensor designed to be mounted SMD on a PCB, with an aperture to measure up to 1600 A on carrying busbar. This sensor allows great flexibility in terms of mechanical integration into the electric vehicle inverter.

**HSTDR**

**CAB 1500-C**
This is the third generation CAB series: CAB 1500 with an extended current range of up to ±1500A. This ASIL (automotive safety integrity level) C device complies with ISO26262 and enables redundant current measurement using a single current sensor in the BMS. CAB SF 1500-C delivers best-in-class accuracy and offers extremely low offset, which enables accurate coulomb counting for SoC estimations.
Culture, talent
We are committed to maximizing sustainable global growth by building organizational ability and a work environment where diverse talents thrive.
A strong sense of resolve

New headquarters, enhanced collaboration
We officially moved to our new headquarters in Meyrin, Geneva, in April 2022. The state-of-the-art building signals our agile, transparent, and collaborative way of working. It brings together more than 250 employees with a rich variety of backgrounds and offers a modern and sustainable working environment that empowers ingenuity and innovation. We are convinced that the new location and its premises, known as The Hive, will inspire current and future LEM people to fulfill their potential.

Our commitment to talent development
We are committed to maximizing sustainable global growth by building organizational ability and a work environment where diverse talents thrive. Last year, we hired more than 150 new talents across the world. Despite the need for new skills and competencies to fuel our growth, we remained committed to providing opportunities for internal development. One third of our manager/leadership positions and one fourth of our non-managerial positions have been filled internally.

Around the world, LEM people showed resolve in dealing with challenging situations by remaining caring, strong, and positive.

We have digitalized and automatized our global onboarding program, ensuring that each new employee has access to the necessary information and knowledge to be successful in their new role. Since July 2022, all employees have unlimited access to a global online learning platform that allows them to learn hard and soft skills critical to their development and to LEM's success. In 2022, 71% of our employees were actively studying on the platform. On average, they have had more than six hours of training, which in total represents more than 440 days of training.

Employer of choice
At LEM, we are a global and human-sized company with a collaborative culture. Our caring and empowering work culture fosters ingenuity, which is essential for achieving our purpose: helping our customers and society transition to a more sustainable future.

Every two years, we ask all employees for their opinion on the progress we are making towards becoming employer of choice in our industry. In 2022, they answered more than 90 questions to help us understand where and how we can act on a global and local level to improve engagement. We are pleased to report that our Global Engagement Index improved by 2 percentage points compared to 2020, placing us 5 points above the global average benchmark provided by our engagement survey partner. Progress is particularly significant in areas such as innovation (+3 points), collaboration (+3 points), managerial behaviors (+3 points), and professional development (+3 points). Our dedication to improve our ways of working and our work environment also showed in the reduction of voluntary turnover from 10% in 2021 to less than 7% in 2022.
A challenging year

In 2022, all of us have had to continue to adjust to the extraordinary consequences of the COVID-19 pandemic and geopolitical instability. This was especially true in China where our teams faced multiple lockdowns and supply chains issues. We are very proud of the solidarity and caring spirit showed by our colleagues in China and across the globe during the Shanghai lockdown. This helped them get through difficult times.

Around the world, LEM people showed resolve in dealing with challenging situations by remaining caring, strong, and positive. We donated to the Swiss Red Cross in support of Ukrainian refugees. We continued to support our employees following our decision to cease all operations in Russia in April 2022. After the devastating earthquake which struck last February, we extended assistance and support to those in need in Turkey and Syria. A total of 90 beds, 100 sets of blankets, sheets, and pillows were collected and shipped.

Our way of working – LEM Blue Behaviors

The LEM team is made up of experts, talent, and caring leaders working tirelessly to bring customers the best solutions. Our way of working closely with our customers and all our stakeholders differentiates us from the competition and helps us achieve our ambitious business objectives and deliver on our purpose.

- Innovation and continuous improvement mindset
- Customer orientation and growth mindset
- Team player mindset
- Player/learner mindset

Specific behaviors for each point have been identified and integrated into individual development plans, performance assessment systems, and talent acquisition processes. All employees, whatever their function or seniority, should aspire to embrace and enact these LEM Blue Behaviors. It is clear that a constructive culture not only helps employees achieve their full potential and enjoy their experiences, but also attracts the right caliber of new talent to ensure LEM achieves its strategic goals.

Diversity and inclusion

As LEM adapts its organizational structure to meet the demands of its customers and seize the growth opportunities of the various megatrends, there is a need to diversify our talent base across different regions, product applications, technologies, and support functions. Recognizing that diversity and an inclusive organizational culture brings many benefits. LEM is committed to ensuring that its talent acquisition and development strategies are as broad-based as possible.

LEM provides equal opportunity to all qualified individuals. 54% of the overall workforce is female. Given the historically high share of engineering positions in product development, sales & marketing, and management, the share of female employees in non-production positions is 30%. We actively seek female candidates in higher qualification positions, and there has been significant progress in markets such as China where many engineering graduates are women. Several global responsibilities such as R&D, supply chain, business transformation, global talent management, and communications are headed by female employees. LEM has key female managers in China (Finance, Purchasing, Quality, and Supply Chain) and in Bulgaria (General Manager, Purchasing, Human Resources).

Employee analysis

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<tr>
<td>FTE</td>
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<tr>
<td>Permanent employees</td>
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<td>Temporary employees</td>
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<tr>
<td>Trainees</td>
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<tr>
<td>Total</td>
<td>1,716</td>
<td>1,575</td>
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<tr>
<td>Women in overall workforce</td>
<td>54%</td>
<td>54%</td>
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<tr>
<td>Women in non-production related activities</td>
<td>32%</td>
<td>29%</td>
</tr>
<tr>
<td>Women in management positions</td>
<td>22%</td>
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</tr>
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</table>
New Executive Committee members
This year was transformative from a corporate governance point of view. We successfully completed the extension of our Executive Committee with new members.

In line with our new regional and functional matrix, in place since April 2022, we appointed a Senior Vice President Asia, John McLuskie, who is based in Shanghai. We also appointed a Chief Technology Officer, Dr. Verena Vescoli, who leads our efforts in R&D, and a Senior Vice President Operations, Uwe Gerber. Finally, Bastien Musy, who was Vice President Product Management, has been promoted to Senior Vice President Europe and Americas.

With diverse nationalities and cultures, experience and expertise, this team is well prepared to lead the organization and to achieve our ambitions in a collaborative spirit.
Executive Committee

From left to right: Andrea Borla Chief Financial Officer, Bastien Musy Senior Vice President Europe and Americas, Uwe Gerber Senior Vice President Operations, Frank Rehfeld Chief Executive Officer, Verena Vescoli Chief Technology Officer, Rodolphe Boschet Chief Human Resources Officer, John McLuskie Senior Vice President Asia
Our values and behaviors

Our values  Our core values are the beliefs we share – and the spirit and intent of everything we do:

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**We are customer driven**
All our activities are driven by the desire to provide best quality service.

---

**We operate with integrity**
Our relationships with co-workers, customers, suppliers, partners and the investor community are based on openness and fairness.

---

**We commit**
We set our goals high and take responsibility for all our actions.

---

**We strive for excellence**
No matter how good our products, services, process and results, we are dedicated to making them better.

---

**We value teamwork**
Teamwork is more than just working together, it is bringing out the best of everyone’s strengths

---

**We lead innovation**
By thinking out of the box, we adapt to tomorrow’s requirements.

---

LEM Blue Behaviors  The LEM team is made of the expertise, talent, and leadership working relentlessly to bring customers the best solutions. We have identified four groups of LEM Blue Behaviors which all employees should aspire to embrace and enact, whatever their function or seniority:

**1** Innovation and continuous improvement mindset

**2** Customer orientation and growth mindset

**3** Team player mindset

**4** Player/learner mindset
Board of Directors

From left to right: Ilan Cohen Member of the Board of Directors, François Gabella Member of the Board of Directors, Member of the Strategy Committee, Andreas Hürlimann Chairman of the Board of Directors, Chairman of the Strategy Committee, Member of the Nomination and Compensation Committee, Werner C. Weber Member of the Board of Directors, Member of the Strategy Committee, Ueli Wampfler Member of the Board of Directors, Chairman of the Audit and Risk Committee, Ulrich J. Looser Member of the Board of Directors, Compensation Committee, Member of the Audit and Risk Committee
We continually develop our internal capabilities and sustainability initiatives, and we report transparently on our progress.
Responsibility

We believe that sustainable and ethical practices create long-term value for all key stakeholders in society, assure longevity of businesses, lead to smart solutions, and inspire us and others to do better. Our success stems from operating and evolving within a clear value system, following best practice principles and standards, together with the close monitoring of Environmental, Social and Governance (ESG) Key Performance Indicators (KPIs).

LEM Code of Conduct
The LEM Code of Conduct (CoC) is the cornerstone of our company’s responsibility to society. It reflects the United Nations Global Compact (UNGC) principles, global environmental standards, and our core corporate values. It is a binding document for employees and business partners, such as suppliers. Every LEM employee receives and signs it.

United Nations Global Compact
Since 2006 we adhere to the Ten Principles of the UNGC, which are driving global action to achieve the 17 Sustainable Development Goals (SDGs) by 2030. These principles, which relate to human rights, labor, environment, and anticorruption, are embedded in every aspect of LEM, from our strategy to our actions. As we do every year, we provided an update to the United Nations through our Communication on Progress (CoP), available on the LEM and UNGC websites.

In 2023, LEM is pleased to take part in the “SDG Innovation Accelerator for Young Professionals”, an initiative helping participating UNGC companies learn how to use the 17 SDGs in designing more sustainable business models and products. As part of this nine-month program, four LEM employees are working as a team, on a voluntary basis, to come up with creative solutions for several sustainable development challenges that our company is facing.

Out of the 17 Sustainable Development Goals (SDGs) from the 2030 Agenda for Sustainable Development, we have identified four SDGs on which we are focusing through concrete initiatives and projects: Affordable and Clean Energy (Goal 7); Industry, Innovation and infrastructure (Goal 9); Responsible Consumption and Production (Goal 12); and Climate Action (Goal 13).

Environmental standards
The trends to sustainable energy sources and electromobility are two of LEM’s key growth drivers. Our accurate sensing solutions give our customers a competitive edge in energy management solutions. For example, LEM sensors’ high accuracy directly impacts the battery pack size of a battery electric or plug-in hybrid vehicle, reducing car weight and energy consumption. Our products are also found in other green energy applications such as solar panels and wind turbines.

For each new product, we develop an environmental profile before launch, which includes recyclability rate and material saving compared to previous or equivalent models.
All our main production sites are ISO 14001:2015 certified, an environmental certification which we renew regularly. Our production activities are compliant with the European Regulation for Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and the Restriction of Hazardous Substances (RoHS). We regularly publish updates to its standards and reporting on our website. All LEM manufacturing sites apply waste sorting and treatment solutions. For each new product, we develop an environmental profile before launch, which includes recyclability rate and material saving compared to previous or equivalent models.

Assessments by third-party organizations

We attach great importance to external assessments of our Corporate Social Responsibility (CSR) performance. For the second year in a row, we chose to be assessed by EcoVadis, which provides us guidelines to grow and evolve by highlighting our strengths but also targeting specific areas for improvement.

EcoVadis

EcoVadis assesses how well a company has integrated the principles of sustainability and CSR into its business and management system. EcoVadis attributed us an overall score on our sustainability achievements based on an extensive questionnaire that was completed by our teams in the fields of Quality & Environment, Corporate Risk, Legal, Purchasing, Supply Chain, and Human Resources. Our employees had to provide factual evidence when answering the EcoVadis questionnaire, which was then reviewed to attribute an objective assessment of our sustainability performance. For 2022/23, our efforts in the field of environment have been particularly underlined and our score regarding sustainable procurement improved. Our scores in the fields of labor & human rights and ethics went slightly down partly due to a lack of detail in our labor, human rights, and ethics policies, which we are currently updating.

ESG metrics

We recognize the importance of keeping score of our ESG performance. Our ambition is to continually develop our internal capabilities and sustainability initiatives, and to report transparently on our progress. Last year, we took the decision to align our ESG reporting to the globally recognized and standardizedNASDAQ ESG Reporting Guide 2.0, to report on selected and meaningful ESG KPIs. In line with new regulations on non-financial reporting in force in Switzerland since 1 January 2022, we will produce a separate sustainability report starting next year. Moreover, to reinforce LEM’s commitment towards the three dimensions of ESG, our Executive Committee has decided to directly oversee climate-related risks from 1 April 2023 onwards.

Environmental

We measure our environmental footprint with several KPIs: the emissions of greenhouse gas (GHG), in CO2 equivalents, across all three Scopes (1, 2, and 3), the total GHG emissions per output scaling factor\(^1\), the total direct energy usage per output scaling factor\(^2\), continuous compliance with ISO 14001, and the direct involvement of our senior management team in climate-related matters.

As part of the CO2 strategy in place at LEM since last year, we recalculated our CO2 emissions in 2022. In 2022, we emitted 39 tons of CO2 in Scope 1, 4,066 tons in Scope 2 and 100,454 tons in Scope 3. This means that, compared to last year, we reduced our CO2 footprint by 37 tons in Scope 1 and 2 and increased it by 6,496 tons in Scope 3. The total net increase is 6,459 tons of CO2 compared to 2021.\(^3\)

1 The total direct energy usage per output scaling factor (E4.1) is calculated by dividing the annual energy consumption by the number of FTEs
2 The total GHG emissions per output scaling factor (E2.1) is calculated by dividing the annual emissions by the revenue
3 Inaccurate figures were communicated with regards to our CO2 footprint last year. Figures put forward were 245 tons in Scope 1, 4,042 tons in Scope 2 and 163,610 tons in Scope 3. After careful analysis, we can affirm that the effective footprint of LEM in 2021 was 43 tons in Scope 1, 4,099 tons in Scope 2 and 93,958 tons in Scope 3.
Our ambition is to continually develop our internal capabilities and sustainability initiatives, and to report transparently on our progress.

The decrease in Scope 1 can be explained by the renewal of our car fleet in China from conventional to battery electric vehicles, while the decrease in Scope 2 can be explained by our site in Bulgaria switching to the purchase of green energy. These reductions are in line with our ambition to be CO2 neutral (net zero) in Scope 1 and 2 by 2025. To make this a reality, we have a clear plan in which transitioning to fully green energy for our own electricity consumption plays a crucial part. The increase compared to last year for Scope 3 can partly be explained by a sharp rise of CO2 emissions due to the ongoing conflict in Ukraine and its geopolitical consequences. Avoiding Ukrainian and Russian airspace, airfreight flight routes between China and Europe are longer. On top of that, Scope 3 emissions increased due to a rise in purchased components to meet the growing demand from our customers. Scope 3 still represents by far the biggest source of our emissions, with around 96% of the total. We are confident that by closely cooperating with all partners along our supply chains, as well as making use of train and sea freight for outbound transportation, we can become net zero by 2040.

In 2022, the total of GHG emissions per output scaling factor went slightly down from 262.7 to 259.8 gCO2/CHF. This can be explained by a turnover increase that was greater than the CO2 emissions increase. Regarding total direct energy usage per output scaling factor, we have seen a significant improvement since last year, declining from 5'599 kWh/FTE in 2021 to 4'471 kWh/FTE in 2022, which underlines efficiency gains by energy savings at our new sustainable headquarters in Meyrin, Geneva, and replacement of energy-intensive machines at our site in Sofia, Bulgaria.

Our four main production sites adhere to the ISO 14001 standard, and we ensure that all new suppliers of direct materials also have a valid certification.

Social
It is our duty to make sure that all our activities respect human rights. Additionally, we strive to foster a culture that encourages professional development, equal and fair treatment, and that nourishes and empowers every individual. We want to be a company where our employees can feel safe to be creative, innovative, and thrive with their personal talents.

We make sure that our employees are not subject to discrimination based on characteristics other than inherent factors required for the job. The total enterprise headcount shows that there are more women than men working for LEM globally, and that this trend slightly increased between 2021 and 2022. Our CoC – which also covers suppliers and vendors – stipulates strict policies protecting human rights, condemning sexual harassment, discrimination, and child and forced labor.

Governance
We place ethics at the heart of our corporate practices. As such, we want our employees to act based on our CoC to make sure that our values are well understood across all sites, cultures, and positions. Employees sign the CoC upon arrival, and we require them to take an online training. In 2022, 99.8% of our employees worldwide have signed the CoC.
## ESG Key Performance Indicators *

<table>
<thead>
<tr>
<th><strong>Environmental (E)</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>E1.1</strong></td>
<td>GhG emissions</td>
<td>Total amount (in tons) in CO2 equivalents for Scope 1</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>E1.2</strong></td>
<td>GhG emissions</td>
<td>Total amount (in tons) in CO2 equivalents for Scope 2</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>E1.3</strong></td>
<td>GhG emissions</td>
<td>Total amount (in tons) in CO2 equivalents for Scope 3</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>E2.1</strong></td>
<td>Emissions intensity</td>
<td>Total GhG emissions per output scaling factor (gCO2/CHF) **</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>E4.1</strong></td>
<td>Energy intensity</td>
<td>Total direct energy usage per output scaling factor (kWh/FTE) **</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>E7.1</strong></td>
<td>Environmental operations</td>
<td>Does your company follow a formal environmental policy? Yes, No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>E9.1</strong></td>
<td>Climate oversight/management</td>
<td>Does your senior management team oversee and/or manage climate-related risks? Yes/No</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Social (S)</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S4.1</strong></td>
<td>Gender diversity</td>
<td>Percentage: Total enterprise headcount held by women</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>S6.1</strong></td>
<td>Nondiscrimination</td>
<td>Does your company follow a sexual harassment and/or nondiscrimination policy? Yes/No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>S9.1</strong></td>
<td>Child and forced labor</td>
<td>Does your company follow a child and/or forced labor policy? Yes/No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>S9.2</strong></td>
<td>Child and forced labor</td>
<td>Does your child and/or forced labor policy also cover suppliers and vendors? Yes/No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>S10.1</strong></td>
<td>Human rights</td>
<td>Does your company follow a human rights policy? Yes/No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>S10.2</strong></td>
<td>Human rights</td>
<td>Does your human rights policy also cover suppliers and vendors? Yes/No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Corporate governance (G)</strong></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>G6.1</strong></td>
<td>Ethics and anticorruption</td>
<td>Does your company follow an ethics and/or anticorruption policy? Yes/No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>G6.2</strong></td>
<td>Ethics and anticorruption</td>
<td>If yes, what percentage of your workforce has formally certified its compliance with the policy?</td>
<td>96%</td>
<td>97%</td>
<td>97%</td>
</tr>
</tbody>
</table>

* Aligned with NASDAQ ESG Reporting Guide 2.0
** Adjusted scaling factor
Information for investors

Number of registered shareholders

<table>
<thead>
<tr>
<th>Category</th>
<th>31.3.2023</th>
<th>31.3.2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 – 499</td>
<td>1'422</td>
<td>1'297</td>
</tr>
<tr>
<td>500 – 4’999</td>
<td>63</td>
<td>58</td>
</tr>
<tr>
<td>5’000 – 49’999</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>50’000 and more</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1’496</strong></td>
<td><strong>1’364</strong></td>
</tr>
</tbody>
</table>

Shareholders by category

<table>
<thead>
<tr>
<th>Category</th>
<th>31.3.2023</th>
<th>31.3.2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional shareholders</td>
<td>45.2</td>
<td>44.6</td>
</tr>
<tr>
<td>Private individuals</td>
<td>25.8</td>
<td>25.5</td>
</tr>
<tr>
<td>LEM employees, managers, and Board</td>
<td>6.9</td>
<td>6.8</td>
</tr>
<tr>
<td>Treasury shares</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Nonregistered shares</td>
<td>22.1</td>
<td>23.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>100.0</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

Share information

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symbol</td>
<td>LEHN</td>
</tr>
<tr>
<td>Listing</td>
<td>SIX Swiss Exchange</td>
</tr>
<tr>
<td>Nominal value</td>
<td>CHF 0.50</td>
</tr>
<tr>
<td>ISIN</td>
<td>CH0022427626</td>
</tr>
<tr>
<td>Swiss Security Number (Valor)</td>
<td>2 242 762</td>
</tr>
</tbody>
</table>

LEM share

<table>
<thead>
<tr>
<th>Category</th>
<th>2022/23</th>
<th>2021/22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of shares</td>
<td>1’140’000</td>
<td>1’140’000</td>
</tr>
<tr>
<td>Year high 1</td>
<td>2’440</td>
<td>2’690</td>
</tr>
<tr>
<td>Year low 1</td>
<td>1’364</td>
<td>1’610</td>
</tr>
<tr>
<td>Year-end 1</td>
<td>1’966</td>
<td>2’240</td>
</tr>
<tr>
<td>Average daily trading volume (shares) 1</td>
<td>540</td>
<td>587</td>
</tr>
<tr>
<td>Earnings per share</td>
<td>66.12</td>
<td>63.48</td>
</tr>
<tr>
<td>Ordinary dividend per share 2</td>
<td>52</td>
<td>50</td>
</tr>
<tr>
<td>Market capitalization as per March 31 2</td>
<td>2’241</td>
<td>2’554</td>
</tr>
</tbody>
</table>

1 Source: SIX
2 Proposal of the Board of Directors to the Annual General Meeting of Shareholders 2023
Share price development LEM HOLDING SA (LEHN) compared to SPI in CHF

Source: Bloomberg

Financial calendar
1 April 2023 to 31 March 2024

- **29 June, 2023**: Annual General Meeting for the financial year 2022/23
- **4 July, 2023**: Dividend ex-date
- **6 July, 2023**: Dividend payment date
- **27 July, 2023**: First quarter results 2023/24
- **10 November, 2023**: Half year results 2023/24
- **2 February, 2024**: 9 months results 2023/24
- **28 May, 2024**: Full year results 2023/24
- **27 June, 2024**: Annual General Meeting for the financial year 2023/24
- **2 July, 2024**: Dividend ex-date
- **4 July, 2024**: Dividend payment date
Leading the world in electrical measurement, LEM engineers the best solutions for energy and mobility, ensuring that our customers’ systems are optimized, reliable, and safe.