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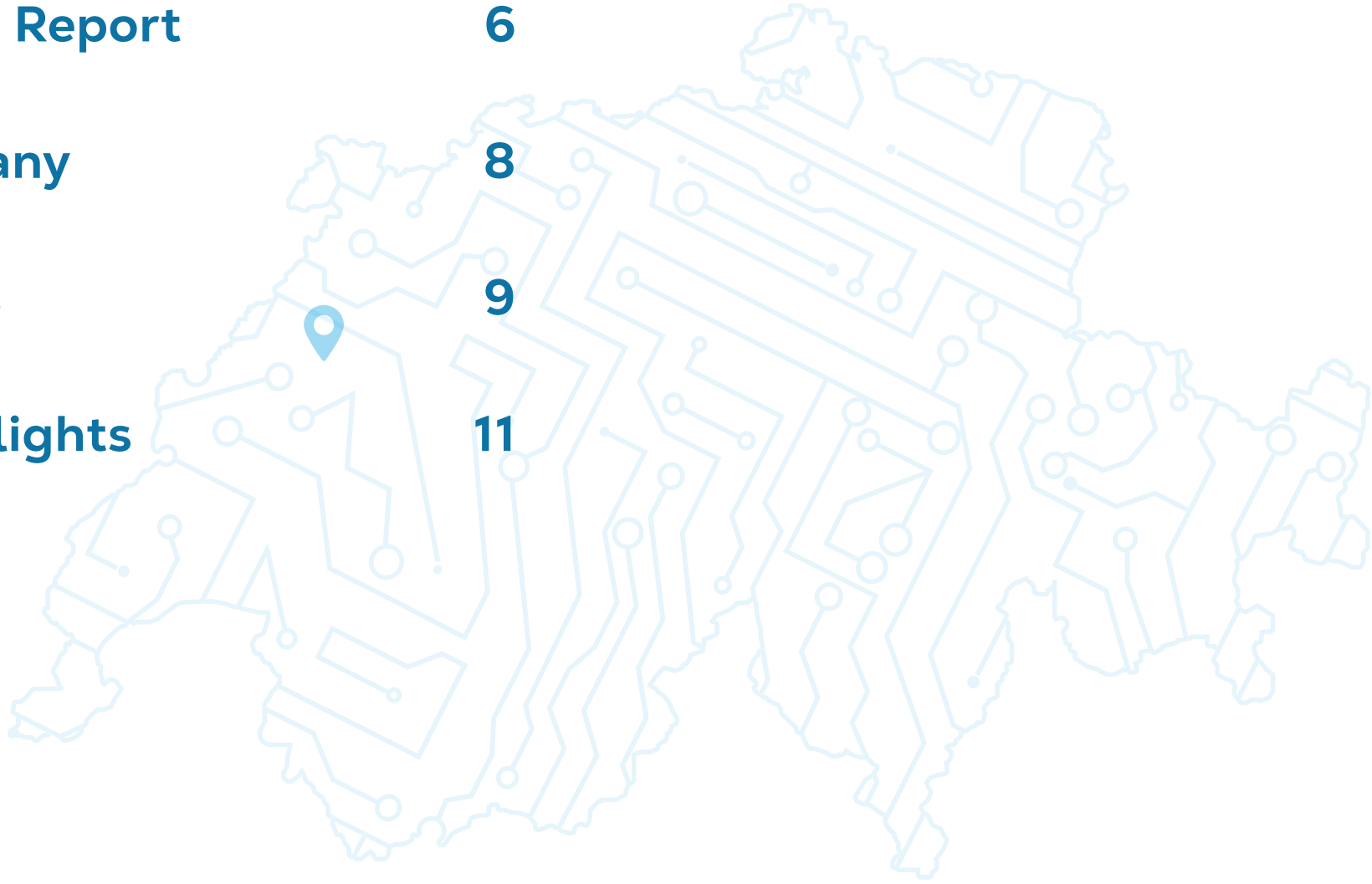
EM MICROELECTRONIC



Message from the Board

A way to describe our experiences in 2023 is a year full of challenges. As portrayed in the cover page of this report, these challenges encouraged us to continuously self-reflect in our ways to rise above adversity and uncertainty in the complex and rapidly evolving semiconductor industry.

We faced major setbacks in our environmental impacts compared to recent years, as described in the corresponding sections. Due either to our expansion project or to specific incidents throughout the year, we acknowledge that we have several tasks and projects to deploy in order to get back on track towards the objectives of our Sustainability Roadmap 2030. Our goal for 2024 is to understand the root causes and move forward with solutions that decrease our environmental impacts, both in the short term and medium term, and implementing more extensive measuring in our facilities. By doing so, we will improve the efficiency in the use of our resources.

On the other hand, we are proud of our successes that demonstrate our commitments to improving our sustainability efforts: 100% of our electricity in Switzerland coming from Swiss hydropower through Guarantees of Origin; our EcoVadis Silver Medal, solidifying our internal sustainability practices; our products being part of the transition to a more sustainable consumption, through applications in energy harvesting or in responsible supply chains, for example.

As we move forward in our sustainability journey, we continue to realize how embedded and relevant sustainability is in every aspect of our operations. This is not a lonely hike, of course. We want to thank all our stakeholders that are part of this journey: our coworkers, Swatch Group, our customers, our suppliers, and everyone who supports, contributes and motivates us to keep pushing our efforts towards more sustainable practices.

And finally, we also want to thank the readers of this report for taking interest in our efforts. We hope they find insightful information that shows our commitment to transparency and accountability.

Sincerely,
The Management Board of EM Microelectronic-Marin SA

em microelectronic
A COMPANY OF THE SWATCH GROUP

About This Report

Aligned with Swatch Group's Sustainability Report 2023 and for purposes of data consistency, the fourth edition of our annual Sustainability Report covers the reporting period of calendar year 2023 (January to December), while some environmental data indicators come from the reporting period October 1st, 2022 to September 30th, 2023. This is due to the timeframe required by aligning with the Swatch Group needs to collect and process the data to be published in its own Sustainability Report. The current report covers the operations from our manufacturing sites in Marin, Switzerland (**EM Microelectronic-Marin SA**) and in Bangkok, Thailand, whose facilities are owned and managed by our Swatch Group sister company ETA Thailand (**ETA (Thailand) Company Limited**).

As our sustainability reporting efforts continue to develop, there have been changes to some of the data presented last year in our Sustainability Report 2022:

- Water withdrawal data from our Marin site was allocated to our operations using the different water streams, excluding the streams of our two Swatch Group sister companies present on site. Thus, the current values show a difference between -7% and -17% from the values previously reported, better representing our own water withdrawal.
- The scope 2 electricity emission factors for 2022 were updated to the final ones published by the Association of Issuing Bodies for our Marin site and by the Energy Policy and Planning Office of Thailand for our Bangkok site, as these were not available by the time of publication of last year's report. These changes led to a variation of -39% on the values previously reported, mainly due to the difference on the emission factor for Switzerland between 2021 and 2022. The same modification will be made next year for the values of 2023.
- The scope 3 electricity emission factors for 2021 and 2022 were updated to the latest ones published by Carbon Footprint (international electricity factors) and the International Energy Agency for these years, for our specific electricity profile instead of general emission factors. These changes led to a variation of -34% on the values previously reported, mainly due to the difference for renewable energy.
- Emissions from transportation were updated to the latest information from our transportation services suppliers, with an increase of around 1%

For any questions on this report or other sustainability topics at EM, please contact us at *sustainability@emmicroelectronic.com*

Our Company

We, EM Microelectronic (EM), design and manufacture ultra-low power integrated circuits (ICs) for small portable devices and Green Internet of Things (GIoT) applications, such as energy harvesting. We merge our extensive talents and resources towards developing and manufacturing customized ICs, electronic modules and displays.
We are fully dedicated to time-honored Swiss culture in our relentless pursuit to achieve cutting-edge products and long-term customer loyalty. Our products power high-performance, user-friendly devices with Swiss-quality microelectronics that strengthen our customers' value chains via perennial, sustainable partnerships and proximity.

Worldwide presence, with 652 coworkers in our 5 sites

1 **Marin, Switzerland** Headquarters
Sales & Marketing | R&D | Production
2 **Prague, Czech Republic** R&D
3 **Bangkok, Thailand** Production
4 **Colorado Springs, USA** R&D
5 **Austin, USA** R&D

EM Microelectronic is a fully owned subsidiary of Swatch Group, an international group active in the manufacturing of high-quality watches and jewelry. Within Swatch Group, we are part of the Electronic Systems segment. Together with our sister companies Micro Crystal and Renata, we provide complete solutions for various applications by merging individual expertise and synergies within the Group.

SWATCH GROUP
ELECTRONIC SYSTEMS

Our Values

Respect for people

We value our coworkers, encourage their development, and reward their performance. We foster an environment of collaboration. We have a long-term commitment to our employees based on trust, honesty, and integrity.

Trustworthiness

We provide outstanding products and unsurpassed service that, together, deliver premium value to our customers. We develop relationships that make a positive difference in our customers' lives. We are a reliable partner.

Entrepreneurial teamwork

We work together in a hands-on way, across boundaries, to meet our customers' needs and help our company win. We encourage entrepreneurship and a can-do attitude.

Making a difference

We are never satisfied with "good enough". We are curious, adventurous, and creative. We honor our commitments. We observe, listen, understand, and assist.

EM Microelectronic

2023 Highlights

EcoVadis

We received the Silver EcoVadis Medal for our EcoVadis assessment, an improvement from our Bronze Medal in our first assessment in 2022. This places us in the top 25 % of companies assessed by EcoVadis, covering the topics of environment, labor and human rights, business ethics, and sustainable procurement. Other highlights of the results are being in the top 20 % of companies assessed in the industry of manufacture of electronic components and boards and being in the top 6 % of companies assessed in the same industry on the category of sustainable procurement.

Sustainable Procurement Vision 2025

We organized a series of workshops on sustainable procurement in which our Purchasing and Logistics teams participated. Together, we established our Sustainable Procurement vision for 2025: we achieve sustainable purchasing, reducing environmental and social impacts and increasing our accountability through transparent communication.

Waste recycling

More than 55 % of the waste we generated in our manufacturing sites was recycled.

Renewable energy

Over 80 % of the energy we consumed in our manufacturing sites came from renewable sources, and 100 % of the electricity consumption in Marin comes from Swiss hydropower.

Global Semiconductor Alliance

In late 2023, we joined the Global Semiconductor Alliance (GSA), a strategic platform that promotes collaboration within the semiconductor industry worldwide. Within this membership, we are also joining their Sustainability Interest Group, which will further allow us to "share knowledge, promote collaboration, best practices, and innovation to address the environmental, social, and ethical challenges within the semiconductor industry" (GSA).

SUSTAINABILITY STRATEGY

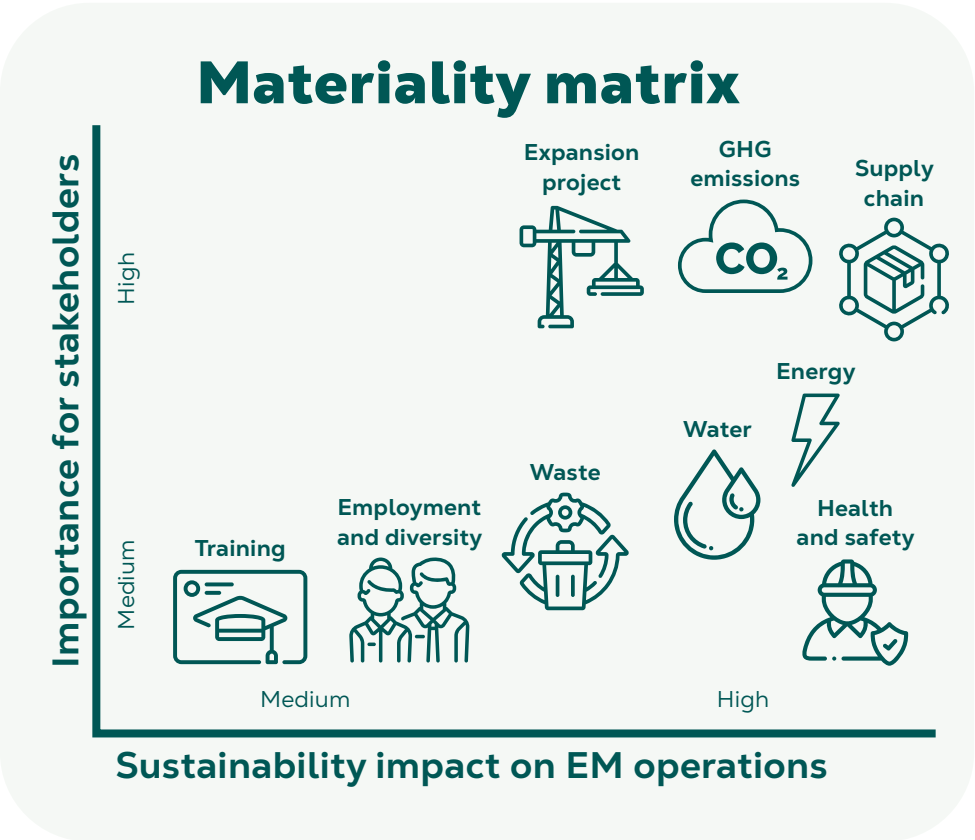
SUSTAINABLE DEVELOPMENT GOALS

Materiality

Materiality assessment has been a cornerstone of our sustainability strategy. Annually, we meticulously align material topics with our evolving company challenges, ensuring our approach remains relevant and impactful. While many of these topics have remained consistent over time, enabling us to deploy targeted measures and initiatives to minimize and mitigate negative social and environmental impacts, we've also recognized and incorporated new challenges as they arise. This dynamic approach allows us to adapt our sustainability efforts to meet current and future needs effectively.

To ensure our materiality assessment encompasses a broad spectrum of perspectives, we systematically incorporate analyses on both the impact on our business operations and the significance to our stakeholders. Our engagement strategy is multi-faceted, extending to interactions that enrich our materiality assessment process. Internally, we continuously gather insights from our Management Board, colleagues, and Swatch Group, leveraging the diverse viewpoints of those most familiar with our operations. Externally, our network spans customers, suppliers, local government entities, regulatory changes, and peers within the semiconductor industry. This feedback is integral to our process, not only guiding our understanding but also enabling us to draw on the sustainability insights detailed in our stakeholders' reports. This comprehensive approach ensures the identification of material topics is both inclusive and representative of our ecosystem's complex dynamics.

Most of the material topics from last year remained at the same level, while a few moved due to their development in 2023. For example, throughout the year, the topic of water gained a lot of attention due to the significant increase in our water withdrawal levels at a higher rate than previous years; this rises the challenge of finding ways to foster economic growth while consuming resources more efficiently. A material topic that rose in 2023 is the expansion project in our Marin site, with the construction of new buildings. The project itself not only impacts our current and future operations, but it also requires constant engagement with the local government, as well as considering the health and safety of the surrounding community.



Sustainability Roadmap 2030

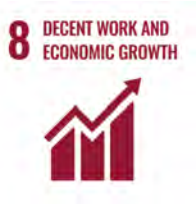
Our Sustainability Roadmap 2030 outlines our medium-term objectives, set against the backdrop of the Sustainable Development Goals (SDGs) as a guiding framework. With 2019 established as our baseline year, these objectives are not only ambitious but also quantitatively measured to ensure meaningful progress. Despite encountering setbacks in achieving our environmental targets in 2023, we are committed to implementing further measures to realign our efforts with these goals. For a more detailed exploration of these challenges and our strategies for overcoming them, please refer to the respective sections.

Environment and Energy

Module	SDG	Target 2030 (b. 2019)	Progress	Comments for 2023
Energy EM Microelectronic actively applies measures to increase its energy efficiency.	7 AFFORDABLE AND CLEAN ENERGY	Decrease global energy consumption per production output by 35%.		5.69%. This is a setback from 2022; further details in the Energy section.
GHG emissions EM Microelectronic actively applies measures to decrease its GHG emissions.	13 CLIMATE ACTION	Decrease global GHG emissions by 90% for scope 1 and 2.		We achieved a reduction of 68.66%.
Waste EM Microelectronic strives to reduce its non-valorized waste and its landfill waste.	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Increase the total valorization rate up to a minimum of 90%. Limit the landfill rate to a maximum of 3% in Marin.		We reached 78.68%. Our landfill rate in Marin was 0.5%.
Water EM Microelectronic strives to decrease its water consumption in its manufacturing sites.	6 CLEAN WATER AND SANITATION	Increase the total recycling of water up to a minimum of 40% in Marin. Decrease water withdrawal per production output by 20% in Marin.		The water recycling rate was 18%. Major setback from 2022. Further details in the Water section.

Sustainability Roadmap 2030

Products and Innovation

Module	SDG	Target 2030 (b. 2019)	Progress	Comments for 2023
Sustainable products EM Microelectronic products are optimized regarding their environmental impacts, social benefits, and resource efficiency.		Systematic introduction of sustainability indicators in product development and production.		We continue to assess which indicators make sense in the context of our products and industry.
Supply Chain EM Microelectronic suppliers comply with Swatch Group's Supplier Code of Conduct for socially and environmentally responsible supply.		100 % of fulfilled self-assessment questionnaires from our operational suppliers		We received an 83.50 % response rate.
Logistics EM Microelectronic optimizes its logistics in terms of energy consumption, emissions, and packaging.		Define and implement improvement measures together with transport service providers and customers. Find alternatives to reduce packaging and introduce more sustainable packaging materials.	 	We started some trials to reduce shipments. Further discussions with customers will continue in 2024. For some beacons, plastic-based packaging was replaced by 100 % recycled and recyclable paper-based packaging. We will continue testing the options for other products.

Sustainability Roadmap 2030

Safety and People

Module	SDG	Target 2030	Progress	Status in 2022
Safety EEM Microelectronic actively applies safety measures to maintain a very low rate of work-related injuries.		Maintain our absence rate and incident rate below local median values. Develop EHS training programs for all our coworkers.	 	Our incidence rate of work-related injuries continues to be below Swiss average values. Training courses are already in place. The programs will be extended according to the identified needs, legal and company requirements.
Employee education EM supports the development and the engagement of its employees.		Encourage our coworkers to participate in training programs.		The average training hours of our coworkers increased by 15.85 %, compared to last year.

SDGs Framework

We aim to minimize risks of negative impact of our activities on people's health.

We deploy programs to increase the energy efficiency of all our activities. We aim to increase the proportion of renewable energy.

We work to minimize our waste in landfill, reduce our consumption of chemicals and eliminate hazardous material.

We help our employees to develop their potential through continuous training programs.

We focus on providing quality and employment throughout our extended supply chain.

We deploy programs to reduce our GHG emissions.

We aim to increase efficiency in the use of water resources.

We foster open innovation with a wide range of universities, companies, and researchers all over the world.

We work with universities and companies to boost sustainability in our technology and products.

Expansion Project

Our Marin site is going through an important expansion that will support our efforts for development, allowing us to increase our production capacity in the coming years. The expansion project consists of 5 completely new buildings and the extension of 2 existing buildings, with construction work taking place between late 2022 and 2030.

The expansion project requires the collaboration between several internal stakeholders within Swatch Group, as well as the local government and the neighboring community. While always respecting local regulations, we want to implement the appropriate projects for these buildings to be sustainable from their very conception.

As such, the topics presented in the previous sections, both materiality and Sustainability Roadmap 2030, also apply to the future buildings. Some of the initiatives we want to implement include:

Dense buildings with high utilization, increasing the efficiency of land use.

The non-use of fossil fuels for their operation, minimizing their direct GHG emissions.

Pursuing the Swiss *Minergie* certification and maximizing energy efficiency in buildings.

The installation of photovoltaic panels for self-generation of electricity on-site.

The installation of a Building Management System to ensure continuous measuring.

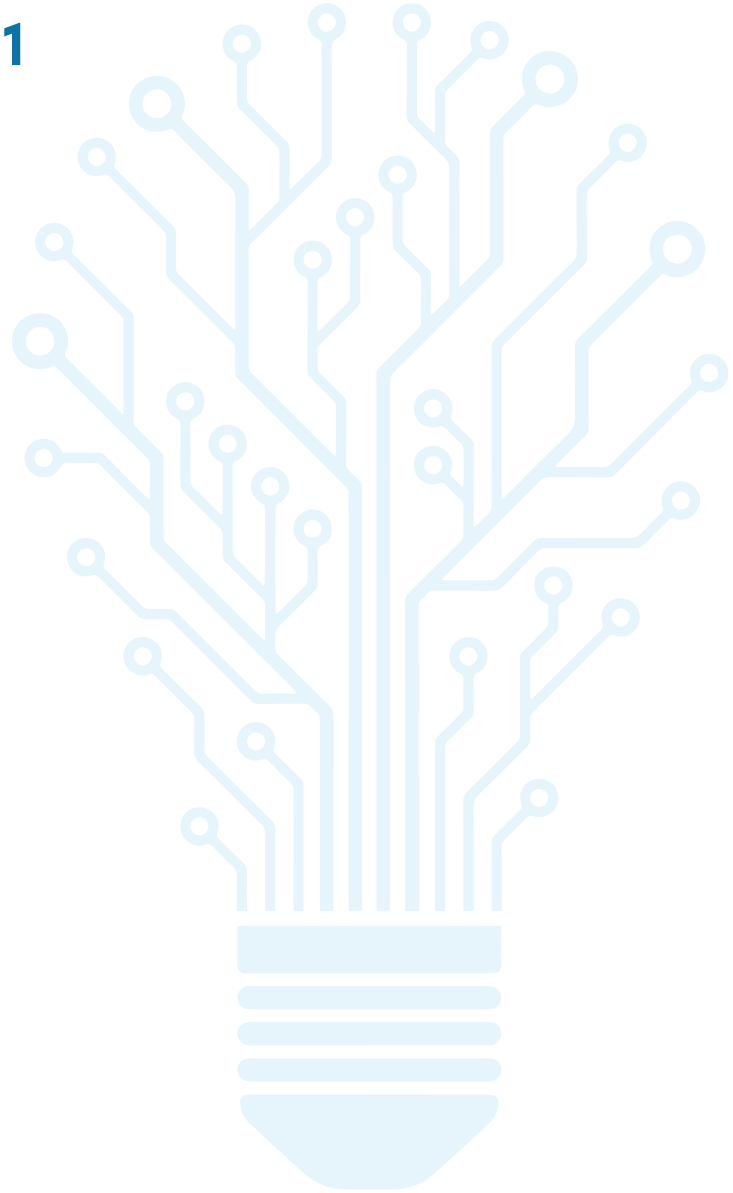
Putting in place a mobility plan for the employees, reducing both traffic and emissions from employee commuting.

Pursuing a certification for the responsible management of green spaces.

Expansion Project

A1 and A4: Swatch Group Research and Development
A2 and A3: Production EM
A5: Nivarox
A6: Logistics hub
E: Chemicals and gases storage
E4: Recovery zone

GOVERNANCE



Board Oversight

Our highest operational governance body is the EM Management Board. The 6 members of the Board represent the highest management in all areas of EM: our CEO, our CFO, our Head of Human Resources, our VP Development, our VP IC Operations, and our VP Sales & Marketing. The Management Board, across their functions and teams, aims to consider the interests of both internal and external stakeholders in their decision-making.

As part of their tasks, the EM Management Board has the responsibility for making all strategic decisions for our operations and the approval of company policies, including our sustainability strategy and sustainability reports, by taking into account the feedback and concerns of our stakeholders. The Board is accountable for the impacts, both positive and negative, that these decisions can have on the economy, environment, and people.

Through an annual Management Review, the Board and other executives at EM evaluate the results from the preceding year and sets improvement proposals and objectives for the business plan, performance, business risks, as well as individual processes such as customer satisfaction, communication, environment, health and safety (EHS), and others. Moreover, the Board convenes on a weekly basis to assess day-to-day matters.

The members of the Board are also in constant communication with our Sustainability Coordinator, who is responsible for both the top-down and bottom-up coordination of projects related to sustainability throughout all areas of the company. Our Sustainability Coordinator also monitors the progress towards the goals of our Sustainability Roadmap 2030 and engages with the different teams to move forward with the efforts, providing the Board with the necessary information for decision-making.

*Social and Environmental Responsibility

ENVIRONMENT

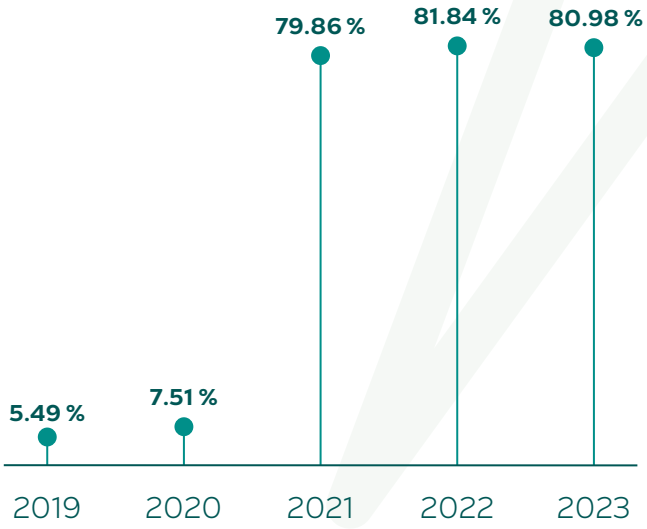
Energy

Energy Sourcing

Over 80 % of the energy consumption at our main site in Marin is powered by renewable sources, showcasing our commitment to responsible energy sourcing. Hydropower is the main source of our electricity, sourced entirely from Swiss hydropower plants (Guarantee of Origin certified). In terms of natural gas, we utilize 10 % of locally produced biogas, supplemented by traditional natural gas, the emissions of which are offset by CO_2 reduction initiatives undertaken by our supplier.

Our Bangkok site, the second largest of our sites, also pushes towards renewable energy, with 33 % of its electricity derived from renewable sources. This includes energy generated by ETA Thailand's own photovoltaic rooftop installation and the renewable portion of the local electricity grid mix.

Proportion of renewable energy



Certificate of 10 % biogas and 90 % offset natural gas through CO_2 reduction projects (2023)

Certificate of 100 % Swiss hydroelectricity through Guarantees of Origin (2023–2025)

Energy

Energy Consumption

Our energy consumption pattern did not see major changes from last year. Electricity continues to be the main energy source (80.60%), followed by natural gas (19.27%).
Several new machinery and equipment were installed during 2023 in Marin, increasing our electricity needs by **3.98%** compared to the previous year.

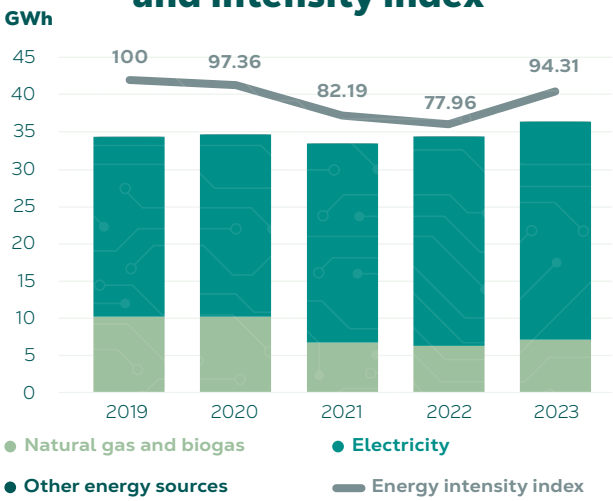
On the other hand, the increase of **13.43%** in our consumption of natural gas resulted from a breakdown in our heat pump, which was unable to operate for around a month, and the installation of two new scrubbers, which help us minimize our emissions into the atmosphere.

Energy Efficiency

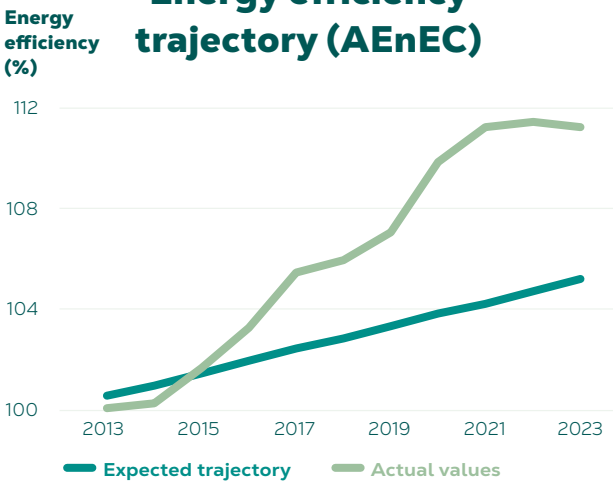
We continue to deploy and implement energy efficiency measures in all areas, mainly through a constant renewal of our equipment, as part of our commitment with the Energy Agency of the Swiss Private Sector (*AEnEC*, in French). An example of this in 2023 was the replacement of lighting in production, saving 55 MWh. An energy efficiency trajectory was established for the period 2013–2024. Since 2016, our performance has surpassed the original expectations. Between 2024 and 2025, a new trajectory will be established for the next 10 years.

The complexity of semiconductors is in constant evolution; this way, the requirements of modern technological shifts are met, and new products and processes can become more effective and efficient. This evolution, however, impacts the semiconductor manufacturing process, making it more resource-intensive with what would seem like a lower yield of final products. In 2023, our product portfolio went through important changes, with an increase in the number of products that require more complex manufacturing processes. Through this evolution, our intensity indices, not only for energy, saw a significant increase compared to previous years. We will re-evaluate our intensity metrics to make sure that the impacts are properly comparable between years, such as number of production operations instead of production output.

Energy consumption and intensity index



Energy efficiency trajectory (AEnEC)



GHG Emissions

Moving along in our sustainability journey, we continue to push forward in our GHG accounting efforts as part of our climate-related risks assessments. We stated in our last year's report that we would assess the impact of the scope 3 category of Purchased goods and services, so we have started with some of the most important products we purchased.

Overall, our GHG emissions in 2023 were **33 thousand metric tons (t) CO_2eq**, with scope 1 representing **6.2%**, scope 2 **0.8%**, and scope 3 **93%**.

Our greenhouse gas (GHG) accounting is based on the GHG Protocol as well as on the Intergovernmental Panel on Climate Change's (IPCC) 2019 Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Volume 6, Chapter 3: Electronics Industry Emissions tier 2b method for our process emissions, combined with information directly from our abatement systems suppliers. The emission factors that we use in our calculations come from different sources: the ecoinvent v3.9 cut-off database, the UK Government, the IPCC Sixth Assessment Report, the Thai Government, the Association of Issuing Bodies, and our suppliers.

Aligned with Swatch Group's GHG reduction roadmap, we aim to be climate neutral for scope 1 and 2 emissions by 2050. We will also work with our value chain to establish a target for our scope 3 emissions.

Breakdown of GHG emissions in 2023: 33 084 metric tons CO_2eq

Scope 1: 2 056 t CO_2eq

- Natural gas and biogas[a]
- Process gases
- Other scope 1

Scope 2: 263 t CO_2eq

- Electricity Bangkok

Scope 3: 30 765 t CO_2eq

- Purchased goods and services
- Employee commuting
- Upstream transportation
- Fuel- and energy-related activities
- Downstream transportation
- Business travel
- Waste generated in operations

[a] Excluding biogenic CO_2 from biogas (140 t CO_2)

GHG Emissions

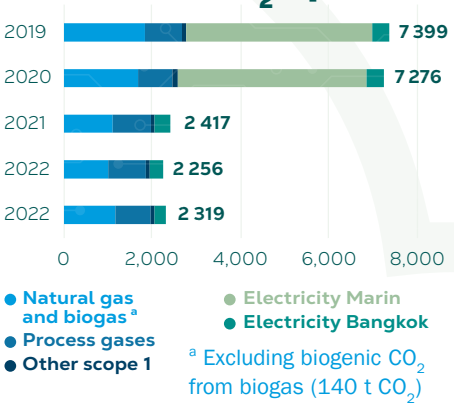
Scope 1 and 2

In 2023, most of our scope 1 and 2 emissions came from the consumption of natural gas (50%) and the process gases (PFCs, HFCs, SF_6, NF_3, N_2O) used in semiconductor manufacturing (35%). Other sources include the grid electricity consumed in Bangkok, our vehicle fleet, and the use of refrigerants in our heating, ventilation, and air conditioning (HVAC) systems.

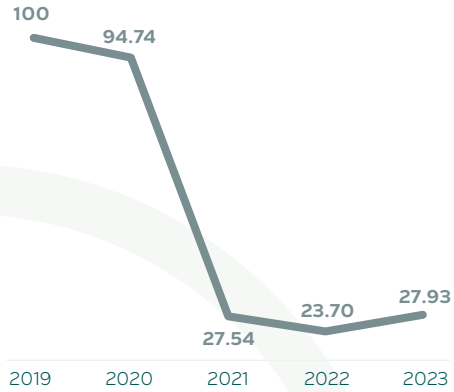
Through the procurement of renewable electricity with Guarantees of Origin for hydropower and the installation of our heat pump, we have been able to decrease our scope 1 and 2 emissions by **68.66%**, compared to our 2019 baseline. However, as described in the Energy section, our natural gas consumption increased compared to the previous year, translating into an increase of **16.16%** in the corresponding emissions. On the other hand, our emissions from process gases decreased by **6.45%** due to the installation of new abatement systems, increasing the average operating time in which these systems abate process gases during production. Combined with the other sources, these changes represented an annual increase in our scope 1 and 2 GHG emissions of 2.98%. Moving forward, our aim is to minimize our dependency on fossil fuels, namely through electrification.

Part of our commitment with the Energy Agency of the Swiss Private Sector (*AEnEC*, in French) also takes into account our scope 1 emissions, with an established trajectory for the period 2013–2024. Since 2020, our performance of this indicator has surpassed the expected trajectory. A new trajectory will be established in 2024 for the next 10 years.

GHG emissions, in t CO_2eq

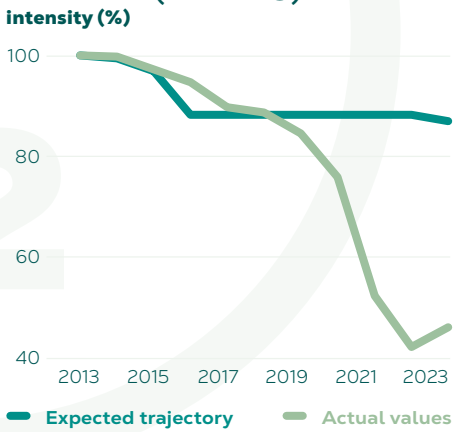


Normalized production intensity index for scope 1 and 2 emissions



Certificate of voluntary climate protection and energy efficiency through the Energy Agency of the Swiss Private Sector (2022–2023)

CO_2 intensity trajectory (AEnEC)



GHG Emissions

Scope 3

Overall, our emissions from the category of *Purchased goods and services* (**28 012 t CO_2eq**) are higher than any other in the same scope and even more than 10 times our emissions from scopes 1 and 2 combined (**2 319 t CO_2eq**). While we are still missing some product categories, such as the outsourced semiconductor assembly and test (OSAT) services, this initial assessment has allowed us to already prioritize which product categories and which suppliers to focus on moving forward with our supplier engagement on GHG emissions reduction, to be able to set and commit to a reduction target (see Responsible Sourcing section for more details on supplier engagement).

We estimated our emissions from purchased goods and services through a combination of supplier-specific information and databases. In this first instance, we accounted for the following products we purchased in 2023:

- Processed wafers by external foundries (94.7 % of emissions of purchased goods and services)
- Bare wafers (4.4 %)
- Chemicals and gases (0.8 %)
- Paper- and cardboard-based products (0.1 %)

The second category with the highest impact is *Employee commuting* (**1 006 t CO_2eq**). We calculated the emissions from this category with a survey of the commuting patterns of our coworkers. With most of the impact originating in our Marin site, our focus lies here. A mobility plan was drafted in 2023, incentivizing the use of public transport and carpooling, and it will be implemented during 2024 as a pilot project to evaluate its impact. The results will be shared in our Sustainability Report 2024.

The category of *Upstream transportation* also had a significant impact. As several new equipment and machinery were purchased and transported from different parts of the world to our Marin site, the emissions accounted for **921 t CO_2eq**. However, due to the technical specificity of semiconductor manufacturing equipment, its niche regional markets, and our expansion project, we cannot foresee a significant reduction in this category in the coming years.

Emissions from fuel- and energy-related activities, namely upstream emissions from generation and transmission and distribution losses, were **497 t CO_2eq**. Our aim is to reduce the emissions from this category through reducing our dependency on fossil fuels and reducing our energy consumption.

GHG Emissions

Climate-related risks

All business risks, including climate-related risks, are overseen by our Management Board, and their management is led by our CFO through the Internal Control System (ICS) Committee. This Committee is responsible for establishing risk diminishing actions and monitoring them on the process levels. The efficiency control system of the main identified risks is an integrated part of the daily operation.

The main climate-related risks we have identified are those related to the inputs to our production, and our supply chain. We identified these risks based on our impacts and consumption. These types of risks are part of our ICS, which is our risk assessment and management process. We do not consider that these risks will take place in the short term, but rather in the medium and long term.

With both our energy consumption (namely hydropower) and water withdrawal levels increasing in the past few years, combined with the effects of climate change (droughts, for example), we acknowledge that sourcing these resources can become a significant risk in the future. To minimize the severity of these risks in our operations, we continue to work on our reduction objectives that are part of our Sustainability Roadmap 2030.

On the other hand, we know that the severity and likelihood of climate-related impacts are different between regions. Since our supply chain spans all latitudes of the globe, the risks will differ between suppliers. We will continue working and cooperating with our suppliers to minimize risks related to this category.

Furthermore, the main opportunities we have identified to mitigate and adapt to climate change are mainly reducing our consumption of natural resources, reducing our carbon footprint even further, working closely with our suppliers to be aligned with these objectives, and proposing products that reduce energy consumption and that support the transition to a more efficient lifestyle. Through these initiatives, we work throughout our value chain to create and catalyze change towards a low-carbon economy.

Waste

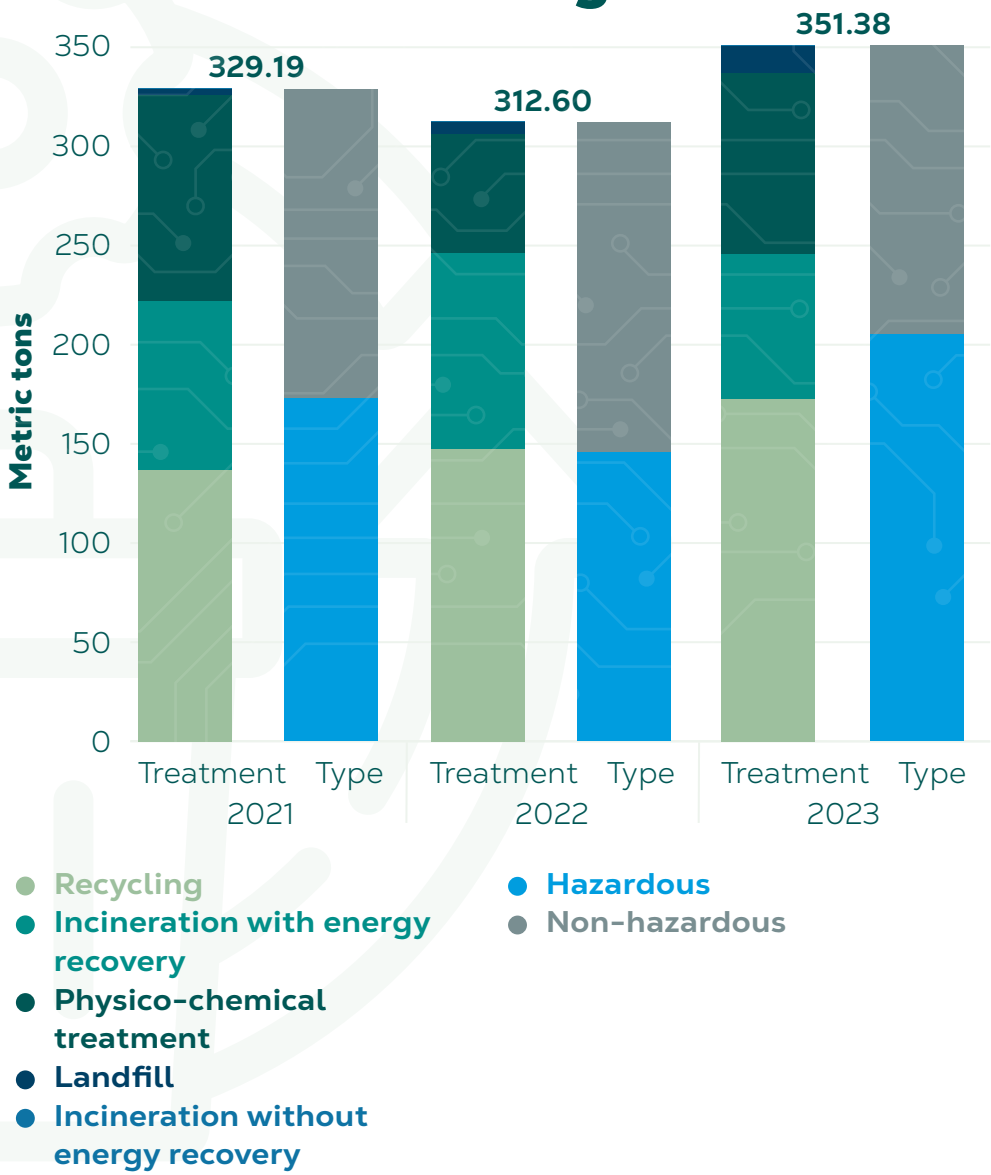
We generated **351.38 metric tons** of waste in our manufacturing sites during 2023; an increase of **12.46%** compared to last year. This increase is attributed to an increase in the chemicals used in production, which represented the largest share of our waste (**57%**), such as the sulfuric acid and hydrofluoric acid that we use in Marin, and are considered hazardous. On the other hand, our non-hazardous waste was mainly municipal solid waste and wood.

Most of our waste is generated in our Marin site 91%, while 9% is generated in Bangkok. This is the reason why our efforts are currently focused on our Marin site.

Our approach to waste management is maximizing the valorization rate of our waste through recycling and energy recovery. In 2023, **70%** of our waste in Marin was treated through these treatment methods – 48% and 23%, respectively. Overall, this is a decrease of 8 percentage points, compared to last year.

After an assessment of all our waste streams, we noticed the greatest area of opportunity in our used hydrofluoric acid, which was treated through physico-chemical treatments and then disposed. We will work with our suppliers to potentially find a transition to a valorization treatment method. Based on our waste generation statistics from 2023, this would bring our valorization rate up to 94%.

Waste management



Water

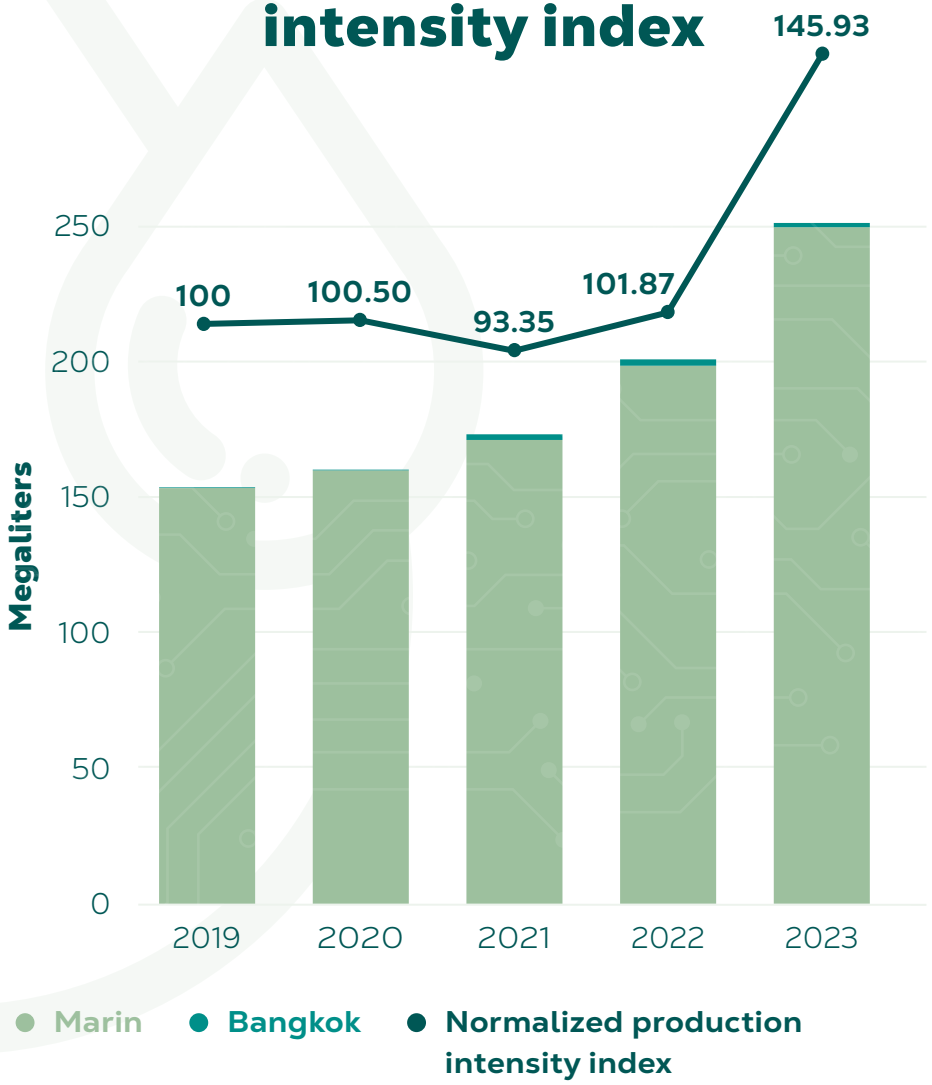
Water is a crucial resource for semiconductor manufacturing. We use ultrapure water to rinse impurities off our wafers between process steps. Since more complex semiconductor manufacturing results in more process steps, the amount of water required increases accordingly. Combined with the installation of new equipment and machinery that require a significant amount of water during the installation phase, we experienced this increase in our Marin site: our water withdrawal level in this site increased by **25%** in 2023, compared to the previous year.

We aim to increase our water recycling rate to reduce our water withdrawal levels. In 2023, our water recycling rate reached **18%**. With a goal of 40% in 2030, we still have several steps to follow, including both general (streams) and specific (processes) assessments to be started in 2024.

We source our water from the local water supply at both our manufacturing sites, satisfying the water requirements for production and the operation of our office facilities. Based on the Food and Agriculture Organization's (FAO) Aquastat [a], neither of our manufacturing sites is located in water stress areas of any level.

Although the water we use in production comes in contact with chemicals, all our wastewater goes through treatment processes, ensuring that our wastewater discharges to the local sewage networks are compliant with local regulations, avoiding pollution of nearby water bodies. For this, aligned with local regulations, we test our wastewater once a year for pollutants, such as ammonium, fluorides, nitrates, sulfates, among others. Tests for heavy metals have also shown that lead, nickel, cadmium, and others, are not detected in our wastewater.

Water withdrawal and normalized production intensity index



[a] Statistics for *Level of water stress by major river basin calculated on the water consumption.*

PEOPLE

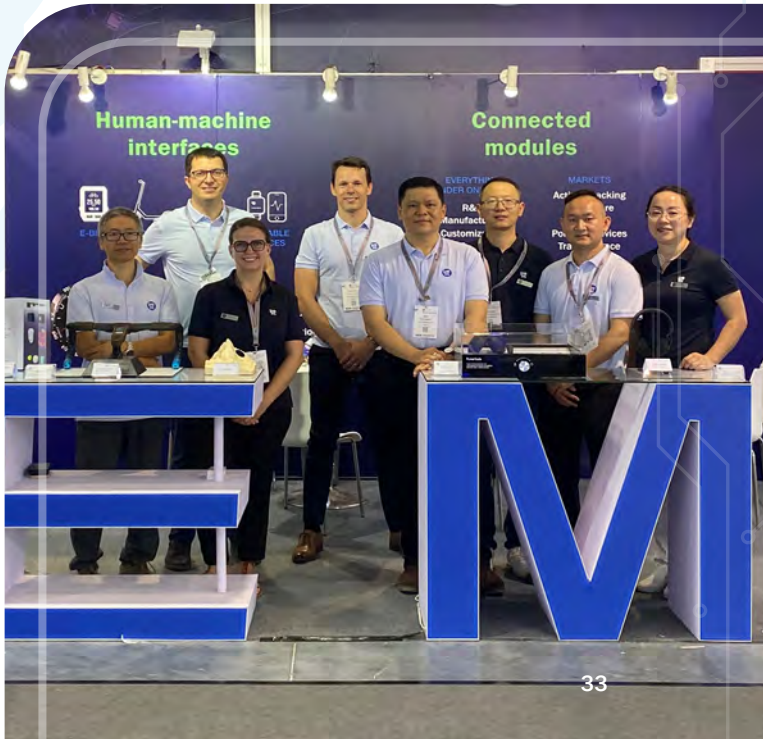
Employment and Diversity

Our coworkers are key drivers of our success in all areas of EM. Through different initiatives and practices, we aim to support them in their own personal and professional success.

Corporate Labor and Human Rights

By being a company of Swatch Group in Switzerland, we are also part of the Swiss Watch Industry Employers' Association (*CPIH*, in French). As such, we follow the employment directives of the Collective Labor Agreement (CLA) of the Swiss Watch and Microtechnology Industries, which includes the topics of protection of workers, working hours and holidays, compensation, among others. In Bangkok, 99% of our coworkers are also covered by a CLA between ETA Union and ETA Thailand. This way, we aim to protect the human rights of our coworkers.

In Marin, to represent and defend the interests of our coworkers, our Works Council develops a constructive cooperation with the Board. The Council is composed of at least 4 members from the areas of Administration, Business Units, Technical Services, Production, and Process Engineering. The members are elected every 4 years to preside over their role, to represent and defend the collective interests of our coworkers. They examine suggestions and proposals concerning the internal life of the company and assume a share of the responsibility for transmitting information from our coworkers to the Board and vice versa. At the end of 2023, our coworkers were invited to apply for a position in the Works Council for the period 2024–2028.



Employment and Diversity

Performance Management and Communication

On a yearly basis, each coworker evaluates their own performance as well as the performance of their direct supervisor and the company, describing the strengths and areas of opportunity for all three. This allows direct and open communication between the management levels, reinforcing all our coworkers' personal and professional development at EM. We also propose open-communication and team building events throughout the year to promote the collaboration and internal development of our teams. These include, for example, our Christmas dinner and our summer barbecue, as well as regular Town Hall meetings with our Subsidiaries.

Employment and Diversity

Diversity

At the end of 2023, 551 people were part of the workforce of our two manufacturing sites: we had 418 coworkers in Switzerland and 133 coworkers in Thailand. Overall, the gender distribution was 34% women and 66% men, with women holding 20% of management positions.

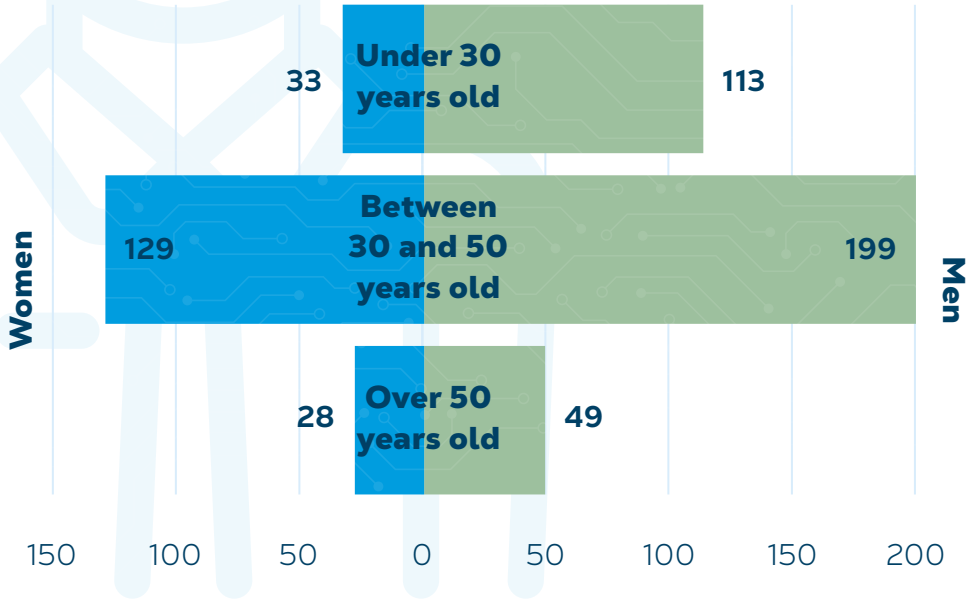
Non-discrimination is part of our Principles of Conduct. Hiring and employment practices such as wages, promotions, rewards, and access to training are followed regardless of race, age, gender, sexual orientation, gender identity and expression, ethnicity or national origin, disability, pregnancy, or religion. Furthermore, we have a whistleblower procedure in place against mobbing and harassment.

All Swiss companies with 100 or more employees must carry out a wage equality analysis following a scientific and legally compliant method. The latest assessment, carried out between 2020 and 2021, showed no indication of exceeding the tolerance threshold for wage discrimination. More details can be found in Swatch Group's Sustainability Report 2023.

An international workforce

From Switzerland to Thailand, from France to Mexico, we pride ourselves on the multicultural environment that our coworkers experience. In 2023, our coworkers at Marin represented 34 nationalities from 4 continents, exchanging ideas, knowledge, skills, and experiences between very talented and diverse people, coming from different professional and cultural backgrounds.

Workforce breakdown by gender and age group



Training

Continuous education and training programs are very important for the professional development of our coworkers, which positively impacts the success of our company and our activities.

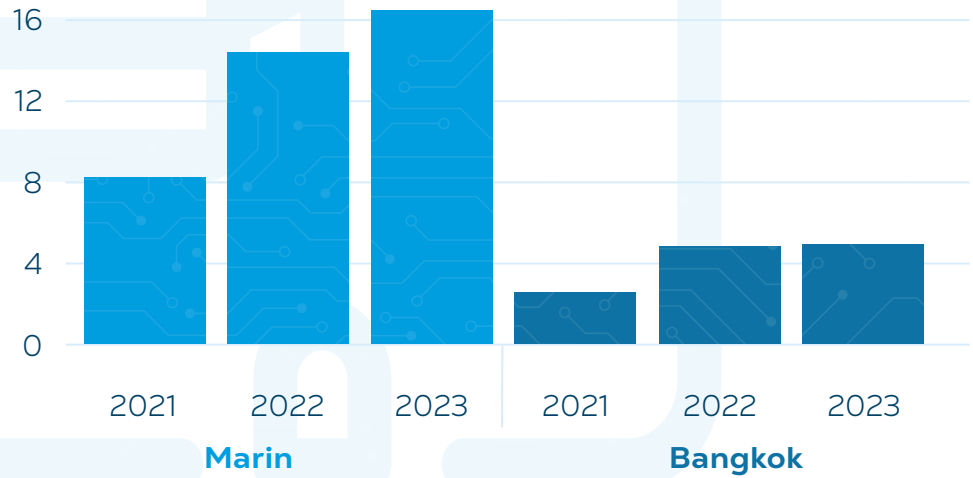
Besides mandatory training, such as the safety training discussed in the next section, we highly encourage our coworkers to follow training programs both on technical skills and soft skills. Training allows our coworkers to develop and strengthen their potential in their direct line of activities and in other interests that support their functions, such as language courses.

In the Annual Staff Interview, our coworkers discuss their training needs with their direct supervisors, to establish the type of training programs they will be partaking during the following year, which is also communicated to our Human Resources team.

On average per employee, our coworkers followed **13.65 hours** of training in 2023. The average training hours increased by **14.50%** in Marin and by **2.24%** in Bangkok, compared to 2022.

Regarding sustainability, our Sustainability Coordinator participated in the pilot phase of the Swatch Group Sustainability School, providing feedback on the content. The program will roll out in 2024 and, initially, some of our coworkers with specific roles and responsibilities will be partaking in the training program.

Average training hours per employee



Occupational Health and Safety

Our occupational health and safety system in Marin follows the requirements from the Swiss Federal Coordination Commission for Occupational Safety (*CFST*, in French), the Swiss National Accident Insurance Fund (*SUVA*, in German), and the Swiss Watch Industry Employers' Association (*CPIH*, in French). The system covers all our coworkers, as well as the other two Swatch Group subsidiaries on site. Our Bangkok site, on the other hand, is adhered to the system from ETA Thailand.

Our Safety Officer in Marin has the task of supervising the compliance and proper implementation of the system. Through our Environment, Health and Safety (EHS) Committee taking place 2 or 3 times per year –depending on the events in the year–, our Safety Officer and safety leaders manage risks and incidents, and exchange best practices and lessons learned throughout the year, to continue minimizing future risks.

Our company's EHS regulations contain general principles concerning hygiene and accident prevention, behavior and order within the company, and environmental protection. The different types of hazards and the corresponding personal protection equipment are identified. The safety principles outlined in the regulations apply both to our coworkers as well as externals, such as visitors and contractors through dedicated safety instructions and training.

Internally, it is mandatory that all our coworkers go through introductory safety training when they first join EM, regardless of the function. Every 3 years, it is also required for everyone to partake in follow-up training, ensuring that the concepts and actions are known by everyone, as well as updating the topics covered to include any changes in the system or premises. Our coworkers who perform functions which are exposed to specific risks and equipment at their posts receive security and safety training specifically adapted to the needs of their functions.

For the past few years, the number of work-related injuries in our Marin site has remained under 10 accidents per year, with incidence rates per million hours worked lower than the local benchmark for companies in the watchmaking and microtechnology sector. In Bangkok, there was 1 work-related injury with downtime during 2023, while previous years saw zero injuries.

Promoting health and safety outside of our workplace

Seasonal flu vaccines in local pharmacies, participation in soft mobility initiatives, such as the Bike to Work campaign in the summer (where our coworkers biked 3 774 kilometers during June of 2023) and the BCN Tour, as well as one-off actions before summer and winter, such as ski gear safety checkups.

Our voluntary teams of fire brigade and first-aid brigade at Marin support all interventions on firefighting, health, rescue, chemicals, and natural disasters.

RESPONSIBLE SOURCING

Our Sustainable Procurement vision

In 2023, our Procurement team and members of our Logistics team participated in a series of workshops to better understand the sustainability risks and areas of opportunities along our supply chain, putting in place a layer of engagement with our suppliers that was previously not properly defined.

In these workshops, we established our Sustainable Procurement vision for 2025: By 2025, we achieve sustainable purchasing, reducing environmental and social impacts and increasing our accountability through transparent communication.

Supplier Assessments

Self-assessments

Aligned with our Procurement team's development on sustainability and ESG topics and Swatch Group's Supplier Code of Conduct, we invited 97 operational suppliers – representing more than 52 % of our expenses in 2022– to a series of self-assessment questionnaires (SAQs) on Environment, Social and Governance (ESG) topics: environmental protection, human rights and labor, health and safety, supply chain responsibility, and anti-bribery and anti-corruption. We aim to include all direct suppliers and operational indirect suppliers in these assessments by 2025. By the end of 2023, 81 suppliers had answered the SAQs. Combined with their location and industry, our suppliers received an ESG risk category: low (30 suppliers), medium (33) and high (18). This categorization allows us to order the priority in which suppliers should be engaged with first. We will define and launch an action plan for our high-risk suppliers. However, we noticed that in some cases, a high ESG risk is due to our suppliers' lack of proper answers in the SAQs. We will continue to validate their efforts. For those suppliers who formally declined the invitation, they provided us with documentation on their sustainability strategy and assessments, which we consider is enough to classify as medium ESG risk, due to their industry. For those suppliers who did not register or missed answering the SAQs, we will follow up with them to ensure an effective and efficient collaboration.

On-site audits

Moreover, we work with Swatch Group's Far-East Procurement Service (FEPS) to conduct on-site audits of our direct suppliers based in East and Southeast Asia. The suppliers are audited on the topics of labor and human rights, health and safety, environmental protection, and business ethics. Suppliers receive a report with the findings and the corresponding corrective actions to implement and follow up audits take place within 3 months (Conditional) to 2 years (Excellent), depending on the initial audit result.

Partnering to cut plastic and lighten packaging: a shared leap towards sustainable practices

An example with one of our beacon pods: by optimizing packaging, we expect to see a reduction of packaging cost of 20 % (less material) and a reduction of transportation cost of 15 % (less weight). Added to this, we will transition from a non-recycled plastic tray to a 100 % recycled and recyclable cardboard tray, sourced from local Thai collection, as the final assembly of this product takes place in Bangkok. We expect to avoid the use of 814 kg of plastic trays in 2024. The aim is to apply these initiatives to the entirety of the beacon pods product family, reducing our impacts from raw material sourcing and transport of the final product.

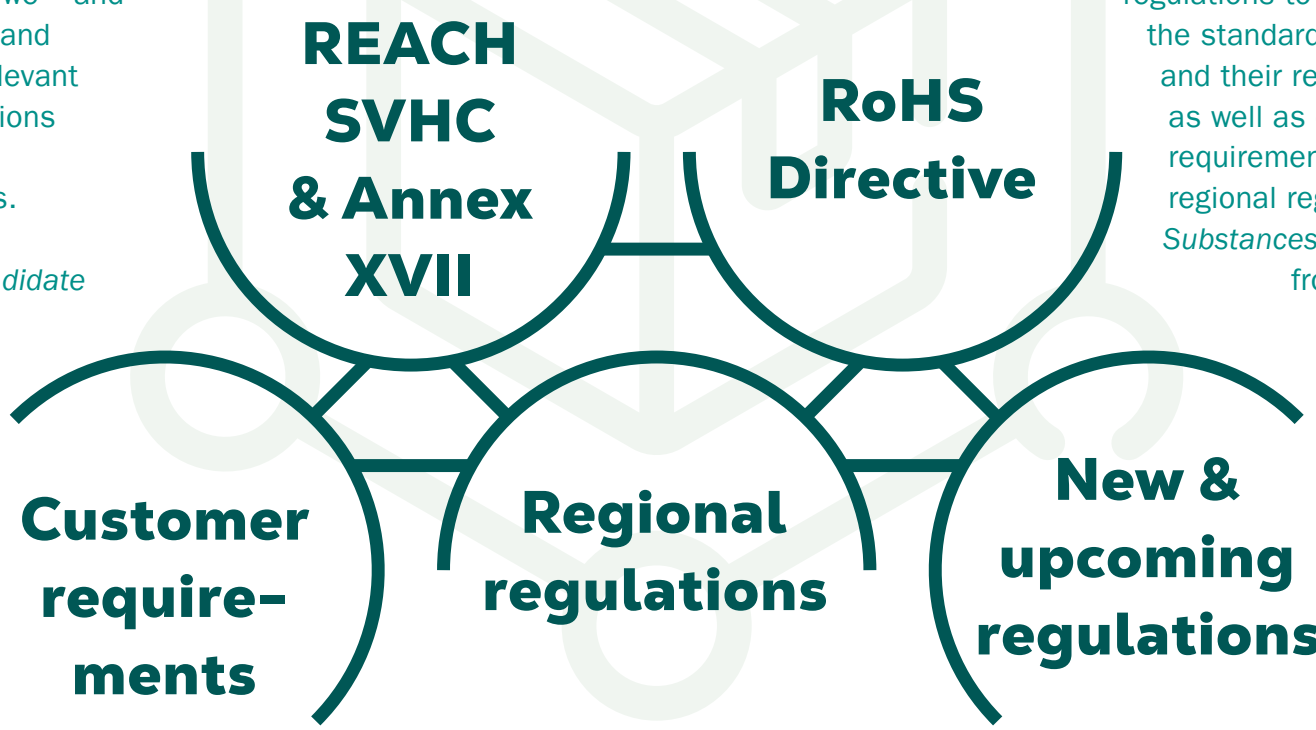
Product Compliance and Conflict Minerals

Our product manufacturing process depends on a wide variety of minerals, metals, and chemicals, making sourcing a complex endeavor that demands strong processes to mitigate risks.

As part of our product compliance efforts regarding the environment and the use of restricted substances to minimize our impacts on human health and environmental health, we – and our suppliers – follow and adhere to the most relevant standards and regulations within the industry of electronic components.

These include the *Candidate List of Substances of Very High Concern* (SVHC) and Annex XVII of the *Registration, Evaluation, Authorisation and Restriction of Chemicals* (REACH), the *Restriction of Hazardous Substances* (RoHS) Directive, both from the European Union. The Candidate List is updated twice per year, and we engage with our direct suppliers to ensure that the substances are not present above the threshold, or at all, in the components or chemicals we purchase. Given the infrequent update schedule of the RoHS Directive, with the last revision in 2015, we take proactive steps by engaging with our suppliers every two years.

Moreover, as our products are further processed and used all around the globe, we also follow some regional regulations to be able to meet the standards of our customers and their regional markets, as well as customer-specific requirements. An example of regional regulation is the *Toxic Substances Control Act* (TSCA) from the United States' Environmental Protection Agency.



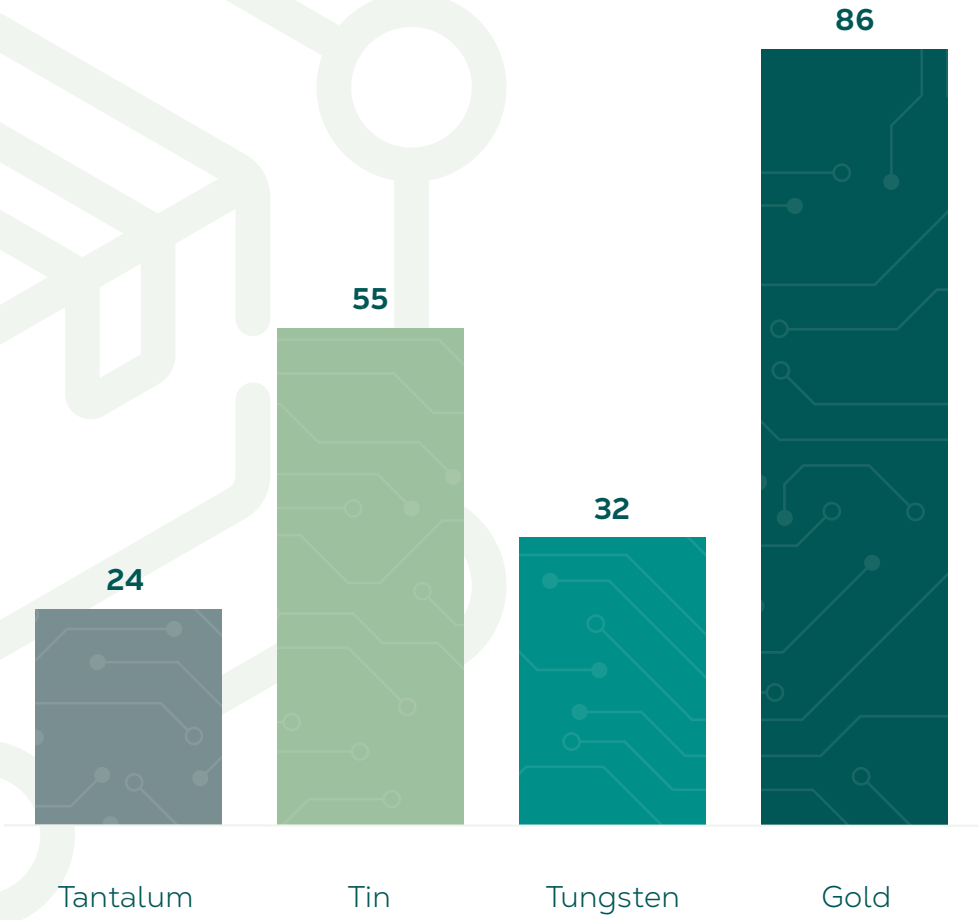
Product Compliance and Conflict Minerals

Lately, we have seen an increase in the number of regulations on materials and substances, and their complexity. Most recently, the European Union's potential ban on per- and polyfluoroalkyl substances (PFAS) led us to do a complete analysis of how these substances are used in our supply chain.

PFAS, however, are crucial for the semiconductor manufacturing process and no alternatives currently exist. We provided our feedback in the European Chemicals Agency's consultation process. This real-case exercise demonstrated the importance of engaging and collaborating with our suppliers to evaluate the impact of new and forthcoming regulations on our operations.

In the same way, we conduct due diligence for the conflict minerals present in our products and through our supply chain. Tantalum, tin, tungsten and gold (3TG), as well as cobalt, can be present in our products, be it in the bare die or in the packaging or bumping of the integrated circuit. As a rule, we request our suppliers to submit their Conflict Minerals Reporting Template (CMRT) and Extended Minerals Reporting Template (EMRT) every year, so that we can verify that only conformant smelters to the *Responsible Minerals Initiative* (RMI) are part of our supply chain, which was the case at the end of 2023. When a non-conformant smelter is present, we follow up with the supplier responsible for this smelter to phase the smelter out of our supply chain; this can take up to 6 months.

Number of 3TG smelters in our supply chain at the end of 2023



APPENDICES

Data

This section presents a breakdown in table form of all the data collected and estimated for the material topics presented in this report. Most of the data was presented in either graph form or references throughout the different sections.

Energy consumption, in MWh					
Source	**2023**	**2022**	**2021**	**2020**	**2019**
Natural gas [a]	6 321	5 572	5 996	9 129	10 027
Biogas [a]	702	619	666	1 014	144
Fuel oil [a]	5	22	5	60	44
Vehicle fleet [a]	45	24	21	23	32
Electricity Marin	28 650	27 472	25 998	23 663	23 334
Electricity Bangkok	731	786	834	894	871
Total	**36 454**	**34 495**	**33 521**	**34 783**	**34 451**
Annual change	**5.68%**	**2.90%**	**-3.63%**	**0.96%**	**–**
Change from 2019	**5.81%**	**0.13%**	**-2.70%**	**0.96%**	**–**
Normalized production intensity index	**94.31**	**77.96**	**82.19**	**97.36**	**100**
Renewable energy	29 519	28 229	26 770	2 614	1 891
Share of renewable energy	80.98%	81.84%	79.86%	7.51%	5.49%

[a] Based on gross calorific value

Data

GHG emissions, in metric tons CO_2eq

Source	Scope	2023	2022	2021	2020	2019	Emission factor source
Natural gas [a]	1	1 165	1 003	1 106	1 685	1 843	UK Government
Biogas [a, b]	1	0.15	0.14	0.15	0.21	0.03	UK Government
Process gases	1	805	861	870	779	840	IPCC AR6
Fuel oil [a]	1	1	6	1	16	12	UK Government
Vehicle fleet [a]	1	10	6	5	5	8	UK Government
Refrigerants	1	73	73	73	101	73	IPCC AR6
Electricity Marin (market-based)	2	0	0	0	4 295	4 235	Electricity supplier
Location-based	2	73	70	302	273	238	Association of Issuing Bodies
Electricity Bangkok (location-based and market-based)	2	263	307	361	395	387	Thai Government
Purchased goods and services	3	28 012	–	–	–	–	Suppliers, ecoinvent v3.9 cut-off
Fuel- and energy-related activities	3	497	474	513	–	–	ecoinvent v3.9 cut-off, UK Gov-ernment, IEA
Upstream transportation [c]	3	921	1 010	727	–	–	Transport services suppliers
Waste generated in operations	3	23	–	–	–	–	ecoinvent v3.9 cut-off
Business travel	3	186	72	16	–	–	ecoinvent v3.9 cut-off
Employee commuting	3	1 006	736	629	–	–	ecoinvent v3.9 cut-off
Downstream transportation [c]	3	120	–	–	–	–	Transport services suppliers
Scope 1		**2 056**	**1 949**	**2 056**	**2 586**	**2 777**	**–**
Scope 2 [d]		**263**	**307**	**361**	**4 690**	**4 622**	**–**
Scope 3		**30 765**	**2 293**	**1 886**	**–**	**–**	**–**
Total scopes 1+2		**2 319**	**2 256**	**2 417**	**7 276**	**7 399**	**–**
Annual change		**2.77%**	**-6.83%**	**-66.78%**	**-1.67%**	**–**	**–**
Change from 2019		**-68.66%**	**-69.57%**	**-67.34%**	**-1.67%**	**–**	**–**
Normalized intensity index		**27.93**	**23.70**	**27.59**	**94.82**	**100**	**–**

[a] Based on gross calorific value; b only including effect from methane and nitrous oxide, with biogenic CO_2 (140 t CO_2) outside of scope;
[c] categories of upstream and downstream transportation were reported together before 2023; [d] market-based

Data

Waste categories and treatment methods

Waste category	Recycling	Incineration with energy recovery	Physico-chemical treatment	Landfill	Incineration without energy recovery	2023	2022	2021
Hazardous waste	88.05	22.25	91.12	4.14	0.19	**205.74**	146.26	173.52
Non-hazardous waste	84.52	51.12	0	9.99	0	**145.82**	166.34	155.67
Total	**172.57**	**73.37**	**91.12**	**14.14**	**0.19**	**351.38**	**312.60**	**329.19**
Proportion	55.20%	23.47%	29.15%	4.52%	0.06%	–	–	–
					Annual change	**12.41%**	**-5.04%**	**–**
					Valorization rate [a]	**78.68%**	**78.88%**	**67.51%**
					Landfill rate	**4.52%**	**1.92%**	**0.82%**

[a] Through recycling or energy recovery

Water withdrawal, in m^3

Indicator	2023	2022	2021	2020	2019
Marin	250 270	198 996	171 434	160 234	**153 788**
Bangkok	1 623	2 265	2 217	100	**52**
Total	**251 893**	**201 261**	**173 651**	**160 334**	**153 840**
Annual change	**25.16%**	**15.90%**	**8.31%**	**4.22%**	**–**
Normalized production intensity index	**145.93**	**101.87**	**95.35**	**100.50**	**100**

Data

Workforce statistics

Employee category	2023 Total	2023 Marin	2023 Bangkok	2022	2021
Female	190	89	101	211	209
Male	361	329	32	336	304
Under 30 years old	77	51	26	54	52
Between 30 and 50 years old	328	228	100	330	318
Over 50 years old	146	139	7	163	143
All employees	**551**	**418**	**133**	**547**	**513**
Women in management positions	20%				
Women in the Board	0%				
Employees covered by collective labor agreement	99.8%				

Training hours statistics

	2023 Total	2023 Marin	2023 Bangkok	2022	2021
Hours of training	**7 522**	**6 868**	**654**	**6 446**	**3 367**
Average per employee	13.65	16.43	4.92	11.78	6.56

Occupational health and safety statistics

	Marin			Bangkok		
	2023	2022	2021	2023	2022	2021
Work-related injuries without downtime	1	7	4	0	0	0
Work-related injuries with downtime	6	1	0	1	0	0
Fatalities	0	0	0	0	0	0
Work-related ill-health	0	0	0	0	0	0
Hours worked	822 138	734 554	757 197	303 346	336 220	361 090

GRI Index

Statement of use	**EM Microelectronic has reported the information cited in this GRI content index for the period 01.01.2022 to 31.12.2022 with reference to the GRI Standards.**
GRI 1 used	**GRI 1: Foundation 2021**

GRI standard	Disclosure	Location
GRI 2: General Disclosures 2021	2-1 Organizational details	6, 8
	2-2 Entities included in the organization's sustainability reporting	6
	2-3 Reporting period, frequency and contact point	6
	2-4 Restatements of information	6
	2-6 Activities, value chain and other business relationships	8
	2-7 Employees	8, 36, 48
	2-9 Governance structure and composition	21
	2-11 Chair of the highest governance body	21
	2-12 Role of the highest governance body in overseeing the management of impacts	21
	2-13 Delegation of responsibility for managing impacts	21
	2-14 Role of the highest governance body in sustainability reporting	21
	2-22 Statement on sustainable development strategy	5, 14-16
	2-23 Policy commitments	21
	2-27 Compliance with laws and regulations	Zero instances of non-compliance with laws and regulations in the reporting period.
	2-29 Approach to stakeholder management	13
	2-30 Collective bargaining agreements	33, 48
GRI 3: Material Topics 2021	3-1 Process to determine material topics	13
	3-2 List of material topics	13
	3-3 Management of material topics	Each material topic section
GRI 205: Anti-corruption 2016	205-3 Confirmed incidents of corruption and actions taken	Zero confirmed corruption incidents in the reporting period.

GRI Index

GRI standard	Disclosure	Location
GRI 302: Energy 2016	302-1 Energy consumption within the organization	24, 45
	302-4 Reduction of energy consumption	24, 45
GRI 303: Water and Effluents 2018	303-1 Interactions with water as a shared resource	30
	303-2 Management of water discharge-related impacts	30
	303-3 Water withdrawal	30, 47
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	25, 26, 46
	305-2 Energy indirect (Scope 2) GHG emissions	25, 26, 46
	305-3 Other indirect (Scope 3) GHG emissions	25, 27, 46
	305-5 Reduction of GHG emissions	25, 26, 46
GRI 306: Waste 2020	306-1 Waste generation and significant waste-related impacts	29
	306-2 Management of significant waste-related impacts	29
	306-3 Waste generated	29, 47
	306-4 Waste diverted from disposal	29, 47
	306-5 Waste directed to disposal	29, 47
GRI 403: Occupational Health and Safety 2018	403-1 Occupational health and safety management system	38
	403-2 Hazard identification, risk assessment, and incident investigation	38
	403-3 Occupational health services	38
	403-4 Worker participation, consultation, and communication on occupational health and safety	38
	403-5 Worker training on occupational health and safety	38
	403-6 Promotion of worker health	38
	403-8 Workers covered by an occupational health and safety manage-ment system	38
	403-9 Work-related injuries	38, 48
	403-10 Work-related ill health	38, 48
GRI 404: Training and Education 2016	404-1 Average hours of training per year per employee	37, 48
GRI 405: Diversity and Equal Opportunity 2016	405-1 Diversity of governance bodies and employees	36, 48

em microelectronic

A COMPANY OF THE SWATCH GROUP

EM Microelectronic-Marin SA – Rue des Sors 3, 2074 Marin, Switzerland – sustainability@emmicroelectronic.com – www.emmicroelectronic.com