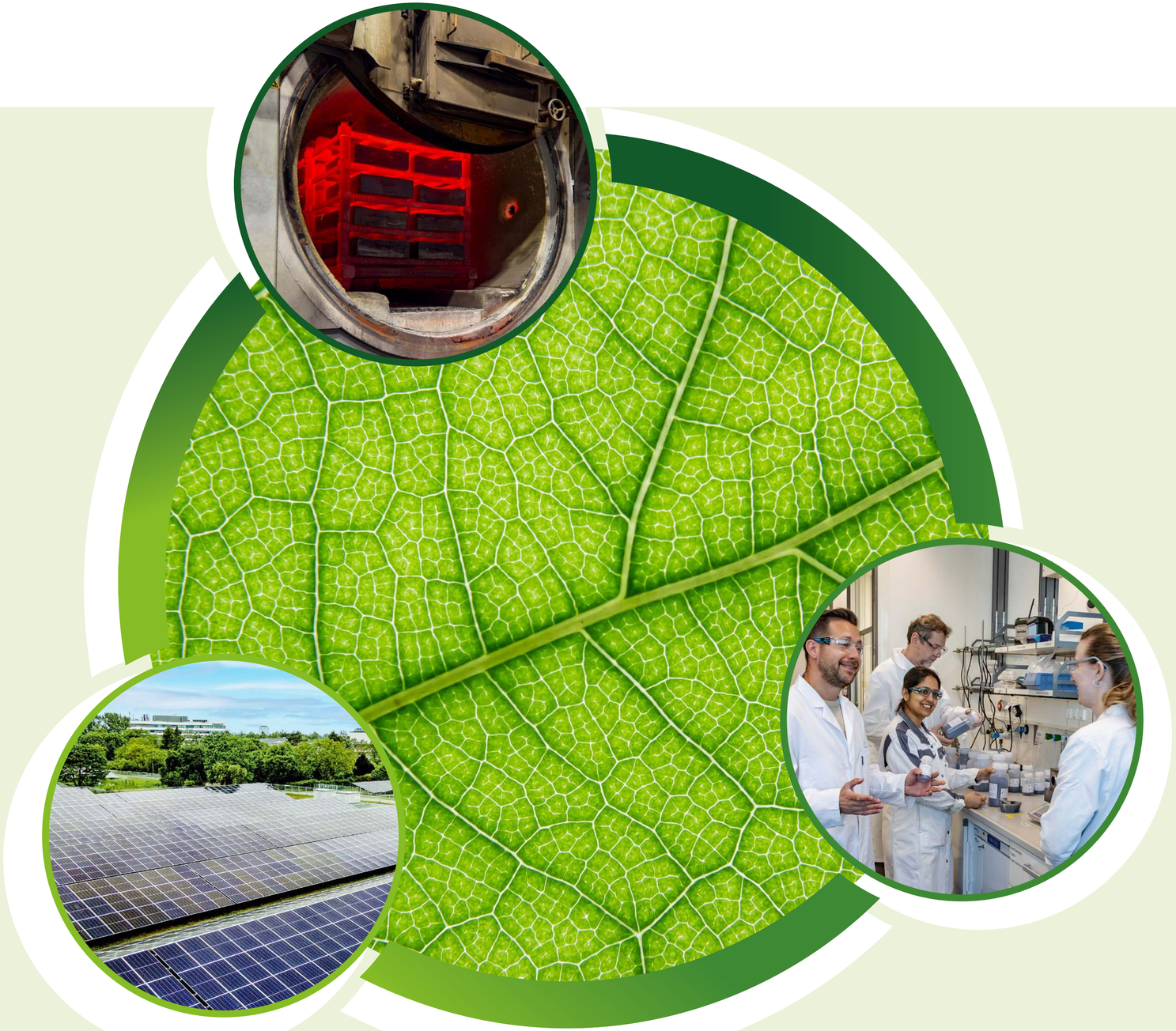
Heraeus
Precious Metals

# Precious to us

## Sustainability Report 2024



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# Foreword

**Dear readers,**

2024 was characterized by a rapidly changing business environment, which is continuing in 2025. We face global uncertainties, geopolitical tensions, and reduced economic growth. In the context of ESG, companies have been confronted with extensive and yet still evolving requirements. Despite these challenges, we remain convinced that driving and promoting responsible practices is the right course of action.

As a leading recycler and refiner of precious metals, we strive to realize the potential of these scarce resources as responsibly as possible. We work tirelessly to maximize the benefits of precious metals for people and the planet while steadily reducing their negative impact.

“Precious to us”—under this pledge, we summarize our commitment toward climate, resources, and people. We pledge to systematically decarbonize our business, to look for ways to conserve resources and promote a circular economy, and to prioritize the well-being and interests of the people in our workforce and along our value chain.

We are very proud of the considerable progress we have made over the past years. Compared to our base year, we have reduced greenhouse gas emissions at our global sites (Scope 1 and 2) by 42%. At the same time, since 2019, our business has grown by more than 37%.

In 2024, 57% of our electricity needs were met by renewable sources. From this year on, we will cover 100% with green electricity. We have significantly expanded our recycling capabilities globally, allowing us to keep more precious metals in circulation. Additionally, we are very close to reaching our target of having 40% women and 50% internationals in our Global Management Team by the end of 2025.

We have also worked on embedding sustainability further into our culture, improving internal processes, and enhancing transparency and data reporting. These areas will continue to be a priority in the future.

What has become particularly clear: We see that our efforts lead to success. Our measures demonstrate that sustainability and business growth go hand in hand. Our commitment ensures that we are well positioned for the future and can secure our long-term success and competitiveness. We are firmly determined to continue our chosen path.

As we transition from a phase of strong and fast emissions reductions to operational stability, we recognize the need to keep up the intensity of our efforts. While the next steps may be smaller compared to earlier reductions, they remain critical for achieving our long-term goals. It is therefore all the more important that we build on the stable foundations we have already established.

We are convinced that the precious metals industry has great potential for a successful transition toward sustainability. From our mining partners to end users of precious metals, we see a steadily growing commitment to sustainable business practices. Let us continue to work together to create a more sustainable future that is precious to us all.

**Yours,**

**Steffen Metzger**
CEO Heraeus Precious Metals

**Svea Scherleithner**
Global Head of Sustainability

# About us

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# Company profile

## About Heraeus Precious Metals

Heraeus Precious Metals is a global leader in precious metals. We are part of the Heraeus Group and cover the entire value chain from refining, to trading, to innovative precious metals products, to recycling end-of-life materials.

We have extensive expertise in all platinum group metals (PGMs) as well as gold and silver. With more than 3,000 employees at 17 sites worldwide[1], we offer a broad portfolio of products that are essential for many industries, including but not limited to the automotive, chemicals, semiconductor, pharmaceutical, hydrogen, and jewelry industries. Our headquarters is located in Hanau, Germany.

Trust and reliability, strict adherence to leading compliance standards, transparency, and financial stability are the foundation of our business. We value long-term relationships over short-term profit, and our customer relationships often last for decades.

[1] Incl. joint ventures; not included in the further scope of this report

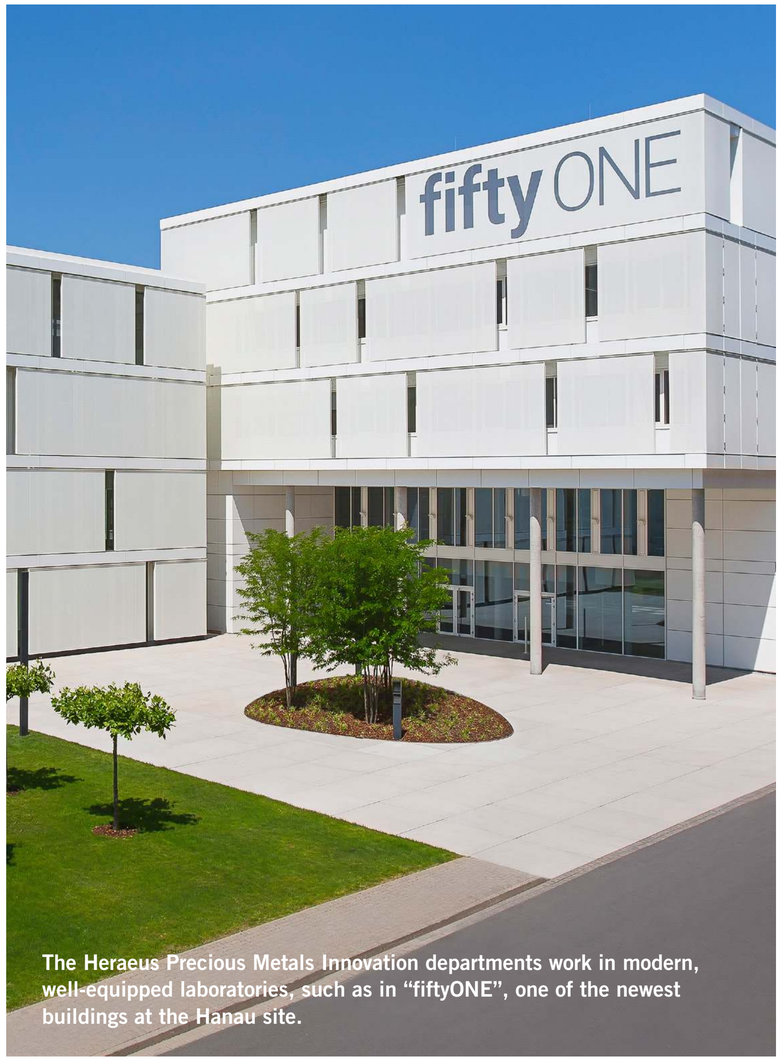
## About the Heraeus Group

Heraeus is a globally active, family-owned technology group. Based in Hanau, Germany, the company comprises 15 operating companies whose products and services span the Business Areas of Metals & Recycling, Healthcare, Semiconductor & Electronics, and Industrials. In fiscal year 2024, Heraeus generated revenues of €29.4 billion and employed roughly 15,200 people across 40 countries. This makes Heraeus one of the top ten largest family-owned enterprises in Germany.

With deep expertise in advanced materials, Heraeus is a leader across key global industries. The group ranks among the foremost providers of precious metals, supplies quartz glass for the semiconductor and telecommunications sectors, and manufactures sensors for the steel industry. In addition, its materials and technologies for medical technology help improve the quality of life for millions of people worldwide.

Innovation is the central driver of Heraeus's success. Each year, six percent of revenues (based on revenues excluding precious metals) are reinvested into research and development. Beyond that, the company partners with leading research and educational institutions around the world. At Heraeus, growth and sustainability go hand in hand: the company designs its own processes to conserve resources and supports its customers in operating more sustainably with innovative materials and solutions.

The group's roots trace back to 1660, when Isaac Heraeus took over a pharmacy in Hanau. Since then, the company has stood for technological progress, sustainable growth, and responsible conduct—across generations.




The Heraeus Precious Metals Innovation departments work in modern, well-equipped laboratories, such as in "fiftyONE", one of the newest buildings at the Hanau site.

# Company profile

## Heraeus Precious Metals at a glance

All data refers to 2024.

**€26.2 BN total revenue**

**Headquartered in Germany**

**more than 3,000 employees**

incl. joint ventures

Sales locations: Courtaboeuf Cédex (France), Suwon (South Korea), Tokyo (Japan), Singapore, Taipei (China Taiwan)

[1] joint venture

# Company profile

## Vision and Guiding Principles

Heraeus Precious Metals' Vision and Guiding Principles are the cornerstone of our strategy and corporate culture. They serve as a general orientation and guide as to how we conduct our business.

We expect all employees worldwide to bring our vision and guiding principles to life and therefore work continuously to ensure their implementation and ongoing development.

Our Vision articulates our aspiration to innovate, taking a leading position in our industry and contributing to a sustainable future:

**We create innovative precious metals products and services – leading the way to a sustainable future.**

### Heraeus Precious Metals Guiding Principles

Our Guiding Principles define behaviors and mindsets that are essential for successful cooperation with our partners, customers, and within our company:

**Integrity**
We stand for honesty, transparency, and ethical conduct.

**Customer Focus**
We concentrate on our customers' needs.

**Clear Language & Respect**
We communicate clearly and respect each other.

**Diversity**
We foster different perspectives and diverse teams.

**Continuous Improvement**
We want to continuously get better.

**Ownership**
We own our tasks and follow through.

**Responsibility**
We care about people and our planet.

**Innovation**
We lead through new ideas.

# Memberships and ratings

## Memberships

Heraeus Precious Metals is a member of several industry associations and organizations and actively participates in various precious metals industry-related working groups:

- London Bullion Market Association (LBMA)
- London Platinum and Palladium Market (LPPM)
- Responsible Jewellery Council (RJC)
- International Platinum Group Metals Association (IPA)
- Fachvereinigung Edelmetalle (FVEM)
- Responsible Minerals Initiative (RMI)
- European Precious Metals Federation (EPMF)
- Initiative for Responsible Mining Assurance (IRMA): Fabricators Working Group
- International Precious Metals Institute (IPMI)
- Watch and Jewellery Initiative 2030
- Fairtrade Gold
- Fairmined
- Swiss Better Gold

Heraeus Precious Metals is certified by all major responsible precious metals sourcing frameworks, such as LBMA, LPPM, RMI, and RJC. The applicable certifications are dependent on the scope of the production site regarding refined or recycled precious metals. Information on our certificates can be found on our website.

## Ratings

EcoVadis rates companies' performance in four categories: environment, labor and human rights, ethics, and sustainable procurement. Our operations at our German headquarters in Hanau received a Platinum Rating in 2024, ranking us among the top 1% of all companies evaluated.

CDP promotes standardized disclosures and rates companies' climate, water, and forest performance. In 2024, Heraeus Precious Metals submitted its climate disclosures and received a B rating.

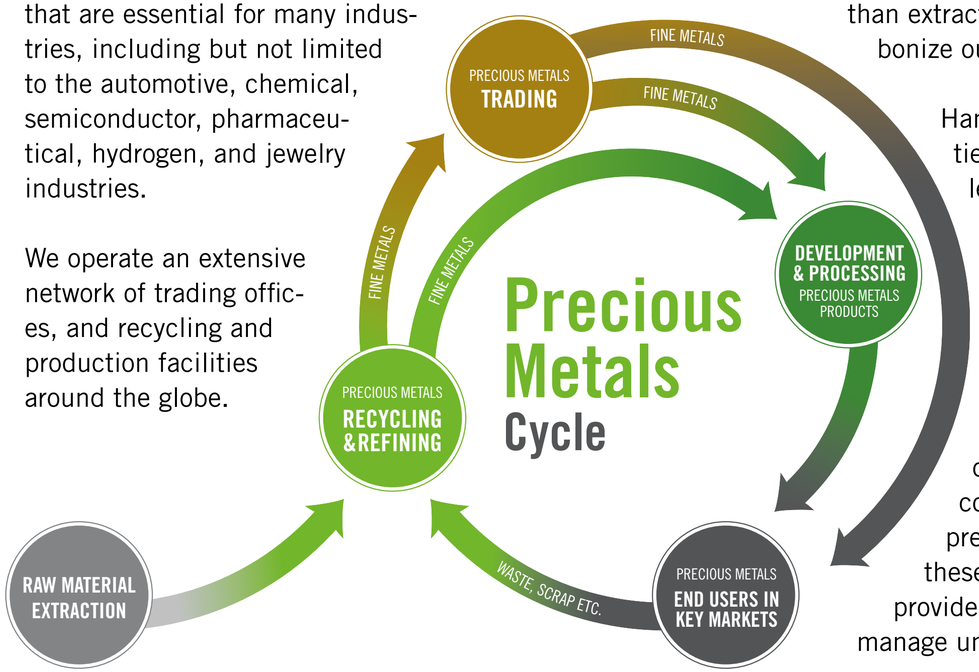
# Business model and value chain

## Business model

Heraeus Precious Metals is one of the world's leading precious metals companies. We are one of the few companies that cover the entire value chain from refining, to trading, to innovative precious metals products, to recycling end-of-life materials for all eight precious metals. This combination of product and service offerings allows us to support our customers in the best possible way.

We produce precious metals products that are essential for many industries, including but not limited to the automotive, chemical, semiconductor, pharmaceutical, hydrogen, and jewelry industries.

We operate an extensive network of trading offices, and recycling and production facilities around the globe.




This network encompasses ten countries: the United States, Canada, Ireland, Germany, Switzerland, Italy, Turkey, South Africa, India, and Greater China.[2] It enables us to provide precious metals at the place, at the time, and in the form our customers need them.

Global supply chains would not function without recycled precious metals, which supplement primary sources. The recycling of precious metals has a much smaller environmental footprint than extraction. Our recycling business therefore helps to decarbonize our customers' value chains.

Handling precious metals involves significant complexities, including inherent price risks and logistical challenges. Our services are designed to help customers manage price volatility, ensure precise analysis of their materials, and navigate complex logistics and regulatory requirements efficiently.

### Hedging and risk management

Companies that need precious metals are exposed to volatile and unpredictable prices. Severe fluctuations can affect their margins, capital requirements, and competitiveness. Heraeus Precious Metals has comprehensive expertise in helping our customers manage these risks in all major time zones. Our hedging strategies provide our customers with price stability and enable them to manage uncertainty.

### Real-time account transparency

Our comprehensive precious metals platform myheraeus.com enables our customers to manage their precious metals transparently and in real time. This includes monitoring precious metals prices, securely executing spot, forward, hedging, and financing transactions, and managing weight accounts and recycling orders.

### Precious metal content determination

Customers worldwide rely on our advanced equipment and expertise to precisely analyze their valuable materials' precious metals content. Approximately 150 chemical and physical scientists and experts work in our analytics department, where our customers' prepared homogenized materials are analyzed in a variety of well-established processes in accordance with industry standards for quality and materials. Our analytics services also include materials characterization as well as survey, purity, and surface analysis.

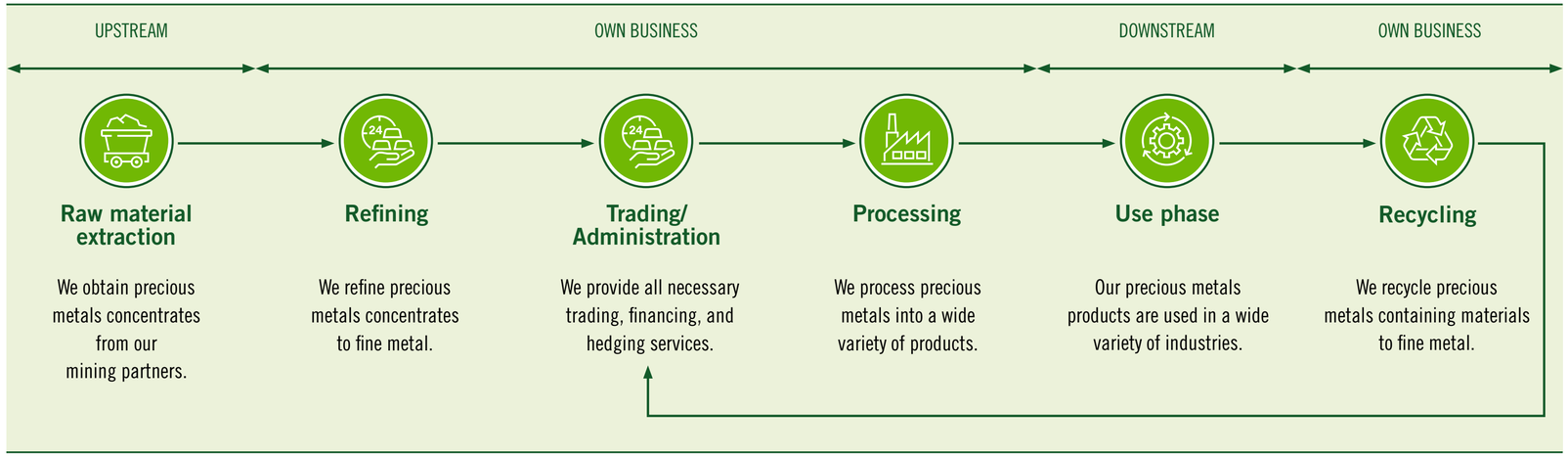
### Precious metal logistics

Shipments of waste materials containing precious metals must comply with state, national, and international laws and regulations. Decades of expertise enable us to guide customers through these complex requirements. In addition, we carry out our recycling processes in government-licensed treatment and storage facilities for hazardous and non-hazardous materials containing precious metals. Heraeus Precious Metals' international door-to-door logistics, transportation, and pickup services ensure that valuable material is handled correctly and safely. Our extensive experience in waste declaration, permits, and regulations saves time and reduces customers' logistics costs.

[2] Incl. joint ventures; not included in the further scope of this report

# Business model and value chain

## Value chain




Our value chain has six stages: 1. Raw material extraction, 2. Refining, 3. Trading and administration, 4. Processing, 5. Use phase, and 6. Recycling of secondary materials, including end-of-life materials. Heraeus Precious Metals itself is active at four of these stages: refining, trading and administration, processing, and recycling. While we do not operate mines ourselves, mines are trusted and long-term partners for us. Mines are usually both our customers and our suppliers for precious metals.

### Differences in the value chains of precious metals

We process and source all eight precious metals. The value chain of gold and silver differs from that of PGMs—which include platinum, palladium, rhodium, ruthenium, iridium, and osmium—in terms of mining, processing, and applications.

Gold and silver can be found in elemental form in nature and as byproducts of the mining and refining of zinc, lead, and copper. Their occurrence in nature is more widely dispersed, allowing for both large-scale operations and artisanal and small-scale mining. They are mainly used for jewelry, watches, investment products, and electronic applications.

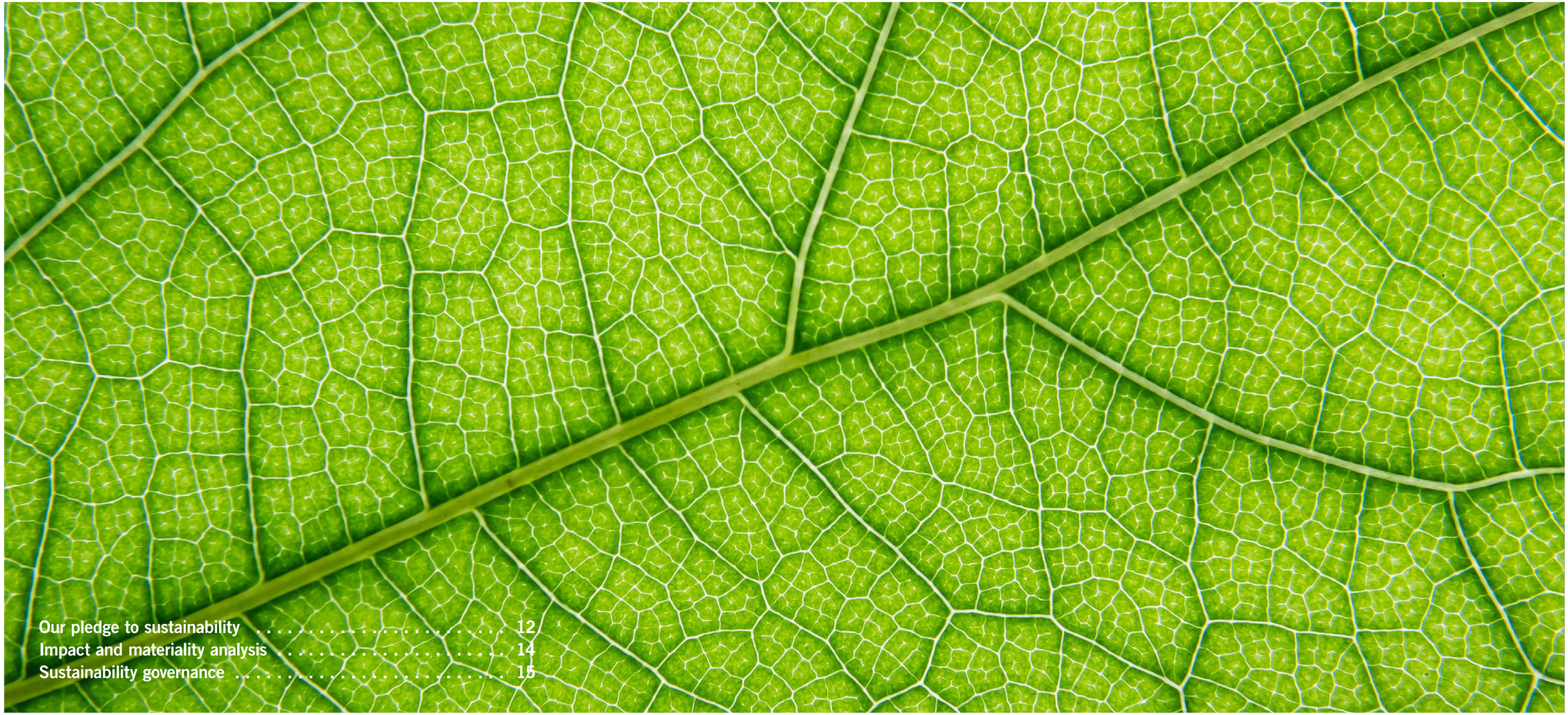
By contrast, PGMs typically occur in sulfide ores associated for example with nickel, copper, iron, and cobalt. PGM deposits can mainly be found in South Africa, Zimbabwe, Russia, and North America. Separating PGMs from the ore requires complex processing techniques, making them more challenging to mine economically. As a result, PGMs are mainly mined by large, specialized operators. Their unique physical and chemical properties make PGMs suitable for a broad range of industrial applications.

## Business structure

Heraeus Precious Metals strives to have an organizational structure that enables fast decision-making processes and smooth and open communication that addresses every employee on every level. We have six market-oriented Business Lines. In addition, we cluster our business into four major regions. Both are supported by central functions.

More information on our management structure can be found under **Governance boards and their composition.**

# Our sustainability approach



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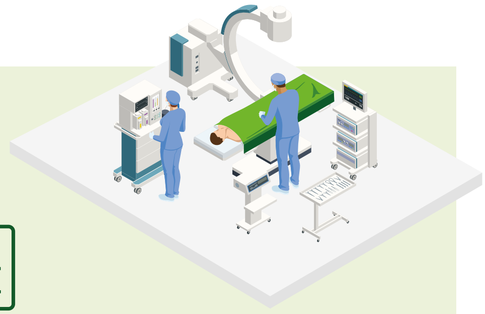
# Our pledge to sustainability

## Precious metals foster a better world

47 Ag

Contact materials for electrical connections and safety switches are necessary for electromobility.

Metallization pastes enable power generation in solar cells by serving as electrical contacts.



78 Pt

Our Karstedt catalysts are used for the production of high-quality silicones that are needed, for example, in medical applications.

Platinum-containing highly potent active pharmaceutical ingredients help to defeat cancer.

78 Pt

44 Ru

79 Au

45 Rh

77 Ir

46 Pd

Catalysts enable the replacement of fossil feedstocks by renewable feedstocks in chemicals production.

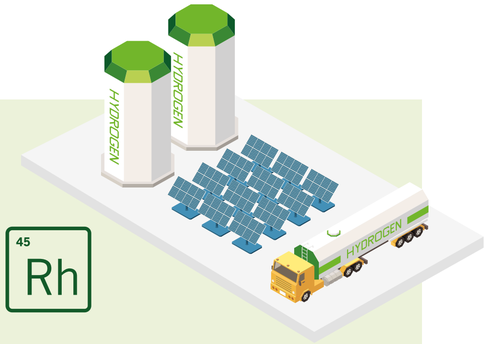
78 Pt

77 Ir

45 Rh

46 Pd

44 Ru




Catalysts enable sustainable energy supply in the production, purification, storage, and transport of green hydrogen.

The antimicrobial effect of AGXX particles helps to prevent the spread of dangerous germs and the economic damage caused by biocorrosion.

44 Ru

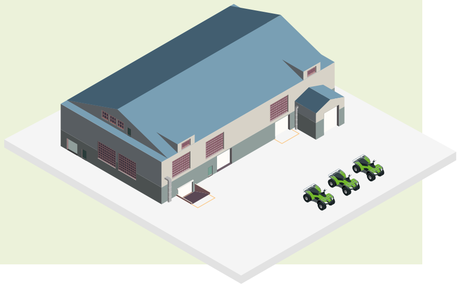
47 Ag

Our catalysts clean exhaust air in engines and industrial processes.

78 Pt

45 Rh

46 Pd



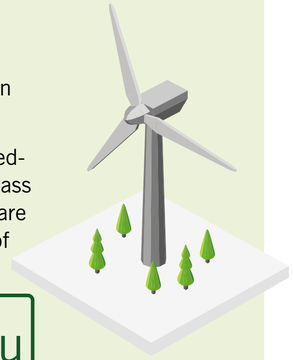
Precious metals wires and slip ring applications are used in wind turbines to transmit electrical power in pitch control systems.

Platinum bushings are needed for the production of glass fibers, which for example are used in the manufacture of wind turbine blades.

78 Pt

47 Ag

79 Au



Catalytic gauze systems reduce emissions of the greenhouse gas $N_2O$ in fertilizer production processes.

78 Pt

46 Pd

45 Rh

# Our pledge to sustainability

## Maximize impact, minimize harm

We are proud of the positive impact our precious metals products have. The modern life enjoyed by all today would not be possible without them. While platinum group metals are used in many industrial applications, gold and silver are essential to the electronics and photovoltaics industries and are valued as investment products and in jewelry. Therefore, we see it as our duty to realize the huge potential of precious metals as responsibly as possible.

As impressive as precious metals are, they do also have drawbacks. The huge demand for precious metals cannot nearly be covered by recycling, so mining is indispensable. However, their extraction and processing are very energy- and carbon-intensive and can adversely impact workers, nature, and nearby communities. That is why we work tirelessly to maximize the benefits of precious metals for people and the planet while steadily reducing their negative impact.

## Our pledge to responsibility

Climate, resources, and people are precious to us. We pledge to always act accordingly. To systematically decarbonize our business. To always look for new ways to conserve resources and promote a circular economy. To prioritize the well-being and interests of the people in our company, in nearby communities, and along our value chain. Just as importantly, we expect the same from our business partners, both upstream and downstream.

We are convinced that our industry can make a successful transition toward sustainability, but we can only achieve this by working together: from miners to refiners, processors, and users of precious metals. Our aim is to lead by example and to propel positive change in our industry. We set rigorous standards for our own business and actively encourage the adoption of similar standards along the entire value chain.

Determining the precious metals content of recycling material in the analytical laboratory.

# Impact and materiality analysis

The results of our materiality assessment are the foundation of our sustainability strategy. Heraeus Precious Metals conducted its first double materiality assessment using the method prescribed by the Corporate Sustainability Reporting Directive (CSRD) in 2022. In 2023 and 2024, the topics were reevaluated in alignment with the Heraeus Group's double materiality assessment. Details on the process and applied methodology can be found in the **Heraeus Group's Sustainability Report 2024.**

In the update process, air pollution and waste were identified not to be material for Heraeus Precious Metals. Nevertheless, we continue to treat them as further strategic action areas.

Precious metals from recycling material collected in a nickel-melted drop.

## Material topics

For Heraeus Precious Metals, eight topics were identified as material. We will review the material topics on a regular basis to ensure that they remain up to date in light of possible future changes, such as in our corporate setup or operating performance.

### Environment

| | |
|---|---|
| **Climate protection** | Greenhouse gas emissions and energy |
| **Circular economy** | Resource used: precious metals |

### Social

| | |
|---|---|
| **OWN WORKFORCE** | |
| **Diversity** | Equal opportunities, inclusive corporate culture, and anti-discrimination |
| **Working conditions** | Training and development |
| | Health and safety |
| **PEOPLE IN OUR VALUE CHAIN** | |
| **Working conditions** | Health and safety |
| **Human rights** | Forced and child labor |
| **Affected communities** | Impacts on human, economic, social, and cultural rights of affected communities |

### Governance

| | |
|---|---|
| **Business conduct** | Compliance and anti-corruption |

## Further strategic action areas

In addition to our material topics, we have identified further topics that are below our materiality threshold, but in which we nevertheless intend to drive progress in the years ahead. Consequently, they are also included in the chapters of this report and supported by our sustainability governance structure.

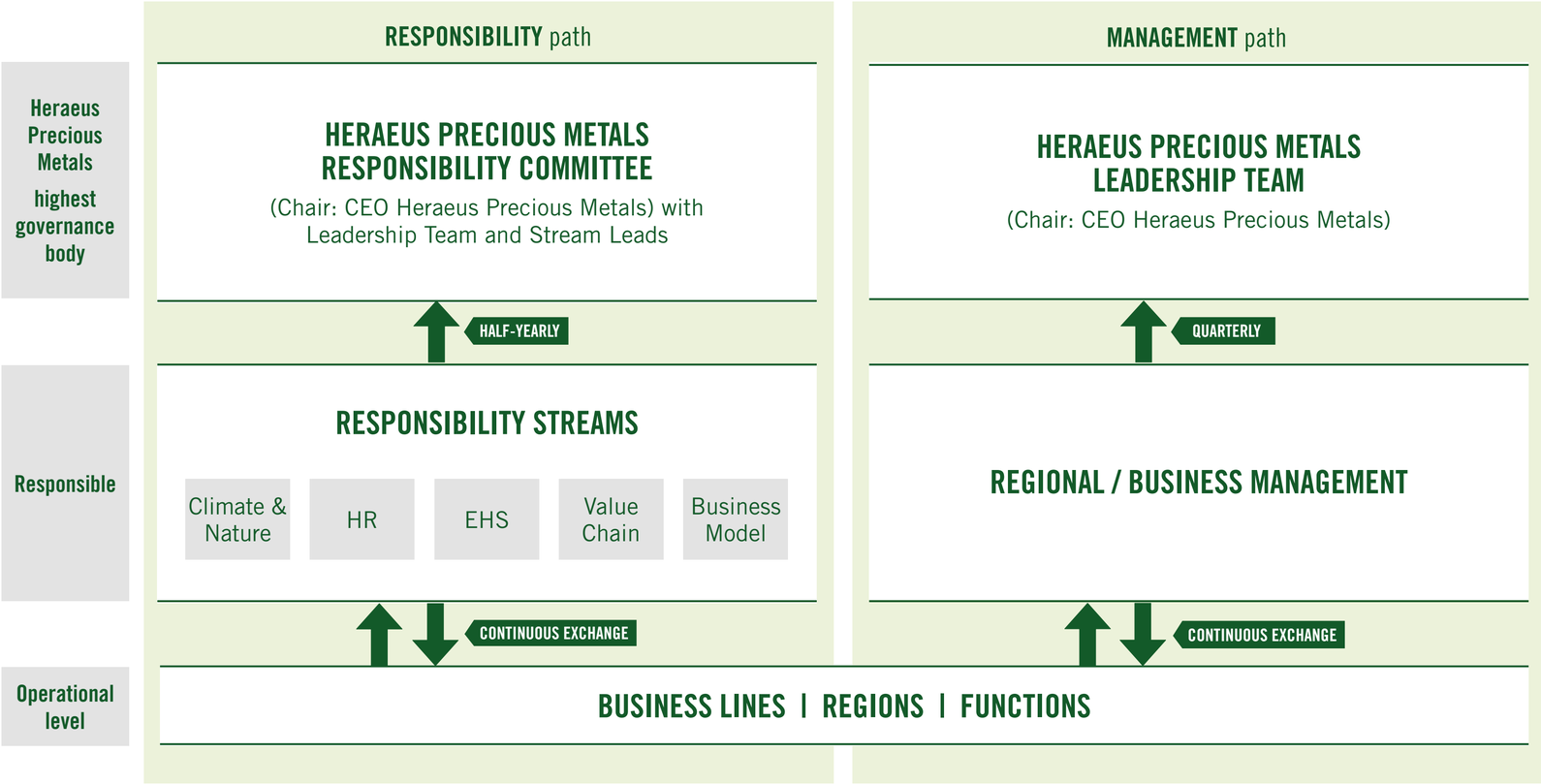
### Environment

| | |
|---|---|
| **Environmental pollution** | Air pollution |
| **Circular economy** | Waste |
| **Water and marine resources** | Water |
| **Biodiversity and ecosystems** | Biodiversity |

# Sustainability governance

Sustainability topics are embedded in our existing management structures and are integrated into our decision-making processes. This reflects the importance that Heraeus Precious Metals attaches to sustainability and ensures that these topics receive the necessary visibility as is the case with other considerations, such as earnings performance and financial situation.

We have a dedicated governance set up for sustainability, as described in the responsibility path in the graphic below. It is overseen by the Heraeus Precious Metals Responsibility Committee.




## Governance boards and their composition

### CEO

Heraeus Precious Metals' most senior officer is the CEO. He chairs the Leadership Team and reports to the CEO of the Heraeus Group.

### Leadership Team

The Leadership Team is Heraeus Precious Metals' highest governance board. It consists of the CEO and the leaders of all Business Lines, major regions, and the core functions Finance, Human Resources, Sustainability, and Innovation.

Having the Global Head of Sustainability in the Leadership Team ensures that sustainability aspects are well represented in Heraeus Precious Metals' key decision-making processes. The Leadership Team meets monthly. Sustainability is a standard item on the agenda.

### Responsibility Committee

Heraeus Precious Metals' Responsibility Committee is tasked with overseeing all ESG-related topics and activities company-wide.

Chaired by the CEO, the Responsibility Committee consists of the Leadership Team and the leaders of the Responsibility Streams which are not part of the Leadership team, such as the Global Head of Compliance and the Global Head of EHS.

The Responsibility Committee oversees all sustainability practices, targets, and major initiatives. Meeting twice a year, the committee reviews the company's sustainability progress and performance. This governance structure ensures that the

# Sustainability governance

sustainability strategy and activities are aligned with Heraeus Precious Metals' corporate strategy and business plan. By leveraging insights from our leadership, the committee enhances resource efficiency as well as cross-departmental collaboration.

### Responsibility Streams

To address the different material topics, we have organized ownership in dedicated streams. The Responsibility Streams set targets and define KPIs in alignment with the Responsibility Committee. They are furthermore responsible for data reporting and plausibility. The streams are headed by the corresponding functional experts to ensure a high level of competency and effective implementation.

### Business Lines and regions

The defined targets and KPIs are binding for the Business Lines and regions, which are Heraeus Precious Metals' operating entities. They are responsible for developing and implementing appropriate actions and report to the CEO of Heraeus Precious Metals.

## Integration of sustainability-related performance in incentive schemes

Compensation at Heraeus Precious Metals is designed to strongly align business and sustainability objectives with employee compensation. To this end, there is a variable compensation component for the managerial population, whose final amount is based on the achievement of annual targets.

The KPIs and their determination process differ among the following groups: For the members of Heraeus Precious Metals' Leadership Team, including the CEO, a set of KPIs (scorecard) is aligned with the board of the Heraeus Group and includes objectives regarding carbon emissions and health and safety. For Business Line and Function Heads, targets are set within the annual budgeting process by Heraeus Precious Metals' CEO, the CFO, the Global Head of HR as well as the Global Head of Sustainability to ensure tailored targets in respect to sustainability.

In addition, the majority of non-tariff employees (approximately 10% of employees) have at least one individual ESG-related target.

## Risk management

The Heraeus Group employs a comprehensive risk management system. This comprises the systematic detection and tracking of relevant risks and, where necessary, identification and monitoring of measures to manage these risks. The aim is to identify risks at an early stage and to initiate appropriate corrective actions. This process, overseen by the Heraeus Group's corporate controlling organization, is conducted biannually.

For Heraeus Precious Metals, risks are identified and managed where they arise—within the Business Lines and regional entities, which are responsible for implementing measures to mitigate or control these risks. Sustainability-related risks and opportunities, as well as Corporate Sustainability Reporting Directive (CSRD) requirements concerning financial materiality assessment, are integrated into our financial risk process.

For the reporting year, the materiality process identified no significant sustainability-related risks.

# Climate is precious to us

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A section of our new photovoltaic plant at our headquarters in Hanau, Germany.

# Climate is precious to us

Climate protection is one of humankind's biggest challenges. Rising sea levels, forest fires, water shortages, severe weather events, and loss of biodiversity are just a few of the adverse impacts of climate change.

Many of Heraeus Precious Metals' products and solutions help protect the environment and climate. Precious metals play a key role in electrolyzers for the production of green hydrogen, wind turbines, solar panels, electric vehicles, and fuel cells, to name just a few. However, the mining and processing of precious metals are very energy- and carbon-intensive.

As a company in the precious metals industry, we thus have a particular responsibility to drive decarbonization. This applies to our own worldwide operations as well as within our value chain. Heraeus Precious Metals is committed to being a pacesetter in the industry, reducing our carbon footprint, and acting as a role model in our industry.

Along with greenhouse gas (GHG) emissions and energy, which have been identified as material, we also put a strategic focus on air pollution, even though this action area lies below our materiality threshold.

| Ambitions | Status 2024 |
|---|---|
| **GHG emissions and energy** | **GHG emissions and energy** |
| Become Scope 1 and 2 GHG net zero[3] by 2033, compared to 2019 base year | -42% Scope 1 and 2 emissions |
| Reduce energy consumption by 20% by 2025, compared to 2019 base year | -17% energy consumption |
| Meet 100% of electricity demand with green electricity by 2025 | 57% green electricity share |
| Reduce Scope 3 emissions by 50% by 2033, compared to 2020 base year | -27% Scope 3 emissions |
| **Air pollution** | **Air pollution** |
| Ensure our NOx, SOx, and particulate matter emissions at each site stay below E-PRTR thresholds every year | 100% of sites below threshold[4] |

PEM electrolysis plays a pivotal role in producing green hydrogen. Heraeus' electrolyzer catalysts enable a decrease in iridium content while increasing efficiency and performance.

[3] Only residual emissions of less than 10% compared to 2019 base year will be neutralized.
[4] The air pollutant emissions of each of our facilities lies below the applicable threshold value specified in Annex II of Regulation (EC) No 166/2006. The threshold values per facility are: 100,000 kg/year for NOx; 150,000 kg/year for SOx; 50,000 kg/year for particulate matter.

# GHG emissions and energy

## Impacts

We are fully aware that our business activities result in greenhouse gas (GHG) emissions at our company and along our value chain.

Extractive industries such as the mining of precious metals are especially energy- and carbon-intensive. The biggest share of their emissions stems from the use of fossil-fueled electricity. While the use of secondary precious metals comes with a significantly lower environmental footprint, the available amounts from recycling cannot meet the high demand alone. Thus, mining is inevitable today and will stay crucial in the future.

The production and recycling of precious metals products at our global production sites is energy- and emission-intensive as well. Heraeus Precious Metals requires energy primarily in the form of electrical power to operate its plants and production processes, natural gas for heating our furnaces, melting, and exhaust-gas treatment, and in the form of thermal energy to heat buildings.

We pledge to our responsibility by committing to a meaningful decarbonization of our business activities. As refiners and recyclers of precious metals in direct contact with mines and secondary material suppliers, we find ourselves in a unique position to engage in the sustainable transformation of the precious metals industry. We aim to act as a role model and actively participate in industry organizations to drive the development of standards and increase transparency in our industry.

## Ambitions

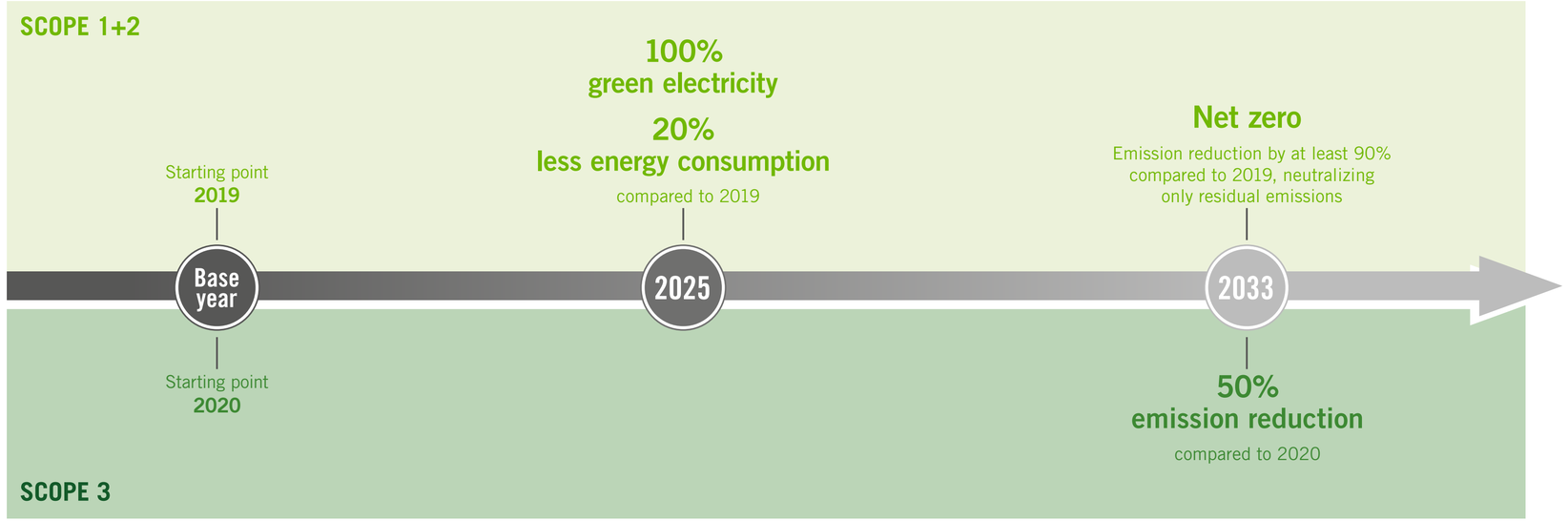
Our vision is to act as a sustainability leader in our industry. Accordingly, we have set highly ambitious climate targets for our own operations and our value chain. Our targets are in line with the Paris Agreement's objective of limiting global warming, following a science-based reduction path:

**Scope 1 and 2 GHG emissions:**

- By 2033, we aim to achieve net zero for our operations by reducing Scope 1 and 2 emissions by at least 90% compared to 2019, neutralizing only residual emissions.
- Milestone targets by 2025 include running all global sites on 100% green electricity and reducing absolute energy consumption by 20% compared to 2019.

**Scope 3 GHG emissions:**

- By 2033, we aim to reduce our Scope 3 emissions by 50% compared to 2020.



# GHG emissions and energy

### Update on previously communicated ambitions

In our 2022 Sustainability Report, we communicated our aim to become carbon-neutral by 2025 through a combination of reducing emissions as much as possible and the purchase of carbon credits to offset remaining emissions. While we continue to pursue the energy consumption reduction and green electricity targets set for 2025, we have decided to refrain from offsetting. Our mission remains unchanged: We strive to make genuine efforts in reducing our GHG emissions. As we continuously investigate how to best achieve our mission, we have come to the conclusion that purchasing carbon credits is not the most effective way to help achieve a long-lasting reduction. Public opinion and international standards are cautious about carbon credits and value reducing emissions at the source more than offsetting. We will continue to monitor the developments and recalibrate our strategy where necessary.

We furthermore shared our intention to submit our targets to the Science Based Targets initiative (SBTi) and expect our validation by year-end 2023. We submitted our targets in 2023. Yet, due to our legal entity structure within the Heraeus Group, SBTi informed us that they cannot validate the targets of Heraeus Precious Metals. The Heraeus Group has committed to set near-term company-wide emission reductions in line with SBTi in January 2025. Our ambitions at Heraeus Precious Metals remain unaffected and we continue to pursue our goals with determination.

## Organization and responsibilities

The responsibility to design Heraeus Precious Metals' climate strategy and to oversee its implementation lies with the Sustainability team. It is headed by the Global Head of Sustainability, who is part of the Leadership Team and reports directly to the CEO. The Sustainability team coordinates sustainability activities company-wide, sets targets and monitors progress toward them, and supports our sites and Business Lines in developing their sustainability roadmaps. In addition, it facilitates knowledge-sharing and supports the entire organization on all issues related to sustainability.

The responsibility to identify and implement improvement measures to meet our climate targets lies within our Business Lines. We are convinced that our Business Line Heads and their local teams know their operations best. They are in the lead when it comes to designing and implementing the actions necessary to reach their energy-efficiency and climate targets. We foster a continuous exchange between our sites to share learnings and jointly drive our sustainability journey.

### Climate in finance and strategy

We strive to make "Climate" an integral part of our business processes. Our climate transition plan is embedded within our overall business strategy, financial planning, and reporting processes. This integration not only encompasses our transition plan but also addresses associated risks and countermeasures, ensuring that we are prepared to navigate the challenges of climate change effectively.

Since 2022, carbon accounting has been an integral part of our controlling and reporting processes. Energy use and emissions data are reported and displayed in the same reporting system we use for financial data, making decarbonization an essential element of internal management control. We calculate the carbon footprint for each Business Line and facility. Energy consumption and progress toward energy-efficiency targets are tracked quarterly and, in some cases, monthly. Since 2022, annual GHG reduction targets have been part of our bonus system for managers worldwide. The alignment of these targets and required allocation of resources is an integral part of our annual financial planning process.

In addition, sustainability is an important criteria in our investment decisions. For significant investments, the financial evaluation of a potential investment is supplemented by an evaluation of its impact on carbon emissions. This ensures that decisions reflect both an investment's financial merit and its climate impact.

Sustainability-related risks and opportunities are integrated into our financial risk assessment processes, enhancing our proactive approach to climate challenges.

# GHG emissions and energy

## Policies and regulations

At Heraeus Precious Metals, we are committed to continuously reducing our environmental impact, including that of our value chain. This commitment is part of the **Heraeus Precious Metals Quality, Environment, Health and Safety (QEHS) Policy.** In 2024, the Heraeus Group introduced the **Heraeus Corporate Climate Policy**, which is focused on climate change mitigation through energy efficiency and renewable energy deployment and commits to regularly assess the Group's climate-change-related resilience.

Further internal guidelines support us in upholding high sustainability standards. They for example ensure that our carbon accounting is aligned with the Greenhouse Gas Protocol and that the energy attribute certificates (EACs) we purchase meet the requirements defined by RE100.

The majority of our production and recycling sites have had environmental management systems certified to ISO 14001 in place for many years. In accordance with the German Energy Efficiency Law, our headquarters in Hanau obtained the ISO 50001 certificate in the first quarter of 2025. Our sites in Nanjing and Shanghai, China, have been both ISO 50001 certified since 2023.

**77%** of our production and recycling sites are certified to ISO 14001 in 2024

## Progress and measures

Heraeus Precious Metals works systematically to reduce its own emissions as well as those that occur in its value chain. We engage with customers, industry associations, suppliers, and other stakeholders on a regular basis to discuss expectations, possible solutions, and standards for measuring and reporting.

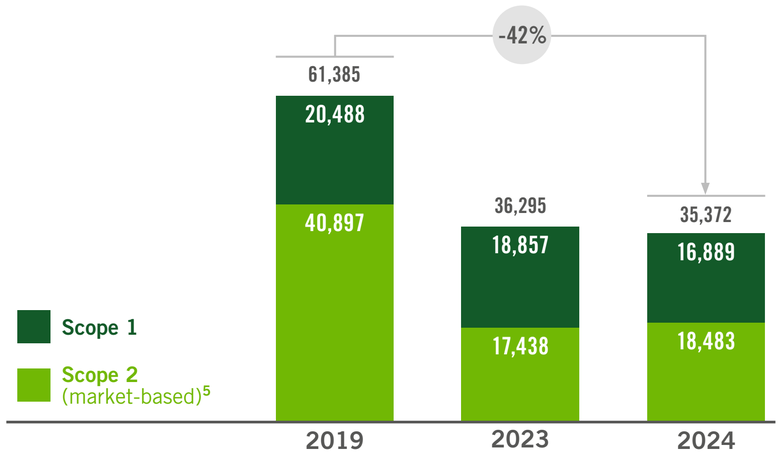
### Scope 1 and 2 GHG emission reduction

In 2021, we committed to achieving net zero for our Scope 1 and 2 by 2033, with the intention of only neutralizing residual emissions of less than 10% compared to our 2019 base year. By 2025, we aim to reduce our energy consumption by 20% relative to our 2019 base year and to meet 100% of our electricity demand with green electricity. Our journey is well under way.

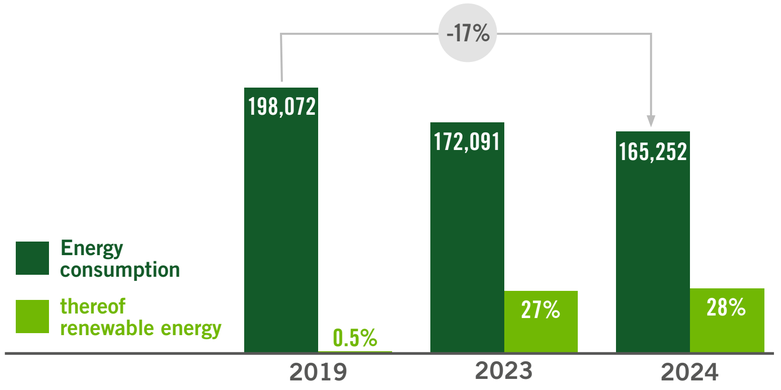
In 2024, we successfully decreased our total Scope 1 and 2 emissions by 3% compared to 2023, and by 42% since our 2019 base year. While we have made notable reductions in both Scope 1 and 2 emissions, our Scope 2 emissions slightly increased in 2024. This increase can be attributed to higher energy needs for capacity expansions and adverse changes in grid-mix factors. Our energy consumption has been reduced by 4% compared to 2023 and by 17% since 2019. Our global share of electricity consumption from green sources stands at 57%, with 6% being met by our own photovoltaic installations. In 2024, six of our sites installed or expanded PV installations at their facilities.

Specific actions supporting this development are described **later in this chapter.**

**Scope 1 and 2 GHG emissions in $tCO_2e$**




**Energy consumption in MWh**



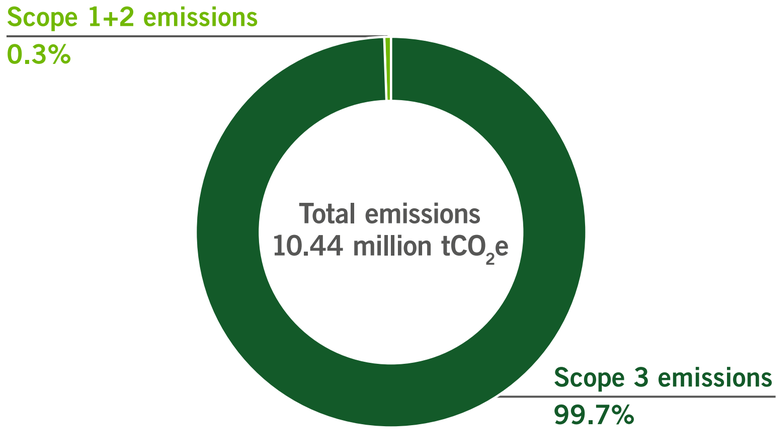

[5] Scope 2 data for 2023 differs from previous reporting due to an update with new emission factors for 2023.

# GHG emissions and energy

## Scope 3 GHG emission reduction

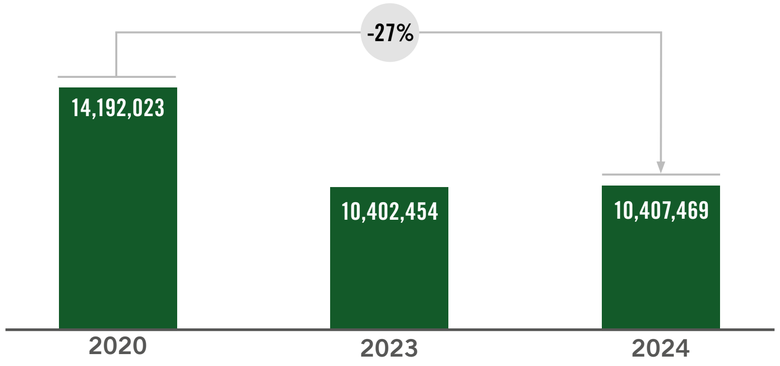
We recognize that sustainability is not just about our own operations but extends to our entire value chain. In fact, more than 99% of our total GHG emissions are Scope 3 emissions. Accordingly, already in 2022, we set ourselves the target of achieving a 50% reduction in emissions along our value chain by 2033 compared to our 2020 base year.

### Share of Scope 1+2 and Scope 3 emissions in 2024




In 2024, our Scope 3 emissions increased by less than 1% compared to 2023, primarily driven by volume effects in our gold business. Comparing 2024 to our 2020 base year, Scope 3 emissions decreased by 27%. We acknowledge that volatile and cyclic market demands, especially for gold, will continue to be a challenge. Yet, we are positive that we will reach our set targets with the measures planned.

### Scope 3 GHG emissions in $tCO_2e$




The precious metals we purchase account for an overwhelming proportion of our Scope 3 emissions. We can only succeed in the sustainable transformation by working together with our upstream partners. Therefore, we focus on managing our relationships with mines and increasing secondary precious metals volumes. We are currently in close exchange with the first mining partners to obtain primary data. This transparency will help us to steer future developments and devise further appropriate measures, including sourcing practices that support decarbonization. In addition, we will prioritize working with mines that pursue concrete decarbonization goals as described in our mine engagement roadmap under **Workers and affected communities in our value chain.**

Currently, we apply a conservative approach in our Scope 3 calculation and account for incoming material that is a mix from primary and secondary sources, including investment bars, in the same way as we do for primary material. This approach might lead to an inflated representation of our Scope 3 emissions. We do so as no industry-wide standard for the definition of 'recycled' precious metals exists yet. We actively engage in several industry associations to support the development of such a standard definition.

## Transitioning to 100% green electricity

On our path to meeting 100% of our electricity demand with green electricity, we prioritize solutions that add new capacities.

By the end of 2024, we had installed PV systems with a total power of 8.2 MWp at ten sites, with an additional 6.9 MWp completed in the first quarter of 2025. With these, we will be able to cover 10–15% of our electricity demand in 2026.

In 2024 and at the beginning of 2025, we completed PV installations at our sites in Hanau, Germany; Gqeberha, South Africa; Santa Fe Springs and Wartburg, USA; and Nanjing and Shanghai, China. A particularly large project was the installation of an additional 6.9 MWp open-space PV plant at the German Heraeus Group headquarters, of which roughly 3.5 MWp are assigned to Heraeus Precious Metals. Another example is the PV expansion and new energy storage system at our site in Gqeberha, South Africa. With a PV power of 1,700 kWp and a battery capacity of 2.4 MWh, we will be able to cover more than 60% of the site's total electricity consumption.

# GHG emissions and energy

We also enter into long-term power purchase agreements (PPAs) with renewables developers. In November 2022, the Heraeus Group signed a 20-year PPA for 40 MWp of solar power for our Hanau site, with the majority of it benefiting Heraeus Precious Metals. By the end of 2024, the construction was completed. The plants will take up operations stepwise, beginning in January 2025.

Lastly, we purchase energy attribute certificates (EACs). In 2024, we introduced an internal guideline to ensure that the certificates we purchase meet high quality standards in accordance with RE100.

Following this approach, we could already meet the electricity demand of eight of our sites with 100% renewable electricity in 2024: Mendrisio, Switzerland; Nanjing and Shanghai, China; Santa Fe Springs and Wartburg, USA; Shannon, Ireland; Cavenago di Brianza, Italy; and Pforzheim, Germany.

## Reducing natural gas consumption

Using natural gas is inevitable today, especially for our recycling operations, for example as a medium for heating recycling furnaces or for exhaust-gas treatment. As a key measure to achieve our net zero target, we intend to phase out the use of fossil fuels by 2033. This entails major challenges not only in terms of processes, but even more so with regard to the infrastructure. Over the past few years, our facilities have identified the largest energy consumers and developed individual transformation roadmaps. Various projects have already been realized or are currently in realization.

One example at our site in Hanau, Germany, is the replacement of a gas-fueled chamber furnace with the first electrically powered furnace of its kind. In chamber furnaces, precious metal containing waste is pre-treated at high temperatures to increase concentrations and remove organic compounds for the further recycling process. Over the past few years, we have developed and built the first electric chamber furnace in precious metals recycling. It is planned to take up operation mid-2025 and will be roughly 60% more energy-efficient than the previous furnace. In 2024, the project won the Deutscher Award für Nachhaltigkeitsprojekte (German Award for Sustainability Projects) in the category Technology/Energy.

We are constantly working to optimize the gas consumption of running chamber furnaces. One example: In a pilot project at our site in Hanau, Germany, we developed an intelligent real-time algorithm using data of existing and newly installed meters to reliably determine the end of the burning process. As the furnace cannot be opened during runtime, the state of the process previously could only be determined based on experience. The digital solution went live in September 2023 and successfully reduced the average burn time from 9 to 7 hours, reducing the natural gas consumption of the process by 25%. In 2024, the project was honored with a nomination for the German Energy Efficiency Award. We are currently rolling out this approach to further sites.

# GHG emissions and energy

## Reducing energy consumption

Our strategy is not only aimed at reducing sources of GHG emissions. We also challenge the way we use energy as a resource and strive to become more efficient: By the end of 2025, we aim to reduce our energy consumption by 20% compared to 2019. The energy efficiency roadmaps at our individual sites encompass many different initiatives to reduce our energy consumption. The development of these roadmaps was supported by a central energy efficiency taskforce and employee ideation.

At our sites in Nanjing and Shanghai, China, for example, over 80 projects were identified and conducted in 2023 and 2024, resulting in a year-to-year energy reduction of more than 13% for two consecutive years. In 2024 alone, 6 GWh could be saved. The reductions achieved are a mixture of savings in natural gas, electricity, and steam, stemming for example from the optimization of the incineration and steam systems in Nanjing and a new production process for dispersion hardened materials in Shanghai.

## Continuous engagement with employees

We are convinced that engaging with our employees worldwide is crucial to driving change. In 2024, we provided training sessions on our sustainability strategy to our employees worldwide. In addition, our company intranet includes a sustainability channel, where we regularly post examples and success stories from our operations and communicate our targets and progress transparently to our employees. This is supported by site-individual programs such as sustainability awareness days and ideation events.

We pay particular attention to the involvement of our employees in production environments. Our production managers and shift supervisors regularly address energy efficiency and sustainable behavior with their teams. The first production facilities also introduced monitors with dashboards to visualize the facilities' individual sustainability performance.

The results of our 2024 Employee Engagement Survey confirm our approach: "Heraeus Precious Metals takes sustainability seriously and acts accordingly" was among the three statements receiving the highest agreement ratings. More information about our Employee Engagement Survey can be found in the chapter **Working conditions and people development.**

# Air pollution

## Impacts

Heraeus Precious Metals is one of the world's largest recyclers and refiners of precious metals. Depending on the type of incoming recycling material, it is thermally pre-treated in chamber furnaces to burn organic compounds present in the material or is processed in our wet chemical production lines. This treatment also creates air pollutants other than greenhouse gases. The most relevant air pollutant in the context of our operations is NOx, followed by SOx and particulate matter.

We are aware of these hazards and commit to operating our production and recycling sites responsibly. Heraeus Precious Metals applies state-of-the-art off-gas treatment and pollutant abatement systems to actively reduce released air pollutants. Accordingly, the off-gas emitted at all our sites lies well below the thresholds defined in the European Pollutant Release and Transfer Register (E-PRTR Regulation).

## Ambitions

We operate our production and recycling sites responsibly and in accordance with local laws and regulations. Our priority is to ensure that all our sites continuously stay below E-PRTR thresholds.

## Organization and responsibilities

The compliance of our operations with environmental laws and regulations lies within the responsibility of the respective site's management. Our Environment, Health, and Safety (EHS) department oversees developments of external requirements and ensures our organization is capable of meeting them by defining policies, guidelines, strategies, and targets. Each production and recycling site has at least one dedicated EHS manager to ensure compliance with local laws and company expectations. They have reporting pathways to both the Global Head of EHS and their respective Site General Manager(s).

## Policies and regulations

Heraeus Precious Metals has set up policies and processes to ensure compliance with all relevant environmental laws and regulations. The regions and countries we operate in have individual laws and regulations in place, for example when it comes to acceptable thresholds, measurement frequencies and reporting obligations with respect to pollutants. We continuously monitor changes in legal regulations with an external tool to ensure compliance.

The Heraeus Group addresses air pollution and further EHS-relevant topics in the **Heraeus EHS Policy.** It was reworked in 2024 and made publicly available in the beginning of 2025. Heraeus Precious Metals' commitment to continuously reduce its environmental impact is furthermore addressed in its **QEHS Policy.**

Heraeus has an internal EHS management system called the Heraeus EHS Development Path. In the area of air pollution, the EHS Development Path requires a detailed inventory and reporting of air emissions, formal management of any change process for EHS-relevant changes, monitoring of air emissions to ensure compliance with legal requirements, and an inspection program for EHS-critical equipment, including air pollution control equipment. More information about the Heraeus EHS Development Path can be found in the chapter **Occupational health and safety.**

By the end of 2024, the environmental management system had been implemented at 77% of Heraeus Precious Metals' production and recycling sites, accounting for roughly 95% of our employees. We regularly conduct internal assessments to verify its implementation and identify improvement potentials. The environmental management systems at our sites in Hanau, Germany; Mendrisio, Switzerland; Shannon, Ireland; Izmir, Turkey; Gqeberha, South Africa; Nanjing, Shanghai, and Hong Kong, Greater China; and Santa Fe Springs and Wartburg, USA, were certified by a third party according to ISO 14001.

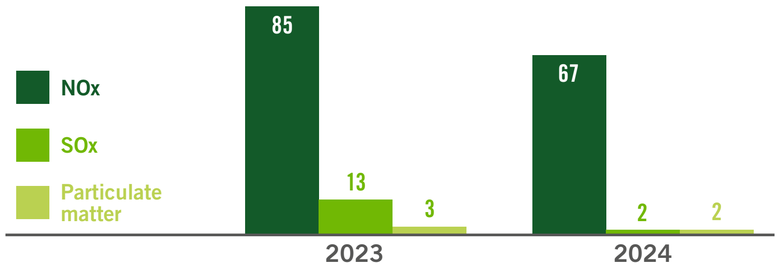
# Air pollution

## Progress and measures

All our production and recycling sites have measures in place to reduce emissions based on the individual processes. In the thermal preparation of incoming recycling material, it is common practice to heat the exhaust gases to extremely high temperatures in an afterburner to eliminate any remaining organic particles. To effectively reduce NOx, SOx, and particulate matter emissions, we use state-of-the-art wet scrubber systems and selective catalytic reduction. Some of our processes furthermore use solid bed absorbents based on activated carbon, for example to reduce the emission of heavy metals.

In 2024, our NOx, SOx, and particulate matter emissions decreased compared to 2023. This development is mainly driven by changes in production output in response to changing demands. Just as in the years before, all air pollutants emitted at our production and recycling sites lie well below E-PRTR thresholds.[6]

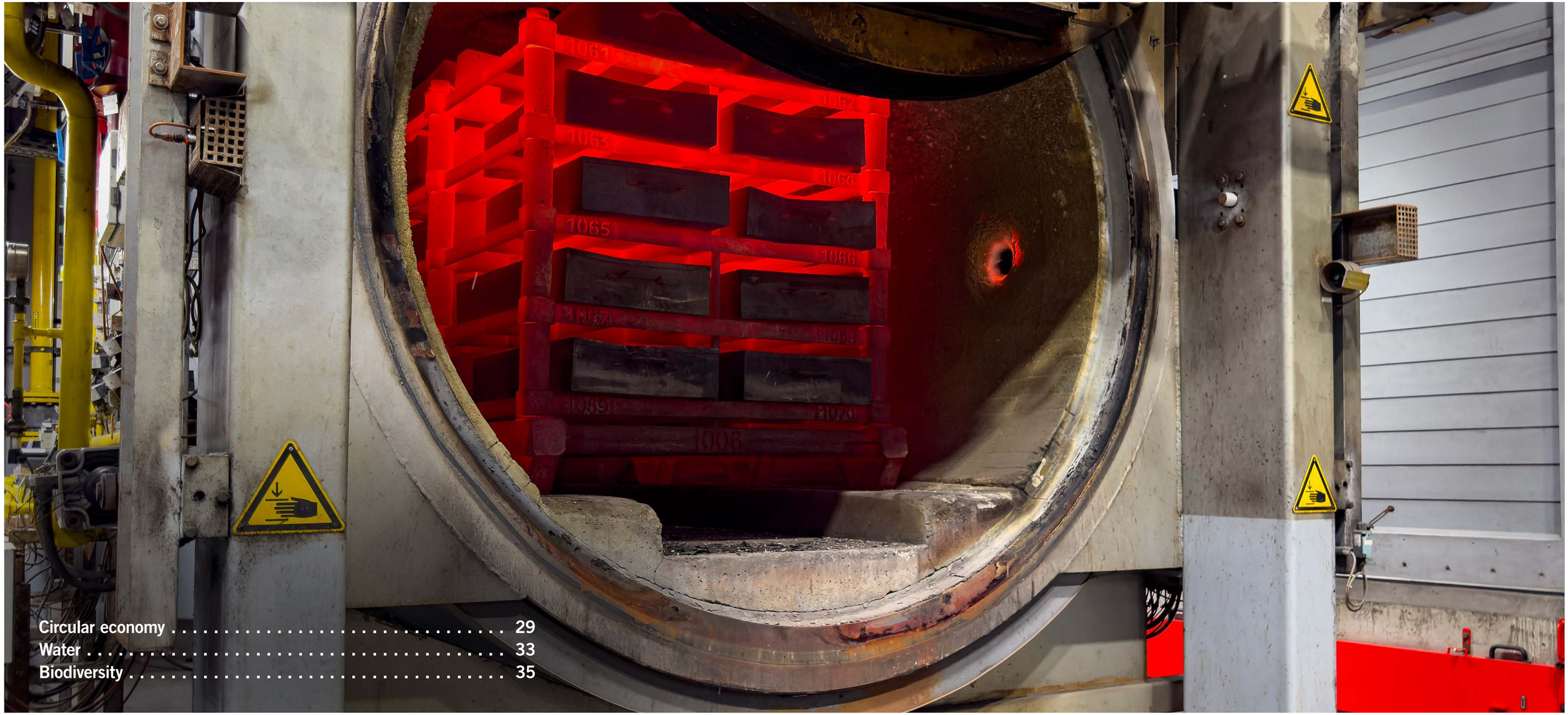
**Air pollution in t [7]**




[6] The air pollutant emissions of each of our facilities lies below the applicable threshold value specified in Annex II of Regulation (EC) No 166/2006. The threshold values per facility are: 100,000 kg/year for NOx; 150,000 kg/year for SOx; 50,000 kg/year for particulate matter.

[7] Data does not include Argor-Heraeus Deutschland GmbH, Argor-Heraeus Italia S.p.A., Heraeus Recycling Technology Canada Ltd., Heraeus Tokmak Kiymetli Madenler Sanayi A.S.; due to their processes these sites are considered insignificant for the disclosure.

# Resources are precious to us



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# Resources are precious to us

According to UNICEF, 3.3 earths would be needed to keep up with consumption levels of the OECD and EU countries. This rate of resource use is clearly unsustainable. Moreover, the extraction, processing, and disposal of natural resources can have significant environmental impacts.

Our business activities rely on precious resources. We live up to our responsibility by improving our processes and products so that they require fewer and fewer resources and by adopting circular approaches wherever possible. With recycling we recover large quantities of precious metals, which reduces the need for primary extraction.

Along with precious metals resource inflows, which have been identified as material, we also have a strategic focus on waste, water, and biodiversity. In terms of materiality, these topics lie below our threshold.

| Ambitions | Status 2024 |
|---|---|
| **Circular economy** | |
| Raise intake volumes of secondary PGM, gold, and silver compared to 2024 base year | New target |
| Analyze NPM waste status at our sites in Santa Fe Springs, USA; in Nanjing, China; and in Hanau, Germany, by end of 2026 | New target |
| **Water** | |
| Standardize water reporting approach for global operations by end of 2026 | New target |
| **Biodiversity** | |
| Conduct biodiversity analysis for our upstream value chain by end of 2025 | Ongoing |

*Identified drivers of biodiversity loss for our own operations are addressed in the respective other sections: GHG emissions and energy, water, and circular economy*

Circlear, products made with 100% recycled precious metals, supports customers' sustainability ambitions by reducing their carbon footprint.

# Circular economy

## Impacts

As a global leader in precious metals, Heraeus Precious Metals covers the value chain from refining to trading to innovative precious metals products to recycling end-of-life materials. The refining of precious metals from primary sources as well as the recycling and refining of precious metals from secondary sources are among our core businesses and have been well established business models for many decades. With 13 recycling facilities in eight countries around the world—including joint ventures—we recycle and refine all eight precious metals and rhenium. By making new products out of the recycled metal, we are continuously keeping recovered precious metals in the loop.

Our recycling activities and services have a direct positive impact on the responsible use of these scarce materials and the associated footprint. Secondary precious metals have an up to 99% lower carbon footprint compared to primary-sourced precious metals.[8] The freshwater consumption associated with secondary material is also up to 99% lower.

At the same time, the high demand for precious metals significantly exceeds the supply of recycled metals, making mining indispensable. Like other extractive industries, the mining of precious metals is associated with a high energy consumption and carbon footprint. It furthermore poses different actual and potential impacts on the environment, including impacts on **Water**, **Biodiversity**, **Workers and affected communities in our value chain**. These impacts are covered in the respective other chapters of this report.

[8] Based on data from "The Life Cycle Assessment of Platinum Group Metals" by the International Platinum Group Metals Association (IPA), Reference Year 2022

Our approach is therefore twofold. Firstly, we take action to keep as much precious metals volume in the loop as possible. Secondly, we support an overall sustainable development of the precious metals mining industry.

## Ambitions

We consistently improve and expand our processes for recovering precious metals and keeping them in the loop. As recycling is a core business model for us, there is a strong coherence between financial targets and targets for promoting circularity.

To monitor the effectiveness of our initiatives in promoting a circular economy for precious metals, we have established the new target of raising intake volumes of secondary platinum group metals (PGM), gold, and silver compared to the base year 2024. In future reporting, we will express the target achievement as a percentage value compared against the base year.

With regards to non-precious metals (NPM) waste, we aim to analyze the waste situation more closely at the three sites with the highest waste volumes by the end of 2026. We intend to use these insights to define further reduction strategies.

### Update on previously communicated ambitions

In our Sustainability Report 2022, we communicated the target of continuously increasing the proportion of secondary precious metals that we process. The development of our secondary share is strongly dependent on our yearly primary intake volumes. These can fluctuate depending on volatile precious metals prices and market developments. Due to the nature of our business model, we have decided to adjust the target to a continuous yearly increase in our absolute secondary intake volume.

We furthermore communicated the target of establishing an audited accounting for the share of recycled precious metals we sell. This has been introduced as planned and is described **later in this chapter.**

## Organization and responsibilities

Responsibility for our precious metals resource management lies within our Business Lines. The respective Business Line Heads are responsible for designing a business strategy that promotes a circular economy, making relevant strategic decisions, approving specific measures, and setting targets. Our Business Lines and regions carry out the measures and report progress to our Leadership Team and the CEO on a regular basis.

Responsibility for non-precious metals waste management lies with our Environmental, Health, and Safety (EHS) department led by the Global Head of EHS, which reports directly to the CEO. Its responsibility is to design our non-precious metals waste management strategy, oversee its implementation, and ensure that we comply with all applicable laws and regulations. Progress and measures are reported to the Leadership Team and the CEO on a regular basis.

# Circular economy

## Policies and regulations

As one of the largest recyclers and refiners of precious metals, circularity is part of our DNA and one of our core business models. For this reason, we have grown our recycling business for a long time already and considered circularity in major business decisions. In 2024, we formalized our already established approach to supporting a circular economy for precious metals in our **Precious Metals Resource Use and Circularity Policy**, which was made publicly available on our website in the first quarter of 2025.

This new policy outlines our commitment to increasing the intake volumes of secondary precious metals and promoting a circular economy for these materials. A key aspect of this effort is the continuous expansion of our technical recycling capabilities, which includes making more material streams recyclable and further improving recovery rates. We operate our recycling facilities responsibly, adhering to all applicable regulations in the regions where we are located. This encompasses waste management and the systematic decarbonization of our operations.

As the recycling of precious metals is partly considered a waste treatment operation, we operate our recycling facilities in compliance with respective local jurisdiction. This also includes cross-border shipments of precious metals containing waste for recycling.

Given that the demand for precious metals exceeds what can be supplied through recycling alone, the policy also emphasizes our commitment to enhancing resource efficiency in our industrial precious metals products and supporting the sustainable development of our mining partners. Our **Supply Chain Due Diligence Policy** details the social and environmental criteria we require from our mining partners, explicitly addressing human rights for workers and affected communities, and negative environmental impacts caused by improper handling and disposal of hazardous substances.

Heraeus Precious Metals also actively engages in driving the development of standards in the context of precious metals within our industry and beyond, such as the definition of “recycled” or Scope 3 accounting methodologies. We strive to improve transparency and establish processes together with our industry partners. For this, we are active in various industry associations and working groups, such as the International Platinum Group Metals Association (IPA), the European Precious Metals Federation (EPMF), and the Responsible Jewellery Council (RJC).

**Recovery and recycling of iridium from spent mixed metal oxide (MMO) electrodes. MMO electrodes are used as anodes in electrochemical processes, for example in the production of chlorine, copper foils for batteries, water treatment, and the electrowinning of metals.**

# Circular economy

## Progress and measures

### Increasing secondary precious metals volumes

In 2024, 63% of the PGMs, 18% of the gold and 25% of the silver we processed in our plants came from secondary sources.

We strive to continuously increase our intake volumes of secondary precious metals. We acknowledge that economic developments, particularly in industries that use precious metals products such as catalysts, glass tools, or sputtering targets, impact the amount of industrial end-of-life material we receive. Therefore, we are always seeking new ways to conserve resources and enhance our technical capabilities for recovering precious metals. This comprises making additional material streams recyclable and further improving our recovery rates. To accomplish this, we engage in research, investments, and partnerships.

We apply strict due diligence processes as described in the chapter **Compliance and anti-corruption** to ensure that secondary material originates from legitimate and ethically acceptable sources.

### Expanding recycling capacities

Between 2018 and 2026 Heraeus Precious Metals invested and plans to invest up to €300 million in expanding our recycling and refining capacities. Recent investments include a new electrified smelter at our facility in Wartburg, USA, which began operations in 2024 and enables processing of additional material types and lower-grade materials. Moreover, in June 2024, we acquired the Canadian recycling company McCol Metals, which specializes in recovering iridium from spent mixed metal oxide electrodes. These electrodes are used as anodes in electrochemical processes, for example in the production of chlorine, copper foils for batteries, water treatment, and electrowinning. On top of this, at our site in Hanau, Germany, we are expanding our wet chemical recycling and refining capacity for platinum group metals, and a new electrified chamber furnace will enable the recycling of new materials such as fuel cell membranes.

Heraeus Precious Metals also collaborates with other companies to extend the offering of recycling services. In September 2024, our joint venture in India, Ravindra Heraeus, acquired the Vizag site from Arora-Matthey Ltd., which is specialized in the production and recycling of precious metals catalysts. Ravindra Heraeus furthermore invested in the expansion of its recycling capacities with further additions planned for 2025.

### Offering products with a 100% recycled precious metals content

Since 2024, our customers have been able to choose to obtain many of our industrial products with a 100% recycled precious metals content. The new offering is available under the brand name Circlear. It enables our customers to reduce their Scope 3 carbon footprint and accurately track their progress toward their own sustainability goals: One kilogram of recycled precious metals saves up to 99%—or 42 metric tons—of $CO_2$ compared to primary materials.[9]

Circlear's 100% recycled content is based on mass balance and has been verified by TÜV SÜD according to ISO 14021 for seven precious metals: gold, silver, platinum, palladium, iridium, rhodium, and ruthenium. Currently, Circlear is available in the EMEA, Americas, and APAC, excluding China and India. More information about Circlear can be found on **our website.**

The introduction of Circlear and the verified accounting of its recycled precious metals content is in line with the target communicated in our previous reporting of introducing such a system by 2024.

In addition to Circlear, we offer to process gold and silver in segregated lines. This way, our customers can be sure that the precious metal is physically of the desired origin, for example purely recycled, from a specific mine or panel of mines, and/or certified according to the RJC Chain-of-custody (COC) standard.

### Increasing resource efficiency and recyclability in products

We constantly investigate options to reduce the precious metals content in our products for industrial applications, while making sure to meet customer needs, enhance product efficiency and lifespan, and ease of recyclability.

[9] Based on data from "The Life Cycle Assessment of Platinum Group Metals" by the International Platinum Group Metals Association (IPA), Reference Year 2022

# Circular economy

For instance, together with Sibanye-Stillwater, we have developed a ruthenium-based catalyst for the production of green hydrogen via proton exchange membrane water electrolysis. The new catalyst reduces the amount of iridium required to build one gigawatt of capacity from around 400 kg to only 30–150 kg. This product innovation is not only helping to save the precious resource iridium; without it, the green hydrogen economy could not be realized: About 70 GW of this type of electrolysis are expected to be built worldwide by 2030. By contrast, with the former catalyst technology, the iridium needed would be more than double the quantity available.

## Encouraging sustainable development of our mining partners

The demand for precious metals by far exceeds available recycled material. We are convinced that true sustainable progress in the precious metals industry can only be achieved by collaborating across the whole supply chain. As one of the leading refiners and recyclers of precious metals, we see ourselves as a link between the mining industry and industries that use precious metals. We leverage this position to encourage and support a greater transparency and overall sustainable development of our mining partners. The steps we are taking to achieve this are described in the chapters **Workers and affected communities in our value chain**, **GHG emissions and energy**, **Water**, and **Biodiversity**.

## Waste management

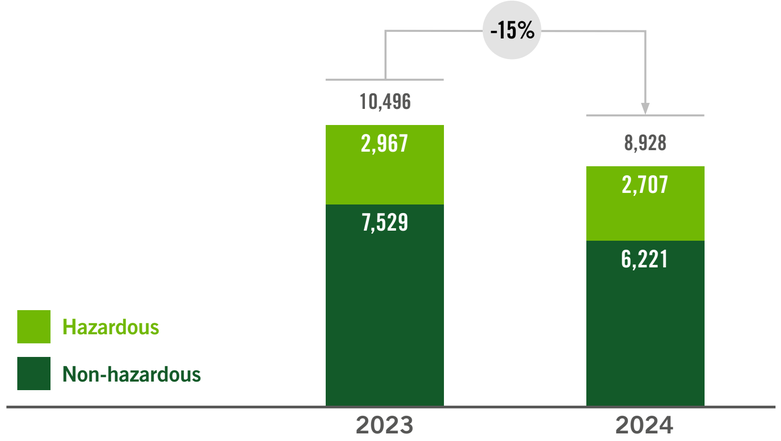
Heraeus Precious Metals has had in place a circularity system for precious metals containing waste for many years. All such waste that arises during all processes, for example development, production, analysis, and filling, is primarily fed into our own recycling system. Our aim is always to recycle as much of this waste as possible ourselves and to only send it to third-party service providers as a last resort. This approach saves cost and minimizes transport and thus carbon emissions.

We differentiate these material streams from the non-precious metals (NPM) waste that we send to external disposal or recovery. For NPM waste from our own operations, Heraeus Precious Metals works globally with certified environmental service providers. The various types of waste are separated for disposal and recovery. We dispose of waste in accordance with legal requirements and standard operating procedures. People in our own workforce who handle hazardous wastes are trained annually on waste separation and disposal.

In addition, we continually review the opportunities to recycle and reuse our NPM waste to further enhance circularity. For example, an external partner uses our sodium aluminate waste generated at our site in Hanau, Germany, to produce a highly effective flocculation agent that is used, among other things, in sewage treatment plants to treat water.

Our total NPM waste decreased by 15% in 2024 compared to 2023 and our hazardous waste decreased by 9%. For 2025, we have initiated pilot projects to analyze the waste situation more closely at our sites in Santa Fe Springs, USA; Nanjing, China, and Hanau, Germany, as these sites were accounting for more than 75% of our total NPM waste volume in 2024. The analysis will be used to identify further measures to reduce waste volumes and increase the share of waste recovery in the future.

**Non-precious metals (NPM) waste in t** [10]




The reported waste amounts differ from those reported in our Sustainability Report 2022. In 2024, we identified a significant waste stream that was missing in previous data and corrected the data accordingly. The corrected amount of waste for 2022 is 11,412 t.

[10] Data does not include trading operations as they are considered insignificant for the disclosure.

# Water

## Impacts

Water is an essential resource for the survival of humans, animals, and plants. It also plays an important role in our operations. For example, it is needed for cooling our processes, or as a solvent or absorbent in our precious metals recycling processes. Our operations, especially in areas with water risk, can potentially negatively impact the availability of this resource.

Our recycling and production facilities worldwide aim to use freshwater responsibly and to reduce their consumption and ensure proper wastewater treatment. Heraeus Precious Metals always aims to comply with all applicable laws and regulations for managing and handling water and wastewater. To ensure optimal water use, we conduct on-site wastewater treatment and work closely with local wastewater treatment plants.

Mines in our upstream value chain have a significant potential to impact water. Mining and related mineral processes usually require large quantities of fresh water. Inadequate mine water management can result in high withdrawal, low rates of water reuse, and the discharge of contaminated water. All of this can adversely impact local water resources as well as surrounding ecosystems and communities.

Accordingly, qualitative assessments of our mining partners' water management systems, aligned with the strict LBMA standards, have already been part of all our regular on-site assessments for a long time and we are working to further increase the emphasis on water.

## Ambitions

We aim to reduce the water consumption in our production facilities worldwide. Currently, our priority is to increase internal transparency regarding water use per site. We intend to introduce concrete water targets for our own operations in the coming years.

In our Sustainability Report 2022, we communicated the ambition to enhance reporting pathways for water and increase data quality by the end of 2024. In 2024, we analyzed which of our production and recycling sites are in areas with water risk. We furthermore conducted detailed analyses of the water use at our sites in Hanau, Germany; Mendrisio, Switzerland; and Nanjing, China, which account for over 60% of our water withdrawal.

By the end of 2026, we will standardize the reporting approach for our global operations to close identified gaps. In parallel, we will work to identify measures to reduce our water withdrawal. We will continue to prioritize the sites with the highest water usage.

We furthermore communicated our ambition to gather more detailed data about water management from our mining partners in our upstream value chain. The collection of water data is part of a broader project with a dedicated cross-disciplinary task force and is described in more detail in the chapter **Biodiversity**. As we gain more transparency, we will engage with our mining partners on the reduction of their impacts.

## Organization and responsibilities

The Sustainability department is responsible for coordinating and monitoring initiatives related to water. It is led by the Global Head of Sustainability, who is part of the Leadership Team and reports directly to the CEO. Its main responsibility is to design Heraeus Precious Metals' strategy for sustainable water use and to oversee the strategy's implementation. The responsibility to implement the strategy locally and derive respective measures lies within our Business Lines.

# Water

## Policies and regulations

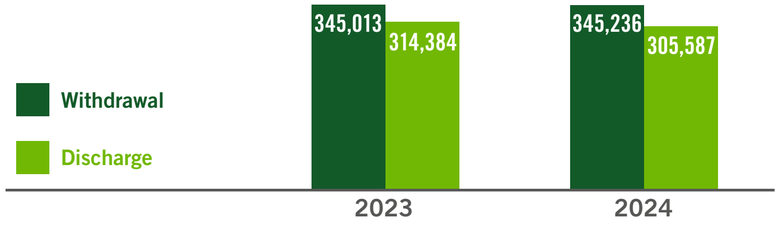
Heraeus Precious Metals is committed to reducing the consumption of water and meeting all environmental regulatory requirements. This commitment is formalized in the **Heraeus Group's EHS Policy** and in **Heraeus Precious Metals' QEHS Policy**.

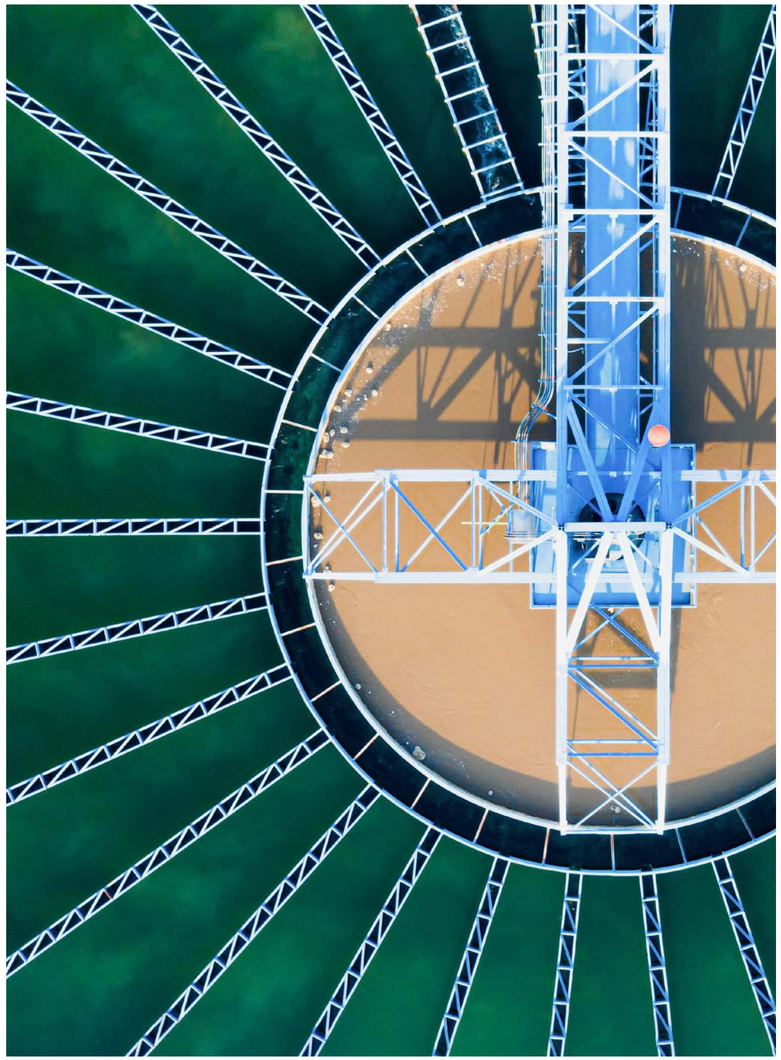
The Heraeus Supply Chain Due Diligence Policy addresses our expectations toward suppliers and precious metals partners. In the context of water, it states that we do not tolerate excessive water consumption harmful to the health of humans or constituting a significant impairment of the basis for the preservation or production of food.

## Progress and measures

In 2024, our total water withdrawal remained constant compared to 2023. The mapping of our production and recycling sites with the Aqueduct 4.0 Water Risk Atlas revealed that 46% of these sites are located in areas with water risk, accounting for 44% of 2024 water withdrawal.

**Water use in m³** [11]



[11] Data does not include trading operations, Argor-Heraeus Italia S.p.A., and Heraeus Recycling Technology Canada Ltd., as they are considered insignificant for the disclosure.

# Biodiversity

## Impacts

Healthy, well-functioning ecosystems are the foundation of all life on our planet. Our business relies heavily on precious metals from primary and secondary sources, as well as other vital resources provided by nature. At the same time, our own operations and our upstream value chain can impact the surrounding environment and biodiversity.

We are currently in the process of understanding the most relevant impacts and dependencies. In this process we specifically look at the five drivers of biodiversity loss defined by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES): Land/Sea-use change, Climate change, Pollution, Resource extraction, and Invasive alien species.

We used the ENCORE[12] tool to support the analysis, which helped us to identify the drivers that are most relevant to us: For our own operations, we initially identified GHG emissions, Waste, and Water use. In view of a major update of the ENCORE tool in autumn 2024, we decided to repeat the analysis in 2025. In 2024, we furthermore conducted a proximity analysis to identify biodiversity-sensitive areas near our production and recycling sites. The results of this analysis are described **later in this chapter.**

For our value chain, the analysis is still ongoing and is planned to be completed by the end of 2025.

Regardless of the partly ongoing analyses, we already have policies and strategies in place that address different biodiversity aspects.

## Ambitions

Heraeus Precious Metals is committed to taking on the challenge to address the drivers of biodiversity loss. We aim to better understand how our business activities contribute to biodiversity loss and to use this understanding to develop strategies to limit and reduce such negative impacts. On this journey, we are oriented on global frameworks, in particular the Global Biodiversity Framework (GBF) and the Sustainable Development Goals (SDG). We furthermore refer to guidance from the Science Based Target Network (SBTN) and the Taskforce on Nature-related Financial Disclosures (TNFD) to assess, measure, and address this topic, taking into account the latest scientific findings. The guidance is partly still in development and continuously evolving. We aim to closely follow these developments, stay informed on the latest updates, and adopt our approach accordingly in the future.

As biodiversity is closely connected to other environmental matters, there is an overlap with already existing sustainability strategies, targets, and measures.

For our own operations, our activities focus on the three initially identified impacts—GHG emissions, Waste, and Water use. More information on our strategies, targets, and measures for these topics can be found in the chapters **GHG emissions and energy consumption**, **Circular economy**, and **Water**.

For upstream mining activities, our current focus lies on further gaining transparency, by collecting mine-specific data on different sustainability-relevant topics and creating a model that allows us to compare such data. More information can be found later in this chapter.

## Organization and responsibilities

The topic of biodiversity greatly overlaps with other areas of sustainability. Heraeus Precious Metals' biodiversity approach therefore lies in joint responsibility of the respective ESG Streams Climate and Nature, EHS, and Precious Metals Supply Chain. These ESG Streams are headed by the Global Head of Sustainability, the Global Head of EHS, and the Global Head of Compliance. All three directly report to the CEO. The organization and responsibilities of each are described in more detail in the respective other chapters of this report.

To ensure an aligned and effective approach, the Sustainability department coordinates and oversees initiatives related to biodiversity.

[12] ENCORE (Exploring Natural Capital Opportunities, Risks, and Exposure). **https://encorenature.org/en**

# Biodiversity

## Policies and regulations

Heraeus Precious Metals operates in line with applicable environmental laws. Our commitment to lessen our impact on the local and global environment is formalized in the Heraeus Group's EHS Policy and in Heraeus Precious Metals' QEHS Policy.

We address our criteria for business relationships with suppliers and precious metals partners in our Supply Chain Due Diligence Policy. This also includes our minimum expectations regarding environmental practices. All our suppliers and precious metals partners are required to sign our Supplier Code of Conduct or to provide an own standard of similar scope.

When sourcing precious metals, we act in compliance with the strict requirements of the OECD and the precious metals associations LBMA, LPPM, and RMI.

## Progress and measures

### Biodiversity aspects in the management of our mining partners

Precious-metals-related organizations such as LBMA, LPPM, and RMI established strict standards several years ago and have continuously improved them. We take all possible steps to meet or surpass these standards when we source precious metals. To ensure these standards are met and open action areas are worked on, we conduct regular on-site mine assessments. We are furthermore supporting the adaption of similar standards in the currently less formalized ASM sector through our engagement with ASM-focused associations such as Fairmined, Fairtrade and Swiss Better Gold. More information can be found in the chapter **Workers and affected communities in our value chain**.

Our initiative includes collecting mine-specific data on various sustainability-relevant topics and developing a model to compare this data. These activities are driven by an internal cross-disciplinary team, comprising internal experts from different departments and sites. Initially, we are focusing on achieving transparency in data and targets related to GHG emissions, water, and biodiversity. These insights help us understand the sustainability efforts of our mining partners, engage with them, and inform them about our sourcing decisions. They also enable us to offer guidance and to provide best-in-class products to customers with high ambitions in this field.

The efforts of this team are aligned with our goal to ensure that 100% of our mining partners have sustainability-related targets and measures in place, and track their progress and target achievement, as described in the chapter **Workers and affected communities in our value chain**.

### Proximity to biodiversity-sensitive areas

Beyond the already mentioned findings, the assessment of our production and recycling sites in 2024 included a proximity analysis that confirmed that none of our production and recycling sites are located in a protected area. However, six of our sites are within a five-kilometer radius of such areas. These sites occupy an area of 30.5 hectares.

While land-use change is not among our prioritized action areas for our own operations at the moment, many of our sites are still considering these potential impacts in business decisions. With the construction of the near-site PV plant at our German headquarters in Hanau for instance, we created roughly 3 hectares of compensation areas with native flora for the preservation of local biodiversity.

Our site in Mendrisio, Switzerland, which has the highest overlap with protected areas within a five-kilometer radius, is currently conducting additional analysis to better understand the site's interfaces with nature. In addition, the site experiments with different ways of measuring and improving its biodiversity impact as a pilot for further engagement with our stakeholders in the future. First measures on site are already underway, such as improving the site's urban green spaces by planting native species and implementing better maintenance practices to boost ecological integrity.

# Our people are precious to us

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# Our people are precious to us

Our employees worldwide are our most important asset. Their skills, knowledge, and dedication—as well as their diverse experiences and personalities—enable Heraeus Precious Metals to hold leading positions in its markets and to be recognized as a responsible company.

We are convinced that the human element is what creates impact, drives innovation, and fosters strong partnerships. These are essential for growth and sustainable transformation.

| Ambitions | Status 2024 |
|---|---|
| **Diversity** | |
| Increase share of women in our Global Management Team to at least 40% by end of 2025[13] | 39% women |
| Increase share of international employees (non-Germans) in our Global Management Team to at least 50% by end of 2025[13] | 44% internationals |
| **Working conditions and people development** | |
| Fill at least 50% of vacant Global Management Team positions with internal candidates every year | 73% internal candidates |
| Ensure that new participants in our talent programs are at least 50% women and 50% international employees (non-Germans) every year[13] | 40% women and 53% internationals |
| **Occupational health and safety** | |
| Reduce lost time incidents (LTI) to zero | 16 LTIs (-36% less than 2023) |
| Milestone: Reduce lost time incident rate (LTIR) for our own workforce to below 2 by 2030 | LTIR of 3.1 (lost time incidents per million hours worked) |
| Implement occupational exposure limit for chloroplatinates of 100 ng/m$^3$ by 2030 | Ongoing |

[13] While we fully stand behind our approach to diversity, we also aim to comply with local regulations. We therefore do not apply diversity quotas in our employment practices at our sites in the USA from 2025.

# Diversity

Heraeus Precious Metals is committed to diversity. It is a vital part of our identity and culture. We actively encourage different perspectives, put together diverse teams, and provide equal opportunity for everyone. We also insist on real cultural change toward a truly inclusive work environment.

We believe that diversity is essential to our business success. Our diverse workforce can help us better understand our key markets and customers, generate more business opportunities, be more innovative, and enhance profitability. Consequently, we made diversity one of our top strategic initiatives already in 2019.

## Impacts

Equal opportunity and non-discrimination are enshrined in the constitutions and laws of many countries. Nevertheless, Heraeus Precious Metals is well aware that marginalized groups—such as people of color and specific ethnicities or gender, the LGBTQIA+ community, people with disabilities, people with certain religious beliefs, and people with specific socio-economic and educational backgrounds—are often still discriminated against and disadvantaged.

We are very aware of this issue and therefore do everything we can to ensure that no inequalities or forms of discrimination occur within our company. We view diversity as an ongoing strategic initiative and work continually to become even more inclusive.

Fostering diversity of thought, for example the diversity of backgrounds, experiences, and mindsets, as well as an inclusive culture, where individuals feel encouraged to share their unique ideas without fear of judgment, enables organizations to tackle problems and generate innovative solutions by examining issues from multiple perspectives.

## Ambitions

We acknowledge that our leaders play an important role in creating this inclusive culture. Therefore, we place particular emphasis on achieving greater gender balance at the workplace. For us, diversity starts at the top—with everyone in a leadership position. In 2019, when our diversity initiative began, managers and executives at Heraeus Precious Metals formed a very homogeneous group consisting of mostly German men.

There are two reasons for this. First, our headquarters and the management for five of our six Business Lines are located in Germany. Second, men far outnumber women in leadership roles at most companies worldwide, and this was also true of our company. In 2019, our Leadership Team therefore decided to begin a process of change with the goal of creating a diverse management team with a wide variety of perspectives.

We began placing particular emphasis on achieving greater gender balance and also aimed for more international leaders to better reflect the fact that more than half our employees work and the majority of our revenues are generated outside Germany. Therefore, we set targets for our Global Management Team, which includes the Leadership Team and the most senior leaders. By year-end 2025, we aim for it to consist of at least 40% women and at least 50% international employees (non-Germans).

The initial target for women in leadership positions was 35%. As we had exceeded this already in 2021 and 2022, we have decided to increase it to 40% for year-end 2025.

# Diversity

### Update on previously communicated ambitions

In our Sustainability Report 2022, we communicated that we started a global gender pay gap analysis to discover gaps. Our ambition is to significantly undercut the gender pay gap limit required by the EU for 2027. This analysis was conducted globally in 2023 and revealed no significant gender-specific pay differences. In Germany, our largest location, the unadjusted gender pay gap of less than 5% lay well below the German average of 18%. We will continue to monitor the gender pay gap development.

We also communicated that we would develop and roll-out a company-wide equal opportunity policy by 2023. It should ensure that we recruit, train, and develop employees who are best suited to their job's requirements regardless of gender, age, religion or belief, disability or other characteristics. Over the last years, we recognized the need to place a stronger emphasis on anti-discrimination to truly achieve equal opportunity. As a result, we developed an anti-discrimination policy which was rolled out in 2025.

## Organization and responsibilities

Our diversity strategy applies to all Heraeus Precious Metals Business Lines and sites worldwide. The Global Human Resources (HR) department takes the lead in developing a strategic roadmap and coordinating its operational implementation, which is typically carried out by HR managers in collaboration with leaders from the Business Lines.

Our diversity strategy as well as new projects are overseen by the CEO and the Global Head of HR. The current status of our diversity KPIs—for Heraeus Precious Metals globally, for each Business Line, and for each site—is reported to the CEO and the Global Head of HR on a quarterly basis. Where necessary, corrective measures are defined to support the Business Lines and facilities.

In addition, the current status of our diversity strategic roadmap is discussed in Leadership Team and management meetings on a regular basis.

## Policies and regulations

Heraeus Precious Metals endorses the principles set out in the UN Universal Declaration of Human Rights, the UN Guiding Principles on Business and Human Rights, and the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work and the corresponding fundamental Conventions. Our own policies and standards are based on these internationally recognized principles.

The **Heraeus Code of Conduct** defines the standards of behavior and values, ensuring alignment with the company's goals and culture. It applies to all employees of all Heraeus organizations worldwide. It specifies that the Heraeus Group denounces, and does not tolerate, any form of discrimination, harassment, retaliation, or prejudice (disadvantage) on grounds of race, color, national origin, ancestry, citizenship status, gender, religious or philosophical belief, handicap, age or sexual identity, sexual expression, marital status, medical condition, or any other legally protected personal characteristics protected by countries where Heraeus acts as employer. The Heraeus Code of Conduct is supported by a dedicated internal anti-discrimination policy, which was introduced in 2025.

The **Heraeus Human Rights Policy** is based on the above-mentioned internationally recognized declarations and supplements the Code of Conduct. In it, Heraeus commits to treat its employees, including temporary and migrant workers, and all individuals in other types of employment relationships, with respect and dignity.

# Diversity

In 2007, the Heraeus Group signed the German Diversity Charter ("Charta der Vielfalt"), emphasizing its commitment to promote the recognition, appreciation, and integration of diversity into Germany's business culture.

The topic of diversity is one of our eight **Guiding Principles** (company values) and thus a core value that shapes the corporate culture at Heraeus Precious Metals.

Moreover, Heraeus Precious Metals also has country-specific policies in place. In South Africa, for example, we comply with Broad-Based Black Economic Empowerment (BBBEE) and disability learnerships. BBBEE aims to accelerate the economic participation of historically disadvantaged South African citizens and measures companies' compliance with black economic empowerment in five key areas. In 2024, we successfully improved our status from Level 8 to Level 4. This was mainly due to improvements in procurement and the implementation of the Youth Empowerment Program (YES4YOUTH). For 2025, we aim to uphold our Level 4 status and are working on a procurement policy to prioritize suppliers who are BBBEE-compliant.

## Progress and measures

Heraeus Precious Metals takes many measures to make its workforce and Leadership Team more diverse. While making progress toward quantifiable targets is important, diversity also has a qualitative aspect that cannot be measured by KPIs—atmosphere and culture. We therefore address this topic from different angles.

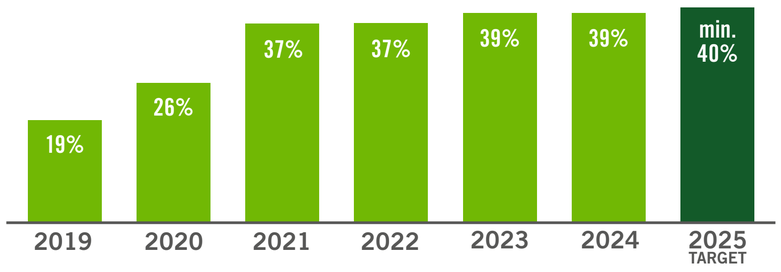
With our measures, we aim to raise awareness for diversity on all levels: the company as a whole, Business Lines, regions, facilities, and teams. We regularly publish educational content, our achievements, status quo as well as individual stories on our global intranet "Heraeus touch".

### Gender and cultural diversity in our Global Management Team

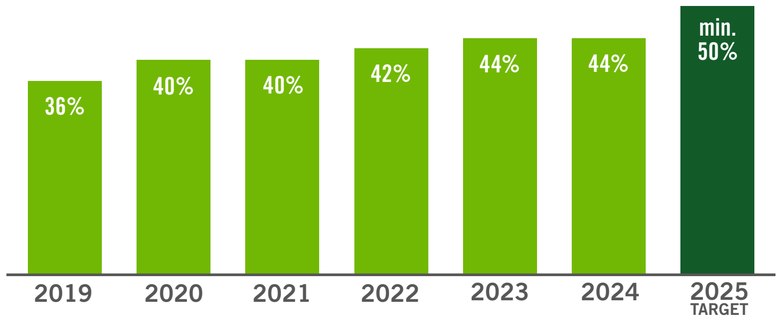
We are focusing in particular on promoting gender and international diversity. We set ourselves the targets of 40% women and 50% internationals (non-Germans) in our Global Management Team (GMT) by 2025. Afterwards, we want to maintain this ratio.

Our journey toward these targets started in 2019 with 19% women and 36% international (non-German) employees in our GMT. Since then, we have significantly improved and are well on track to achieving our targets: In 2024, women accounted for 39% and internationals for 44% of the GMT.

**Share of women within Global Management Team[14]**




**Share of non-German employees within Global Management Team[14]**




[14] Incl. Leadership Team and CEO

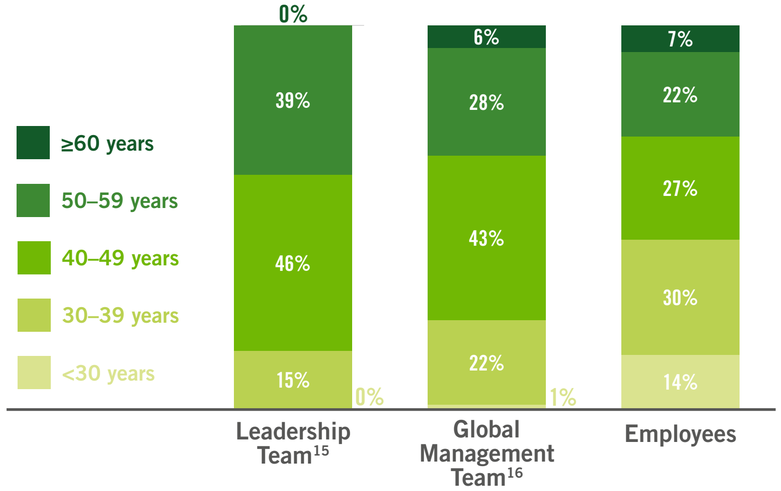
# Diversity

## Employee diversity

Besides gender and cultural diversity, we also place emphasis on other aspects of diversity.

Our company's age structure, including executives and managers, is well balanced across all age cohorts. We therefore consider our company to be healthy in terms of age diversity. At year-end 2024, the average employee was 42 years old, while the average age in the GMT was 46 years and 47 years in the Leadership Team.

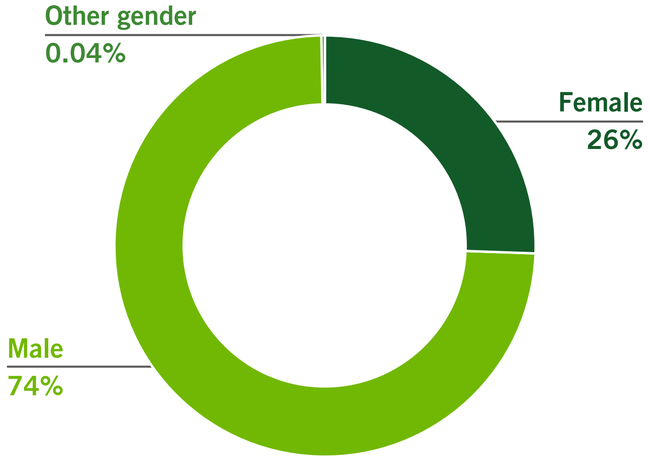
### Age distribution in 2024




[15] Incl. CEO
[16] Incl. Leadership Team and CEO

We also recognize the importance of gender equality in our industry and place particular emphasis on achieving a better gender balance among our employees. Globally, 26% of our employees are women. We are aware that our industry is traditionally male-dominated and hence are aiming to achieve a more diverse workforce.

### Gender distribution in 2024




## Recruitment and promotion

In our recruiting and promotion processes, we promote equal access to opportunities. We implemented several measures to obtain a more diverse candidate pool. These include for example

- ensuring that female and international applicants who meet the respective job requirements are represented in the candidate pool,
- placing less emphasis on the ability to speak the local language fluently (German in Germany, for example),
- using gender-neutral language in job advertisements,
- working to enhance our brand as a diverse employer, and
- requiring search firms to provide us with at least 50% female candidates. Similarly, our trainee and talent programs include 50% women and 50% international (non-German) employees.

Ultimately, we always hire or promote the best candidate for a particular position.

## Anti-discrimination policy

We do not tolerate any form of discrimination, sexual or any other form of harassment, or inappropriate behavior toward individuals or groups. In 2023, we increased our focus on anti-racism and anti-discrimination. We also have been working on an anti-discrimination policy, which was rolled out in 2025. The policy is supplemented by an anti-discrimination training for our managers and employees.

In 2024, no cases of discrimination were formally reported at Heraeus Precious Metals.

# Diversity

## Job sharing and family-related leave

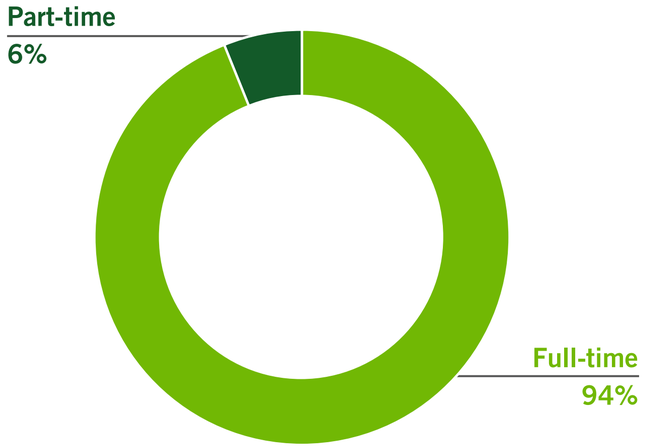
Offering employees flexible work arrangements is essential for improving gender diversity. We therefore offer part-time leadership and job-sharing opportunities at all our sites. We also guarantee that after parental leave, employees including management staff, regardless of gender, can return to the same or a comparable role, also in part time. We are also committed to promoting and hiring employees during pregnancy and/or parental leave and provide support to new parents (mothers, fathers, domestic partners, adoptive parents).

In the United States, for example, we offer 10 days of additional parental leave at our site in Tennessee. This goes beyond the number of days prescribed by state law and ensures that our employees in the United States receive the same amount of parental leave days, regardless of their location.

In China, we offer new fathers 10 or 15 days of paid paternity leave, depending on the location.

In South Africa, we increased the paid maternity leave from 50% to 100% in 2023 for a duration of four months and offer paid leave for fathers for 10 days, which goes beyond the legal requirements.

**Full- and part-time distribution in 2024**




## Unconscious bias and inclusive leadership training

We strive to minimize unconscious bias and foster inclusive leadership. After training our Global Management Team in 2022, we extended these training sessions to part of our workforce as well as to our Global Talent Program in 2023. Furthermore, we made inclusive leadership and psychological safety key topics at our 2023 Annual Management Meeting to further foster a diverse and successful organization. At the beginning of 2025, we conducted another training on inclusive leadership for managers who are either new in their positions or have not yet participated in training.

At most of our sites, we offer additional parental leave opportunities and support new parents.

# Working conditions and people development

Our employees worldwide are our most important asset. Their skills, knowledge, and dedication—as well as their diverse experience and personalities—shape our company and its success.

Heraeus Precious Metals is committed to providing a safe, respectful, and inclusive work environment in which all employees feel appreciated and can realize their full potential. We comply with all relevant labor laws and offer competitive and attractive salaries and benefits worldwide as well as opportunities for development.

Motivated, qualified, and curious employees are of fundamental importance in securing the future of our company. We strive to recognize our employees' potential, to encourage them, and to help them to develop.

## Impacts

The potential negative impacts of employment include unregulated working hours, unfair compensation, discrimination, unsafe working conditions, and the complete absence of employee representation. Long working hours and overtime can be a potential risk with an adverse impact for employees, particularly in countries, which lack this legal regulation, resulting in potential interferences with personal life, leading to family conflicts and reduced life satisfaction. Unfair compensation can cause financial stress and dissatisfaction.

In countries without comprehensive social security systems that cover basic needs, employees are often unprotected in cases of unemployment, illness, or old age, which may result in financial distress or social exclusion.

Without access to training and development opportunities, employees may stagnate in their careers, negatively impacting their long-term prospects and income.

Heraeus Precious Metals has policies and guidelines in place for all its Business Lines and facilities worldwide to address each of these issues, from providing a safe and fair work environment to enabling employees to maintain a healthy work-life balance. We ensure all our employees worldwide have access to their country's social security system. Globally, we strive to offer competitive and attractive salaries and benefits. We review our internal labor policies on a regular basis to make sure they are fit for purpose and up to date.

We place emphasis on people development to ensure our employees' personal and professional growth. Faced with the ongoing "war for talent" as a result of demographic change and the shortage of skilled workers, we are well aware that investments in training and skills development are essential to also ensure our long-term success.

## Ambitions

We aim to attract and retain the best talent in a continually evolving labor market amid global challenges. One way we do this is by setting high standards for working conditions worldwide and adjusting them as necessary.

In 2024, we established a target to show our ongoing commitment to fostering a culture of growth and development: Going forward, we aim to fill at least 50% of all vacant Global Management Team positions with internal candidates.

For our talent program, we continue to aim for 50% women and 50% international employees (non-Germans).

# Working conditions and people development

## Organization and responsibilities

The Global Head of HR oversees the development of our employment, training and education strategies and coordinates the implementation of all related measures. Strategic developments are periodically communicated to and discussed with the CEO, the Leadership Team, and business executives at the Business Lines. Depending on the project and location, the Business Lines' executives and their HR managers together oversee operational implementation. The Business Lines and facilities also develop individual strategies, taking into account their particular business situation and thus enabling their employees to gain additional functional knowledge and acquire necessary skills.

## Policies and regulations

Heraeus Precious Metals follows the Heraeus Group employment principles laid down in the **Heraeus Human Rights Policy**, standard processes, and systems. In addition, we have also adopted many policies specific to Heraeus Precious Metals' own business needs, taking into account local regulations and interests. These policies are published internally in each region to provide guidance both to us as an employer and to our employees. Prior to policies being implemented, the feedback from local works councils as well as employee representatives is taken into consideration and is an integral part of the policy development process.

In Germany, for example, we are a member of the Employers' Association of the Chemical Industry **Hessenchemie**, which has 310 member companies with 105,000 employees. Its mission is to create competitive and flexible working and economic conditions, safeguarding Germany as an industrial location while offering attractive tariff conditions to employees.

## Progress and measures

### Employee turnover and tenure

We offer competitive and attractive salaries and benefits. The aim is not only to show our appreciation but also to enhance employee retention. We monitor two key indicators: tenure and turnover rate, which is the proportion of employees leaving our organization compared to the total workforce.

The numbers indicate that we are having success: Overall, the average tenure in our company is 12 years, and we have a global voluntary turnover rate of 5.6%. We are aware that this rate varies widely from site to site. In Germany, for example, it is significantly lower than our average with 3.9% in 2024. We investigate the reasons for high turnover rates to address possible measures to reduce them.

**Average tenure**
**12 years**

**Global voluntary turnover rate**
**5.6 %**

### Salary

Heraeus Precious Metals pays fair salaries that consider not only employees' location but also their job profile, qualifications, and experience. We always meet or surpass the legal standards of the countries where we operate. Management staff's base salary is supplemented by a global bonus scheme that enables participation in the company's financial success.

We have a structured yearly merit increase process at all our sites to adapt salaries to market developments, such as rising inflation if applicable. Therefore, we perform local benchmarks and conduct annual surveys on salaries and pay increases.

Where applicable, we establish a uniform salary and benefits scheme based on collective bargaining agreements. In Germany, for example, all employees are covered by collective bargaining agreements that reflect the chemical industry tariff. This ensures that the lowest wage paid is higher than the living wage and the legally required minimum wage in Germany.[17] We work closely with works council representatives to ensure that compensation remains objective and equal. Also, in various further countries such as Switzerland, South Africa, China, and the United States, our lowest wage is higher than the legally required minimum to ensure that we pay a fair living wage.

[17] According to **www.wageindicator.org** (living wage benchmark) the German minimum wage is higher than the living wage.

# Working conditions and people development

## Benefits

Alongside competitive salaries, Heraeus Precious Metals offers a variety of benefits that differ by country. The objective is to provide the best possible work conditions at all our sites. Here are a few selected examples:

- **China:** commercial insurance that covers term life, accident, critical illness, and medical insurance for employees' children; a housing fund to help employees save for the purchase of an apartment; fully paid sick leave; more annual leave days than required by law; annual physical checks; free lunch for all employees
- **Germany:** subsidized public transport and fitness-club memberships; bike leasing arrangements; a Heraeus Family Center with integrated kindergarten and after-school care; free on-site medical advice and health maintenance measures; long-term care insurance for all tariff employees; additional annual leave days for non-tariff employees (numbers vary depending on year and public holidays)
- **South Africa:** retirement funding; subsidized transportation; more annual leave than required by law; four months of paid maternity leave at 100% of salary although not required by law (this was increased from 50% to 100% in 2023); health insurance that is paid to 50% by the company
- **Switzerland:** subsidized public transport; 50% share of non-occupational accident insurance; maximum contributions to the pension fund and risk and administrative costs fully paid by the company; fully paid sick leave for one month of absence
- **United States:** short-term or long-term disability (70% of salary for six months); leave for military service; additional paid parental leave for male employees; the option of working remotely whenever necessary

Part-time as well as full-time employees qualify for all benefits offered. Staff who work for us through a temporary employment agency receive the benefits offered by their employer.

## Training and education

Heraeus Precious Metals is committed to offering professional development opportunities to all employees throughout their career. We are aware that continuous learning and development are instrumental for attracting new employees, retaining them, and ensuring our workforce remains agile in a dynamic, global work environment.

We therefore invest in the professional development of our employees and managers to continuously foster their growth. Our aim is to create an environment where learning is not only encouraged but is an essential part of our daily operations.

The 70:20:10 model is at the heart of our learning and development approach. This framework underscores our belief that professional development occurs mostly on the job (70%), through interactions with peers (20%), and to a significantly lesser extent via formal education (10%).

At the beginning of 2025, Heraeus Precious Metals is strengthening its health management in Hanau by creating a new position.

# Working conditions and people development

We encourage our employees to use a variety of learning solutions ranging from on-the-job learning, to mentoring programs, best practice sharing, and traditional ways of learning such as conferences, in-person seminars, workshops, or online training courses. All our employees have free access to our learning platform with more than 1,200 online training modules on a wide range of business topics.

In 2024, our employees globally had an average of 5.2 hours of training tracked in our learning system. However, this number only represents a small portion of the training conducted. We also offer leadership training to new and experienced managers worldwide to further develop their skills. To do this, we work with renowned and experienced providers such as the Global Business School INSEAD.

In addition, we regularly conduct performance and development feedback with our employees as part of our annual performance management process. We also offer 360° feedback, a proven well-known method for giving employees feedback from different angles and from different groups of people, including supervisors, direct reports, colleagues, and customers.

Globally, we attract talents and invest in our future workforce by offering many apprenticeship programs right after finishing school, a management trainee program for graduates, internships during university programs, work-study schemes, and scholarships. A wide range of degree programs are relevant to our business, from business administration to chemistry and physics. For instance, we had 98 apprentices and work-study students in Germany at year-end 2024. 30 graduated in 2024, and we hired 16 of them as employees. We also support community initiatives to reduce unemployment and enhance job prospects in Germany—such as **Joblinge.**

## Talent management

Heraeus Precious Metals has conducted global talent programs for many years. Their purpose is to identify talented employees throughout the company and enable them to take on more responsibility in senior roles and to fill key positions internally while providing attractive global development opportunities. In 2024, employees from our own company were appointed to 73% of our vacant Global Management Team positions, with the majority having previously participated in our talent programs. This number is well above our ambition of filling at least 50% of the vacant positions internally.

We have two global talent programs: one for developing high-potential employees and an advanced program for senior executive potentials worldwide. The nomination process includes an option for self-nominations to reduce biases in the selection process. Both talent programs include an individual development plan for participants based on 360° feedback, group learning activities in international teams as well as training in leadership and business topics.

## Raising concerns and complaints

Heraeus Precious Metals employees at our sites may participate in all-hands meetings, during which they can ask questions (anonymously if they wish) that are answered by senior executives. Everyone can report concerns or complaints through our compliance channel Heraeus SpeakUp, including the option to contact a third-party ombudsperson. Reports can be made anonymously and are thoroughly checked and followed up. More information under **www.herae.us/speakup**

At sites with works councils, such as in Germany, employee representation is stipulated by Germany's Co-Determination Act. These councils and other employee-representation committees have long been an important feature of Heraeus Precious Metals' constructive and mutually trusting relationship with its employees. They provide a useful forum for employees to present their views to us.

There are no works councils at our sites for example in the United States, South Africa, Switzerland or China, because neither federal nor state law establishes formal mechanisms for employee representation. However, several employee committees meet on a regular basis to discuss and propose possible ways to further improve the work environment, and we always consider these suggestions carefully. For our sites in China, we are working with the labor union representing our employees to explore options for further improving working conditions there. Our site in Shanghai has already been part of the labor union for many years, our site in Nanjing joined in 2023.

# Working conditions and people development

## Employee Engagement Survey

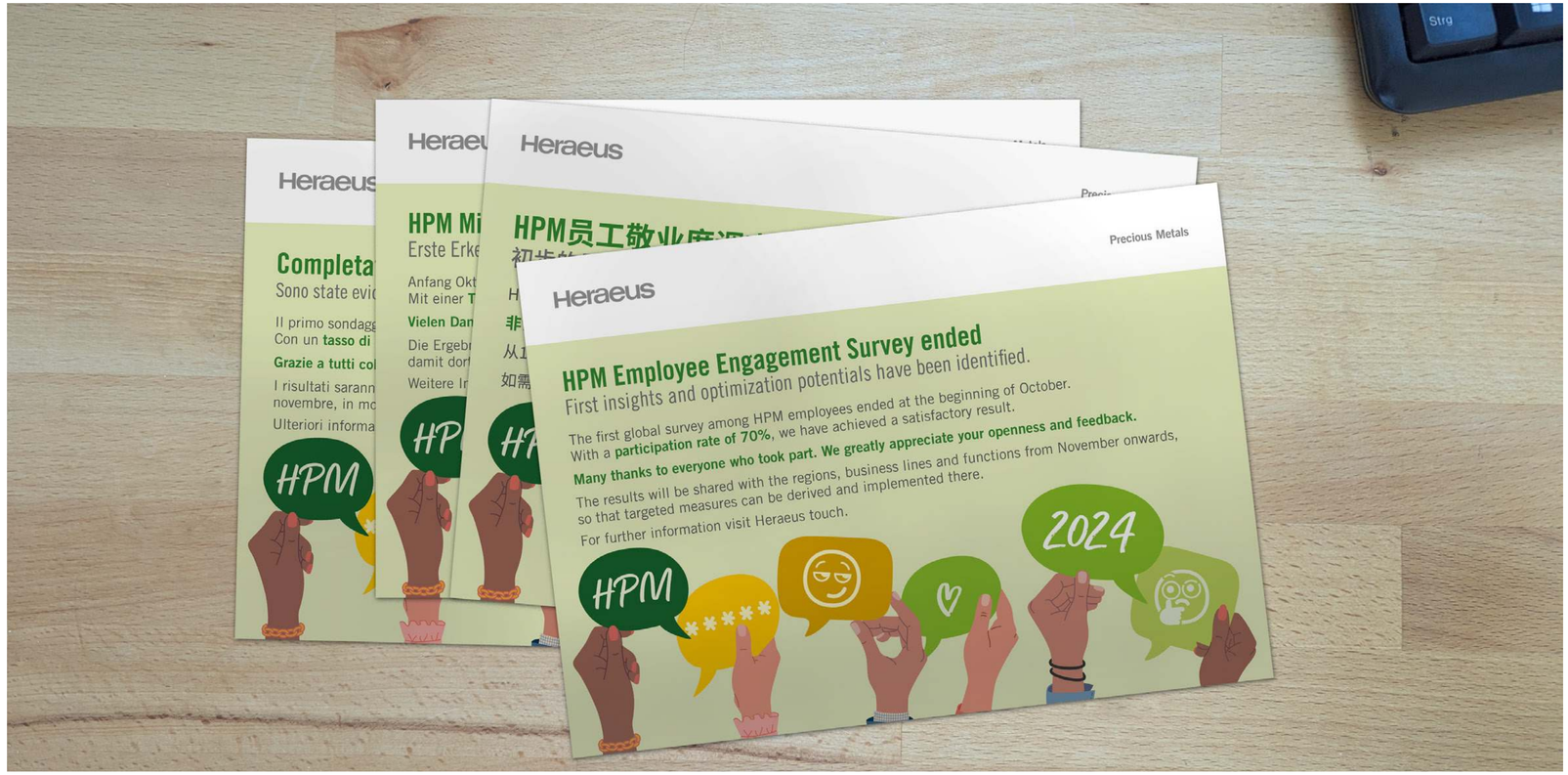
The well-being of our employees is a matter of high priority for us. In 2024, we conducted an Employee Engagement Survey to better understand employee sentiment and identify areas for improvement. By fostering positive existing aspects as well as addressing concerns, we strive to enhance the satisfaction of our employees and thus increase our productivity and effectiveness. Among other aspects, the survey included the Employee Net Promotor Score, measuring how likely our employees are to recommend the company as a great place to work to a friend.

The global participation rate was 70%. This is a satisfactory result for a company of our size. We aim to increase the participation rate in the coming years so that the results reflect our employees' opinion even better and are defining specific measures to increase participation—especially in production.

We are aware that the engagement survey is only effective if we translate the results into clear actions. We have therefore defined a strict follow-up process for the entire organization: The results were shared with our Global Management Team and then carried into the organization by our managers and team leads. We conducted workshops in all teams and areas, and the results were reported back to the management. This process was completed in the first quarter of 2025. The progress of implementing derived measures and ideas will then be regularly monitored in business review meetings with the CEO and the Leadership Team. By initiating this two-way communication flow, we are fostering both top-down and bottom-up dialogue.

Overall, the survey did not reveal strong dissatisfaction in particular areas, nor did it show specific age- or gender-based criticism. We received the most positive feedback with regards to the individual understanding of role and responsibility and manager openness to feedback. Both aspects are essential for employees to feel secure at the workplace.

We also identified areas for improvement, which we are actively working on. We will repeat the survey annually to continuously develop our organization and to ensure that our employees feel heard and valued at their workplace.



# Occupational health and safety

## Impacts

The recycling and refining of precious metals as well as the manufacturing of products comes with different potential hazards, such as working with extreme temperatures, dangerous materials, and mechanical processes that apply high forces. Since we handle platinum group metals, some processes can come with potential exposure to chloroplatinates, which can lead to different allergy-like reactions.

The health and safety of the people in our workforce is our top priority. At the end of the workday, we want them to leave in at least the same health they came to work with. Therefore, we apply high safety standards all around the world. With a sound health and safety management system in place, we are continuously working to maintain and improve safe work environments for all employees.

## Ambitions

Our ultimate objective is that no one in our workforce experiences work-related incidents or health issues. We acknowledge that this journey will take time and effort. We continuously analyze occurring incidents, make reasons for incidents transparent to our workforce and the entire management, and define measures to prevent similar incidents from occuring in the future.

On our way to zero lost time incidents, we have set ourselves ambitious milestone targets. We aim to reduce the lost time incident rate (LTIR) for our own workforce to below 2 by 2030.

Furthermore, we are committed to implementing an occupational exposure limit for chloroplatinates (Pt sol.) of 100 ng/m$^3$ by 2030, which is well below the regulatory limit of 2,000 ng/m$^3$.

### Update on previously communicated ambitions

In our 2022 Sustainability Report and Sustainability Factbook 2023, we also communicated the target of reducing lost days by 20% in 2023 and 2024. While we exceeded the target for 2023 with a reduction of 47%, we did not meet the 2024 target. Details can be found under **Progress and measures** in this chapter.

In our Sustainability Report 2022, we communicated to develop a company-wide communications campaign to foster health and safety behavior. Due to a Heraeus Group-wide internal health and safety campaign with regular communication, we decided not to add an additional campaign at Heraeus Precious Metals, and instead follow a decentral approach to better address site-individual situations.

## Organization and responsibilities

At Heraeus Precious Metals, the Global Head of EHS is responsible for defining our health and safety (H&S) strategy, establishing policies and procedures, overseeing their implementation, and monitoring progress. The Global Head of EHS reports directly to the CEO and is part of the Extended Leadership Team, underscoring the importance we attach to H&S. Our CEO as well as the Leadership Team have the overall responsibility for H&S performance and steering of progress.

Our global EHS organization is deeply integrated into the workforce from top management down to operator level. There is at least one dedicated EHS manager at each site, supported by several dedicated safety champions on each shop floor. EHS managers and experts from all sites are engaged in a continuous process of best practice sharing with each other. The further development of the initiatives and tools is constantly being driven forward by the global EHS organization.

The senior managers of our facilities in the Business Lines and sites are accountable for the operational execution of our strategy, maintaining a safe and healthy work environment for their workforce. They are supported in this by their dedicated EHS managers.

# Occupational health and safety

## Policies and regulations

Our **Code of Conduct** states that we preserve and promote our employees' health and aim to maintain a high level of occupational safety at all our production facilities. The Code also ensures that our employees, especially our executives, are committed to always upholding occupational safety.

The **Heraeus EHS Policy** and the **Heraeus Precious Metals QEHS Policy** make occupational H&S and health protection a top priority company-wide. We aim to establish a safe and secure working environment for everyone working at a Heraeus site. The policies task managers with identifying, assessing, and eliminating potential H&S hazards in all workplaces over which they have responsibility or, where this is not possible, putting in place appropriate mitigation measures. They require all employees to fully understand the H&S requirements of the work they perform, to carefully follow related instructions, and to report unsafe conditions. Compliance with safety regulations is also mandatory for temporary workers and other third parties working at a Heraeus site.

Heraeus has an internal EHS management system called the Heraeus EHS Development Path, which provides the foundation for systematically implementing environment-, health-, and safety-related actions and processes throughout the Group. It has been verified by a variety of certification bodies such as SGS, TÜV Rheinland, TÜV SÜD, and DEKRA.

The EHS Development Path is continuously reviewed, further developed, and adjusted accordingly where necessary. It is overseen at Group level by Corporate EHS. All production sites where Operating Companies of the Heraeus Group have management control are required to apply this framework. These sites are required to undergo internal assessments regularly to determine their compliance with the management system.

By the end of 2024, the H&S management system had been implemented at 77% of Heraeus Precious Metals' production and recycling sites, accounting for 95% of our own workforce. We regularly conduct internal audits to verify its implementation and identify improvement potentials. The H&S systems at our sites in Hanau, Germany; Mendrisio, Switzerland; Gqeberha, South Africa; Shanghai and Nanjing, China; Shannon, Ireland; and Izmir, Turkey, were certified by a third party according to ISO 45001.

## Progress and measures

Heraeus Precious Metals applies a comprehensive approach to ensure a safe work environment for all people working at a Heraeus site. We continually review our policies and practices—and those of our industry peers—to look for ways to make our operating facilities and offices even safer.

### Assessing risks and identifying hazards

We conduct H&S risk assessments for each workplace, process, machine, and hazardous material. These assessments take routine and non-routine activities into account and encompass all applicable H&S hazards: mechanical and electrical hazards, hazardous substances, and fire and explosion risks, to name just a few. They also consider special needs of certain employees, such as those who are pregnant or minors. Risk assessments are conducted at least every three years and more frequently in the case of relevant operational changes, major incidents, or high potential events.

All occupational health exposures are documented and managed in an industrial hygiene (IH) matrix, which documents compliance with statutory exposure thresholds for air contaminants, chemicals, biological agents, radiation, noise, and other parameters. H&S risk assessments define which exposures are relevant for each facility. We assess our compliance with statutory exposure thresholds in one of two ways. The first is by carrying out IH monitoring, such as measuring indoor air quality and noise. If exposure exceeds the applicable threshold in one area of a facility, IH monitoring is conducted at other similar locations. The second method is by making qualitative or similar estimates. These are based on a worst-case scenario; that is, all adverse parameters are assumed to be maximally unfavorable. If a worst-case scenario indicates compliance with the applicable statutory threshold, we assume that IH monitoring is not necessary.

# Occupational health and safety

## Implementing preventive measures

The assessments' risk evaluation is used to define and implement preventive actions, whose effectiveness is monitored periodically. We aim to eliminate potential hazards directly at their source. If this is not feasible, we put in place technical, organizational, and/or personal measures to effectively mitigate hazards. The findings and actions are also checked by the manager in charge, who ensures that they are communicated to the workforce.

We are also investigating ways to reduce unhealthy working postures or repetitive stresses, such as heavy lifting or carrying, for example by automizing certain processes or improving equipment. One example is the introduction of exoskeletons at our melting department in Hanau, Germany. In the melting department, hot precious metals ingots are processed, requiring a great deal of physical effort, especially when transferring the ingot to the forging hammer and during forging. Employees report a noticeable relief and improved quality of work.

Furthermore, in 2021 we voluntarily committed to introducing an exposure limit of 100 ng/m$^3$ chloroplatinates by 2030. This goes significantly beyond the regulatory limit of 2,000 ng/m$^3$. In the past years, we successfully analyzed the current situation and hotspots at all affected processes and introduced initial measures.

## Fostering a strong health and safety culture

We know that our workplaces can only be safe and healthy if everyone understands and embraces their responsibilities toward themselves and their colleagues. We therefore carry out systematic H&S communication measures to engage with our workforce.

We communicate H&S policies and targets as well as the findings of air monitoring and risk assessments. We also provide a wide variety of information aimed at reinforcing H&S awareness and instilling safe practices.

We integrate health protection, occupational safety, and process safety into our daily routines and place emphasis on behavior-based safety to improve workplace safety. We are convinced that motivation plays an integral part in reducing unsafe behavior and ultimately reduces work-related incidents. One example is our safety moments, which aim to provide safety impulses on specific topics.

Each facility maintains an up-to-date training plan to identify H&S training mandated by law or required by company policies, training frequency, training methods, and individual qualifications. This enables us to plan H&S training, monitor the steps along the way, and thus ensure transparency regarding what training has been completed and what remains to be done. Facilities provide H&S training for our workforce and contractor employees. Employees and temporary workers who are new, are changing roles, or will work on new processes complete all necessary training prior to performing any new tasks. Our H&S experts at each site are always up to date on the latest qualifications and are available to give advice regarding questions as well as training programs and educational materials.

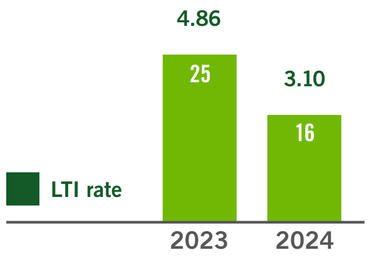
Every single day at a Heraeus Precious Metals facility begins with a team dialogue that specifically addresses the H&S issues involved in the tasks to be performed that day.

## Reducing work-related injuries

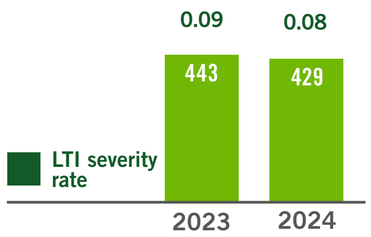
We report, investigate, and address all H&S incidents. Reportable incidents include injuries, illnesses, and process safety incidents (such as spills, fires, explosions, or loss of primary containment), but also unsafe situations and near-miss incidents. We investigate reported matters to conduct preventive and corrective actions. The findings are shared with everyone at the facility and with all H&S managers at our other sites.

In 2024, we could again successfully reduce the number of lost time incidents (LTI) among our own workforce, including employees and temporary workers, by 36%. However, due to one accident with serious consequences, the number of lost days only decreased by 3% compared to 2023. As in the previous years, there were no cases of fatalities. The most common type of incident was hand injuries.

**Lost time incidents (LTIs) related to own workforce[18]**




**Lost days related to own workforce[19]**




[18] LTI rate is calculated as the number of LTIs per 1,000,000 hours worked.
[19] LTI severity rate is calculated as the number of lost days per 1,000 hours worked.

# Occupational health and safety

For this report, we adjusted the calculation logic for lost days to that of the European Sustainability Reporting Standards, meaning that we count all calendar days from the first full day lost to the last full day lost. In the past, our calculation did not include days on which the injured person would not have been scheduled for work, such as weekends or public holidays. In the course of this adjustment, we also identified that due to a calculation error lost days associated to LTIs from the previous year were not fully included. We corrected the data accordingly. For reference, the corrected 2022 value amounted to 836 lost days.

## Promoting employee health

Beyond our ambitions to reduce work-related safety and health issues, we are actively supporting our employees' health in general. Our sites around the world offer individual programs according to need and a country's healthcare landscape.

Here are some examples:

- **China:** annual sports day; annual physical checks for all employees and access to Employee Assistance Program (EAP)
- **Germany:** annual flu vaccinations and physical health checks; skin and colon cancer screening; back risk screening; smoking cessation workshops; various sports activities; reduced-fee gym memberships
- **Ireland:** access to EAP and online medical professionals; annual flu vaccinations and medical reviews, for example for blood pressure, blood sugar, and body mass index
- **South Africa:** annual wellness day, at which employees receive free tests (such as blood pressure and cholesterol levels) along with a lifestyle survey and advice on healthy choices for food and exercise
- **Switzerland:** internal sports group organizing sports and recreational activities; customized personal protective equipment; ergonomics campaign
- **Turkey:** wellness campaign including annual medical review with comprehensive blood and urine tests
- **United States:** annual flu vaccinations; access to EAP and a third-party health advocate service that provides employees and their families with up to eight counseling sessions per year for rehab or emotional issues

Our sites around the world offer individual programs according to need and a country's healthcare landscape.

# People in our value chain are precious to us

Workers and affected communities in our value chain . . . . . 55

# People in our value chain are precious to us

One central and core element of our philosophy is to treat everyone in our workforce with dignity and respect. However, our sphere of influence extends far beyond. We are aware of the significant impact our business has on many individuals along our value chain and recognize our responsibility for their welfare, and especially for the protection of their human rights. Therefore, our value chain management systematically assesses our suppliers' and business partners' social and environmental performance. Even though we believe we are already an industry pacesetter in this area based on the feedback from our customers and the public at large, we want to constantly strengthen our governance processes and our due diligence practices in the years ahead.

| Ambitions | Status 2024 |
|---|---|
| 100% of our sites refining precious metals undergo third-party audits based on the strict requirements of LBMA, LPPM, RMI, and/or RJC | 100% audited |
| 100% of our mining partners have sustainability-related targets, measures, and progress | Ongoing |
| Milestone: 80% of our mining partners have sustainability-related targets by end of 2026 | Ongoing |

# Workers and affected communities in our value chain

In accordance with the outcomes of our double materiality analysis, the focus of this chapter lies on workers and affected communities in the context of upstream mining activities. As one of the leading precious metals refiners, we do not only source primary and secondary precious metals for the manufacturing of our products, but also refine and recycle materials provided to us as a service for others. Therefore, providers of precious metals can be our suppliers, our customers, or both. We refer to them as precious metals business partners. The principles and processes described in this chapter apply to precious metals business partners of our recycling and refining business. Where processes only apply to mining partners, it is clearly indicated.

## Impacts

Mining has a complex relationship with communities, culture, and society. Mining brings employment and can enhance services and infrastructure as well as draw investment to the country. It may give rise to associated socio-economic improvements, such as education, health, livelihoods, and food security for the community.

At the same time, mining comes with potential and actual negative impacts. Working conditions and work-related rights in extractive industries are particularly challenging. For example, artisanal and small-scale mining (ASM) in the gold sector remains largely informal. Its workers are therefore particularly vulnerable, and there is an increased risk of a lack of labor rights, including child and forced labor, and negative impacts to their health and safety. But even at large-scale mines (LSM) operated by corporations, working conditions and human rights, especially in conflict-affected and high-risk areas (CAHRA), may not fully comply with our standards. A further major topic regarding mining operations is their impact on the surrounding environment.

The impacts of the mining industry also extend to the basic economic, social, environmental, and/or cultural rights and the interests of affected communities. The emissions and pollution caused by mining can potentially impact nearby communities. Improperly handled mining waste, including tailings, can contaminate agricultural land and drinking water. The setup of new or the expansion of existing mining activities can furthermore lead to the displacement of affected communities and resettlement into areas with township-like conditions.

We are fully aware of the underlying risks and therefore have had policies and procedures in place for many decades to avoid potential negative impacts as far as possible, whilst maximizing the positive impacts. We do not work with mines that are linked to child and forced labor or other violations of human rights according to the International Labour Organization's Declaration on Fundamental Principles and Rights at Work (ILO, No 182). In line with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas (CAHRA), we immediately seek for clarification with a precious metals business partner at the first sign of suspicion. If the suspicion cannot be clarified within a reasonable timeframe, we suspend the business relationship until the clarification has been completed.

If necessary, we will then develop a corrective action and remediation plan with our precious metals business partner. If there is neither the possibility nor the will to take corrective action, we terminate the business relationship with zero tolerance.

However, terminating business relationships has a potentially adverse impact on people in the immediate surroundings, as it cuts off the abovementioned positive impacts of mining. Actively engaging with our stakeholders on the spot as well as implementing corrective measures in line with our zero-tolerance policies and practices is the only way to make a positive impact.

# Workers and affected communities in our value chain

## Ambitions

Heraeus Precious Metals applies the strictest industry standards for precious metals, regions, and primary and secondary precious metals business partners worldwide. These go beyond regulatory requirements. As conducting a thorough due diligence process is of utmost priority to us, we ensure that all of our sites refining precious metals undergo third-party audits based on the strict requirements of LBMA, LPPM, RMI, and/or RJC.[20]

Our mining partners are aware of their impacts and have been taking measures for decades to address and reduce them. We believe that our mining partners themselves have the greatest potential to continue improving the conditions for their workers and nearby communities and encourage them in their progress, supporting them where necessary. Our ultimate aim is that 100% of our mining partners have sustainability-related targets and measures in place and track their progress and target achievement. By the end of 2024, we successfully completed the first milestone and obtained transparency on where our mining partners stand in their ESG journey. We are now working toward the next milestone: that by the end of 2026, 80% of our mining partners will have sustainability-related targets in place.

### Update on previously communicated ambitions

In our Sustainability Report 2022, we communicated our plans to conduct a targeted risk analysis relevant to conflict materials, where gaps still existed, in conformity with OECD due diligence requirements by year-end 2024. This analysis has been completed as planned.

We furthermore planned to introduce a streamlined central system to compile, monitor, compare, and evaluate working conditions at our suppliers and mining partners in line with Germany's Supply Chain Due Diligence Act by year-end 2024. The system was already successfully implemented in 2023.

## Timeline

[20] London Bullion Market Association (LBMA), London Platinum and Palladium Market (LPPM), Responsible Minerals Initiative (RMI), Responsible Jewelry Council (RJC)

# Workers and affected communities in our value chain

## Organization and responsibilities

The responsibility for precious metals compliance, including the monitoring of human rights violations, lies with the management of the respective legal entities and is guided and is supported by our global and local compliance departments, headed by the Global Head of Compliance. The compliance organization is responsible for defining our precious metals compliance strategy, establishing policies and procedures for governance, and overseeing their implementation. They furthermore make recommendations for strategic sourcing decisions such as blacklisting and selectively accepting high-risk precious metals business partners. In the latter case, they also approve specific measures to mitigate the associated risks and oversee their implementation. The compliance organization is independent of business functions such as sales and reports quarterly to the Sourcing Committee, which is composed of the CEO, Business Line Heads, Region Heads, and further sourcing-relevant internal stakeholders. In this format, the Global Head of Compliance presents the latest procedural, organizational and regulatory developments in the context of precious metals sourcing, informs about recent challenges in the compliance process and seeks approval of major high-risk precious metals business partner relations and/or specific business models.

## Policies and regulations

The Heraeus Group's expectations toward its suppliers and precious metals business partners are laid down in the **Heraeus Supply Chain Due Diligence Policy**, which takes up the principles of the **Heraeus Human Rights Policy**. It specifies that we only source from and work with suppliers and precious metals business partners that are not associated with human rights violations. It explicitly prohibits the worst forms of child labor and the employment of minors for hazardous work, forced or compulsory labor, human trafficking, inadequate safety standards, direct or indirect support of non-state armed groups, the involvement of public or private security forces leading to cruel or inhumane treatment or injury and unlawful eviction or land seizure. Additionally, it prohibits harmful environmental emissions, such as soil contamination or pollution of water sources.

The Heraeus Supply Chain Due Diligence Policy furthermore outlines our supplier due diligence process, which is applicable to all suppliers and precious metals business partners. Our internal Sustainable Sourcing Guideline defines our due diligence process in detail. More information on our due diligence process is provided later in this chapter.

All suppliers are required to either sign the **Heraeus Supplier Code of Conduct** or provide an own standard with similar scope. The terms of the Heraeus Supplier Code of Conduct require our suppliers to also commit their sub-suppliers in a risk-appropriate manner to comply with the human rights and environmental standards laid down in the Heraeus Supplier Code of Conduct. Precious metals business partners additionally receive an extended Code of Conduct, which includes the requirements defined in the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRA, regardless of whether the business partner operates in a CAHRA region or not.

### Adherence with regulations and standards

The Heraeus Human Rights Policy and the Heraeus Supply Chain Due Diligence Policy are aligned with the following internationally recognized laws and regulations:

- the Universal Declaration of Human Rights
- the International Labour Organization's Declaration on Fundamental Principles and Rights at Work
- the United Nations Guiding Principles on Business and Human Rights
- the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRA
- the German Supply Chain Due Diligence Act
- the EU Conflict Minerals Regulation 2017/821

In addition, the Heraeus Supply Chain Due Diligence Policy and our Sustainable Sourcing Guideline at a minimum meet, and in most cases surpass, internationally recognized industry standards, including but not limited to:

- the **London Bullion Market Association (LBMA)**
- the **London Platinum and Palladium Market (LPPM)**
- the **Responsible Minerals Initiative (RMI)**
- the **Responsible Jewelry Council (RJC)**

# Workers and affected communities in our value chain

In the context of ASM, we only work with mines which are certified by **Swiss Better Gold**, **Fairmined** or **Fairtrade**.

We constantly work to ensure our due diligence processes meet and surpass regulations and industry standards. All our sites that refine precious metals undergo a yearly supply chain due diligence audit performed by an independent third party based on the requirements of LBMA, LPPM, RMI and/or RJC. In 2024, 100% of our sites that refine precious metals were successfully audited.

## Progress and measures

Heraeus Precious Metals takes all humanly and technically possible steps to ensure that the precious metals in its value chain originate from legitimate and responsible sources. We do the same to make sure that these metals are not associated with crime, armed conflict, or human rights abuses, and that they are not connected with money laundering, terrorism financing, tax evasion, fraud, or any other crime. We put a particular focus on the latter in the chapter **Compliance and anti-corruption.**

The objective of our due diligence process is to prevent the violation of human rights and ensure compliant business conduct. It therefore puts a clear focus on identifying and assessing associated risks and, if any are identified, the management of such—either by engaging in mitigation and corrective measures or, as a last resort, by terminating business relationships.

### General precious metals due diligence process

Before entering into a new business relationship, we engage in a detailed Know Your Business Partner (KYBP) check, obtaining detailed information to verify new precious metals business partners. We check all information for irregularities, for example regarding the company's ownership, general plausibility, and the origin of the metals. We furthermore screen against sanction lists and adverse media publications. In case of doubt, we request further information from the business partner. For every business partner, we create a profile in our business partner database and allocate a risk profile according to internal compliance criteria.

We conduct regular KYBP checks, including social and environmental criteria. All risk profiles of all existing precious metals business partners are reviewed and updated continuously according to new developments and findings. In-depth questionnaires are sent out in a manner and frequency based on risk.

The process is supported by an ongoing tool-supported monitoring of sanction lists and adverse media publications for all precious metals business partners.

Depending on the risk or issues identified, we initiate risk-mitigating measures. These can for example range from transmitting and evaluating additional questionnaires, to collecting external data, to committing the business partner to certain measures, and to on-site assessments.

If precious metals partners do not meet our standards, we refuse to enter into a business relationship with them. We terminate existing relationships as a last resort if violations are detected that cannot be resolved or corrected.

### Enhanced due diligence process for mining business partners

For starting a business relationship with a mining partner, we additionally require an on-site assessment conducted by us or a third party in compliance with OECD guidelines before entering into a relationship or within the first six months.

Even after a business relationship is established, our mining partners need to undergo regular on-site assessments. The frequency is typically every three years, depending on the risk categorization of the mine as well as on the outcomes of our KYBP checks. The on-site assessments are based on LBMA's or LPPM's questionnaire on mined materials and, among further aspects, explicitly address work safety and human rights of workers in affected communities. If possible, during these on-site visits we or the third-party auditor also directly speak to representatives of workers, affected communities, and local governments.

If issues are identified, they are openly addressed with the mining partner. Appropriate corrective action plans are individually defined together with the mining partner and, if applicable, with the affected people. These action plans typically include a timeline, defined deliverables, and how implementation will be checked.

# Workers and affected communities in our value chain

Examples of corrective actions are the introduction of grievance mechanisms, the creation of community engagement plans, improvements in tailings management, the elimination of health and safety risks, and the provision of water analysis results. Implementation of the agreed actions will be re-assessed, either by us or a third-party auditor. In 2024, we agreed on corrective action plans with four mining partners.

We also apply an enhanced due diligence process for all other precious metals business partners with a high-risk rating according to our internal guidelines and external frameworks such as OECD, LBMA, and LPPM. This is described in more detail under **Compliance and anti-corruption.**

## Channels to raise concerns

Heraeus Precious Metals takes suspected violations of human rights, criminal law, environmental law, other laws and regulations, and our even stricter internal guidelines very seriously. We therefore encourage whistleblowers to report suspected violations and concerns via our external ombudsman or our compliance channel Heraeus SpeakUp. Heraeus SpeakUp offers the possibility to report a compliance violation via internet, app, or by phone in more than 60 local languages and allows anonymous communication between the whistleblower and the person handling the incident. These channels are available to everyone inside and outside of our organization. Heraeus strictly prohibits any retaliation against whistleblowers who report compliance violations in good faith, even if a report is later found to be unfounded. More information under **www.herae.us/speakup**

There are further channels for raising concerns for people in our value chain. In accordance with the OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from CAHRA, we require our mining partners to offer publicly available grievance channels such as the ones we offer. The existence of such mechanisms is checked during on-site assessments, and if mechanisms are found to be lacking, the creation and correct setup of such a channel is required. In addition, grievances can be addressed at LBMA, LPPM, RMI, and RJC.

We also engage with different industry associations and NGOs supporting specific regions and industries. Many of them are locally well known and connected and can therefore give a detailed framework and local assessment of the working conditions and effects on communities. Sometimes, concerns are raised to them and then passed on.

## Grievance cases

In 2024, no new grievance cases were reported to us. Our subsidiary Argor-Heraeus continued to process two cases reported in 2023. In the first case, we were approached by the NGO Fastenaktion with regard to alleged negative impacts of activities at a Columbian mine. After a detailed exchange, Fastenaktion corrected their analysis and report publicly in 2024. The major aspect of the grievance case was thereby withdrawn. We continue to maintain open dialogue to resolve the remaining aspects. In the second case, representatives from communities in the Dominican Republic raised informal concerns about alleged negative impacts of a mine's activities on nearby communities. After communication with involved NGOs, the mine, and affected communities and a thorough investigation of local developments, the allegation of the grievance could not be confirmed.

## Engaging with NGOs and industry associations

We value the important role of NGOs, civil society, academia, and industry associations in improving the conditions for workers and communities in our upstream value chain. Therefore, we actively engage with a broad group of different stakeholders.

For example, a member of our management team at Argor-Heraeus is a Board Member of the Alliance for Responsible Mining (ARM) and the London Bullion Market Association (LBMA). Heraeus Precious Metals joined the Processors Working Group of the Initiative for Responsible Mining Assurance (IRMA). We have thereby committed to upholding IRMA's Principles of Engagement, contributing to the finalization of IRMA's Standard for Responsible Mineral Processing, and encouraging mining suppliers to engage in IRMA through a third-party assessment.

Through our subsidiary Argor-Heraeus, we are a founding member of the Swiss Better Gold Association. This non-profit foundation seeks to bring together the different agents of the gold mining value chain in formalizing and supporting artisanal and small-scale mining (ASM). We also support the Fairmined and Fairtrade initiatives to advocate for more sourcing from responsible ASM, to help mines phase out the use of mercury, and to improve working and living conditions. We are furthermore part of the LBMA's refiners committee, the compliance working group, and the ASM working group and are actively participating in the continuous

# Workers and affected communities in our value chain

improvement of their Responsible Gold Guidance. Similarly, we are strengthening such standards in the jewelry industry as part of the RJC's standards committee.

Despite gold mining forming the basis of income for millions of people, it comes with a higher likelihood of adverse impacts. As part of our risk mitigation efforts, we put a particular focus on exchange with civil society and academia from the gold mining environment. For more than ten years, we have established a regular exchange and invite civil society to address and discuss their concerns with us. Due to the exposed position of the gold value chain, our subsidiary Argor-Heraeus established a Sounding Board in 2017, composed of representatives from the corporate, academic, and NGO sectors; their names and roles can be found on the Argor-Heraeus website. Issues relating to sustainability and responsibility are discussed together with the Sounding Board with the aim of fine-tuning our practices and ensuring continuous effort toward excellence in business conduct.

## Supporting social development projects

To foster positive change within the gold supply chain, our subsidiary Argor-Heraeus introduced "Traceable Gold" in 2019 in collaboration with a Swiss bank. This investment product allows customers to trace each piece back to its mine of origin. The product is sold at a premium, and the profits are accumulated in a fund dedicated to financing social development projects in countries of gold extraction. The allocation of these funds is decided upon by a sounding board, consisting of seven independent experts from various sectors of society.

In 2023, the sounding board awarded the "Emprende Pallaquera" initiative. "Pallaqueras" are women who manually sort gold in Peru's ASM communities. Emprende Pallaquera strives to promote gender equality by supporting the economic independence of these women. It equips them with essential business skills and knowledge to launch their own microenterprises. This initiative is made possible by the non-profit organizations Solidaridad and FUNDES.

Thanks to the program, three microenterprises driven by 28 Pallaqueras took up business in 2024. Four more microenterprises with 25 women involved will go to market in 2025.

We are currently in alignments on the next social development project to be supported by the funds.

# Guided by integrity

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# Compliance and anti-corruption

## Impacts

Recycling and refining precious metals carry the risk of being misused for or involuntarily involved in corrupt activities, such as money laundering. In particular gold and silver that origins from or passes through conflict-affected and high-risk areas (CAHRA) can potentially contain material from dubious sources.

Heraeus Precious Metals is aware of these hazards, does not tolerate such behavior, and has established policies and procedures to combat corruption as well as violations of human rights and other unethical practices. While this chapter puts a focus on anti-corruption, more information on human rights aspects can be found in the chapter **Workers and affected communities in our value chain.**

We understand that the trust our stakeholders put in us is based on our high standards of integrity, forthrightness, and responsibility. To live up to our standards, we foster a corporate culture that ensures responsible business practice. The three main facets of our approach to compliance are prevention, detection, and response, with prevention being our top priority. We continually improve our compliance practices to ensure that they are effective and up to date.

## Ambitions

At Heraeus Precious Metals, we take all humanly and technically possible steps to ensure that the precious metals in our value chain originate from legitimate and responsible sources and that they are not connected with money laundering, terrorism financing, tax evasion, or any other crime. We want to make sure not to be involved in or associated with any corruption businesses.

## Organization and responsibilities

The Heraeus Group has defined a compliance management system for all business activities, which also applies to Heraeus Precious Metals. The responsibility for ensuring compliance lies with the respective site's management, while all management levels and employees are required to combat corruption and money laundering, safeguard human rights, and ensure fair competition. Internal communications, company guidelines, and periodic training reinforce employees' awareness of anti-corruption and their responsibility to report suspected violations as well as concerns.

If a compliance issue is reported locally, the compliance team at the site for which the report was filed investigates it. If necessary, the matter is reported to Heraeus Precious Metals' Global Head of Compliance and/or the Heraeus Group Compliance Officer. If an issue is brought up directly to Heraeus Precious' Metals Global Head of Compliance or the Heraeus Group Compliance Officer, for example, via the Group's compliance channel Heraeus SpeakUp, the report is evaluated regarding potential conflict of interest to decide where the investigation should be conducted. There is also a parallel reporting path up the management hierarchy that extends from the management of individual facilities and Business Lines to the CEO of Heraeus Precious Metals. At each level of hierarchy, compliance officers and management work closely together.

With regards to the sourcing of precious metals and as described in the chapter **Workers and affected communities in our value chain**, our compliance department, headed by the Heraeus Precious Metals' Global Head of Compliance, reports quarterly to the Sourcing Committee, which is composed of the CEO, Business Line Heads, Region Heads, and further sourcing-relevant internal stakeholders. In this format, the Global Head of Compliance presents the latest procedural, organizational, and regulatory developments in the context of precious metals sourcing, informs about recent challenges in the compliance process and seeks approval of major high-risk precious metals business partners.

# Compliance and anti-corruption

## Policies and regulations

The Heraeus Group had a **Code of Conduct** in place since 2007. It is binding for the entire Heraeus Group and applies to everyone working for Heraeus Precious Metals. Its principles reflect our high standards of integrity, forthrightness, and responsibility, which we believe are essential for our long-term business success. Heraeus aims to comply with all applicable national and international laws and regulations. Violations of the Code are taken very seriously and may result in disciplinary action, including termination.

We also expect our business partners to comply with similarly high standards. Our expectations toward suppliers, including mining and secondary precious metals business partners, are laid down in our **Supply Chain Due Diligence Policy**. Beyond the aspects already described under **Workers and affected communities in our value chain**, it also addresses compliance with responsible business standards and prevention of illegal activities such as bribery or money laundering, fraudulent misrepresentation of the origin of minerals, and non-payment of taxes, fees, or royalties to governances. We furthermore expect all suppliers to either sign the **Heraeus Supplier Code of Conduct** or provide their own standard of similar scope.

Further internal guidelines address business conduct and anti-corruption and are binding for all employees and managers at Heraeus Precious Metals:

- Guideline for the Prevention of Bribery (Entertainment and Gifts)
- Guideline for the Conclusion of Consultancy and Distribution Agreements
- Guideline for the Procurement of Products and Services
- Guideline for the Prevention of Money Laundering
- Guideline for the Prevention of Antitrust Violation

We train our organization in a risk-based approach. Employees in functions with a higher risk of exposure to corruption, such as procurement, sales, or recycling, are trained annually by our Compliance departments.

### Adherence to regulations and standards

Heraeus Precious Metals' policies and processes aim to ensure compliance with all applicable national and international laws and regulations. This applies to all national, multinational, and supranational foreign trade regulations as well. All employees are obliged to comply with applicable export and import prohibitions, official approval requirements as well as relevant duty and tax requirements. In addition, we endorse the Universal Declaration of Human Rights and abide by the regulations of the organizations of which we are a member. Our memberships are described under **Memberships and ratings.**

We comply with the German Supply Chain Due Diligence Act. Our precious metals business all around the world is furthermore governed by strict local and international legislation. For example, our gold and silver business in Switzerland is subject to the laws defined by the State Secretariat for Economic Affairs (SECO) and the Precious Metals Control Act (PMCA), which are the strictest in the world.

## Progress and measures

### Ensuring compliant business conduct

Heraeus Precious Metals prohibits all forms of corruption, including direct or indirect bribery, and undue favors to business partners and public officials. We have measures in place to ensure compliance with our policies and guidelines and to prevent adverse impacts. Heraeus Group, Heraeus Precious Metals, and their Compliance Officers discuss all relevant topics on an ongoing basis and investigate potential incidents to prevent negative impacts. Specific anti-corruption measures include the use of checklists, which enable employees to ask the right questions. We have checklists to eliminate corruption risks relating to procurement, investments, the hiring of sales consultants, and other topics. All processes are documented in the compliance framework. Depending on the case, our Compliance Officers are involved early on.

We train our organization yearly in a risk-based approach according to our Compliance Training Concept. All management and employees in risk functions receive yearly general training on our compliance policies and guidelines. This training explicitly addresses anti-corruption, anti-bribery, and anti-money laundering. In addition, specific functions, such as purchasing and HR, receive extensive training relevant for their area of responsibility.

# Compliance and anti-corruption

In accordance with the Heraeus Compliance Management System, the Heraeus Group Responsibility Office conducts a yearly Compliance Review at all sites in the form of a questionnaire. The purpose of this is to ensure Heraeus Precious Metals adheres to applicable law and corporate policies and guidelines, such as anti-corruption, anti-bribery, and anti-money laundering, and to identify potential issues.

Furthermore, all Heraeus sites are internally audited on a risk basis by our Corporate Audit department every 3 to 5 years. Among others, the audits assess all aspects of potential corruption and verify compliance with the abovementioned policies and guidelines.

Heraeus also maintains its own channels to raise concerns anonymously. These channels are available to everyone inside and outside of our organization. More information can be found under **Workers and affected communities in our value chain.**

Via the internal whistleblowing system, irregularities in the recycling process at Heraeus Precious Metals were identified. At the instigation of Heraeus, a law firm was commissioned to conduct a comprehensive independent investigation of the topic. The investigation comprised two parts. The first part of the investigation had been largely completed and a draft report on this part of the investigation had been available. Irregularities were identified at the Hanau site that were to the detriment of certain customers. These customers were informed swiftly and conversations regarding compensation were initiated. The investigation was subsequently expanded to clarify whether irregularities in the handling of precious metals had also occurred in areas adjacent to the first part of the investigation and was still ongoing at the time of publication of this report.

In response to the findings from part one of the investigation extensive changes at personnel and organization level were already implemented. These also serve to amplify a positive ‘tone from the top’; i.e. from the Supervisory Board and the Board of Managing Directors of Heraeus Holding GmbH. In addition to stopping the irregularities, the company’s response also included to comprehensively strengthen the compliance organization with a direct reporting line to the CEO of Heraeus Holding GmbH. A broad-based corporate culture initiative was launched, involving extensive communication measures from the Board of Managing Directors of Heraeus Holding GmbH and from the shareholders with the aim of clearly and consistently conveying the leadership’s commitment to integrity and compliance at Heraeus and the non-negotiable nature of the Group’s shared values. The corresponding measures will be implemented globally as part of an effective compliance management system.

## Applying strict due diligence to precious metals

Heraeus Precious Metals is determined to prevent itself from being exploited for illegal purposes, such as money laundering, criminal tax evasion, or other fiscal offenses. We apply a strict due diligence process for all primary and secondary precious metals suppliers of our recycling and refining business, regardless of whether we are purchasing the material from them or are processing it for them. Our general due diligence process for precious metals and our specific process for mining partners are described in the chapter **Workers and affected communities in our value chain.**

If we are offered any metals originating from or transiting through CAHRA or with less transparent origins, we conduct an enhanced due diligence check. In this case, further risk-based measures complement our standard due diligence check to prevent acceptance of precious metals of unknown or conflict-affected origin and being misused in corrupt activities.

Depending on the individual situation, these measures can range from requiring third-party assessments or certifications to providing increased transparency, for example by providing detailed transaction lists or video documentation of the incoming material. The primary objective is to obtain transparency and proof of the metals’ origin.

In addition, Heraeus Precious Metals reviews and monitors all transactions undertaken in the course of relationships with its business partners. Heraeus Precious Metals has a robust incoming inspection process for each lot, and specific documents must be received and transactional details entered before any precious metal-containing material is processed.

The regions we consider CAHRA are documented in our internal standard operating procedure as assessed by internationally recognized indices such as the Global Risk Index, the Heidelberg

# Compliance and anti-corruption

Institute for Internal Conflict Index, and the Corruption Perception Index as well as the EU's CAHRA List and sanctions lists from the EU, USA, and UN.

## Improving traceability

Knowing the origin of the metals we source and confirming they are not associated with conflict is not only relevant for ourselves. Our customers as well as their customers also seek confirmation of the responsible nature of the precious metals they buy.

Heraeus Precious Metals has taken significant steps to ensure the traceability of gold from primary sources, providing customers with proof of origin. For all primary gold entering our gold refining site in Mendrisio, Switzerland, we conduct a thorough geoforensic analysis including X-ray fluorescence (XRF) scanning to measure the characteristic composition. This allows us to make an exact assignment to its origin.

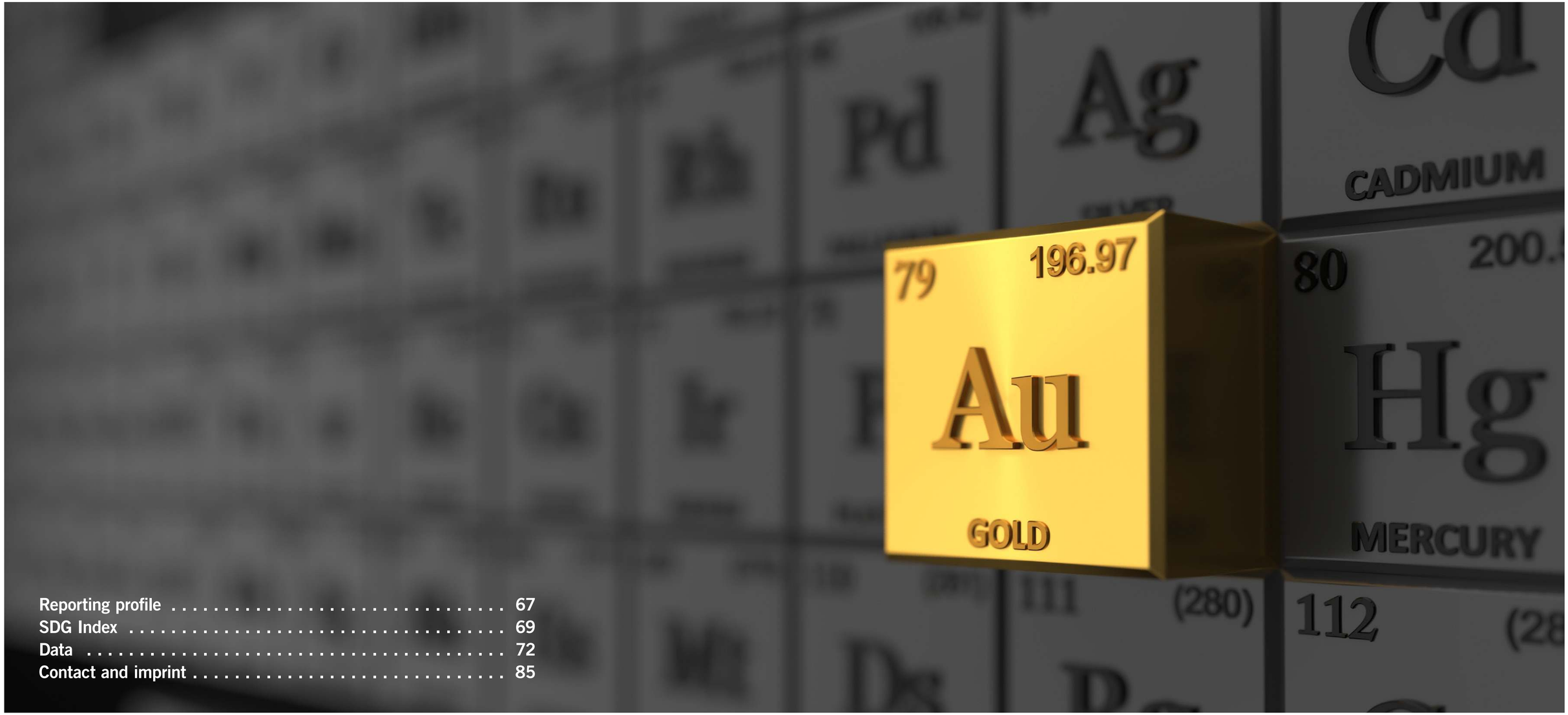
To enable the retrieval of the origin data, we partnered with Alitheon in 2022, a US-based company that specializes in artificial intelligence to identify physical products. The optical software generates digital fingerprints of gold bars that make them identifiable, and traceable even if their stamps or serial numbers are lost. This will allow buyers or investors to identify these bars by photo. It is also possible to provide further information such as their place of origin or carbon footprint.

In addition, we have entered a partnership with the Swiss start-up aXedras, a provider of distributed ledger technology (DLT) specialized in the gold supply chain. DLT enables to save and transfer data from business transactions decentrally and unchangeably. The aim of this collaboration is to create a digital documentation from mine origin to consumer product while guaranteeing data integrity. In the long term, this approach will help us to trace even secondary gold back to its mine of origin, which has been almost impossible until now.

In 2025, we will work on aggregating information from the different methods into one seamless customer platform, which will provide customers of traceable gold product lines with information about the production date and provenance of the gold that their bar is made of.

At the beginning of 2025, Argor-Heraeus introduced two traceable gold product lines under its own branding. The "Small Craft" gold product line only includes gold from ASM mines accredited by the leading ASM-focused programs. The "Origin Traced" gold product line only contains gold from large-scale mines selected on the basis of their best-in-class commitment to responsible conduct, working conditions, and environmental welfare.

# Facts and figures

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# Reporting profile

This is a voluntary sustainability report to communicate our sustainability strategy, targets, and progress transparently and on a regular basis. The report is aimed at our various internal and external stakeholders, including our employees, customers, contractors, business partners, and suppliers as well as policymakers, non-governmental organizations, and the public at large. It is publicly available in English language.

## Structure and content

The report's purpose is to describe our most important sustainability topics, our approach to managing them, and the progress we made in the reporting period. It presents our sustainability targets and the key performance indicators (KPIs) and data points we use to measure progress toward them.

We conducted a double materiality analysis using the method prescribed by the Corporate Sustainability Reporting Directive (CSRD). The results provide the framework for the contents of this report. Further information on the process and methodology applied in the double materiality analysis can be found in the Heraeus Group's Sustainability Report 2024, which is publicly available on the **Heraeus website.**

## Reporting period and scope

The reporting period is the 2024 financial year (January 1 to December 31). The editorial deadline was September 2025.

Unless otherwise stated, this report includes data of Heraeus Precious Metals in the subsidiaries listed on this page based on the following two approaches:

In default, we utilize an operational control approach. This approach includes data from our production, recycling, and trading operations, and is applied to climate, resources, and health and safety disclosures.

For topics where our business has a holistic relevance, we apply a financial consolidation approach. This approach furthermore includes data from sales offices over which we have no operational control, but which are consolidated in our financial reporting. It is applied to all other data disclosures related to our employees and our own workforce.

### Subsidiaries under operational control:

- Argor-Heraeus Deutschland GmbH
- Argor-Heraeus Italia S.p.A.
- Argor-Heraeus SA
- Heraeus Ltd.
- Heraeus Materials Technology Shanghai Ltd.
- Heraeus Metal Processing Ltd.
- Heraeus Metals Germany GmbH & Co. KG
- Heraeus Metals Hong Kong Ltd.
- Heraeus Metals New York LLC
- Heraeus Metals (Shanghai) Co., Ltd.
- Heraeus PGM SA (Pty.) Ltd.
- Heraeus Precious Metal Technology (China) Co., Ltd.
- Heraeus Precious Metals GmbH & Co. KG[21]
- Heraeus Precious Metals North America LLC
- Heraeus Recycling Technology Canada Ltd.[22]
- Heraeus South Africa (Pty.) Ltd.[23]
- Heraeus Tokmak Kiymetli Madenler Sanayi A.S.

### Sales office subsidiaries without operational control:

- Heraeus K.K.
- Heraeus Korea Corporation
- Heraeus Materials Singapore Pte. Ltd.
- Heraeus Materials Technology Taiwan Ltd.
- Heraeus S.A.S.
- Heraeus S.p.A.

### Partly owned subsidiaries (joint ventures) without operational control, not included in this report except for Scope 3 category 15:[24]

- Argor-Aljba SA (50% shareholding)
- BASF Heraeus Metal Resource Co., Ltd. (50% shareholding)
- Choksi Heraeus Private Ltd. (50% shareholding)
- Ravindra Heraeus Private Ltd. (50% shareholding)

[21] Formerly Heraeus Deutschland GmbH & Co. KG
[22] Acquired in June 2024; formerly McCol Metals Canada Ltd.
[23] By the end of 2024 all Heraeus South Africa (Pty.) Ltd. business activities had been moved to Heraeus PGM SA (Pty.) Ltd.
[24] Argor-Heraeus sold its minority shareholding in Argor-Heraeus Latin America SpA in October 2023.

# Reporting profile

## Definitions and methodologies applied

### Corporate Carbon Footprint

Our GHG emission reporting is aligned with the Greenhouse Gas Protocol.

For Scope 1 emission calculations, we use constant/physical factors. These are stable over time and can be applied to all years. To reflect the individual composition of the energy types, site-specific constant factors can be applied, if available. If no site-specific factor is available, a global average is applied.

We separately disclose our Scope 2 emissions calculated with market-based factors and calculated with location-based factors. Market-based factors are supplier-specific factors of our energy providers, e.g. our electricity suppliers, and vary over time. The factors are updated once a year as soon as new factors are available. Location-based factors represent a country average and are updated once per year using the figures of the International Energy Agency (IEA). We also apply location-based factors if a local energy supplier does not disclose a market-based factor.

Scope 3 emission calculations are based on industry- or supplier-specific emission factors. If no primary data is available, a matching emission factor from the Ecoinvent or Exiobase database is applied.

In the past three years, the Corporate Carbon Footprint of Heraeus Precious Metals was verified by TÜV SÜD Industrie Service GmbH in accordance with DIN EN ISO 14064-3 on the basis of the Corporate Carbon Footprint Reports for financial years 2020, 2021, 2022, and 2023. The annual verification has certified a high level of quality in our calculations. Moving forward, we plan to merge processes for external verification of our non-financial reporting with the overall verification processes of the Heraeus Group. Due to delays and changes concerning the European reporting standards, this step is still pending, with details to be decided in the course of 2025.

### Own workforce

Our own workforce consists of employees and non-employees. The definition of employees in the sustainability reporting is aligned with the Heraeus Group's financial reporting and represents all active employees of Heraeus Precious Metals. Unless stated otherwise, all employee data reported are year-end headcount figures. Non-employees only consist of temporary workers. Due to data availability reasons, figures relating to non-employees are year-end FTE values.

In addition to the definition of our own workforce, the employee figures related to health and safety disclosures also comprise vocational trainees/apprentices, working students, and interns to account for Heraeus' responsibility for their health and safety at the workplace.

### Other

All references to tons mean metric tons.

Discrepancies in totals may be caused by rounding in reported data.

# SDG Index

In 2015, the United Nations Member States adopted the 2030 Agenda for Sustainable Development. It sets out 17 Goals, which aim to transform our world: They are the call to action to end poverty and inequality, protect the planet, and ensure that all people enjoy health, justice, and prosperity.

We support the United Nations Sustainable Development Goals (SDGs) and continuously review, adapt, and examine our own contributions, actions, and measures toward achieving them. By thoroughly reviewing our value chain and business activities, we have identified areas where we can make a positive impact on the SDGs:

| | SDG goal | | Report chapter |
|---|---|---|---|
| 3 GOOD HEALTH AND WELL-BEING | **GOAL 3. Ensure healthy lives and promote well-being for all at all ages** | | |
| | 3.4 | By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being | Our sustainability approach > Our pledge to sustainability > Precious metals foster a better world<br>Our people > Occupational health and safety > Promoting employee health |
| | 3.8 | Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all | Our people > Working conditions and people development<br>Our people > Occupational health and safety > Promoting employee health |
| 4 QUALITY EDUCATION | **GOAL 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all** | | |
| | 4.4 | By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship | Our people > Working conditions and people development |
| 5 GENDER EQUALITY | **GOAL 5. Achieve gender equality and empower all women and girls** | | |
| | 5.1 | End all forms of discrimination against all women and girls everywhere | Our people > Diversity |
| | 5.4 | Recognize and value unpaid care and domestic work through the provision of public services, infrastructure and social protection policies and the promotion of shared responsibility within the household and the family as nationally appropriate | Our people > Diversity |
| | 5.5 | Ensure women's full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life | Our people > Diversity |
| 6 CLEAN WATER AND SANITATION | **GOAL 6. Ensure availability and sustainable management of water and sanitation for all** | | |
| | 6.4 | By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity | Resources > Water |

# SDG Index

| | SDG goal | | Report chapter |
|---|---|---|---|
| 7 AFFORDABLE AND CLEAN ENERGY | **GOAL 7. Ensure access to affordable, reliable, sustainable and modern energy for all** | | |
| | **7.2** | By 2030, increase substantially the share of renewable energy in the global energy mix | Climate > GHG emissions and energy |
| | **7.3** | By 2030, double the global rate of improvement in energy efficiency | Climate > GHG emissions and energy |
| 8 DECENT WORK AND ECONOMIC GROWTH | **GOAL 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all** | | |
| | **8.3** | Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services | People in our value chain > Engaging with NGOs and industry associations<br>People in our value chain > Supporting social development projects |
| | **8.5** | By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value | Our people > Diversity<br>Our people > Working conditions and people development |
| 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE | **GOAL 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation** | | |
| | **9.3** | Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets | People in our value chain > Engaging with NGOs and industry associations |

# SDG Index

| | SDG goal | | Report chapter |
|---|---|---|---|
| 12 RESPONSIBLE CONSUMPTION AND PRODUCTION | **GOAL 12. Ensure sustainable consumption and production patterns** | | |
| | **12.2** | By 2030, achieve the sustainable management and efficient use of natural resources | Our sustainability approach > Precious metals foster a better world<br>Resources > Circular economy<br>Resources > Water<br>Resources > Biodiversity |
| | **12.4** | By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment | Our sustainability approach > Precious metals foster a better world<br>Climate > Air pollution<br>Resources > Circular economy (Waste)<br>Resources > Biodiversity > Biodiversity aspects in the management of our mining partners |
| 13 CLIMATE ACTION | **GOAL 13. Take urgent action to combat climate change and its impacts** | | |
| | **13.1** | Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries | Our sustainability approach > Precious metals foster a better world<br>Climate > GHG emissions and energy |
| | **13.2** | Integrate climate change measures into national policies, strategies and planning | Climate > GHG emissions and energy |
| 17 PARTNERSHIPS FOR THE GOALS | **GOAL 17. Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development** | | |
| | **17.6** | Enhance the Global Partnership for Sustainable Development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and financial resources, to support the achievement of the Sustainable Development Goals in all countries, in particular developing countries | About us > Memberships and ratings > Memberships<br>Resources > Circular economy > Policies and regulations<br>People in our value chain > Engaging with NGOs and industry associations |

# Data

## Sites[25]

| | Unit | 2023 | 2024 |
|---|---|---|---|
| **Total operative sites[26]** | **#** | **13** | **14** |
| Thereof production and recycling sites | # | 12 | 13 |
| Thereof trading sites | # | 5 | 5 |
| Countries with operative sites | # | 8 | 9 |

[25] Not incl. joint venture sites as we do not have operational control
[26] A few operative sites are considered both a production and recycling site and a trading site.

# Data

## Energy consumption

| Energy consumption and mix | Unit | 2019 Base year (BY) | 2023 | 2024 | Change 2023 to 2024 | Change BY to 2024 |
|---|---|---|---|---|---|---|
| **Total energy consumption** | **MWh** | **198,072** | **172,091** | **165,252** | **-4.0%** | **-16.6%** |
| | **%** | **100%** | **100%** | **100%** | | |
| **Consumption from fossil sources** | | | | | | |
| Total consumption from fossil sources | MWh | 187,031 | 124,592 | 117,847 | -5.4% | -37.0% |
| | % | 94.4% | 72.4% | 71.3% | | |
| Fuel consumption from fossil sources | MWh | 88,752 | 78,271 | 67,927 | -13.2% | -23.5% |
| Thereof coal and coal products | MWh | 0 | 0 | 0 | +0% | +0% |
| Thereof crude oil and petroleum products | MWh | 1,297 | 1,102 | 1,164 | +5.6% | -10.2% |
| Thereof natural gas | MWh | 87,455 | 77,169 | 66,763 | -13.5% | -23.7% |
| Thereof other fossil sources | MWh | 0 | 0 | 0 | +0% | +0% |
| Consumption of purchased or acquired energy from fossil sources | MWh | 98,279 | 46,321 | 49,920 | +7.8% | -49.2% |
| Thereof electricity | MWh | 66,176 | 24,999 | 32,804 | +31.2% | -50.4% |
| Thereof heat/district heating | MWh | 22,750 | 12,613 | 11,555 | -8.4% | -49.2% |
| Thereof cooling | MWh | 926 | 693 | 0 | -100% | -100% |
| Thereof steam | MWh | 7,004 | 6,050 | 4,624 | -23.6% | -34.0% |
| Thereof compressed air | MWh | 1,423 | 1,965 | 936 | -52.4% | -34.2% |
| **Consumption from nuclear sources** | | | | | | |
| Consumption from nuclear sources | MWh | 10,161 | 624 | 779 | +24.8% | -92.3% |
| | % | 5.1% | 0.4% | 0.5% | | |
| **Consumption from renewable sources** | | | | | | |
| Total consumption from renewable sources | MWh | 879 | 46,875 | 46,626 | -0.5% | +5,201.8% |
| | % | 0.4% | 27.2% | 28.2% | | |
| Fuel consumption from renewable sources | MWh | 0 | 0 | 0 | +0% | +0% |
| Consumption of purchased or acquired energy from renewable sources | MWh | 0 | 44,340 | 41,974 | -5.3% | / |
| Thereof electricity | MWh | 0 | 44,340 | 40,025 | -9.7% | / |
| Thereof heat/district heating | MWh | 0 | 0 | 0 | +0% | +0% |
| Thereof cooling | MWh | 0 | 0 | 705 | / | / |
| Thereof steam | MWh | 0 | 0 | 0 | +0% | +0% |
| Thereof compressed air | MWh | 0 | 0 | 1,245 | / | / |
| Consumption of self-generated non-fuel renewable energy | MWh | 879 | 2,535 | 4,652 | +83.5% | +428.9% |
| Thereof electricity from photovoltaic | MWh | 879 | 2,535 | 4,652 | +83.5% | +428.9% |

| Electricity consumption | Unit | 2019 Base year (BY) | 2023 | 2024 | Change 2023 to 2024 | Change BY to 2024 |
|---|---|---|---|---|---|---|
| **Total electricity consumption** | **MWh** | **77,217** | **72,498** | **78,259** | **+7.9%** | **+1.4%** |
| | **%** | **100%** | **100%** | **100%** | | |
| Electricity consumption from renewable sources | MWh | 879 | 46,875 | 44,676 | -4.7% | +4,980.2% |
| | % | 1.1% | 64.7% | 57.1% | | |
| Thereof self-generated renewable electricity | MWh | 879 | 2,535 | 4,652 | +83.5% | +428.9% |
| Thereof purchased or acquired electricity from renewable sources[27] | MWh | 0 | 44,340 | 40,025 | -9.7% | / |

| Self-produced energy | Unit | 2019 Base year (BY) | 2023 | 2024 | Change 2023 to 2024 | Change BY to 2024 |
|---|---|---|---|---|---|---|
| **Total energy production** | **MWh** | **89,631** | **80,806** | **72,579** | **-10.2%** | **-19.0%** |
| | **%** | **100%** | **100%** | **100%** | | |
| Non-renewable energy production | MWh | 88,752 | 78,271 | 67,927 | -13.2% | -23.5% |
| | % | 99.0% | 96.9% | 93.6% | | |
| Renewable energy production | MWh | 879 | 2,535 | 4,652 | +83.5% | +428.9% |
| | % | 1.0% | 3.1% | 6.4% | | |

[27] Sourced via verifiable procurement methods that support a credible claim of renewable electricity, such as contacts with electricity suppliers, PPAs, and EACs.

# Data

## GHG emissions

| | Unit | 2019 Scope 1 and 2 Base year (BY) | 2020 Scope 3 Base year (BY) | 2023 | 2024 | Change 2023 to 2024 | Change BY to 2024 |
|---|---|---|---|---|---|---|---|
| **Total GHG emissions (market-based)** | **$tCO_2e$** | | **14,247,753** | **10,438,748** | **10,442,841** | **+0.04%** | |
| | **%** | | **100%** | **100%** | **100%** | | |
| Total GHG emissions (location-based) | $tCO_2e$ | | 14,250,287 | 10,454,686 | 10,457,662 | +0.03% | |
| Scope 1+2 emissions (market-based) | $tCO_2e$ | 61,385 | 55,730 | 36,295 | 35,372 | -2.5% | -42.4% |
| | **%** | | 0.4% | 0.3% | 0.3% | | |
| Scope 1+2 emissions (location-based) | $tCO_2e$ | 62,174 | 58,264 | 52,233 | 50,194 | -3.9% | -19.3% |
| **Scope 1 GHG emissions** | | | | | | | |
| Scope 1 emissions | $tCO_2e$ | 20,488 | 18,453 | 18,857 | 16,889 | -10.4% | -17.6% |
| | % | | 0.1% | 0.2% | 0.2% | | |
| **Scope 2 GHG emissions[28]** | | | | | | | |
| Scope 2 emissions (market-based) | $tCO_2e$ | 40,897 | 37,277 | 17,438 | 18,483 | +6.0% | -54.8% |
| | % | | 0.3% | 0.2% | 0.2% | | |
| Scope 2 emissions (location-based) | $tCO_2e$ | 41,686 | 39,811 | 33,376 | 33,305 | -0.2% | -20.1% |

| | Unit | 2019 Scope 1 and 2 Base year (BY) | 2020 Scope 3 Base year (BY) | 2023 | 2024 | Change 2023 to 2024 | Change BY to 2024 |
|---|---|---|---|---|---|---|---|
| **Scope 3 GHG emissions[29]** | | | | | | | |
| Scope 3 emissions | $tCO_2e$ | | 14,192,023 | 10,402,454 | 10,407,469 | +0.05% | -26.7% |
| | % | | 99.6% | 99.7% | 99.7% | | |
| Upstream Scope 3 emissions | $tCO_2e$ | | 14,181,247 | 10,382,925 | 10,394,307 | +0.1% | -26.7% |
| Thereof purchased goods—PM (category 1) | $tCO_2e$ | | 13,945,060 | 9,999,282 | 10,253,481 | +2.5% | -26.5% |
| Thereof purchased goods—NPM (category 1) | $tCO_2e$ | | 108,455 | 81,993 | 62,704 | -23.5% | -42.2% |
| Thereof capital goods (category 2) | $tCO_2e$ | | 42,770 | 232,026 | 23,637 | -89.8% | -44.7% |
| Thereof fuel and energy-related activities (category 3) | $tCO_2e$ | | 41,790 | 13,168 | 8,024 | -39.1% | -80.8% |
| Thereof upstream transport (category 4) | $tCO_2e$ | | 35,934 | 33,043 | 25,046 | -24.2% | -30.3% |
| Thereof waste generated in operations (category 5) | $tCO_2e$ | | 3,333 | 6,500 | 11,753 | +80.8% | +252.7% |
| Thereof business traveling (category 6) | $tCO_2e$ | | 965 | 12,255 | 2,281 | -81.4% | +136.3% |
| Thereof employee commuting (category 7) | $tCO_2e$ | | 2,873 | 4,560 | 7,233 | +58.6% | +151.8% |
| Thereof upstream leased assets (category 8)[30] | $tCO_2e$ | | 67 | 97 | 150 | +55.1% | +122.6% |
| Downstream Scope 3 emissions | $tCO_2e$ | | 10,776 | 19,529 | 13,161 | -32.6% | +22.1% |
| Thereof downstream transport (category 9) | $tCO_2e$ | | 6,058 | 4,635 | 2,542 | -45.2% | -58.0% |
| Thereof processing of sold products (category 10) | $tCO_2e$ | | 4,718 | 12,475 | 7,096 | -43.1% | +50.4% |
| Thereof investments (category 15) | $tCO_2e$ | | 0 | 2,419 | 3,523 | +45.6% | / |

[28] Scope 2 data for 2023 differs from previous reporting due to an update with new emission factors for 2023.
[29] From 2024, the calculation of GHG emissions has been aligned with the Heraeus Group's reporting. Scope 3 GHG emissions of the Heraeus Precious Metals sales offices are not material and are included in this report for practicability reasons in line with the Heraeus Group's reporting.
[30] In previous reports, upstream leased assets (category 8) were included in business traveling (category 6).

# Data

## Air pollution[31]

| | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| NOx emissions | t | 84.8 | 67.3 | -20.6% |
| SOx emissions | t | 13.1 | 1.8 | -86.1% |
| Particulate matter emissions | t | 2.52 | 2.45 | -2.7% |

## Circular economy

| Precious metals inflows | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| Secondary share of platinum group metals (PGM) processed in our plants | % | 60.4% | 62.5% | +2.1 |
| Secondary share of gold processed in our plants | % | 20.4% | 17.6% | -2.8 |
| Secondary share of silver processed in our plants | % | 19.2% | 25.0% | +5.8 |

| Non-precious metals (NPM) waste generated[32] | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Total amount of NPM waste generated** | **t** | **10,496** | **8,928** | **-14.9%** |
| | **%** | **100%** | **100%** | |
| Non-hazardous waste | t | 7,529 | 6,221 | -17.4% |
| | % | 71.7% | 69.7% | |
| Hazardous waste | t | 2,967 | 2,707 | -8.8% |
| | % | 28.3% | 30.3% | |

## Water[33]

| | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| Production and recycling sites located in areas at water risk[34] | % | | 46.2% | |
| Water withdrawal | $m^3$ | 345,013 | 345,236 | +0.1% |
| Thereof in areas at water risk | $m^3$ | | 153,443 | |
| | % | | 44.4% | |
| Water discharge | $m^3$ | 314,384 | 305,587 | -2.8% |

## Biodiversity

| | Unit | 2024 |
|---|---|---|
| Production and recycling sites located in or near biodiversity-sensitive areas[35] | # | 6 |
| | % | 46.2% |
| Area of production and recycling sites located in or near biodiversity-sensitive areas[35] | ha | 30.5 |

[31] The air pollutant emissions of each of our facilities lies below the applicable threshold value specified in Annex II of Regulation (EC) No 166/2006. The threshold values per facility are: 100,000 kg/year for NOx; 150,000 kg/year for SOx; 50,000 kg/year for particulate matter. Data does not include Argor-Heraeus Deutschland GmbH, Argor-Heraeus Italia S.p.A., Heraeus Recycling Technology Canada Ltd., Heraeus Tokmak Kiymetli Madenler Sanayi A.S.; due to their processes these sites are considered insignificant.

[32] Data does not include trading operations, as they are considered insignificant for the disclosure.

[33] Data does not include trading operations or Argor-Heraeus Italia S.p.A. and Heraeus Recycling Technology Canada Ltd as they are considered insignificant for the disclosure.

[34] Based Aqueduct 4.0 Water Risk Atlas

[35] Near refers to a five-kilometer proximity.

# Data

## Characteristics of own workforce

| Composition of own workforce | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Total own workforce** | **HC** | **2,734** | **2,782** | **+1.8%** |
| | **%** | **100%** | **100%** | |
| Employees | HC | 2,659 | 2,716 | +2.1% |
| | % | 97.3% | 97.6% | |
| Non-employees | FTE[36] | 75 | 66 | -12.0% |
| | % | 2.7% | 2.4% | |
| Most common type of non-employee | | Production workers | Production workers | |
| Contractual relationship with non-employees in own workforce | | Temporary workers | Temporary workers | |
| Type of work most commonly performed by non-employees in own workforce | | Supporting activities in production | Supporting activities in production | |

| Employees by hierarchy level | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Total employees** | **HC** | **2,659** | **2,716** | **+2.1%** |
| | **%** | **100%** | **100%** | |
| CEO | HC | 1 | 2 | +100.0% |
| | % | 0.04% | 0.1% | |
| Leadership Team[37] | HC | 13 | 13 | +0% |
| | % | 0.5% | 0.5% | |
| Global Management Team[38] | HC | 106 | 113 | +6.6% |
| | % | 4.0% | 4.2% | |
| Employees below Global Management Team level | HC | 2,553 | 2,603 | +2.0% |
| | % | 96.0% | 95.8% | |

## Governance bodies' characteristics and diversity metrics

| Governance bodies by gender and age | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Leadership Team** | | | | |
| Ø years of service | years | 15.2 | 13.6 | |
| **Total** | **HC** | **13** | **13** | **+0%** |
| | **%** | **100%** | **100%** | |
| Women | HC | 4 | 4 | +0% |
| | % | 30.8% | 30.8% | |
| Men | HC | 9 | 9 | +0% |
| | % | 69.2% | 69.2% | |
| Other gender | HC | 0 | 0 | +0% |
| | % | 0% | 0% | |
| Gender diversity rate[39] | rate | 0.44 | 0.44 | +0% |
| <30 years | HC | 0 | 0 | +0% |
| | % | 0% | 0% | |
| 30-39 years | HC | 2 | 2 | +0% |
| | % | 15.4% | 15.4% | |
| 40-49 years | HC | 4 | 6 | +50% |
| | % | 30.8% | 46.2% | |
| 50-59 years | HC | 6 | 5 | -16.7% |
| | % | 46.2% | 38.5% | |
| ≥60 years | HC | 1 | 0 | -100% |
| | % | 7.7% | 0% | |
| Ø age | years | 48 | 47 | |

[36] Due to data availability reasons, figures relating to non-employees are year-end FTE values. For the sake of disclosing a total of people in our own workforce, we assume FTE equals HC.
[37] Incl. CEO
[38] Incl. Leadership Team and CEO
[39] Calculated as sum of women divided by sum of men

# Data

## Governance bodies' characteristics and diversity metrics

| Governance bodies by gender and age | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Global Management Team** | | | | |
| **Total** | **HC** | **106** | **113** | **+6.6%** |
| | **%** | **100%** | **100%** | |
| Women | HC | 41 | 44 | +7.3% |
| | % | 38.7% | 38.9% | |
| Men | HC | 65 | 69 | +6.2% |
| | % | 61.3% | 61.1% | |
| Other gender | HC | 0 | 0 | +0% |
| | % | 0% | 0% | |
| Gender diversity rate[40] | rate | 0.63 | 0.64 | +1.1% |
| <30 years | HC | 1 | 1 | +0% |
| | % | 0.9% | 0.9% | |
| 30–39 years | HC | 23 | 25 | +8.7% |
| | % | 21.7% | 22.1% | |
| 40–49 years | HC | 47 | 48 | +2.1% |
| | % | 44.3% | 42.5% | |
| 50–59 years | HC | 28 | 32 | +14.3% |
| | % | 26.4% | 28.3% | |
| ≥60 years | HC | 7 | 7 | +0% |
| | % | 6.6% | 6.2% | |
| Ø age | years | 44 | 46 | |

| Diversity in Global Management Team | Unit | 2019 Base year (BY) | 2023 | 2024 | Change 2023 to 2024 | Change BY to 2024 |
|---|---|---|---|---|---|---|
| Share of women | % | 19% | 38.7% | 38.9% | +0.2 | +19.8 |
| Share of internationality (non-German) | % | 36% | 44.3% | 44.2% | -0.1 | +8.2 |

[40] Calculated as sum of women divided by sum of men

# Data

## Employee characteristics and diversity metrics

| Employees by region, gender, and age | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Total** | **HC** | **2,659** | **2,716** | **+2.1%** |
| | **%** | **100%** | **100%** | |
| By region, incl. countries with significant employment[41] | | | | |
| Africa | HC | 75 | 73 | -2.7% |
| | % | 2.8% | 2.7% | |
| Asia | HC | 593 | 590 | -0.5% |
| | % | 22.3% | 21.7% | |
| China | HC | 442 | 435 | -1.6% |
| | % | 16.6% | 16.0% | |
| Europe | HC | 1,732 | 1,749 | +1.0% |
| | % | 65.1% | 64.4% | |
| Germany | HC | 1,189 | 1,199 | +0.8% |
| | % | 44.7% | 44.1% | |
| Switzerland | HC | 453 | 471 | +4.0% |
| | % | 17.0% | 17.3% | |
| North America | HC | 259 | 304 | +17.4% |
| | % | 9.7% | 11.2% | |
| USA | HC | 259 | 293 | +13.1% |
| | % | 9.7% | 10.8% | |
| **By gender** | | | | |
| Women | HC | 709 | 695 | -2.0% |
| | % | 26.7% | 25.6% | |
| Men | HC | 1,948 | 2,020 | +3.7% |
| | % | 73.3% | 74.4% | |
| Other gender[42] | HC | 2 | 1 | -50.0% |
| | % | 0.1% | 0.04% | |

| Employees by region, gender, and age | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **By age** | | | | |
| <30 years | HC | 349 | 376 | +7.7% |
| | % | 13.1% | 13.8% | |
| 30–39 years | HC | 839 | 808 | -3.7% |
| | % | 31.6% | 29.7% | |
| 40–49 years | HC | 711 | 745 | +4.8% |
| | % | 26.7% | 27.4% | |
| 50–59 years | HC | 576 | 585 | +1.6% |
| | % | 21.7% | 21.5% | |
| ≥60 years | HC | 184 | 202 | +9.8% |
| | % | 6.9% | 7.4% | |
| Ø age | years | 42 | 42 | |

[41] Incl. countries with significant employment: all countries in which min. 50 employees and min. 10% of total employees were employed in reporting year
[42] Due to the small number of people and in line with our data protection principles, we disclose further gender breakdowns without other gender and in percent values only.

# Data

## Employee characteristics and diversity metrics

| Employees by permanent and fixed-term contract | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Total** | **HC** | **2,659** | **2,716** | **+2.1%** |
| | **%** | **100%** | **100%** | |
| on permanent contract | HC | 2,278 | 2,427 | +6.5% |
| | % | 85.7% | 89.4% | |
| on fixed-term contract | HC | 381 | 289 | -24.1% |
| | % | 14.3% | 10.6% | |
| **Employees on permanent contract** | | | | |
| **Total** | **HC** | **2,278** | **2,427** | **+6.5%** |
| | **%** | **100%** | **100%** | |
| Africa | HC | 74 | 72 | -2.7% |
| | % | 3.2% | 3.0% | |
| Asia | HC | 299 | 355 | +18.7% |
| | % | 13.1% | 14.6% | |
| Europe | HC | 1,653 | 1,701 | +2.9% |
| | % | 72.6% | 70.1% | |
| North America | HC | 252 | 299 | +18.7% |
| | % | 11.1% | 12.3% | |
| Women | % | 27.0% | 25.7% | +1.6% |
| Men | % | 73.0% | 74.3% | +8.4% |

| Employees by permanent and fixed-term contract | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Employees on fixed-term contract** | | | | |
| **Total** | **HC** | **381** | **289** | **-24.1%** |
| | **%** | **100%** | **100%** | |
| Africa | HC | 1 | 1 | +0% |
| | % | 0.3% | 0.3% | |
| Asia | HC | 294 | 235 | -20.1% |
| | % | 77.2% | 81.3% | |
| Europe | HC | 79 | 48 | -39.2% |
| | % | 20.7% | 16.6% | |
| North America | HC | 7 | 5 | -28.6% |
| | % | 1.8% | 1.7% | |
| Women | % | 24.9% | 24.6% | -25.3% |
| Men | % | 75.1% | 75.4% | -23.8% |

# Data

## Employee characteristics and diversity metrics

| Employees by full-time and part-time contract | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Total** | **HC** | **2,659** | **2,716** | **+2.1%** |
| | **%** | **100%** | **100%** | |
| on full-time contract | HC | 2,501 | 2,546 | +1.8% |
| | % | 94.1% | 93.7% | |
| on part-time contract | HC | 158 | 170 | +7.6% |
| | % | 5.9% | 6.3% | |
| **Employees on full-time contract** | | | | |
| **Total** | **HC** | **2,501** | **2,546** | **+1.8%** |
| | **%** | **100%** | **100%** | |
| Africa | HC | 73 | 70 | -4.1% |
| | % | 2.9% | 2.7% | |
| Asia | HC | 593 | 590 | -0.5% |
| | % | 23.7% | 23.2% | |
| Europe | HC | 1,577 | 1,583 | +0.4% |
| | % | 63.1% | 62.2% | |
| North America | HC | 258 | 303 | +17.4% |
| | % | 10.3% | 11.9% | |
| Women | % | 23.6% | 22.3% | -3.6% |
| Men | % | 76.4% | 77.7% | +3.5% |

| Employees by full-time and part-time contract | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Employees on part-time contract** | | | | |
| **Total** | **HC** | **158** | **170** | **-7.6%** |
| | **%** | **100%** | **100%** | |
| Africa | HC | 3 | 3 | +0% |
| | % | 1.9% | 1.8% | |
| Asia | HC | 0 | 0 | +0% |
| | % | 0% | 0% | |
| Europe | HC | 154 | 166 | +7.8% |
| | % | 97.5% | 97.6% | |
| North America | HC | 1 | 1 | +0% |
| | % | 0.6% | 0.6% | |
| Women | % | 75.9% | 74.7% | +5.8% |
| Men | % | 24.1% | 25.3% | +13.2% |

# Data

## Employee characteristics and diversity metrics

| Employee turnover | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Employees who have left[43]** | | | | |
| **Total** | **HC** | **202** | **221** | **+9.4%** |
| | **Rate in %[44]** | **7.7%** | **8.2%** | **+0.5** |
| Thereof left voluntarily | HC | 167 | 152 | -9.0% |
| | Rate in %[44] | 6.3% | 5.6% | -0.7 |
| **New hires[43]** | | | | |
| **Total** | **HC** | **256** | **221** | **-13.7%** |
| | **%** | **100%** | **100%** | |
| Africa | HC | 7 | 3 | -57.1% |
| | % | 2.7% | 1.4% | |
| Asia | HC | 74 | 50 | -32.4% |
| | % | 28.9% | 22.6% | |
| Europe | HC | 114 | 82 | -28.1% |
| | % | 44.5% | 37.1% | |
| North America | HC | 61 | 86 | +41.0% |
| | % | 23.8% | 38.9% | |
| Women | HC | 65 | 42 | -35.4% |
| | % | 25.4% | 19.0% | |
| Men | HC | 191 | 179 | -6.3% |
| | % | 74.6% | 81.0% | |
| Other gender | HC | 0 | 0 | +0% |
| | % | 0% | 0% | |

[43] Only incl. employees who left/joined the Heraeus Group; transfers within the Heraeus Group are not included; differs from previous reporting, which also included transfers within the Heraeus Group
[44] Turnover rate calculated as number of employees who left divided by the average month-end employee headcount

# Data

## Collective bargaining coverage and social dialogue

| Employees covered by collective bargaining agreements[45] | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Covered employees worldwide** | **HC** | **1,195** | **1,202** | **+0.6%** |
| | **%** | **44.9%** | **44.3%** | |
| Covered employees in the European Economic Area (EEA) | HC | 1,195 | 1,202 | +0.6% |
| | % | 96.1% | 96.2% | |
| Covered employees in Germany | HC | 1,173 | 1,180 | +0.6% |
| | % | 98.7% | 98.4% | |
| Covered employees outside the EEA | HC | 0 | 0 | +0% |
| | % | 0% | 0% | |

| Employees covered by workers' representatives | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Covered employees worldwide** | **HC** | **2,205** | **2,227** | **+1,0%** |
| | **%** | **82.9%** | **82.0%** | |
| Covered employees in the European Economic Area (EEA) | HC | 1,194 | 1,204 | +0.8% |
| | % | 96.1% | 96.3% | |
| Covered employees in Germany | HC | 1,172 | 1,182 | +0.9% |
| | % | 98.6% | 98.6% | |
| Covered employees outside the EEA | HC | 1,011 | 1,023 | +1.2% |
| | % | 71.4% | 69.8% | |

## Training and skills development

| Training hours[46] | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Average number of training hours per employee** | **Ø hours** | **5.7** | **5.2** | **-0.8%** |
| per female employee | Ø hours | 5.5 | 5.8 | +4.5% |
| per male employee | Ø hours | 5.7 | 5.0 | -12.3% |

[45] Incl. agreements on national, industry, or company level
[46] Incl. all training tracked in the Heraeus myLearning platform; differs from previous reporting, which only included e-learnings

# Data

## Family-related leave

| | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Employees entitled to maternity/paternity leave** | | | | |
| Entitled employees | HC | 1,615 | 1,729 | +7.1% |
| | % | 60.7% | 63.7% | |
| Entitled employees who took maternity/paternity leave | HC | 41 | 56 | +36.6% |
| Thereof women | % | 56.1% | 62.5% | +52.2% |
| Thereof men | % | 43.9% | 37.5% | +16.7% |
| **Employees entitled to parental leave** | | | | |
| Entitled employees | HC | 2,013 | 2,022 | +0.4% |
| | % | 75.7% | 74.4% | |
| Entitled employees who took parental leave | HC | 135 | 139 | +3.0% |
| Thereof women | % | 40.0% | 38.1% | -1.9% |
| Thereof men | % | 60.0% | 61.9% | +6.2% |
| **Employees entitled to carer's leave** | | | | |
| Entitled employees | HC | 1,711 | 1,729 | +1.1% |
| | % | 64.3% | 63.7% | |
| Entitled employees who took carer's leave | HC | 6 | 11 | +83.3% |
| Thereof women | % | 66.7% | 45.5% | +25.0% |
| Thereof men | % | 33.3% | 54.5% | +200.0% |

## Health and safety

| Health and safety (H&S) management systems | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **People in own workforce covered** | | | | |
| by an H&S management system | HC | 2,589 | 2,627 | +1.5% |
| | % | 95.8% | 95.3% | |
| by an H&S management system, externally audited according to ISO 45001 | HC | 2,238 | 2,240 | +0.1% |
| | % | 82.8% | 81.2% | |

# Data

## Health and safety

| Work-related injuries and work-related ill health among own workforce | Unit | 2023 | 2024 | Change 2023 to 2024 |
|---|---|---|---|---|
| **Fatalities** | **#** | **0** | **0** | **+0%** |
| **Incidents with serious consequence[47]** | **#** | **0** | **1** | **/** |
| Thereof with regard to employees | # | 0 | 1 | / |
| Thereof with regard to non-employees | # | 0 | 0 | +0% |
| **Recordable work-related incidents leading to injuries and/or ill health** | **#** | **51** | **35** | **-31.4%** |
| | **Rate[48]** | **9.92** | **6.78** | **-31.6%** |
| Thereof with regard to employees | # | 49 | 35 | -28.6% |
| | Rate[48] | 9.81 | 6.94 | -29.3% |
| Thereof with regard to non-employees | # | 2 | 0 | -100.0% |
| | Rate[48] | 13.64 | 0.00 | -100.0% |
| **Recordable work-related lost time incidents (LTI)[49]** | **#** | **25** | **16** | **-36.0%** |
| | **Rate[48]** | **4.86** | **3.10** | **-36.2%** |
| Thereof with regard to employees | # | 24 | 16 | -33.3% |
| | Rate[48] | 4.80 | 3.17 | -34.0% |
| Thereof with regard to non-employees | # | 1 | 0 | -100.0% |
| | Rate[48] | 6.82 | 0 | -100.0% |
| **Lost days[50]** | **Days** | **443** | **429** | **-3.2%** |
| | **Rate[51]** | **0.09** | **0.08** | **-3.5%** |
| Thereof with regard to employees | Days | 341 | 429 | +25.8% |
| | Rate[51] | 0.07 | 0.08 | +25.4% |
| Thereof with regard to non-employees | Days | 102 | 0 | -100.0% |
| | Rate[51] | 0.02 | 0.00 | -100.0% |
| **Working hours** | **Million hours** | **5.14** | **5.16** | **+1.6%** |
| Thereof with regard to employees | Million hours | 5.00 | 5.05 | +5.0% |
| Thereof with regard to non-employees | Million hours | 0.15 | 0.11 | -3.3% |

[47] Injuries from which a worker cannot, does not, or is not expected to recover fully to pre-injury health status within six months; excluding fatalities
[48] Calculated as number of incidents per 1,000,000 working hours
[49] Incidents with lost time of one day or more
[50] Calculated for each LTI as calendar days from the first full day of absence to the last full day of absence; differs from previous reporting, which only considered lost working days
[51] Calculated as number of lost days per 1,000 working hours (LTI severity rate)

## People in our value chain

| Grievance cases | Unit | 2023 | 2024 |
|---|---|---|---|
| Grievance cases newly identified in reporting year | # | 2 | 0 |
| Grievance cases processed in reporting year[52] | # | 3 | 2 |

[52] Incl. grievance cases reported in previous periods

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