SUSTAINABILITY REPORT

2023

PLANSEE

PLANSEE
one strong group

CERATIZIT GROUP

Editorial

Dear readers, employees, customers and partners

Ever since the Plansee Group was founded in 1921, sustainability has been top of mind. Hydropower from Lake Plansee, for example, has powered our machines since day one and remains a key part of our renewable energy mix at the Reutte site.

And for over a century, we've also manufactured molybdenum and tungsten products. Our aim is to use these materials to enable high-tech applications and technological progress and achieve top performance across the entire value chain.

As a private company, our aim is to always find the right balance between social, environmental and economic goals – for the benefit and success of our customers, employees and business partners as well as the people at our sites.

In 2021, we defined four focal areas of sustainability: products, production, procurement and people. Since 2022, we have been working on a plan to gradually reduce CO_2 emissions, focusing on the areas where we can to set our Plansee HPM and CERATIZIT business areas apart from our competition and maximize our progress. These include purchasing renewably sourced electricity, producing hydrogen through electrolysis and recycling raw materials. At the same time, we strive to be the best employer for current and future employees.

In this first group-wide report, we summarize the Plansee Group's approach to sustainability and its activities in the fiscal year 2023/24 and give an overview on some upcoming key measures.

We are committed to working hard on our own sustainability goals and those that are defined as legal requirements. At the same time, the Plansee HPM and CERATIZIT business areas are key suppliers to many companies. As such, an important goal is to help our customers operate more sustainably. That's why we will spend this year working intensively with suppliers and customers to define further steps and develop innovative products that will make our industry and supply chains more sustainable.

The Executive Board of the Plansee Group (from left to right): Ulrich Lausecker, Andreas Lackner, Karlheinz Wex (Chairman) and Andreas Schwenninger

The Plansee Group includes the Plansee HPM and CERATIZIT business areas. HPM stands for High Performance Materials. When the Plansee Group is mentioned in this report, "Plansee Group" is written. When the Plansee HPM business area is meant, "Plansee HPM" is written.

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About the Plansee Group

Our aim is to always find the right balance between social, environmental and economic goals – for the benefit and success of our customers, employees and business partners as well as the people at our sites.

The Executive Board of the Plansee Group

One strong group

The Plansee Group strives for excellence to develop and manufacture the best products and tools for the customers. As clear as the positioning in the respective markets is, as close is the cooperation within the Group.

The Plansee Group specializes in processing molybdenum and tungsten using powder metallurgy and has production sites and sales offices in more than 30 countries. The portfolio includes thousands of different products and tools.

The business is privately held by Plansee Holding AG, with 100% of the shares owned by the Austria-based Flatlake Private Foundation. Plansee Holding AG is headquartered in Breitenwang/Reutte in Austria.

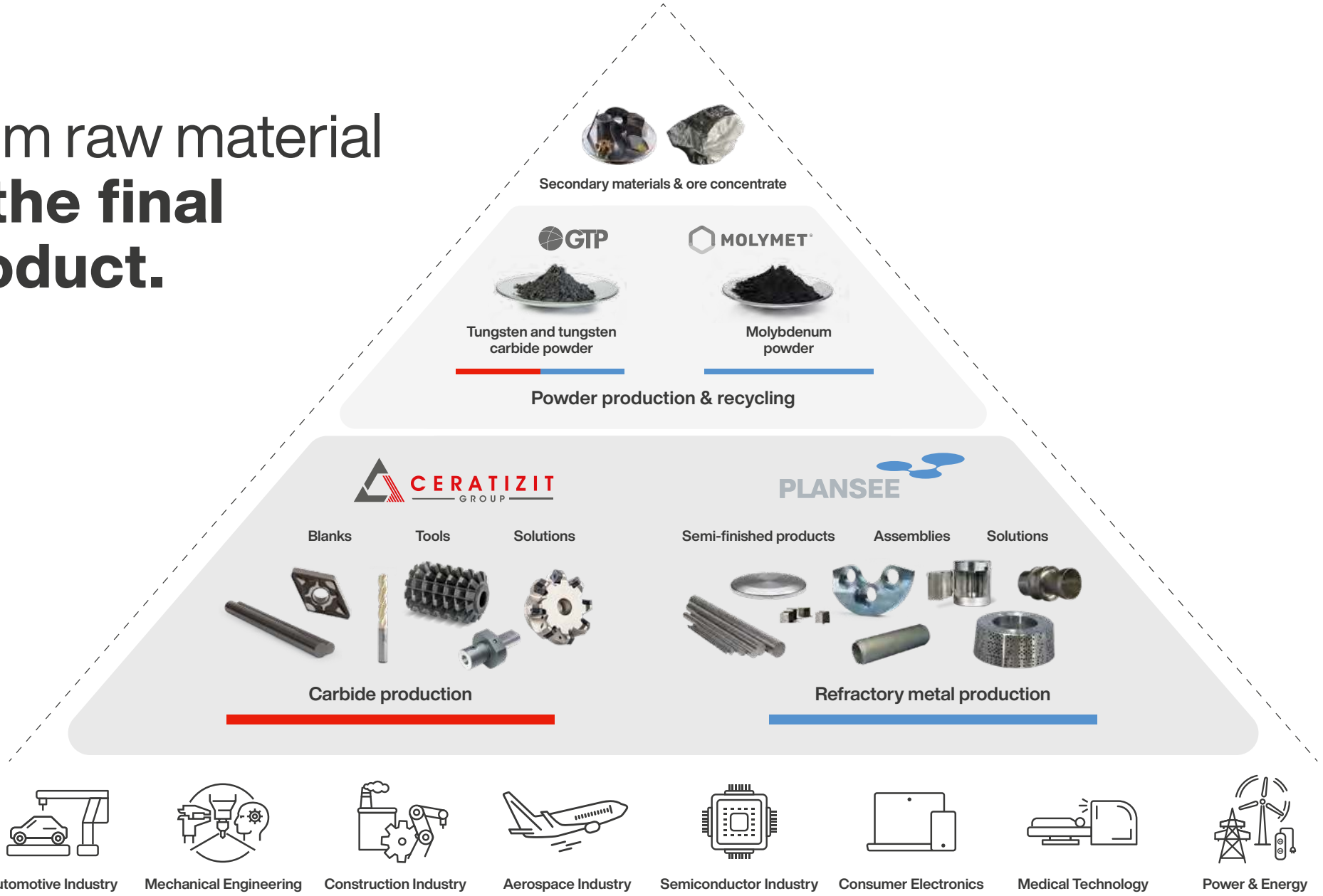
The main shareholdings of Plansee Holding AG include **Plansee SE** and **CERATIZIT S.A.** Plansee Group Functions bundles groupwide service functions such as IT, HR, Procurement, Controlling and Finance.

The Plansee Group is backward integrated into raw material powder supply: **Global Tungsten & Powders Corp. (GTP),** a CERATIZIT subsidiary, supplies tungsten and tungsten carbide powders for both Plansee Group and external customers. **Molybdenos y Metales S.A. (Molymet),** in which the Plansee Group is a strategic shareholder, supplies molybdenum powders.

More about this in the **“Materials”** chapter.

The Plansee Group includes the two companies Plansee HPM (handling tungsten and molybdenum metal materials) and CERATIZIT (handling tungsten carbide tools and products). Raw material supply is guaranteed via Global Tungsten & Powders and Molymet.

From raw material to **the final product.**



Strong Metals. Strong Products.

Focusing on high-performance materials, Plansee HPM takes care of industries that need safe and long-lasting products – and by that, builds a long-lasting future.

Plansee HPM is the expert in molybdenum and tungsten products. Founded in 1921 in Reutte, Austria, the company now has 12 production sites in Asia, the USA and Europe and a global sales network.

The refractory metals, alloys and composite materials from Plansee HPM are used in the semiconductor industry, consumer electronics, coating technology or high-temperature furnaces. From tiny heat sinks to huge furnace installations: with its strong metals, Plansee HPM delivers top-quality products worldwide.

Plansee HPM covers the entire production process in-house, from ore concentrate right to the custom component. It prioritizes innovation partnerships and R&D to help customers maximize productivity and encourage technological innovation. The company works closely with customers to develop new materials and product solutions for forward-looking technologies geared towards clean energy, medical engineering, electronics and mobility.

Going forward, Plansee HPM aims to remain the industry's preferred partner for refractory metals. And that's why it continuously invests in the training and development of its employees as well as in production capacities and state-of-the-art technology: from powder manufacturing and powder metallurgy processes to custom machining and raw material recycling.

Key facts

- **Specializes in molybdenum and tungsten metal products**
- **Produces entirely in-house**
- **Plansee HPM's innovative strength helps its customers achieve their sustainability goals**

More about Plansee HPM: **www.plansee.com**

PLANSEE
one strong group

sustainability
report 2023

PLANSEE

38%

share of sales from new products

+3,000

employees worldwide

12

production sites

Tooling a Sustainable Future

Passion and pioneering spirit for carbide tools determine CERATIZIT's actions. Sustainability has been a key priority for several years. And that's why CERATIZIT reflects its importance in all its communication touchpoints.

For over a century now, CERATIZIT has been developing and producing sophisticated cutting and wear protection solutions from tungsten-based carbide tools. The range goes from highly specialized cutting tools, indexable inserts and carbide rods right up to new carbide and cermet grades when working with wood and stone.

With more than 20 production sites and a global sales network, CERATIZIT is a global carbide industry player. It was formed in 2002 when the Austrian company Plansee Tizit and Luxembourg company CERAMETAL, both of which advanced carbide pioneers since the beginning of the 20th century, joined forces.

As a technology leader in the carbide industry, CERATIZIT holds more than 1000 patents and utility models worldwide and employs more than 200 people in R&D departments worldwide. CERATIZIT also collaborates with leading universities and research centers.

Refining materials and applications on an ongoing basis helps CERATIZIT and its customers create the many machines, tools, applications and consumer goods that shape both our immediate environment and our everyday lives. Its hard material solutions are deployed in various sectors, including mechanical engineering and toolmaking, automotive and aerospace and medical industries. CERATIZIT is headquartered in Mamer, Luxembourg.

Key facts

- **Specializes in carbide tools**
- **A pioneer in cutting tools and wear parts**
- **First Product Carbon Footprint model in the carbide industry**
- **Decades of expertise in carbide tool recycling technologies**

More about CERATIZIT: **www.ceratizit.com**

CERATIZIT GROUP

38%

share of sales from new products*

+7,000

employees worldwide*

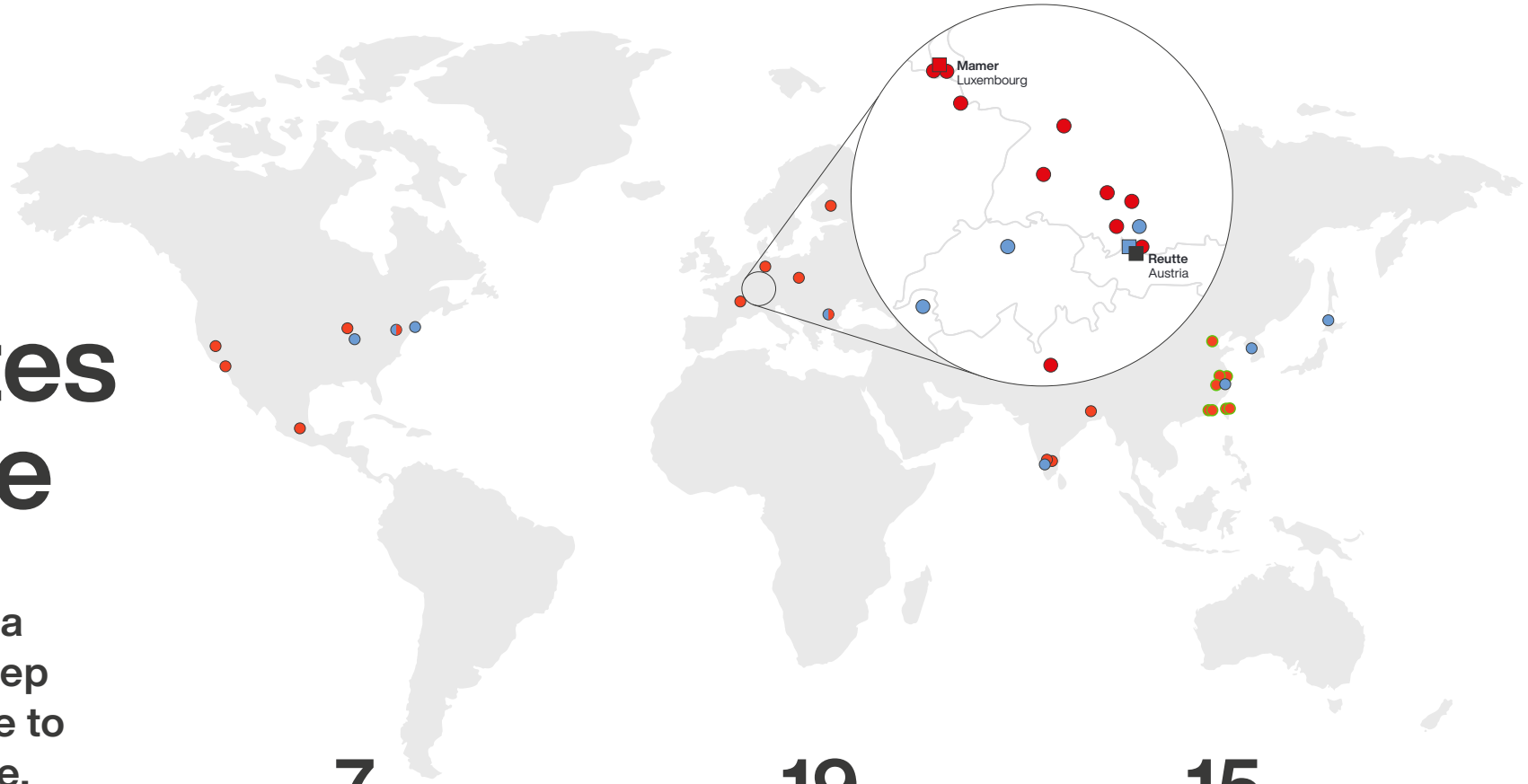
29

production sites*

* CB-CERATIZIT is included in these figures.

41 strong sites worldwide

41 production sites and a global sales network keep the Plansee Group close to its customers worldwide.



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Americas

Chatsworth
Franklin
Indianapolis
Querétaro
Rancho Cordova
Schaumburg
Towanda

19
Europe

Alserio
Balzheim
Besigheim
Creutzwald
Empfingen
Gabrovo
Hanover
Jyväskylä
Kędzierźyn-Koźle
Kempten (logistics)
Lechbruck
Livange
Mamer
Meyzieu
Niederkorn
Reutte
Seon
St. Pierre en Faucigny
Türkheim

15
Asia

Bengaluru | 2x
Changzhou
Esashi
Mysore
Gyeonggi-do
Shanghai | 2x
Taicang
Tamsui
Tianjin
Uluberia
Wugu
Xiamen
Zhangzhou

- Plansee Group
- Plansee HPM
- CERATIZIT
- CB CERATIZIT

- Headquarter
- Production

Highlights

We firmly believe that sustainable action is not only crucial for the environment and society, but also for the long-term success of the company.

Karlheinz Wex,
Chairman of the Executive Board
of the Plansee Group

Facts & Figures

This table highlights the Plansee Group's key figures for the past fiscal year. Further figures are shown in this report.

The figures in this report do not include figures from the joint venture CB-CERATIZIT. If CB-CERATIZIT figures are included, we explicitly indicate this with a footnote.

The figures in this report generally include figures of the service company Plansee Group Functions. If figures of Plansee Group Functions are not included, we explicitly indicate this with a footnote.

Some key figures are only available at Plansee Group level and therefore include both the Plansee HPM and CERATIZIT business areas.

KPI (Definition)		2021/22	2022/23	2023/24
Total number of employees* (headcount, direct employees including temporary staff)	Plansee Group	11,174	11,445	**11,208**
Sales volume* (in million euros)	Plansee Group	2,017	2,346	**2,280**
Equity ratio*	Plansee Group	51%	50%	**57%**
Investments and innovation* (expenditures on infrastructure, machinery, new product and technology development as well as M&A in million euros)	Plansee Group	236	254	**297**
Share of sales from new products*/** (less than 5 years old, measured by net sales in core business)	Plansee Group	40%	41%	**38%**

KPI (Definition)		2021/22	2022/23	2023/24
Corporate Carbon Footprint** (absolute emitted greenhouse gas emissions in 1,000 metric tons CO_2e , the base year 2020/21 is indicated on page 47)	Plansee Group	442	333	**305**
Percentage of electricity from renewable sources (electricity from a non-depletable source, such as wind/water/solar power or biomass)	Plansee Group	/	/	**92%**
Occupational accidents (Total Recordable Incident Rate (TRIR), per 1 million hours worked, new calculation method since FY 23/24 according to ESRS; definition see page 98)	Plansee Group	/	/	**7,31**
Tungsten Recycling Rate** (see definition in chapter **"Circular Economy"**)	Plansee Group	/	75%	**90%**
Molybdenum Circularity Rate/***** (see definition in chapter **"Circular Economy"**)	Plansee HPM	/	29%	**32%**
Percentage of internally filled middle and senior management positions (senior and middle management positions hired/backfilled from internal staff)	Plansee Group	85%	85%	**80%**

* This figure includes 50% of the joint venture company CB-CERATIZIT.
** This figure excludes Plansee Group Functions with its administrative services.
*** CERATIZIT does not process molybdenum.

Highlights

Selected highlights of fiscal year 2023/24.

Investments

- **Construction of a new hydrogen electrolyzer in Reutte:** Going forward, the hydrogen used at Plansee HPM and CERATIZIT in Reutte, Austria, will be produced by electrolysis using renewably sourced electricity, with construction underway since early 2024 (see page 50). The new hydrogen electrolyzer, to be built, owned and operated by Linde, will cover half of the production facilities' hydrogen requirements from 2025. By 2025, CERATIZIT and Plansee HPM will be able to halve local emissions from hydrogen production at the Reutte site; by 2030, all hydrogen production there is to be CO_2-free. Until now, the process has used natural gas and is known as steam-reforming.
- **Launch of a hydrogen recycling project:** Hydrogen recycling has begun in some sinter facilities of Plansee HPM in Reutte, Austria (running since 2021 - the entire recycling potential in this project will be exhausted by 2025). It involves collecting and treating the "waste gases" in a drying process and then returning them to the cycle. Up to 10% of hydrogen can be recycled each year, which results in savings in electricity or natural gas for hydrogen production.
- **Buildings, facilities and other structures:** The Plansee Group initiated and completed several construction projects that focus on sustainability. To name a few examples: the CERATIZIT production plant in Kreckelmoos, Austria (2022), the new Plansee HPM and CERATIZIT production buildings in Gabrovo, Bulgaria (under construction), a photovoltaic system at CERATIZIT in Como, Italy (2023), a combined heat and power installation at CERATIZIT in Empfingen, Germany (2023) and a high-temperature heat pump for Plansee HPM (funded by the environmental funding program of the BMK, see page 52) in Reutte, Austria (2024). All follow sustainable building principles and increase energy efficiency.

Ratings, Awards & Charity

- **Gold, silver and B rating:** CERATIZIT was awarded an EcoVadis silver in November 2023. In February 2024, the company reached a CDP rating of B . Plansee HPM was awarded an EcoVadis gold rating in April 2024 and will make its first submission to CDP in the 2024 reporting period.
- **Environmental Award for upGRADE products:** CERATIZIT was awarded the Prix de l'Environnement 2023 by the Luxembourg industry association FEDIL for the manufacturing process of carbide grades of the upGRADE portfolio. By using secondary raw materials from an optimized recycling process, the upGRADE carbide products offer a particularly low carbon footprint.
- **Best District Exporter Award:** Plansee India was honored with the "Best District Exporter Award", an award given by industrial trade associations. It recognizes Plansee India's achievement of being the largest exporter in the Mysore district. The site has won this award almost each year since 1999/2000 at national, regional and district levels and received over 25 awards for export excellence.

Organization

- **Structuring the sustainability program:** The Sustainability Best Practice Program (SBPP) was established in 2023 to structure the Plansee Group's sustainability efforts. It brings together experts from different departments to identify substantial sustainability issues, develop measures and start implementation programs. They also define a set of Key Performance Indicators (KPIs) to measure implementation success and document progress.
- **Group-wide e-learning series on sustainability launched:** To help all employees (especially sales and field staff) discuss sustainability, Plansee HPM and CERATIZIT have created an e-learning series. A couple of lessons cover the basics and vocabulary, while business area-specific lessons explain the product offerings of Plansee HPM and CERATIZIT around sustainability.

Innovation

- **Introduction of the Product Carbon Footprint:** CERATIZIT was the first company in the carbide industry to introduce a model for calculating the Product Carbon Footprint (PCF) of its carbide products . The calculation approach is in line with international ISO standards and has been critically reviewed by a third party.
- **New upGRADE grade:** At LIGNA 2023, a trade fair for the woodworking community, CERATIZIT presented its new upGRADE grade KLC20+ for woodworking tools. At least 99% of the material used for KLC20+ comes from secondary raw material.
- **First deliveries:** In 2023, Plansee HPM presented the new generation for high-temperature processes. Thanks to numerous technological optimizations, Plansee HPM was able to reduce the energy consumption of the high-temperature process by up to 27% on average compared to the industry standard. The first orders were received shortly after.
- **Sunny racers:** As Gold Sponsor of Team Sonnenwagen Aachen, CERATIZIT is part of an innovative student project. Team Sonnenwagen Aachen is a team of 50 students from the RWTH and FH Aachen universities who build a solar-powered racing car every two years to compete with the best universities in the world. CERATIZIT supplies Team Sonnenwagen Aachen with the know-how of the company's experts and provides tools. This year, it additionally produced several components from the wheel package in the Technical Center in Kempten.

Changes in the Plansee Group's organization and supply chain in the past fiscal year:

- On August 14, CB-CERATIZIT, a joint venture company of CERATIZIT, has acquired 70% of the shares of **Changzhou CW Toolmaker Inc.** The privately owned company specializes in the design, production and sales of tungsten carbide cutting tools for the electronic industry and a variety of other industries including including aviation and railway.
- On September 14, CERATIZIT acquired **Xceliron Corp.** in Chatsworth, CA, USA. The company specializes in the manufacture of special solid carbide tools for the aerospace and automotive industries.

Initiatives and labels

To ensure compliance in its sustainability practices, the Plansee Group strives for validated ratings and has joined global sustainability initiatives.

The Plansee Group (with Plansee HPM) has joined **United Nations Global Compact (UNGC)** in December 2023, one of the world's leading initiatives for responsible corporate governance. CERATIZIT has been already supporting UNGC since September 2023. This commitment to responsible and sustainable business practices requires the Plansee Group to promote and implement the UNGC's ten universal principles for different areas.

Plansee HPM and CERATIZIT have each joined the **Science Based Targets initiative (SBTi)** and committed to set near- and long-term company-wide emission reductions in line with science-based net-zero. SBTi independently assesses and approves company targets based on its climate science criteria.

In 2023, CERATIZIT has earned a **CDP (formerly the Carbon Disclosure Project)** score of B in 2023. Plansee HPM will make its first submission to CDP in the 2024 reporting period. The CDP is an international non-profit organization that helps companies disclose their environmental impact.

GTP as the Plansee Groups' internal supplier of tungsten powders (APT, Oxides, Carbides, Tungsten Metal Powders) and semi-finished tungsten products was certified as a **Responsible Minerals Assurance Process (RMAP) conformant smelter by the Responsible Minerals Initiative (RMI)** to comply with American and European regulations.

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

WE SUPPORT UN GLOBAL COMPACT

RESPONSIBLE MINERALS INITIATIVE

CDP

Plansee Group

- Plansee HPM and GTP (part of CERATIZIT) are part of the **Refractory Metals Association (RMA).**
- GTP (part of CERATIZIT) is on the board of the **Tungsten Industry Conflict Minerals Council (TiCMC),** Plansee HPM and CERATIZIT are supporting members.
- Plansee HPM and CERATIZIT had an audit of the **Due Diligence Processes** for tantalum and tungsten to conform with the EU Conflict Mineral regulation 2017/821. Plansee HPM with **RCS Global;** CERATIZIT with **Quality Austria.**

Plansee HPM

- In April 2024, Plansee HPM has earned a **gold medal from EcoVadis** with a total score of 78/100.
- Plansee HPM is a member of the **International Molybdenum Association (IMOA).**
- Plansee HPM is a member of the **Tantalum-niobium International Study Center (T.I.C.).**
- Plansee China is certified by **IECQ (Certificate of Conformity Hazardous Substance Process Management).**

CERATIZIT

- CERATIZIT has earned a **silver medal from EcoVadis** in autumn 2023 with a total score of 61/100.
- CERATIZIT is a member of the board of the **International Tungsten Industry Association (ITIA).** GTP and Stadler (part of CERATIZIT) are regular members.

About this report

This sustainability report covers FY 2023/24. The scope is the Plansee Group with its business areas Plansee HPM and CERATIZIT with their production sites and, if applicable, their sales offices.

The annual reporting period is in line with FY from March 1 to February 29, 2024. The report also provides information about important activities that took place either before or after that period, up until the editorial deadline.

This report contains a selection of individual examples that illustrate the areas, topics and projects that the Plansee Group is working on at various sites worldwide.

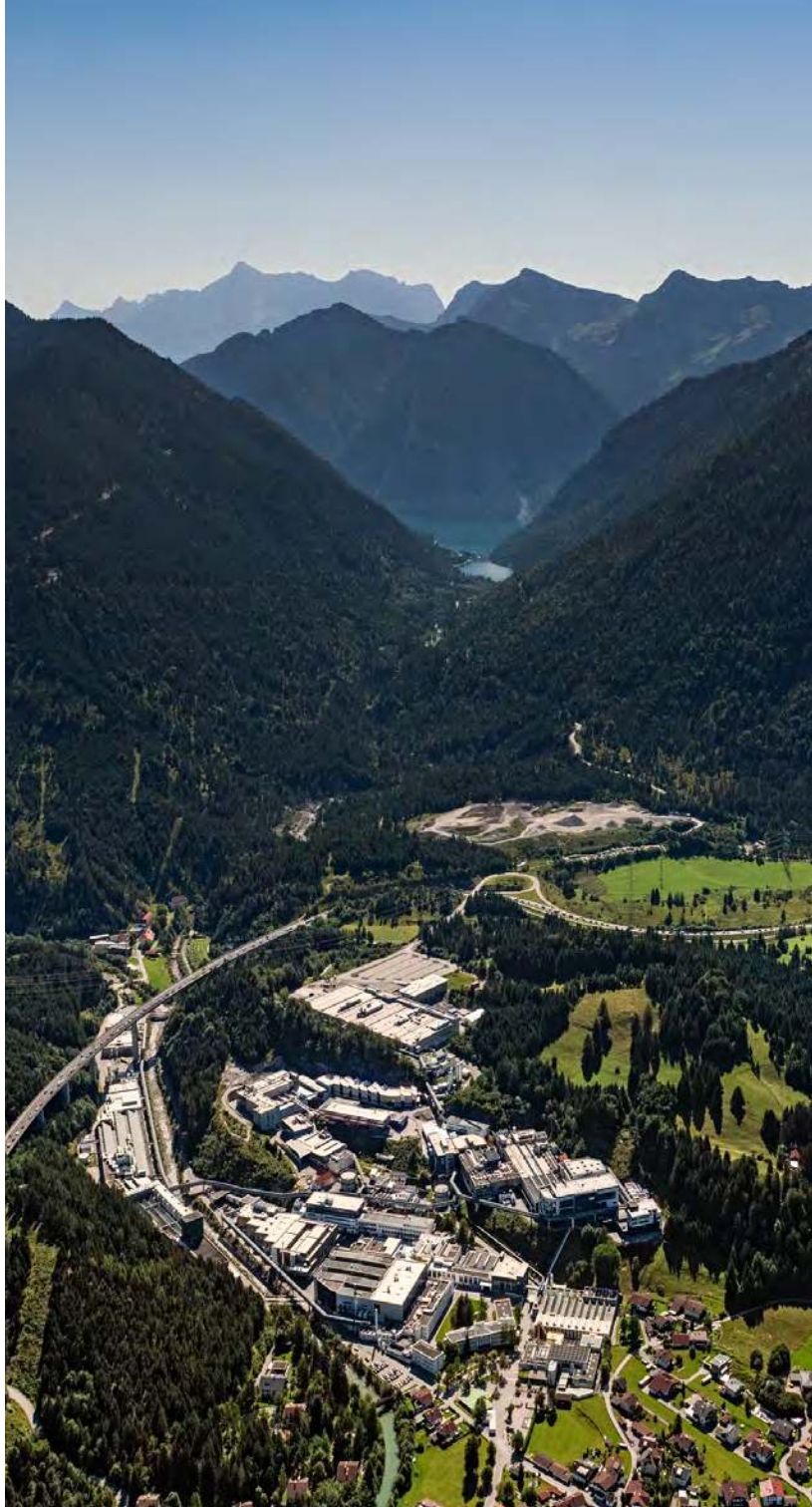
As well as the Plansee Group's Sustainability Best Practice Program, which focuses primarily on the major levers, many initiatives from sites and departments help the company achieve its sustainability goals.

Cases in which the availability of data limits the scope of key figures are noted.

Topics were selected by referencing a materiality assessment according to their significance and the key expectations of the Plansee Group's stakeholders. Reference for this report were the Corporate Sustainability Reporting Directive (CSRD) and the associated European Sustainability Reporting Standards (ESRS) of the European Union.

The CSRD requires the Plansee Group to report on its sustainability activities in the annual report starting 2026 for FY 2025/26.

The next sustainability report will cover FY 2024/25 and is expected to be published in July 2025.



Materials & production processes

Ongoing optimization of technical processes often leads to more extreme operating conditions, characterized by high temperatures, pressure and abrasive loads. The outstanding properties of tungsten and molybdenum meet these requirements and make them indispensable for technological progress.

Ulrich Lausecker,
Member of the Executive Board
of the Plansee Group

The power of powder

The Plansee Group processes refractory metals such as tungsten and molybdenum with powder metallurgy. The process differs from the more commonly known melting of metal and results in different characteristics needed for special applications.

Metal powder is compacted sequentially before or while exposing it to pressure and heat, at a temperature well below the melting point. This key step is a process of thermal densification known as sintering. Powder metallurgy allows the Plansee Group to press and sinter its powder to near net shapes, eliminating the need to remove much of the material in subsequent steps and thus saving material. Accordingly, powder metallurgy is recognized as a resource-efficient technology by the Metal Powder Industries Federation.

PM™
A recognized green technology

Key facts

- **Powder metallurgy allows the Plansee Group to produce materials with melting points well above 2,000°C and in compositions not accessible via melting (pseudo alloys).**
- **The process is particularly cost effective, even at low production volumes.**
- **The product requirements determine the tailor-made powder blend.**
- **The three key factors in powder metallurgy are the powder itself as well as the compacting and sintering processes. The Plansee Group controls and optimizes all these steps in-house.**

The path to the powders

Molybdenum

Main supplier of **molybdenum** oxide for Plansee HPM is the company **Molymet** in Chile. Molybdenite or other molybdenum ores are processed in the mines to obtain concentrates and are further processed to obtain molybdenum trioxide. Molybdenum-containing ores from the mines are first enriched by physical processes, then purified for further processing by chemical processes.

Molybdenum is obtained from both primary and by-product mines (typically used to extract copper). Sourcing molybdenum from by-product mines generates far less of a carbon footprint compared to primary mines, since the carbon units allocated to the mining operation itself are assigned to the primary metal.

Tungsten

The US-based **Global Tungsten & Powders (GTP)** is considered one of the leading **tungsten** powder suppliers in the Western world. Its product range includes ammonium paratungstate (APT), tungsten oxide (WO_X), tungsten metal powder (WMP) and tungsten carbide (WC). Ores containing tungsten from mines are first enriched via physical processes, yielding ore concentrate. The ore concentrate is further purified via chemical processes.

GTP mainly processes secondary raw material into tungsten powders, depending on the product mix and availability of carbide scrap. The secondary raw material includes different types of hard and soft scrap. The remaining demand is met by tungsten ore concentrates from Western mines.

How are metal powders produced?

In the case of molybdenum and tungsten, the high-purity oxide powders molybdenum trioxide (MoO_3) and tungsten trioxide (WO_3) undergo a reduction process in a hydrogen atmosphere. The process of reducing tungsten oxide to metal powder happens in a single step. For better process control, molybdenum trioxide is reduced to molybdenum dioxide (typically reddish-brown, hence the name "molybdenum red") before being fully reduced to the metal powder in a second step. **Once this metal powder is obtained, the production processes can start.**

Processes at Plansee HPM

Mixing

Molybdenum and tungsten powders are mixed to produce homogeneous metal products with the desired properties. Either pure molybdenum or tungsten powders are processed or mixtures with precisely dosed alloy additives are produced.

Pressing & sintering

Compaction turns the pure or mixed powder into a chalk-like workpiece with a density of 60 to 70% of the theoretical density. Metallurgists refer to this workpiece as a green body or pressed part. During the sintering process, the pressed part transforms into what is known as the sintered part at temperatures below the melting point, namely a solid workpiece with a density of more than 90% of the theoretical density.

Further treatments

Mechanical deformation in combination with heat treatment, ensures further transformation: the sintered part loses its brittleness, reaches close to 100% density and gains its characteristic mechanical and physical properties.

Processes at CERATIZIT

Mixing

In case of cemented carbides, the tungsten carbide is mixed with cobalt powder, which functions as a binder for the hard phase and toughens the body. The composite material consists of more than 85 wt% (percentage by weight) of tungsten carbide as the hard phase and up to 20 wt% of cobalt as the binder.

Pressing & sintering

Compaction turns the pure or blended powder into a chalklike workpiece with a density of 60 to 70%. Metallurgists refer to this workpiece as a green body or pressed part. The densification processes mainly involve liquid phase sintering. Cemented carbides are generally pressed and sintered to full density at (near) net-shape since further densification is impossible and machining is difficult due to the high hardness.

Further treatments

Cemented Carbides, mainly used for cutting tools and wear parts, are difficult to machine given their extreme hardness. Accordingly, grinding and polishing processes are generally used for final shaping of the produced part. 80% of the cemented carbide parts used for cutting tool applications are coated to extend the tool lifespan and meet a range of requirements.

Sustainability program

We are focusing on areas where we can progress fastest and with maximum impact. We don't just want to become more sustainable; we also want to be a pioneer and role model in our industries.

Andreas Lackner,
Member of the Executive Board
of the Plansee Group

Sustainability organization

The framework for all sustainability activities of the Plansee Group is formed by the UN's 17 Sustainable Development Goals and the ESG approach for companies to promote sustainable development in the environmental, social and corporate governance areas.

The sustainability organization in the Plansee Group is set up as follows:

- The Executive Board develops the sustainability strategy and coordinates its implementation within the Group.
- The Supervisory Board approves the sustainability strategy and monitors its implementation.
- The Sustainability Steering Committee, supported by the QHSE Committee, monitors the group-wide implementation of sustainability goals.
- The Sustainability Best Practice Program (SBPP) coordinates the group-wide implementation of sustainability measures and involves cross-departmental functions including HSE, Controlling and Accounting, Communication, HR, IT, Procurement, Sales and Legal. The SBPP oversees legal compliance with the Corporate Sustainability Reporting Directive (CSRD) and other sustainability regulations applicable to the Plansee Group. It also ensures standardization between group functions and business areas as required and supports the exchange of best practices within the whole organization.
- For Plansee HPM and CERATIZIT, a member of the Executive Board is responsible for sustainability, while the HSE business functions oversee the management of all sustainability measures.
- At the individual production sites, each Managing Director is supported by an HSE Site Manager and other cross-departmental functions to implement and manage sustainability activities at the operational level.

Materiality assessment

By focusing on key measures, the Plansee Group ensures that its sustainability strategy is implemented in line with the company's environmental, social and economic goals.

Review

To benchmark its overall sustainability strategy, the Plansee Group first assessed the material issues and areas requiring action in 2021.

The first step involved conducting a **stakeholder analysis** on relevant sustainability topics at associations, customers and competitors (desktop research): through interviewing key stakeholders (representatives of customers, associations, competitors and suppliers as well as Executive Board members and other managers), surveying 11 external stakeholders in the Chinese market and holding an online survey of employees at Plansee HPM and CERATIZIT sites worldwide (the total of 1,475 completed questionnaires corresponds to a response rate of 32%).

The Plansee Group summarized all the research results in a **materiality matrix** and discussed them in **workshops at senior management level**. The **topics were ranked** according to relevant stakeholders' expectations with weighting as follows: 50% external stakeholders (customers, associations, competitors and suppliers) and 50% employees. In addition, opinions on the business relevance for Plansee HPM and CERATIZIT by the managers surveyed were also taken into consideration.

Four focus areas

Products

Production

Procurement

People

The materiality assessment defined the following four areas along the value chain, which represent **the focus of the Plansee Group's sustainability activities**:

Products: Sustainable product and technology innovation
With over 100 years of expertise in the refractory metals industry, the Plansee Group continually invests in the improvement and new development of its products, technologies and processes.

Production: Material & resource efficiency in production
Wherever possible, circular processes for materials are used – by reusing, remanufacturing, refurbishing or recycling – to reduce the mining of virgin raw materials and minimize resource use. The Plansee HPM and CERATIZIT business areas have each developed a detailed roadmap for the reduction of greenhouse gases for Scopes 1 to 3.

Procurement: Environmental and social aspects in the supply chain
In addition to a Supplier Code of Conduct already in place for many years and recently revised, the groundwork has been laid to implement strategic supplier management and systematically evaluate and develop suppliers in line with ESG criteria. This is being approached gradually - starting with key suppliers.

People: Attractive workplace
The Plansee Group's employees underpin its global success. The Plansee Group therefore offers them an attractive workplace: a safe, healthy, diverse and inclusive space where teamwork, creativity and productivity can thrive.

Strong measures

By thoroughly analyzing the CO_2 footprint at all production sites and defining measures with significant leverage for CO_2 reduction, production companies Plansee HPM and CERATIZIT have ensured that the measures can be implemented in a targeted and sustainable manner. Detailed information on these measures can be found in the **"Sustainability Topics"** chapter.

Outlook

To meet the CRSD requirements, the Plansee Group will conduct a further **materiality analysis in 2024** and update it regularly. The results will be included in the next report.

Starting 2026 for FY 2025/26, the Plansee Group will bundle non-financial and financial reporting in a single statement, in line with the requirements of the CSRD and the associated ESRS.

Mission to lead

The Plansee HPM and CERATIZIT business areas have developed specific sustainability missions to strengthen and further develop their business models.

Plansee HPM aims to be a leader in sustainability in the refractory metals industry. **Its climate plan includes carbon neutrality by 2030 and net zero by 2050.** With these goals in mind, Plansee HPM has started implementing sustainability measures throughout the value chain.

As a key supplier for many customers, Plansee HPM's mission is to leverage its innovative strength to help them achieve their sustainability goals. And that is why its sustainability strategy is a core component of its global strategy.

CERATIZIT aims to be a leader in sustainability in the carbide and cutting tool industry by 2025. Reflecting this ambitious goal, CERATIZIT reworded its company motto from "Tooling the Future" to "Tooling a Sustainable Future".

The climate plan includes carbon neutrality by 2025 and net zero by 2040 as well as scope to further expand the recycling of tungsten. The aim is to reduce the use of virgin raw materials and boost the share of raw materials remaining in the production chain. To achieve this, the company is implementing sustainability measures throughout the value chain and training its employees. Initially however, CERATIZIT focused on the most impactful aspects: Climate neutrality and the circular economy.

Sustainability targets, measures and progress

Plansee HPM and CERATIZIT have set sustainability goals for decarbonization. At Plansee Group level, goals have also been set for governance and all four focus areas.

For transparency, the goals, measures and progress made during the reporting year are described below. The goals are mapped against the Sustainable Development Goals (SDG) of the United Nations. The progress in figures can be tracked for the targets marked with an asterisk * in the overview of key figures from page 95 on. This table will be updated in the next sustainability reports.

Area	Goal	Measure(s) in FY 2023/24	Status	SDG
Products	Plansee HPM & CERATIZIT: Calculate a specific product carbon footprint (PCF)	A calculation model has been developed. The calculation approach in line with international standards has been reviewed by a third party. CERATIZIT started to roll-out the PCF classification model.	Achieved	12 Responsible Consumption and Production; 13 Climate Action
	CERATIZIT: Grow the share of low carbon cemented carbide products.	The development of high-performance grades with high content of secondary raw material is ongoing. At Ligna 2023 trade fair the woodworking product portfolio (KLC20+) was launched.	On track (Ongoing)	7 Affordable and Clean Energy; 9 Industry, Innovation and Infrastructure; 12 Responsible Consumption and Production
Production	Plansee Group: Achieve a Tungsten Recycling Rate exceeding 90%.* (see definition on page 54)	The purchase of tungsten-based secondary raw material was intensified and quality was improved. APT (ammonium paratungstate) production for high scrap content was optimized. The portfolio of products made from secondary raw materials is being expanded. Advertising for products made from recycled tungsten was launched to stimulate demand. These measures are ongoing.	On track (Ongoing)	12 Responsible Consumption and Production
	Plansee HPM: Implement a global HSE framework.	Define, align, and implement a global HSE development path with common standards and processes as part of our Integrated Management System.	On track (Ongoing)	8 Decent Work and Economic Growth; 14 Life Below Water; 15 Life on Land
Procurement	Plansee Group: Purchase 100% of 3TG (tungsten, tin, tantalum and gold) raw materials exclusively from RMI-certified smelters.*	All 3TG raw materials were purchased exclusively from RMI-certified smelters.	Achieved (Ongoing)	8 Decent Work and Economic Growth; 12 Responsible Consumption and Production; 15 Life on Land; 17 Partnerships for the Goals
	Plansee Group: Cover a large proportion of the electricity demand using renewable energy sources.	A large part of the electricity supply has already been converted through guarantees of origin (GOO) and/or renewable energy certificates (RECs).	On track (Ongoing)	7 Affordable and Clean Energy; 13 Climate Action
People	Plansee Group: Recruit 8 of 10 middle and senior managers internally.*	Succession management: ensures planning of long-term succession for management positions. Talent management: ensures identification of talent at group leader level.	On track (Ongoing)	4 Quality Education; 5 Gender Equality; 10 Reduced Inequalities
Governance	Plansee Group: Update the Code of Conduct.	The Code of Conduct was extensively revised and supplemented by the Executive Board of Plansee Holding AG in December 2023.	Achieved	8 Decent Work and Economic Growth; 16 Peace, Justice and Strong Institutions

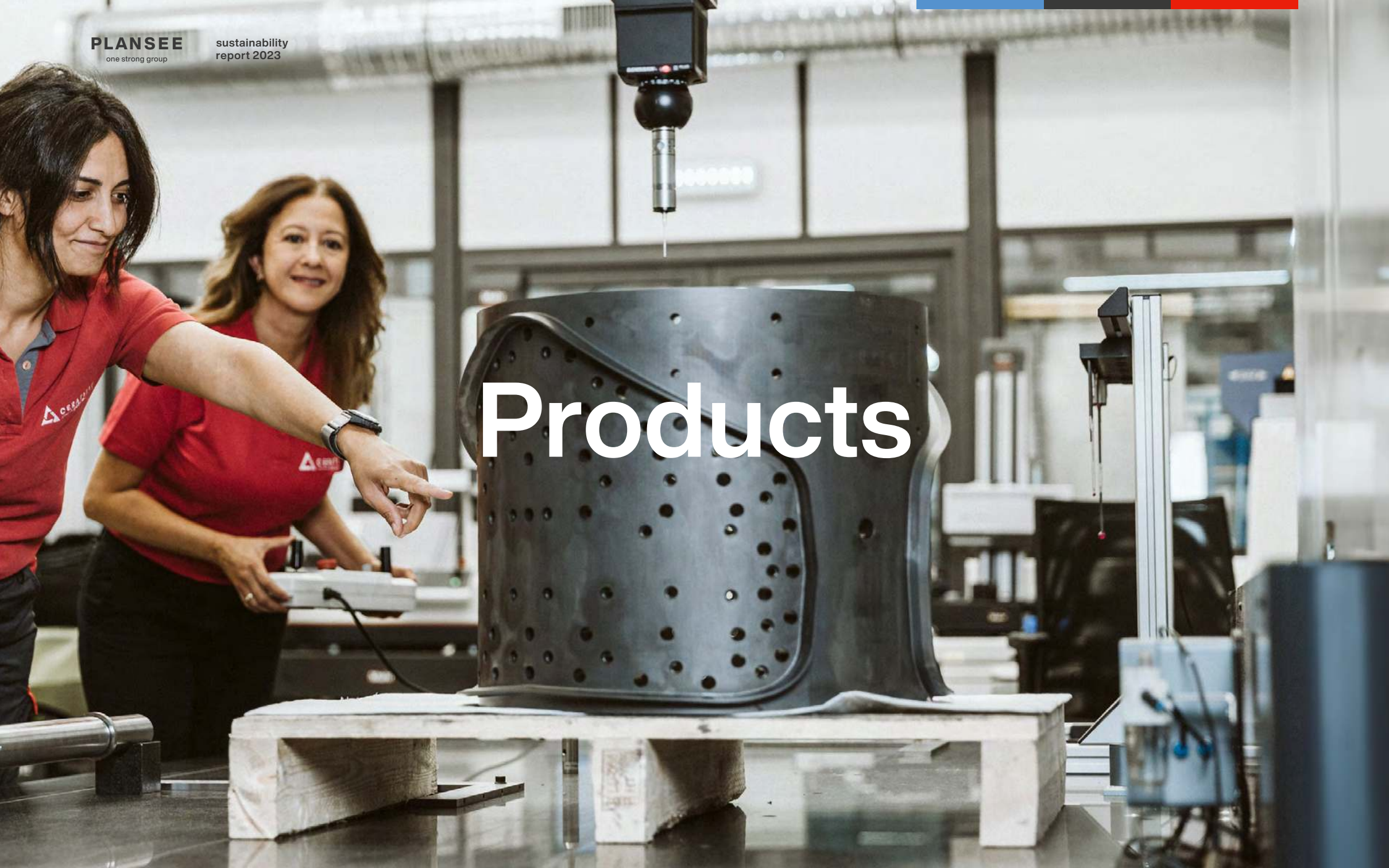
Greenhouse gas reduction targets

The Plansee Group committed to the long-term target net zero greenhouse gas (GHG) emissions in a stepwise approach. In doing so, the business areas Plansee HPM and CERATIZIT have set the following targets depending on their business models. The base year is 2020.

Area	Goal	Measure(s) in FY 2023/24	Status	SDG
Plansee HPM				
Decarbonization	Reduce scope 1 & 2 GHG emissions by 75% by 2030. The remainder will be offset to achieve carbon neutrality.*	In the FY 2023/24 Plansee HPM conducted sustainability workshops at all production sites. The goal was to introduce the Plansee HPM sustainability strategy and develop together with the sites key sustainability measures incl. an decarbonization roadmap. The measures are currently at the conception or project stage, while some are already being implemented. Read more in the chapter **"Greenhouse gas reduction plan".**	On track	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION; 17 PARTNERSHIPS FOR THE GOALS
	Reduce scope 1, 2 & 3 by 90% by 2050. The remainder will be offset to achieve net zero.*		On track	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION
CERATIZIT				
Decarbonization	Reduce scope 1, 2 & 3 GHG emissions by 35% by 2025. The remainder will be offset to achieve carbon neutrality.*	The main impact remains the measure of covering global electricity demand with renewably sourced power. This was started in 2022 and has been expanded and implemented annually ever since. Other measures with a similarly high impact are at the conception or project stage, while smaller measures are already being implemented. Read more in the chapter **"Greenhouse gas reduction plan".**	On track	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION; 17 PARTNERSHIPS FOR THE GOALS
	Reduce scope 1, 2 & 3 by 60% by 2030. The remainder will be offset to achieve carbon neutrality.*		On track	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION; 17 PARTNERSHIPS FOR THE GOALS
	Reduce scope 1, 2 & 3 by 90% by 2030. The remainder will be offset to achieve net zero.*		On track	7 AFFORDABLE AND CLEAN ENERGY; 13 CLIMATE ACTION

All targets are in relation to the base year 2020.

Plansee HPM and CERATIZIT are aiming to achieve the climate targets primarily with appropriate measures to avoid or reduce greenhouse gas emissions. Any remaining greenhouse gas emissions that cannot be avoided or reduced will be neutralized through carbon offsetting.



Products

Plansee HPM: Innovation partner for its customers

For over a century, Plansee HPM has been continually refining its materials and technologies, knowledge and expertise and products. R&D has been a top priority, ever since production started in 1921.

Plansee HPM employs more than 100 research and development experts at all production sites, who work with the company's customers in various industries on customized solutions. This reflects the fact that most new developments are achieved in close collaboration with customers and academic partners. Over the years, Plansee HPM has established a global network of partners, research institutes and universities.

Plansee HPM is committed to minimizing the environmental impact of producing and processing its materials. The company's extensive know-how covers not only material sciences but also wide-ranging advanced technologies, such as numerical analysis or additive manufacturing.

Strong expertise, strong partnership

The company's innovative strength is reflected in over 950 active patents held worldwide. Plansee HPM's sustainable product and technology development strategy triggers innovation: This explains its increasing number of patents in sustainable inventions and why it is rolling out new products, processes and business models that increase material and resource efficiency or reduce its CO_2 footprint. These patents include enhanced service offerings such as the refurbishment of sputtering targets or rotating X-ray anodes.

When it comes to finding the right materials and solutions, Plansee HPM supports its customers every step of the way – regardless of whether as part of a long-term development partnership or for a short-term project. And in the process, it pushes the boundaries of what is technologically feasible. Plansee HPM aims to leverage innovative strength to help its customers develop more sustainable products and achieve their sustainability goals.

Examples of innovative solutions

First deliveries of the new generation of hot zones

As an innovation partner, Plansee HPM helps other companies open new doors. One example: it supplies manufacturers of industrial furnaces and industrial customers worldwide with metallic hot zones made from molybdenum, molybdenum alloys and tungsten.

The hot zones are used in high-temperature processes and ensure that the furnace temperature is optimally distributed. The quality of the hot zones dictates the energy balance of these processes. If they are not optimized for the respective area of application, an unnecessary amount of heat and therefore energy is lost. This is why it is advisable for the industry to invest in the best technology when it comes to hot zones.

In 2023, Plansee HPM rolled out its new generation of hot zones for high-temperature processes, designed to maximize energy efficiency. Numerous technological optimizations allowed it to reduce the energy consumption of the high-temperature process by an average of up to 27% compared to the industry standard.

The lightweight support frame design also means the new models weigh up to 15% less, which saves resources and allows the use of recyclable materials to be maximized. The first orders were received shortly after presenting the new generation of hot zones. In February 2024, two "New Generation Premium Plus Hot Zones" were delivered. The hot zones are used for component annealing in the aerospace industry.

Producing glass more sustainably

Glass is an essential high-tech material of our time. Glass manufacturing is realized by a transformation into the liquid phase, the melt and therefore is an energy intensive process.

In Europe in particular, the glass industry is under considerable pressure to become more sustainable. Nowadays, most conventional glass furnaces are still heated with fossil fuel burners. The advent of European climate legislation, however, is fueling an industry-wide trend towards more electric heating in the glass industry. This technology relies on so-called glass melting electrodes made of molybdenum or molybdenum alloys, which are one of Plansee HPM's core products. As a key glass industry supplier, Plansee HPM aims to contribute to technological change through innovative product development, thus paving the way for more sustainable glass production. That's why it invests in projects to develop the new materials and products that industry can use.

CERATIZIT: A passion for cemented carbide

CERATIZIT sets new technological standards and develops innovative tools and coatings alongside unique carbide products.

CERATIZIT continuously invests in fundamental research, process technology, product development and application technology. As a technological frontrunner in the carbide industry, it has over 1,000 patents worldwide and its more than 200 R&D employees cooperate with universities and leading research institutes Europe-wide.

A long and sustainable tool life

Almost all CERATIZIT innovations aim to increase productivity in machining processes for metals and non-metals alike, e.g. by making cutting tools and wear parts more durable, efficient and longer-lasting. These improvements reduce the consumption of tools (compared to other carbides, but also to other cutting materials like high-speed steels), energy (in high-speed operations) and other consumables like lubricants. Examples include tools with a wear warning, precisely lubricated inserts, solid carbide tools for machining carbon fiber-reinforced plastics and precision tools for machining artificial hip joints.

Combining maximum performance and recycling

upGRADE is how CERATIZIT labels its high-performance products with one of the lowest Product Carbon Footprints (PCF) in its product category. The grades of the upGRADE portfolio are manufactured with low-carbon performance powder in a special process using up to 99% secondary raw material, giving customers a more sustainable product choice.

Initially, upGRADE was developed from the idea of producing a recycled grade with performance and quality equivalent to conventional grades, but with at least 99% specially sorted carbide scrap. CERATIZIT uses at least 99% secondary raw material for its upGRADE portfolio. Only high-quality, sorted carbide scrap can be used in this recycling process to guarantee optimal output. Without the extraction of ore, this process also has a lower CO_2 footprint and therefore contributes to lower the PCF of the upGRADE products.

As part of a research project, the Materials Center Leoben Forschung GmbH (MCL) investigated both the mechanical properties and the stress and damage behavior of two carbide grades. The findings revealed that the CT-GS20Y grade (upGRADE) had equivalent properties to the CTS20D premium carbide grade under equivalent load and at elevated temperatures.

The upGRADE portfolio has already been honored with prizes for its outstanding performance and more sustainable product choice, including the Best of Industry Award 2022 in the category “Best Sustainability Project” and the Prix de l'Environnement 2023 of the Luxembourg Industry Association Fedil.

Work to further refine the upGRADE portfolio continues. The new technologies pave the way for further applications and one new product will be launched in September 2024 at the AMB tradeshow.

Product Carbon Footprint

The Product Carbon Footprint (PCF) indicates the amount of greenhouse gases emitted to produce one kilogram of a particular product.

The calculation includes the carbon footprint of all processes from the raw material extraction, the production of the semi-finished products/blanks and finished products and the transport of the raw materials and intermediate products up to the point where the product leaves the company. In other words, the cradle-to-gate approach.

This approach is in line with the international standards ISO 14040:2006, ISO 14044:2006 and ISO 14067:2018 and has been critically reviewed by a third party.

CERATIZIT was the first carbide industry company to present a model for calculating and classifying the PCF of its products. CERATIZIT encourages customers, partners and other companies to adopt the newly developed standard and boost industry transparency in the process.

CERATIZIT additionally launched a classification based on its PCF, allowing customers to grasp and evaluate a product footprint at a glance, like conventional rating systems. Since mid-September 2023, the PCF classification has been visible to all customers purchasing products with a PCF classification.

Visit our website for more information, videos and whitepapers

PCF* classification

in kg CO_2e/kg product

The Product Carbon Footprint (PCF) is the specific carbon footprint in kg CO2e/kg product. It uses the cradle-to-gate approach and excludes downstream emissions.

Calculation approach is in line with **ISO 14067:2018**

critically reviewed by denkstatt create sustainable value

As part of the adoption of its sustainability strategy, Plansee HPM has developed a product carbon footprint calculator externally verified in December 2023. The product carbon footprint data is available for Plansee HPM's customers and helps them calculate their scope 3 emissions.

Calculation approach is in line with **ISO 14040/44:2006**

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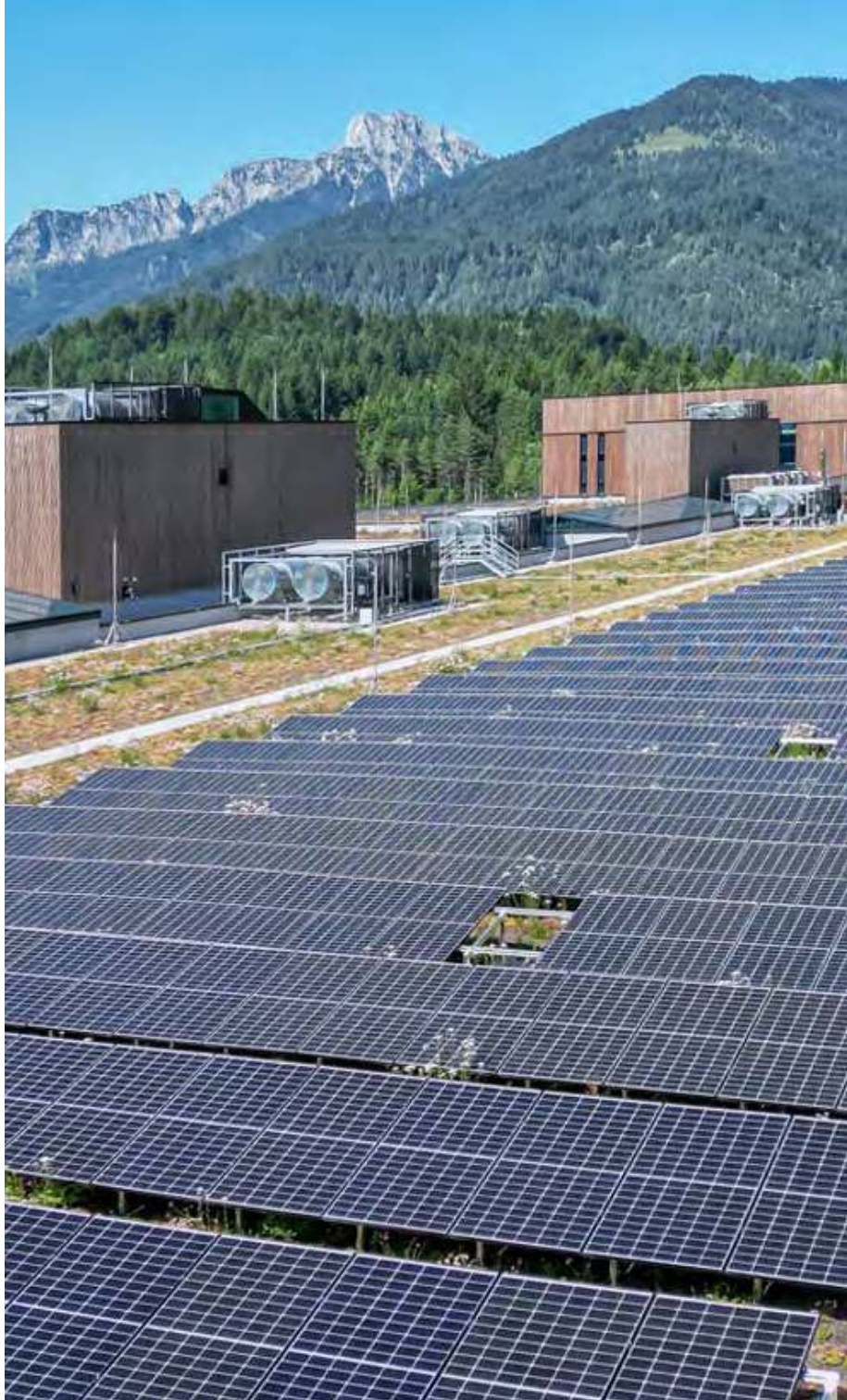
Production

Greenhouse gas reduction plan

Plansee HPM and CERATIZIT have created a roadmap toward the goal of net zero greenhouse gas emissions. This involved measuring current GHG emissions, defining near- and long-term targets and identifying reduction measures.

Current situation

Activity data from all production sites was collected for the last four fiscal years, covering in-house operations as well as upstream supply chain activities (cradle-to-gate). Based on this data the Corporate Carbon Footprint was calculated in line with GHG protocol standards.

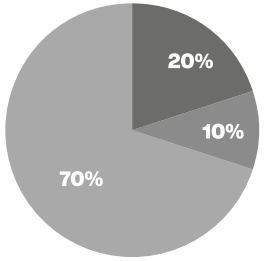


KPI (Definition)		2020/21	2021/22	2022/23	2023/24
Greenhouse gas emissions					
Corporate Carbon Footprint** (absolute emitted greenhouse gas emissions in 1,000 metric tons CO_2e)	Plansee Group	387	442	333	**305**
	Plansee HPM	195	207	179	**168**
	CERATIZIT	201	243	167	**157**
Direct greenhouse gas emissions Scope 1** (in 1,000 metric tons CO_2e from owned or controlled sources)	Plansee Group	67	72	72	**61**
	Plansee HPM	19	19	19	**18**
	CERATIZIT	48	52	54	**43**
Direct greenhouse gas emissions Scope 2** (in 1,000 metric tons CO_2e from the generation of purchased energy)	Plansee Group	95	104	38	**32**
	Plansee HPM	35	39	31	**24**
	CERATIZIT	61	66	9	**9**
Indirect greenhouse gas emissions Scope 3** (in 1,000 metric tons CO_2e (not included in Scope 2) that occur in the upstream value chain)	Plansee Group	225	266	222	**213**
	Plansee HPM	141	149	130	**127**
	CERATIZIT	91	124	105	**104**

Fiscal year 2023/24

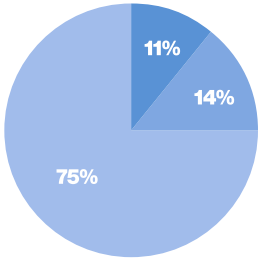
Plansee Group

- Scope 1
- Scope 2
- Scope 3



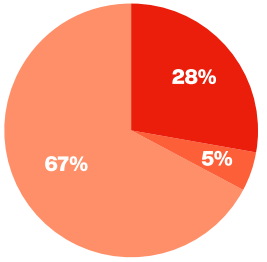
Plansee HPM

- Scope 1
- Scope 2
- Scope 3



CERATIZIT

- Scope 1
- Scope 2
- Scope 3



** This figure excludes Plansee Group Functions with its administrative services.
The figures for the base year have changed as the base year was recalculated.

In the base year 2020/21, 18% of the greenhouse gas (GHG) emissions were direct emissions from own activities, 24% were indirect emissions from purchased energy (mainly electricity) and 58% other indirect emissions from the upstream supply chain, e.g. purchased raw materials and production auxiliary materials (industrial gases, chemicals, etc.).

The main factors impacting the Corporate Carbon Footprint **are the use of natural gas in high temperature processes and hydrogen production, the consumption of electricity, the application of chemicals in the tungsten powder production and employee commuting.**

Measures to reduce GHG emissions

In a series of workshops at all production sites, measures to reduce greenhouse gas emissions were identified and summarized in a decarbonization roadmap. The main activities include:

- Replacing natural gas as heating fuel by renewable electricity
- Replacing steam reforming for hydrogen production with electrolysis with renewable electricity
- Purchasing electricity from renewable sources
- Recycling of chemicals in the tungsten powder production
- Carbon reduced employee commuting

KPI (Definition)		2021/22	2022/23	2023/24
Energy				
Total consumption of natural gas and electricity in GWh	Plansee Group	758	748	**664**
Specific energy consumption (in MWh/t, energy consumption per ton metal input)	Plansee Group	44	40	**51**
Total renewable energy consumption (used amount of energy from a non-depletable source, such as wind/water/solar power or biomass in GWh)	Plansee Group	245	359	**342**
Percentage of energy from renewable sources (energy from a non-depletable source, such as wind/water/solar power or biomass)	Plansee Group	32%	48%	**51%**
Percentage of electricity from renewable sources (electricity from a non-depletable source, such as wind/water/solar power or biomass)	Plansee Group	/	/	**92%**

GTP in Towanda explores CO_2 reduction potential

Due to the energy- and chemical-intensive production of tungsten powders the carbon footprint of Global Tungsten & Powders in Towanda (GTP), Pennsylvania, is significant for the Plansee Group. Accordingly, in 2023, the company started a sustainability program to decarbonize GTP processes and consequently the footprint of the products.

As a part of CERATIZIT since 2021, Global Tungsten & Powders in Towanda is a leading Western supplier of high-quality tungsten and tungsten carbide powders as well as specialty components and products. The company's offerings are a valuable resource for metal tools and components where hardness and durability are key factors.

Producing high-quality refractory metal powders involves a purification procedure based on multiple chemical transformations. The process also requires an appropriate amount of chemicals and process heat, the latter supplied by the combustion of natural gas. This explains why GTP generates significant CO_2 within the Plansee Group, comprising 23% of its overall greenhouse gas emissions.

In 2023, GPT started an initiative to reduce its carbon footprint. A joint brainstorming event including all GTP departments, explored various technological and market-based options to tackle the net-zero 2040 target. With technology readiness and feasibility in mind, this approach revealed the company's decarbonization potential and underlined the crucial roles of natural gas alternatives and chemical recycling.

Given the links between these activities and technological and chemical expertise, the GTP management steered these two streams into an infrastructure program supported by external consultancy and a manufacturing program supported by internal R&D. To further moderate the carbon footprint contributions arising when extracting tungsten ore, the entire Plansee Group targets a Tungsten Recycling Rate exceeding 90% each year (see definition on page 54).

As such, as well as significantly decarbonizing GTP's operations, this step also has the potential to reduce the CO_2 footprint of all tools and components created further down the line in the value chain using resources provided by GTP. First implementations and further actions are planned for FY 2024/25.

Key facts

- **GTP in Towanda comprises for 23% of Plansee Group's carbon footprint**
- **GTP is the main contributer to the tungsten recycling goals**
- **Natural gas alternatives and recycling of chemicals promise to decarbonize the tungsten refinement**

Déjà vu: Construction of new hydrogen electrolyzer begins at old site

A new hydrogen electrolyzer is being built in Reutte, right where hydrogen was already produced by an electrolyzer in the past.

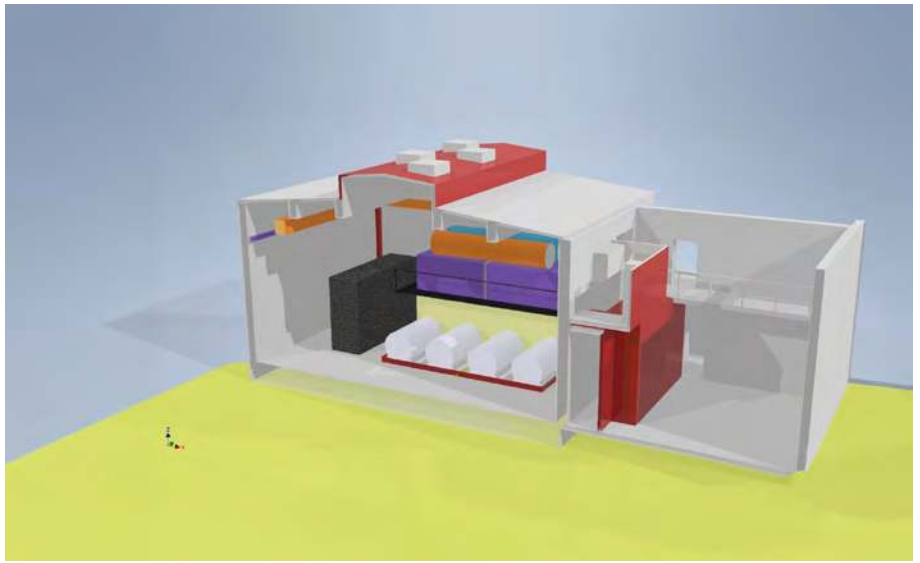
Until now, hydrogen for Plansee HPM and CERATIZIT at the site in Reutte has been produced from natural gas, which accounts for 50 percent of CO_2 emissions at the site. The new hydrogen electrolyzer, to be built, owned and operated by Linde, on the premises, will cover half of the production facilities' hydrogen requirements from 2025. It is expected to come on stream by the end of 2024.

The electricity required for this electrolyzer comes entirely from renewable sources. By 2025, CERATIZIT and Plansee HPM will be able to halve local emissions from hydrogen production at the Reutte site; by 2030, all hydrogen production there is to be CO_2-free.

Plansee HPM requires hydrogen for almost all production steps in Reutte. Almost half the hydrogen required is needed for the chemical conversion of molybdenum trioxide into pure molybdenum powder (reduction). Hydrogen is also used to protect metals from oxidation during the sintering process. CERATIZIT also uses 7% of the hydrogen required annually at the site for sintering processes.

For 20 years, hydrogen has been produced from natural gas in a process known as steam reforming, in which hydrocarbons are split into hydrogen, carbon monoxide and carbon dioxide. The reaction of methane with steam produces pure hydrogen and carbon monoxide. To avoid CO_2 emissions from natural gas, the site will rely on electrolysis in future.

Alongside the electrolyzer, one of two steam reformers in Reutte will continue producing hydrogen for the time being, while the other will be decommissioned once the start-up phase of the new electrolyzer plant is complete.



CERATIZIT builds Luxembourg's largest solar-covered car park

Renewable energy sources play a vital role in reducing greenhouse gas emissions. One example - part of the Plansee Group's global strategy to equip all new buildings and as many existing buildings as possible with photovoltaic systems - is the solar-covered car park at CERATIZIT's headquarters. Here, CERATIZIT has installed 3,250 panels with 375 Wp (Watt peak) each on the car park roof. This means an overall installed capacity of 1,320 kWp over 6,200 m^2 of parking space and makes it the largest installation of its kind in Luxembourg, where solar-covered parking lots are common. At the headquarters' car park, 64 EV charging stations were also installed, fed by locally produced renewable energy to supply the ever-growing number of EVs in the company's vehicle fleet.

Acoustic imager for gas leakage detection

Leakages in compressed air and gas lines waste valuable resources and energy in production environments and must be properly monitored and maintained. To detect them quickly and reliably, CERATIZIT has now invested into a Fluke 11900 Acoustic Imager. The acoustic camera uses ultrasound to create a real-time image of the leak based on the sound waves given off. This way, even the smallest leaks can be detected and fixed before the problem festers. The acoustic imager was bought at the Marner site in Luxembourg but will be shared with other sites according to their need. Similar compressed air leakage detection equipment is also used at other sites such as Plansee HPM in Reutte or Lechbruck. The investment has already paid off: With the repairs enabled by the detection capabilities of the acoustic imager, CERATIZIT could turn off one of its compressors and still has sufficient compressed air for production. Similarly high savings are also possible elsewhere.

Bus shuttle lines reduce car traffic in Mamer and Reutte

Public transport is a straightforward way to reduce individual traffic, which is a siginficant contributor to CO_2 emissions. For several years, the Plansee HPM and CERATIZIT headquarters in Reutte, Austria, and Mamer, Luxembourg, have therefore been operating bus shuttle lines. In Mamer, there are seven bus lines to Belgium and France, used by about 280 employees every month. A shuttle service to Mamer station is also available. In Reutte, six bus lines in the nearby valleys transport roughly 250 employees per month. Further savings are also possible at other sites.

CERATIZIT site has already achieved its 2030 climate target

CERATIZIT Besigheim, Germany, has already achieved the sustainability goals originally set for 2030, after reducing its CO_2 emissions by 60%, mainly due to the switch to electricity from renewable sources. Other measures involved automatically switching off the ventilation over the weekend, which saved more than 45.6 GWh per year. The sustainability team facilitates piping insulation, checks thermostatic heads and valves and limits temperatures as far as possible. The use of motion or presence detectors and a machine shutdown plan are currently being implemented.

Heating with waste heat

Plansee HPM invested in a heat pump at the Reutte site (in operation since 2024), which draws waste heat from production and feeds it into the company's district heating network. The heat can then be distributed via hot water to production halls, buildings and offices at the Reutte site. The hot water is generated by a trio of boilers, which are now supported by a heat pump system. In essence, the heat pump generates 4.6 GWh of thermal energy and thus accounts for 18% of the site's total thermal energy demand. **The heat pump was funded by the environmental funding program of the Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie (BMK), Austria.**

Circular economy

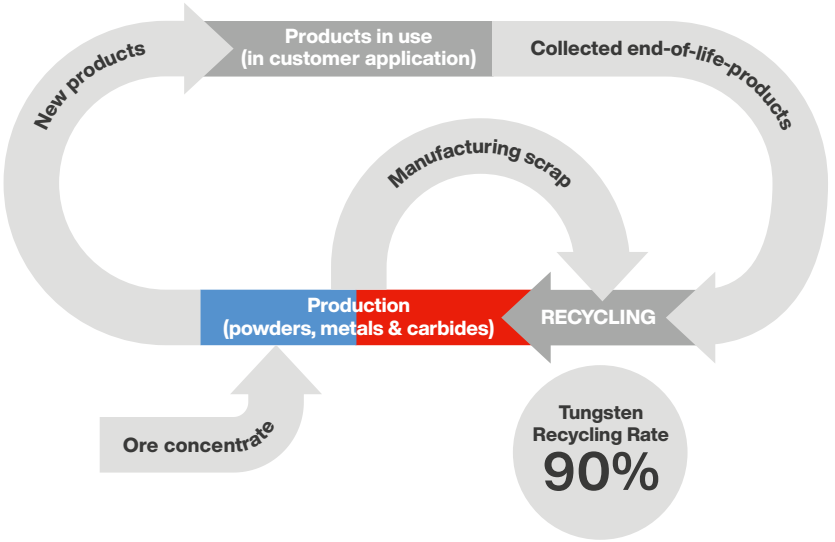
For over a century and right from day one, the Plansee Group has constantly striven to optimize the use and consumption of the valuable metals molybdenum and tungsten.

Although molybdenum and tungsten are classed as refractory metals and listed below each other in the periodic table, their ore mining, usage, recycling processes and market logics all differ.

KPI (Definition)		2021/22	2022/23	2023/24
Tungsten Recycling Rate** (see definition in text)	Plansee Group	/	75%	**90%**
Molybdenum Circularity Rate** (see definition in text)	Plansee HPM	/	29%	**32%**

** This figure excludes Plansee Group Functions with its administrative services.

Tungsten



Plansee HPM produces pure tungsten metal or tungsten metal matrix composite products, while CERATIZIT is a tungsten carbide and hard metal blank and tool producer. One of the core elements of these operations is tungsten scrap recycling. In essence, there are two different tungsten recycling routes, depending on the scrap composition and purity:

Zinc recycling: sorted hard metal scrap is thermally treated with metallic zinc to obtain a tungsten carbide/binder powdery mixture, which is directly utilized in the production of ready-to-press hard metal powder. Tikomet Oy, in Finland and CERATIZIT Austria operate such recycling facilities.

Chemical recycling: tungsten containing hard and soft scrap is chemically converted into high-purity tungsten and tungsten compound powders. The chemical purification process for tungsten scrap is the same as for tungsten ore concentrate, whereby the two resources can replace each other as feed materials. GTP in Towanda operates the group's chemical recycling facility.

Reuse: Pure tungsten metal scrap is utilized by the steel industry as an alloying element.

The Plansee Group's Tungsten Recycling Rate is 90%. The Tungsten Recycling Rate is calculated as the weight of all secondary tungsten units entering the production process per year divided by the weight of all tungsten units entering the production process over the same time period. This implies that the Tungsten Recycling Rate is independent from the output.

Business models for the procurement and handling of tungsten-containing scrap are established within the Plansee Group. CERATIZIT systematically collects end-of-service/life tools via its subsidiary Stadler Metalle GmbH in Germany, Europe's largest collector of tungsten-based secondary raw materials. Efforts to expand the collection of end-of-life products will continue.

Theoretically, the process for obtaining tungsten powder can be carried out using 100% of secondary raw materials. Moreover, from a technological perspective, tungsten can be reused almost indefinitely for tungsten products if kept in the loop. Consequently, all production-based tungsten losses toward the final product are recycled.

CERATIZIT has also established capabilities and a network for reworking cutting tools. By de-coating, regrinding and re-coating drills, mills etc. can be obtained showing performances identical to the original products. The material consumption is reduced to coating materials with thicknesses in the order of microns, completely eliminating the need for new hard metal base material.
Learn more about tungsten recycling on CERATIZIT's website.

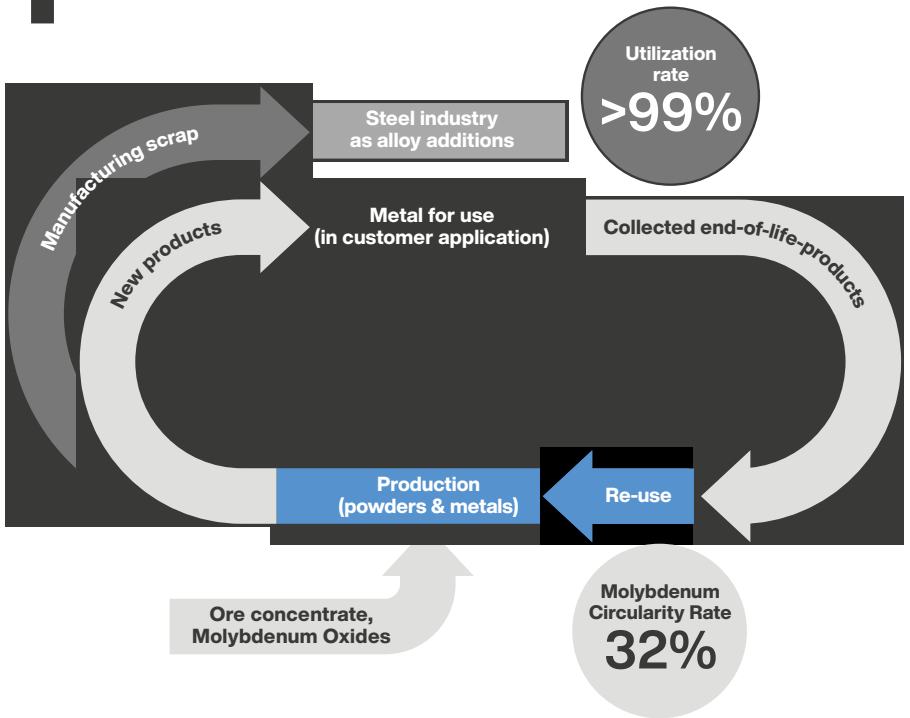
Molybdenum

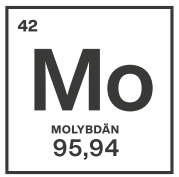
Plansee HPM produces semifinished and finished molybdenum metal products, from a starting point of pure molybdenum trioxide. Molybdenum scrap is carefully separated during production, purified as required, then sold to the steel industry for reuse as a high-value alloying element.

Reusing, reworking and refurbishing: Plansee HPM has launched several projects and initiatives to recover as many molybdenum products as possible from customers after use and ensure that they are further utilized in line with the circular economy approach.

This applies, for example, to coating materials (sputter targets), where only a minor part of the material is consumed by the customer during the coating process. The company also accepts the return of components for glass production or medical technology. Such components are reprocessed and reused.

Plansee HPM's Molybdenum Circularity Rate is calculated annually as the weight of molybdenum in all molybdenum-based products, which are collected after the end of their life, regardless of origin and including products from third parties, then divided by the total weight of all molybdenum-based primary products shipped during the fiscal year. The definition for the Molybdenum Circularity Rate was developed in the beginning of 2024. An initial estimation reveals a **Molybdenum Circularity Rate for Plansee HPM of 32%.**





Recycling of pure molybdenum metal scrap has an insignificant practical relevance, due to the reuse as steel alloying element. As a general rule, Plansee HPM accepts all scrap containing molybdenum, which it then reprocesses, sorts and forwards on to steel industries. Nevertheless, most of the molybdenum remains in the steel industry cycle, as the recycling of molybdenum-alloyed steel remains a key component of their circular economy model.

Consequently, Plansee HPM has calculated the overall utilization rate of molybdenum as follows: It is determined by the sum of all primary and secondary products divided by the total material input. **The utilization rate exceeds 99%.**

Optimized recycling for production scrap

At its Empfingen site, CERATIZIT has developed a way of allowing pure-stream recycling of hard metal scrap generated in its fully automated turning and milling cells, eliciting a pure-stream scrap recycling rate exceeding 80%.

Sorting largely dictates the value of recycled hard metal scrap. Pure stream recycling, where scrap is sorted into homogeneous groups, offers significant advantages. Namely, it boosts the material value of the recycled resource and allows 12 kg of CO_2 emission savings for each kilogram of pure stream scrap recycled.

CERATIZIT Empfingen, Germany, initiated a Research and Development project aimed at retrofitting its production cells to enable pure-stream recycling. Key improvements implemented included advanced filter devices and switchable shutoff valves, increased extraction capacity and optimized piping, machine room and tray optimizations, an automated control system for the shut-off valves, integrated with the Manufacturing Execution System (MES), optimized job sequencing and an automated cleaning system.

Since January 2024, the optimizations, alongside further continuous improvement process (CIP) measures, have boosted the percentage of pure stream scrap collected beyond 80%. Given an average annual scrap volume of 180 tons, these improvements translate to a CO_2 emission reduction of 367 tons per year.

Key facts

- **180 tons of hard metal scrap are generated every year at the Empfingen site.**
- **Optimizing the turning and milling cells boosted the pure-stream scrap collection rate beyond 80%.**
- **The pure-stream scrap collection reduces the CO_2 emissions of the site by 367 tons annually.**

QHSE: Cornerstones for sustainable success

The Plansee Group works with an Integrated Management System (IMS) to comply with all key standards in the areas of quality, environment, energy and occupational health and safety.

The system supports surveillance and re-certification audits, the certification of new sites according to defined standards as well as customer audits.

The integrated management system meets the following requirements:

- Internal requirements arising from the company's strategic and operational objectives
- Wide-ranging customer requirements, from product quality, on-time delivery, development partnerships, sustainability issues, life-cycle-management and logistics to business continuity management
- Legal requirements on a local, regional or global level as well as export control laws
- System requirements and certifications in accordance with standards such as ISO 9001, AS 9100, ISO 14001, ISO 45001, ISO 50001, ISO 27001, ASME as well as others in line with specific market and industry requirements and standards.

Quality management is an important cornerstone for cooperation with customers and ensures that the business areas meet their requirements, and help maximize customer satisfaction.

Ultimately, these principles support the customer journey and ensure high quality across the Group by rolling out a conceptual basis tailored to the individual requirements of each site.

The quality teams are involved in product development from an early stage and support the entire new product introduction (NPI) process. Quality experts create the necessary framework conditions, document the results and refine the quality management system on an ongoing basis according to the Plan, Do, Check, Act (PDCA) principle and involving the entire organization.

Policies & trainings

Policies for quality, health, safety and environment (QHSE) are implemented and a clear roadmap to guarantee the health and safety of employees, visitors and subcontractors is guaranteed.

The policies also include the company's commitment to quality excellence, to protect the environment and prevent environmental pollution.

Employees are regularly trained on topics such as occupational safety and health protection at the workplace, etc. Training is assigned on a decentralized basis at the production sites. They are also trained in environmental issues such as waste reduction, energy management, hazardous material handling and spill response if applicable.

All sites have an emergency organization in line with local legal requirements, while safety fire and emergency drills are also conducted regularly. No relevant fires or emergencies in the past FY 2023/24 have been reported. Contractors working on site are briefed on safety instructions or information and the work conducted is observed.

At most sites, health and safety risk assessments and joint management-worker health and safety committees have been introduced.

Expanding cooperation

The Plansee Group has striven for over a decade to develop and establish a corporate quality framework.

From 2021 onwards, this approach was extended by a global HSE structure, manifesting itself in joint globally active QHSE organization in 2023, focusing on enhancing QHSE performance and compliance, leveraging an integrated management system and accelerating sustainability efforts across all legal entities. At production sites where both Plansee HPM and CERATIZIT are active, they share QHSE services to realize synergies and ensure best practices.

To review and respond to QHSE incidents as quickly as possible, the business areas have jointly established procedures and a global incident reporting system in place, which was upgraded by HSE incidents in the first quarter of 2024. It enables all incidents to be tracked group-wide, as well as their severity, root cause and risk mitigation efforts, as well as allowing lessons learned to be shared between sites. The incidents are then tracked and reported to the Executive Board based on severity.

The production sites in Towanda, USA, and Reutte, Austria, are home to EN ISO/IEC 17025-accredited laboratories, which conduct various services supporting quality assurance in the production, raw material approval, industrial hygiene campaigns, environmental emission analysis and R&D and innovation projects throughout the Plansee Group. The certificates validate that the laboratories meet global requirements related to quality, competence and equipment. To design internal processes and standards efficiently and transparently, they are also part of the integrated QHSE management system.

KPI (Definition)		2021/22	2022/23	2023/24
Total Recordable Incident Rate (TRIR)* ** (definition according to ESRS S1-14 No. 88 (c), number of death + number of events with loss of consciousness + number of events with days away from work + number of events with restricted work or transfer to another job + number of events with medical treatment beyond first aid + number of events with significant injury or ill health diagnosed by a physician or other licensed healthcare professional * 1,000,000 / hours worked)	Plansee Group	/	/	**7.31**
	Plansee HPM	/	/	**10.27**
	CERATIZIT	/	/	**5.73**

*** This figure includes the production sites of Plansee HPM and CERATIZIT and the administrative functions of Plansee Group Functions. Sales Offices from Plansee HPM and CERATIZIT are excluded.

Emissions and natural resources

Emissions associated with the production of tungsten und molybdenum products are constantly monitored to keep them within the applicable legal requirements. The Plansee Group is committed to innovating its processes to reduce such emissions.

The production sites are located in established industrial and commercial zones and no instances of material non-compliance have been reported for FY 2023/24.

Emissions into the air and water

State-of-the-art technology such as dust collectors, exhaust gas purification systems, centralized and decentralized wastewater treatment plants and noise absorbers are installed and programs to monitor their compliance are implemented.

Centralized wastewater treatment systems allow wastewater streams to be collected from various individual processes and scaled treatment and purification. Superior capacities also allow liquids from spills or other water-related incidents to be collected and treated. Such facilities are operated at the Towanda, USA, Mysuru, India, and Mamer, Luxembourg facilities. The waste sludge obtained after the treatment is disposed of by licensed companies.

In general, decentralized wastewater treatment solutions are dedicated to a particular production step, offering the advantage to specifically treat and recover water contaminants. At the Plansee HPM and CERATIZIT production site in Reutte, Austria this applies for water utilized in chemical surface treatment and when manufacturing hard metal powder.

Each wastewater stream contains inorganic salts and dispersed refractory metal particles. Specifically treating each stream allows the molybdenum and tungsten contaminants to be recovered and helps keep all emissions within the legally required water quality limits. Before discharging, all water quality parameters are measured to ensure that all limit values are met.

Water and marine resources

Plansee HPM and CERATIZIT do not negatively impact the access to clean drinking water of communities in the surrounding area of its sites. Plansee HPM has conducted a water-stress assessment to map its global site locations with the Aqueduct Water Risk Atlas of the World Resources Institute to assess water scarcity and water-related risks. Follow-up actions are currently being developed and implemented.

All production sites have storm water pollution prevention measures implemented wherever necessary and stormwater discharges are kept pure. Appropriate spill response equipment and installations are provided such as spill kits and the relevant employees are trained in spill response measures. No wastewater is discharged into bodies of water.

KPI (Definition)		2021/22	2022/23	2023/24
Total water consumption** (in 1000 m^3)	Plansee Group	/	/	**6,518**
Total wastewater discharged** (in 1000 m^3, includes all water types discharged including industrial wastewater, sanitary waste water and cooling water)	Plansee Group	/	/	**6,059**

** This figure excludes Plansee Group Functions with its administrative services. It here includes the production sites of Plansee HPM and CERATIZIT.

Water-saving projects in India

India is a water-stressed region. Fresh water is becoming increasingly scarce there, for all aspects of life, including industry.

At Plansee India in Mysuru, all water from domestic sewage and industrial effluent has been treated on site for years and used for gardening, which involves daily consumption of around 40,000 liters. Domestic wastewater is treated in a Sewage Treatment Plant (STP) and industrial wastewater in an Effluent Treatment Plant (ETP). Plansee India is planning to install an additional filtration system so that this water can also be used for flushing toilets, which will save up to 10,000 liters of water per day. Rainwater is also collected and used for gardening. There are plans to use this water to produce demineralized water for production, which would save an estimated one million liters of water per year.

CERATIZIT India is committed to reusing treated domestic and process water. At the Attibele and Bommasandra sites, domestic wastewater undergoes treatment in a Sewage Treatment Plant (STP) and is reused for various purposes such as flushing toilets and gardening. In Uluberia, process water is treated in an Effluent Treatment Plant (ETP) and used for general gardening purposes. Additionally, rainwater recharging wells as well as roof rainwater collection and reuse are implemented in Bommasandra and Attibele. With these initiatives, water treatment and recycling annual water savings exceed two million liters in Attibele, 410,800 liters in Bommasandra and four million liters in Uluberia.

Waste

The Plansee Group has programs in place at the site level to reduce its waste output. Waste reduction and recycling options are checked, with ongoing monitoring of implementation. Different waste types are separated as required.

- The Plansee HPM site in Shanghai, China, has implemented a waste reduction program and could reduce its hazardous waste by more than 25% over the past two years – e.g. by optimizing its cleaning and distillation processes and reducing scrap.
- The Plansee HPM site in Reutte, Austria, has an waste managment program. For example, the water jet sludge at the site was reduced while introducing a better drying process.
- The CERATIZIT site at Empfingen, Germany, has implemented a waste program to sort phase-pure soft scrap, which can be returned to hard metal powder production without any treatment or chemical conversion. A final reduction of 60% in soft scrap was obtained.

More details on recycling and reuse efforts can be found in the respective chapter **“Circular Economy”.**

Waste is disposed of in compliance with applicable laws, regulations and permit requirements. Plansee HPM and CERATIZIT only utilize qualified and certified waste disposal companies.

KPI (Definition)		2021/22	2022/23	2023/24
Non-hazardous waste** (in metric tons, according to local legislation in the respective country)	Plansee Group	/	/	**6,261**
Hazardous waste** (in metric tons, according to local legislation in the respective country)	Plansee Group	/	/	**7,876**

** This figure excludes Plansee Group Functions with its administrative services.
It here includes the production sites of Plansee HPM and CERATIZIT.

Maintaining biodiversity

The Plansee Group aims to bequeath a positive environmental legacy for future generations as it operates and grows its business. Plansee HPM and CERATIZIT do not operate within the boundary of official nature reserves, nor do their operations impact on such areas in any way.

Procurement

Responsible sourcing

The Plansee Group is committed to sustainable and responsible procurement practices. Materials and other goods and services are purchased from socially, ethically and ecologically sustainable sources.

Purchasing is centrally coordinated within the Plansee Group **for CERATIZIT, Plansee HPM and Plansee Group Functions.** The standards and guidelines for responsible procurement are outlined in its Supplier Code of Conduct as well as its Raw Material Supply Chain Policies. The purchase conditions also clearly and explicitly reference the Plansee Group's Code of Conduct.

The Plansee Group audits its suppliers to ensure the traceability of raw materials and other goods and undergoes regular audits itself by recognized certification bodies. The Supplier Audit questionnaire is based on the ISO standards 9001/14001/45001/50001 and covers environmental and safety topics. The scope also extends to ESG topics like human rights, anti-corruption, etc. A more comprehensive approach to ESG is under consideration. Employees involved in purchasing raw materials and other goods are regularly educated and trained.

Read more in the respective documents:
Plansee HPM – Sustainable procurement of raw materials
CERATIZIT – Responsible Purchase of Raw Materials
Global Tungsten & Powders

Raw materials and conflict minerals

The responsible procurement of raw materials is one of the key tasks of the purchasing department. A key focus is on the so-called conflict minerals tin, tantalum, tungsten and gold (3TG) as well as cobalt.

Tungsten and tantalum

Some tungsten and tantalum mines are located in conflict-affected and high-risk areas (CAHRAs). Accordingly, the Plansee Group must ensure the raw materials it procures are not financing armed conflicts. Raw materials suppliers must not only meet strict quality guidelines, but must also respect human rights, labor laws and international trade law without exception and prove that their raw materials come from conflict-free sources and meet strict environmental requirements. The Plansee Group only selects suppliers that comply with rigorous procurement guidelines, pursuant to the Code of Conduct and Supplier Code of Conduct

The Plansee Group implements the OECD guidelines "Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas" of the Organization for Economic Cooperation and Development (OECD), the EU Regulation (Regulation (EU) 2017/821) establishing supply chain due diligence obligations as well as the Dodd Frank Act requiring companies to disclose their use of conflict minerals.

Aware of its responsibilities, the Plansee Group exercises due diligence in sourcing raw materials. Compliance with this commitment is confirmed by the Responsible Minerals Initiative through regular audits as part of the RMI Downstream Assessment Program. In 2013, GTP, the Plansee Group's sole tungsten smelter, was the first tungsten processor worldwide to be certified as a “Conflict Free Smelter”. The audit committee of the Responsible Business Alliance (RBA) has confirmed that GTP in Towanda sources tungsten in compliance with the RMAP. CERATIZIT has joined the RMI for responsible procurement.

Cobalt

After the refractory metal tungsten, cobalt is the second most important metal for CERATIZIT in terms of use as a carbide binder. The reserves compared to other metals are high. Moreover, as a by-product of nickel and copper mining, cobalt involves a comparatively low environmental impact and energy consumption. Since acquiring GTP in 2008, CERATIZIT has operated independently of the world's primary cobalt producers and can meet cobalt requirements internally by recycling carbide. In FY 2023/24, 100% of CERATIZIT's cobalt requirements were met from recycled material. The cobalt sludge obtained as a side product while chemically purifying tungsten is recycled and refined by industry partners, then provided to CERATIZIT in the form of cobalt metal powder.

Changes within procurement over the past fiscal year:

- The Supplier Code of Conduct of Plansee Group that covers CERATIZIT, Plansee HPM and Plansee Group Functions was fundamentally revised, structured and further developed in 2023. The approach is now far more comprehensive and covers all key areas of sustainable procurement.
- The Assent tool was introduced into the supplier management process of CERATIZIT, Plansee HPM and Plansee Group Functions to manage and track suppliers according to ESG criteria. The process of sending out questionnaires on ESG criteria to suppliers has been initiated. As part of a progressive approach, procurement is starting with the most relevant suppliers identified through a risk assessment. Suppliers are checked systematically, but with a sense of proportion.
- On this basis, further sustainability activities are promoted in procurement, including reducing emissions with major suppliers.

Ongoing measures:

- Suppliers selected by a risk analysis receive questionnaires from Assent to evaluate their risks in terms of ESG aspects.
- To achieve its goals, the Plansee Group has set up an escalation campaign to boost the response rate on Assent, schedule calls and meetings with its suppliers and send out further campaigns (requests for information) on Assent regularly.
- Once the data has been collected through the Assent process, the Plansee Group will define a follow-up process with its suppliers to collaborate on various ESG aspects. Annual feedback rounds with suppliers on overall supplier performance are also conducted.
- In the mid-term, the Plansee Group will assess the cradle-to-gate product carbon footprints from suppliers.

CERATIZIT introduces packaging made from recycled plastic

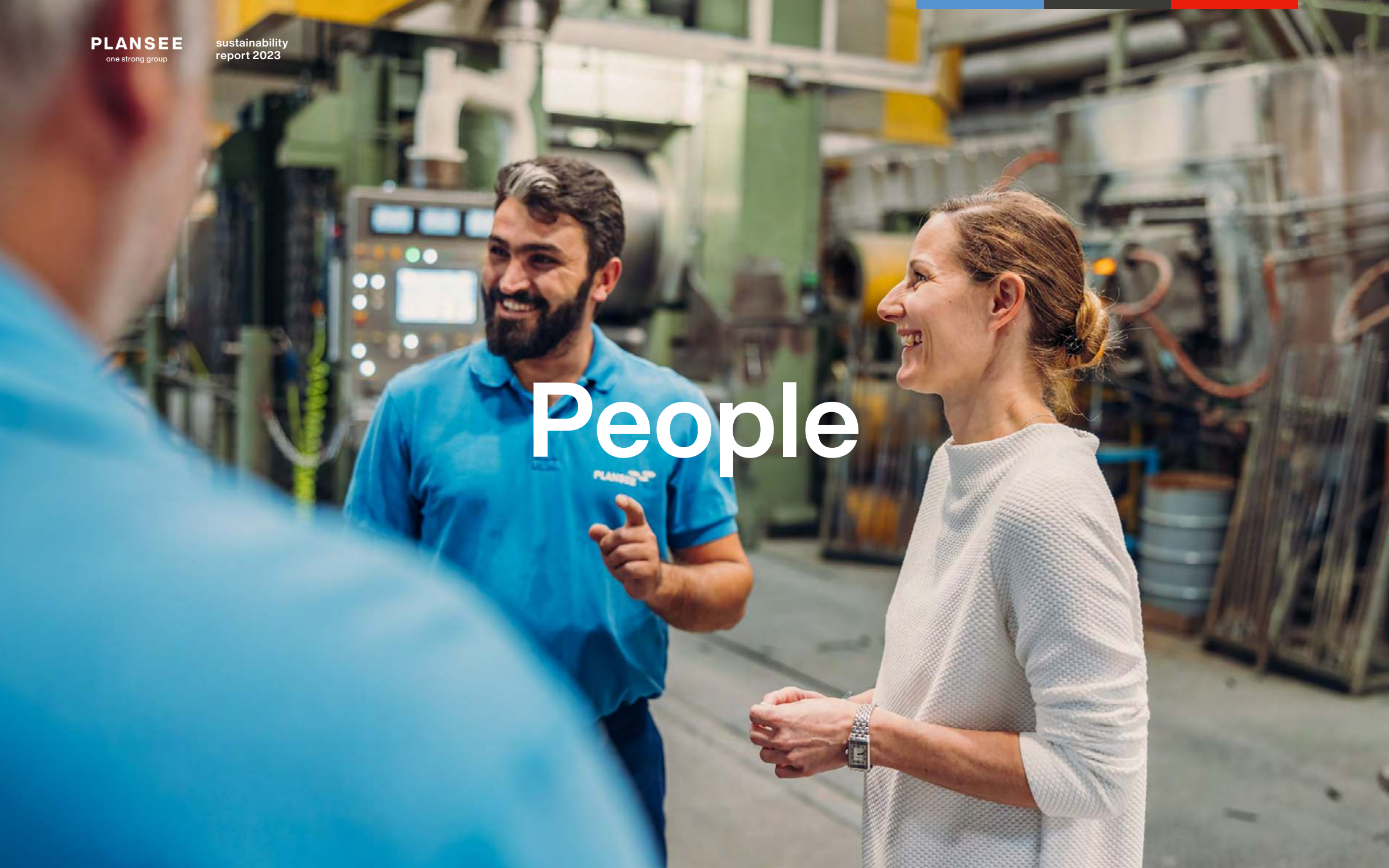
To reduce CO_2 emissions and increase circularity, CERATIZIT has launched a new packaging portfolio made entirely from recycled plastic. Rose plastic, an innovative packaging solutions provider, is a partner of the project.

Packaging is key to ensuring the customer receives tools in immaculate condition after shipping. It's also the go-to solution for packaging products for good reason, given its lightweight, flexible and robust nature. Unfortunately, as a fossil-based product, producing plastic involves extracting and processing crude oil, which is a finite resource. Thanks to a Bachelor thesis project and its partnership with rose plastic, CERATIZIT now mitigates this disadvantage by using more and more packaging made from 100% recycled material.

European sites have already switched to the new packaging and some international sites have followed suit. The company aims to make those packaging materials the global standard as soon as possible. The results are promising: Annual savings of over 200 tons of CO_2 are projected for Europe alone, reducing CO_2 emissions from packaging by 60%. Read more on **CERATIZIT's blog**

Aiming for more sustainable packaging at Plansee HPM

Plansee HPM is pursuing projects to switch to more sustainable packaging materials. For example, at the Plansee HPM site in Seon, Switzerland. The aim is to reduce the use of plastics and cut greenhouse gas emissions. One option is corrosion protection paper, which is fully recyclable and reusable and is impregnated on both sides with invisible, odorless and non-toxic Vapor Corrosion Inhibitor Technology (VCI). VCI molecules diffuse out of the paper and settle on exposed metal surfaces inside the packaging. This provides effective protection against corrosion during transportation and storage. As soon as the packaging is removed, the VCI dissipates from the metal surface and allowing it to be painted, welded or further processed immediately. This solution is intended to replace the VCI packaging currently in use.



People

Equal opportunities for all

Being an attractive and reliable employer isn't just a main goal for the Plansee Group – it's also a responsibility. Dedicated and motivated employees are key to the company's success.

Walter M. Schwarzkopf, the son of the company's founder and a second-generation owner, fostered an open corporate culture. He was convinced that respect, equitable treatment and the right of every individual to constructive input at the workplace would be key factors to success. This spirit is still embodied in the Plansee Group's HR organization. Its strategy includes:

- To support and challenge as a trusted partner
- To attract, retain and develop talents and (future) leaders
- To drive collaboration and leadership in the matrix organization
- To position the Plansee Group as an "employer of choice" (for current employees and potential candidates alike)

... for **11,208** employees worldwide in FY 2023/24.

For the Plansee Group, being an **"Employer of Choice"** means attracting innovative and bright minds and providing employees with the resources they need to grow, which will help ensure the long-term company success and growth. To achieve this goal, the Plansee Group focuses on a respectful, fair, appreciative and supportive leadership, meaningful work and personal growth opportunities, a professional atmosphere and thriving teamwork, appropriate compensation, flexible answers for personal preferences where possible and a work-life balance for all employees. Depending on location, the Plansee Group offers wide-ranging benefits, flexible working models, family support initiatives and corporate events.

Common values and a culture of appreciation, commitment and trust are what underpin employee satisfaction and economic success. The Plansee Group puts a special focus on developing its culture, for example by analyzing employee perceptions by standardized culture surveys, as well as systematically defining the optimal culture for different sites and functions and accompanying and empowering teams by overcoming gaps between the optimal and perceived culture.

Respect of labor and human rights also forms the basis of daily collaboration and cooperation at the Plansee Group. Fair working conditions cover topics like appropriate compensation and legally compliant working hours as well as decision-making when selecting, developing, promoting and remunerating employees based on work-related criteria. Respective training material is developed and shared to avoid unconscious bias during hiring and selection processes.

At all sites with employee representation, the Plansee Group continuously works with council members on collective agreements regarding working conditions. For those employees not covered by a collective agreement, the company offers comparable working conditions.

Apprentices & trainees

Training apprentices and providing continuing education for employees has always played a key role at the Plansee Group. The company has been training talented individuals in technical skills and trades since 1938.

More than 80 years later, vocational training remains just as important. The Plansee Group offers apprenticeships at several sites in wide-ranging professions – from production-related professions such as metal, laboratory, materials and process technicians to electrical engineers, IT-specialists, e-commerce merchants and warehouse logistics specialists:

- Plansee Group Functions Deutschland in Germany
- Plansee Power Tech in Switzerland
- Plansee Composite Materials in Germany
- Plansee Shanghai in China
- Plansee India
- Plansee USA
- Plansee SE in Austria
- CERATIZIT Balzheim in Germany
- CERATIZIT Besigheim in Germany
- CERATIZIT Empfingen in Germany
- CERATIZIT Deutschland in Germany
- CERATIZIT Business Services in Germany
- CERATIZIT Kędzierzyn-Koźle in Poland

Apprentices in the spotlight:

- **120 apprentices:** In 2021, Plansee HPM and CERATIZIT opened a new, state-of-the-art training center at the Reutte headquarters. Up to 120 apprentices in six different professions can complete their training, combining theory and practice in the 2,700 square meter building.

- **Inhouse training facility:** In 2022, a state-of-the-art training center for manufacturing opened at Plansee USA in Franklin. Here, employees can learn new skills and focus on continuous professional development. Their training centers around manufacturing theory and how to practically use these theories to CNC turning and milling operations.

- **Two awards:** In July 2023, Angelina Loch completed her training as a tool mechanic at CERATIZIT Besigheim with the prize awarded by the German Chamber of Industry and Commerce (IHK). In October, she was also awarded the Ulrich Ruetz Prize for her outstanding performance. This prize is awarded to apprentices who excel with top grades and are also involved in voluntary work.

- **Extensive practical and theoretical preparation:** Thanks to their comprehensive practical and theoretical preparation, former apprentices Ina Kannenberg and Ege Cabuk won the Tyrol-wide provincial title in their respective apprenticeships at the Tyrol Skills 2023 apprentice competition.

- **Regular top performance:** The apprentices of Plansee Composite Materials in Germany regularly achieve the highest grades and are considered some of the best graduates in the region.

Strong trainees

As well as the wide-ranging apprenticeships on offer, the Plansee Group has also been offering various positions for trainees for years. As of February 2024, 44 trainees were employed at the company. Trainees employed at Plansee Group Functions, currently primarily in Reutte, Austria, and in Kempten, Germany, go through the "Strong Trainee Program": During their 18 to 24-month trainee period, these young talents pass through four different departments within their area (e.g. HR, IT or Controlling), giving them a taste of different areas of work within the Plansee Group. They are not only supported by People Development, but also by their hiring directors and a more advanced trainee as a “buddy”. In addition to technical skills, they also build up soft skills and networking during the program. This trainee program is currently being revised.

Long-standing experts

For its highly specialized business, the Plansee Group needs a skilled workforce, who understand materials and applications inside out. Because people are the key to success, the company invests in them and aims to fill most middle and senior management positions internally.

The Plansee Group's HR organization monitors employees throughout their journey: From job offers and onboarding to training and development, regular check-ups with managers, talent management and retiree benefits. As an international production company, developing its employees is crucial to sustainable success.

Scope to refine new technologies and working methods depends on having a highly qualified workforce, capable of meeting changing market demands. Through targeted training measures and effective skills management, the Plansee Group not only invests in individual employee development, but also secures its competitiveness and attractiveness as an employer through organizational learning and knowledge management.

"8 out of 10" – this is the number of middle and senior management positions that Plansee Group aims to fill internally and the central goal of talent management. Key to achieving this is to retain our employees and provide them with leadership development programs and training opportunities. Through various training programs, the Plansee Group has created learning and development opportunities for all skill levels and hierarchical levels within the company.

This enables employees to develop throughout the Plansee Group and achieve their professional goals or desired positions, paving the way to fill most middle and senior management positions internally.

KPI (Definition)		2021/22	2022/23	2023/24
Percentage of internally filled middle and senior management positions (senior and middle management positions hired/backfilled from internal staff)	Plansee Group	85%	85%	**80%**

A position with considerable creative autonomy

Sandra Horninger has been employed by the Plansee Group for 22 years. After completing her studies and residing in France for a time, she joined Plansee HPM as Customer Segment Manager. Now Director of Global Procurement at the Plansee Group, she values the company's culture, the substantial degree of creative autonomy in her role and the considerable trust placed in her, despite her somewhat 'unconventional' background.

After completing her master's degree in international business and business administration in Linz, Austria and numerous internships in Austria and France, the Upper Austrian native relocated to Plansee HPM in Reutte, starting out in sales for several years. Sandra later changed course with a move to Trade Affairs and Export Control, where she became head of department after two years, while also pursuing a postgraduate degree in International Business & Tax Law in Innsbruck and Frankfurt.

Finally, she reached her current position as Director of Global Procurement. Her extensive network, cultivated early on in her career, has helped familiarize her with this new role, as she already knew many of the new contacts. She was also Chairwoman of the Trade Committee of the European Non-ferrous Metals Association for four years.

Sandra Horninger particularly appreciates the international context of her job at the Plansee Group. She has completed a range of internal and external training courses and seminars in her career, covering both functional and leadership and management aspects and been involved in Group-wide initiatives for diversity, equity and inclusion.

Whether it's standardizing processes, saving costs, or driving forward our sustainability strategy: I can make a lot of things happen in my role and I really enjoy that.

Sandra Horninger, Director of Global Procurement

Supporting careers

A safe place to work, nurturing learning opportunities and international career development opportunities – the Plansee Group is committed to supporting its employees throughout their career paths.

As soon as employees come on board, the Plansee Group invests in their professional and personal development. By fostering a culture that prioritizes continuous learning, the Plansee Group empowers its employees to stay ahead of industry trends, upskill and contribute to long-term company success. The Plansee Group's People Development department acts as a competence center for performance, succession and talent management and offers innovative learning opportunities for specific target groups. It supports the sustainable development of (business) relevant skills for today and tomorrow in line with the Plansee Group's strategic competency model.

The development opportunities available transcend traditional training programs. The aim is to create a broad spectrum of on-the-job experiences (e.g. through job rotation or assignments abroad), near-the-job offerings (such as coaching, mentoring or network exchanges) and off-the-job seminars in the areas of social, technical and methodological skills that enable individuals to grow both personally and professionally. Onboarding programs for a structured start in the company are as much part of the portfolio as induction seminars for different target groups. This approach not only enriches the talent pool but also fosters a sense of self-directed development at all levels. Over the past fiscal year an e-learning provider specialized in soft-skill training, was implemented in the Plansee Group’s learning platform, offering over 100 courses in different languages.

Sales development training

Sales development training across both business areas is a top priority at the Plansee Group to prepare sales staff well for their tasks and develop their skills. After all, particularly when handling technically complex applications or individual tool solutions, (further) training in materials, products, new developments and production processes is fundamental as well as conversation techniques, organizational knowledge and general sales workflows.

Ever since 2013, Plansee HPM has had a dedicated department to handle the structure and content of training courses as well as train trainers. As well as classroom training, many e-learning modules, podcasts and live online training sessions are offered, as well as internal meetings and workshops. A separate film and webinar studio was set up in 2021.

Fostering talents

Integrative talent management involves identifying, attracting and promoting people with the right skills and potential. The company's commitment to sustainability has always been defined by upholding its values and strategic goals across generations of managers.

Succession management ensures that future managers are identified and developed from within the company's ranks ("8 out of 10"), thus promoting continuity and stability. A solid performance management system is a key component of the sustainability strategy in the human resources department. By setting clear expectations, providing regular feedback and recognizing and rewarding achievements, a performance-oriented culture is promoted. Performance management considers both the what (meeting targets and expectations) and the how (behavior) of the work performed.

To determine the next steps in the employee's career, mandatory employee dialogues are in place, which are held at least once a year. This dialogue between the hiring manager and employee includes a performance and competence evaluation but also defines future steps in their career by examining targets or training measures for the upcoming year. The Plansee Group offers different leadership development programs for emerging leaders and talents, front-line managers, mid-level managers and senior managers as well as executives.

Talent management

Over and above a strategy alone, talent management is at the core of the commitment to sustainability in HR. By strategically aligning talent, performance and succession management alongside learning and development, the company is paving the way for long-term success and ensuring that the workforce is not only prepared for today's challenges but also capable of shaping the sustainable future of a global manufacturing company.

Projects from the past fiscal year

- **Talent management:** The focus was on developing three indicators for identifying talents (drive, impact & social competence) and designing a monitoring process. The process for conducting an annual review was also revised and discussed with various stakeholder groups. In the next step, development plans with individual measures will be agreed and implemented between talents and their managers.

- **Diversity, equity and inclusion:** In a global working world and a future-oriented organizational culture, addressing diversity, equity and inclusion (DEI) is one of the prerequisites for sustainable leadership. A balanced gender distribution, ethnic diversity and inclusive practices helps ensure talent is optimally utilized. Over the past fiscal year, the Plansee Group has organized various initiatives relating to DEI – including a hybrid presentation by the CEO of VAUDE, a qualitative research project with bachelor students from the University of Innsbruck and an inaugural attendance at herCAREER, a career fair for women, in Munich.

- **New group-wide development initiative:** Partnering the INSEAD business school, the Plansee Group has launched a group-wide people development initiative: the Plansee Group General Management Program. Co-designed by the Plansee Group's leadership team, people development department representatives and a senior INSEAD faculty, this new development initiative is tailor-made for the senior manager cohort.

- **Digitalization:** To offer employees and managers more flexible HR services (from time management and data maintenance to learning content), the HR portals are being further expanded.

Forward-looking projects

- **Diversity, equity and inclusion:** Following initial projects, the Plansee Group is planning to institutionalize DEI in the coming years and establish a strategy, develop a DEI policy and conduct a company-wide quantitative survey to identify strengths and weaknesses and derive a corresponding action plan.

- **Focus on learning opportunities:** Over the next few years, the learning management system is to be established as a one-stop store for further training opportunities in the Plansee Group.

- **Talent management:** Over the coming fiscal year, a company agreement is to be concluded with all works councils in the DACH region for the annual performance review and further pilot projects are to be carried out. Various training formats will be offered for this purpose. The number of annual performance reviews conducted per location will be established as a fixed metric.

Governance & responsibility

The Plansee Group is aware of its role in society and the communities in which it operates, as well as its responsibilities to its customers, business partners, employees and the environment.

Andreas Schwenninger,
Member of the Executive Board
of the Plansee Group

Managing risks

Impacts, risks and opportunities – The Plansee Group's risk management process identifies and evaluates scenarios to implement measures to mitigate risks or promote opportunities.

The purpose and process of the Plansee Group's risk management are regulated in the "Risk Management Policy". This policy sets the framework for the identification, analysis, and assessment of risks, as well as for the identification and implementation of measures. The policy applies to all business areas of the Plansee Group. The results of the risk inventory process and the measures taken are presented to the Audit Committee of Plansee Holding AG once a year.

The Plansee Group has been practicing risk management systematically for more than fifteen years. An annual risk inventory for all global sites includes interviews with key stakeholders – so called "risk owners". Risks throughout the company are evaluated, appropriate measures to mitigate or eliminate them are developed, the implementation status of these measures is regularly checked and newly identified risks are added.

The risk inventory is divided into categories that are significant for the Plansee Group. It encompasses risks for all areas of the company and topics which are part of the Code of Conduct, for example, human rights, corruption, anti-competitive practices and business ethics.

Risk management was revised in 2024 and expanded to include more risks, impacts and opportunities with a focus on sustainability. These were assessed for the first time as part of the double materiality analysis and will be addressed annually in the risk management process.

Substantial risks in the past fiscal year

Substantial risks presented to the Audit Committee have included market, raw material and IT risks:

- The Plansee Group sees economic trends as one of the main areas of risk. The Russian war of aggression in Ukraine, armed conflicts in the Middle East and other geopolitical conflicts are putting pressure on the global economy. The Executive Board anticipates short-term adjustments in demand and is taking precautions for this scenario. Particular attention is being paid to adjusting investments and production volumes to the forecast business development and striving to make fixed costs more flexible.

- The Plansee Group minimizes the risk of limited availability of raw materials by long-term hedging contracts for raw and input materials as well as operational measures such as recycling, inventory optimization and operational excellence. The company has set measures to reduce its dependence on natural gas over the next five years.

- Another significant risk is any kind of in-house IT failure. This is countered by measures such as user awareness training sessions, backups, safety systems and disaster recovery plans. As part of the quality assurance of IT services, the data center in Reutte was certified with ISO 27001 and audited in accordance with ISAE 3402.

The annual risk management is audited by PwC Wirtschaftsprüfung GmbH. The Plansee Group then receives a declaration of completeness in accordance with Rule 83 ÖCGK. The auditors also help the Plansee Group further develop its risk management system.

Business conduct policies

The basic rules of conduct at Plansee Group for employees, suppliers and other business partners are summed up in the Code of Conduct and the Supplier Code of Conduct.

Code of Conduct

The Plansee Group's Code of Conduct summarizes the basic rules of conduct that apply to all employees, suppliers and other business partners and all companies in which the company holds more than 50% of the shares (CERATIZIT S.A., Plansee SE, Plansee Group Functions). Training sessions are designed to ensure that employees know and understand the requirements of the Code of Conduct. The document was extensively revised and supplemented by the Executive Board of Plansee Holding AG in December 2023. The new Code of Conduct identifies risks and areas of conflict arising from the business models of the Plansee Group and its business areas and provides guidelines for the adequate conduct of employees, suppliers, service providers and other business partners.

Read the Plansee Group's Code of Conduct here.

Supplier Code of Conduct

The Plansee Group's Supplier Code of Conduct was extensively revised and expanded in 2023 and defines the basic principles for suppliers' conduct. The business areas of the Plansee Group act in accordance with these guidelines and expect appropriate conduct from their suppliers. The policy is structured according to ESG criteria: environmental, social and governance. Suppliers are systematically selected according to strict procurement guidelines and the Plansee Group commits to long-term supply and purchase agreements based on mutual trust and sustainability. New suppliers are screened primarily according to criteria such as quality, environment, health and safety, human rights, labor standards and anti-corruption.

Read the Plansee Group's Supplier Code of Conduct here.

Extending the whistleblower system

The Plansee Group uses a whistleblower system to ensure that reported violations of laws or the Code of Conduct are handled professionally.

The whistleblowing system is operated in Europe and offers whistleblowers the opportunity to report violations of the law or the Code of Conduct anonymously and securely. The whistleblowing system is accessible via all Plansee Group websites and is managed by an external law firm. Plansee Holding AG, Plansee Group Functions, Plansee HPM and CERATIZIT have each set up their own compliance committees to deal with the information received in their respective areas. These committees are composed of the respective managing directors/board members.

In addition, any employee who suspects a compliance violation may contact his or her supervisor, the Compliance Officer, the Legal Department or Human Resources. During FY 2023/24, **three** cases were reported and processed, all of which were completed.

Revision

The whistleblowing system and its processes are currently being revised. The Plansee Group plans to extend the system to other countries in which it operates. In addition, key figures are to be developed that will make it possible to record the number of concerns and their processing status that are received via the whistleblowing system and via other channels defined in the Plansee Group's Code of Conduct.

KPI (Definition)		2021/22	2022/23	2023/24
Number of whistleblower cases (reported cases by employees, customers, suppliers, or other persons via the whistleblower system)	Plansee Group	/	/	**3**

Contact and details here: **Compliance | Code-of-Conduct | Plansee HPM**
CERATIZIT | Compliance

Internal audit

The Plansee Group's Internal audit department provides independent and objective auditing and consulting services aimed at ensuring and improving compliance with processes within the organization.

The internal audit is an integrated part of the supervisory function of the Plansee Group. It is responsible for internally auditing all legal entities in which the Plansee Holding AG holds more than 50% of shares. As an organizationally independent holding function, it reports directly to the Executive Board and the Audit Committee of Plansee Holding AG.

Goals of the Plansee Group's Internal Audit department

- Protecting the Corporate Management against possible risks and organizational fault
- Detecting and reducing risks in the business processes
- Supporting compliance of business processes with laws as well as Corporate Governance rules and requirements of the Plansee Group
- Monitoring the effectiveness of the business processes
- Ensuring the effectiveness of internal control systems
- Safeguarding the legitimate interests of third parties
- Ensuring the reliability of Corporate Reporting

KPI (Definition)		2021/22	2022/23	2023/24
Number of internal audits (conducted audits in accordance with the audit plan approved and monitored by the Executive Board of the Plansee Group and the Audit Committee of Plansee Holding AG)	Plansee Group	28	38	**25**

Focus of fiscal year 2023/24

- Compliance with requirements of key customers
- Raising awareness of compliance
- Follow-up audits

Protecting information

In an increasingly digital business environment, information security provides an essential framework for enabling secure business operations and protecting sensitive information.

The Plansee Group takes measures to protect its information systems, confidential information, data and know-how as well as those of customers, suppliers and other business partners to the best of its ability.

The main objective of Information Security is protecting all data and information received, generated, processed, disseminated, stored and destroyed by the company: Information from research and development, patents, process descriptions, recipes, design plans and customer and employee data (including personal data) are particularly worthy of protection. Information Security also ensures compliance with legal requirements, applicable standards, internal directives and contractual obligations and provides the necessary security for the company's digitalization initiatives.

Information and training in corporate and information security are essential factors when it comes to minimizing risks for the group and ensuring the necessary awareness. Accordingly, regular information security training courses are mandatory for all employees: They are maintained by the Information Security and Human Resources departments and cover a range of key topics that are constantly updated to reflect the latest threats.

The Plansee Group is covered under the ISO 27001 certified information security management system (ISMS). It is constantly being updated and subjected to multiple annual audits. An ISAE 3402 Type 2 compliant control system is also implemented.

The Information Security Guideline of the Plansee Group expresses these goals and the attitude of responsibility of the management of the Plansee Group regarding information security. This is the basis for designing information security and handling the information and information systems of the Plansee Group securely and responsibly.

Protecting personal data

The Plansee Group prioritizes the protection of personal data of its employees, customers, suppliers and other business partners.

Within the Plansee Group, a data protection organization is established to ensure compliance with the national and regional laws and to meet the expectations and requests of its employees, customers, suppliers and business partners with regard to all privacy matters.

Responsibilities of the data protection organization:

- Providing guidance, consultation and support to ensure legal compliance of the processing (e.g. collecting, using, sharing, deleting) of personal data and to ensure appropriate documentation thereof.
- Supporting the Plansee Group companies in fulfilling their privacy-related tasks in accordance with national and regional laws.
- Ensuring security of the personal data and of the processing of such data.
- Providing a point of contact for the respective supervisory authorities and for the employees, customers, suppliers and other business partners of the Plansee Group with regard to all data privacy matters.
- Creating awareness and knowledge of the employees of the Plansee Group regarding data privacy matters by provision of information, guidance and regular training sessions.

Measures and actions implemented in FY 2023/24

- The Plansee Group established a new data protection function with group-wide responsibility.
- An interdisciplinary data protection council has been established where members of related specialist departments of the Plansee Group regularly meet and align on data protection topics.
- Local data protection coordinators have been established for further Plansee Group companies.
- An annual e-learning training (focusing on EU regulations, in particular on General Data Protection Regulation (GDPR)) and specific training sessions for different departments have been held.
- The training raises awareness and trains staff involved in personal data processing operations in the European Union and Switzerland with permanent computer access.

KPI (Definition)		2021/22	2022/23	2023/24
Absolute number of data subject requests (regardless of whether the request was complied with or ended/completed otherwise)	Plansee Group	/	/	**4**

The forward-looking measures focus on ensuring compliance of the Plansee Group with data protection laws, under particular consideration of international legislative initiatives and the organizational structure of the company. The goal is to further develop and implement a group-wide data protection management system.

Forward-looking strategic measures

- Further developing and implementing data protection related processes, reporting structure and documentation
- Elaborating and implementing a data protection policy
- Establishing a committee of local data protection coordinators of the different affiliated Plansee Group companies that regularly aligns on data protection topics to further implement the data protection strategy and measures on a group-wide level
- Expanding data protection measures and corresponding training sessions worldwide, also to smaller sites of the Plansee Group

Good neighbor in our communities

Being a reliable employer does not just apply to our employees, but also to their families and neighbors at the Plansee Group's sites worldwide. For this reason, the company for many years focused on getting involved in the communities and supporting them.

Education

- **Annual scholarships:** Already in 1956, the Paul Schwarzkopf Foundation, named after the founder of the Plansee Group, was established in Austria. The purpose of the foundation is to support young people in their education. Since its inception, the foundation has provided financial support to many students through annual scholarships.

- **Walking the path together**: In Austria, there are still far too many students who leave school without any qualifications. At the Reutte site, the Plansee Group, in cooperation with Social Business Sindbad, helps young people with career orientation and writing job applications, among other things. Employees act as mentors. The mentors accompany the young people on their way to an apprenticeship or secondary school. Working together, the mentors deepen their social skills, assume social responsibility and can receive coaching in social leadership. The program is now in its second year.

- **Learning is key:** Plansee India, located in Mysuru, supports more than 200 children aged 4 to 16 from low-income families by financing their education. Since education is key to improving one's life but at the same time often not affordable for disadvantaged families, Plansee India took over the management of a school. The teachers' salaries, maintenance tasks and the construction of classrooms and infrastructure are covered by Plansee India. Employees who enjoy teaching provide lessons on an hourly basis.

Donations

When people in the communities around the Plansee Group's sites need help, the company wants to respond quickly. Last year, it donated heavily to social activities and people in need. A few examples:

- **Aid for victims of natural disasters:** Plansee Holding donated to the victims of the devastating earthquakes in the border region between Turkey and Syria. Plansee Japan donated to the regional government after an earthquake struck the Noto Peninsula in Ishikawa Prefecture in Japan.

- **Fighting poverty:** Mi-Tech Tungsten Metals donates to The Lord's Pantry at Anna's House, as well as the United Way of Central Indiana. The Lord's Pantry provides a food pantry and weekly meals to individuals and families in need in Indianapolis. United Way strives to develop community-based solutions to reduce intergenerational poverty and provide basic needs and opportunities for families living in or near poverty.

Help

At the Plansee Group sites, various projects support social projects in the surrounding communities. Various production sites regularly offer the opportunity to donate blood and organize further local activities.

- **Solidarity-based housing:** Employees of CERATIZIT Czech Republic participated in the finishing works of the adapted housing for the Kociánka – Březejc Center. The center supports children, teenagers and adults with disabilities. Last year, CERATIZIT Czech Republic contributed to the purchase of physiotherapy equipment for the children of the center.

Culture, sports and more

The Plansee Group sponsors various sports clubs, events and activities worldwide to demonstrate its commitment to health, sports activities and team spirit.

- **Machining meets Talent:** Since 2019, CERATIZIT Ibérica has been the main sponsor of Kirolife's program, initially called "Machining meets Cycling". It supports the ambitions of young cyclists and combines this dedication with the industry's search for skilled workers. Actions include partnerships of companies with cycling schools and support for young cyclists studying mechanical engineering, as well as contests and competitions. The project started in Spain and spread to Italy a few years ago. The award-winning project today involves 47 schools, 110 participating companies and 900 young people in Spain and Italy. With its new name, "Machining meets Talent," the project is now more closely linked to machining training schools.

- **Family Days:** Various Plansee Group sites regularly host Family Days for employees and their families. All guests are invited to the site for a common meal and various recreational activities. Among others, Plansee China, Plansee Japan and CERATIZIT K-K in Poland celebrated family days with activities such as a stamp rally, an obstacle course or face painting. The younger guests in particular enjoyed the day with their parents, while relatives learned more about the company and its culture.

Annex

Overview of key figures

KPI (Definition)		2021/22	2022/23	2023/24
General key figures				
Sales volume* (in million euros)	Plansee Group	2,017	2,346	**2,280**
Investments and innovation* (expenditures on infrastructure, machinery, new product and technology development as well as M&A in million euros)	Plansee Group	236	254	**297**
Equity ratio*	Plansee Group	51%	50%	**57%**
Operating countries* (absolute number of countries where the Plansee Group has production sites or sales offices)	Plansee Group	32	32	**32**
Production sites*/** (absolute number of active production sites)	Plansee Group	46	45	**41**
Products				
Patents, pending patent applications and utility models (absolute number of industrial property rights)	Plansee Group	2,031	2,022	**2,030**
	Plansee HPM	920	893	**902**
	CERATIZIT	1,111	1,129	**1,128**
Share of sales from new products*/** (less than 5 years old, measured by net sales of core business)	Plansee Group	40%	41%	**38%**

* This figure includes 50% of the joint venture company CB-CERATIZIT.
** This figure excludes Plansee Group Functions with its administrative services.

KPI (Definition)		2020/21	2021/22	2022/23	2023/24
Greenhouse gas emissions					
Corporate Carbon Footprint** (absolute emitted greenhouse gas emissions in 1,000 metric tons CO_2e)	Plansee Group	387	442	333	**305**
	Plansee HPM	195	207	179	**168**
	CERATIZIT	201	243	167	**157**
Direct greenhouse gas emissions Scope 1** (in 1,000 metric tons CO_2e from owned or controlled sources)	Plansee Group	67	72	72	**61**
	Plansee HPM	19	19	19	**18**
	CERATIZIT	48	52	54	**43**
Direct greenhouse gas emissions Scope 2** (in 1,000 metric tons CO_2e from the generation of purchased energy)	Plansee Group	95	104	38	**32**
	Plansee HPM	35	39	31	**24**
	CERATIZIT	61	66	9	**9**
Indirect greenhouse gas emissions Scope 3** (in 1,000 metric tons CO_2e (not included in Scope 2) that occur in the upstream value chain)	Plansee Group	225	266	222	**213**
	Plansee HPM	141	149	130	**127**
	CERATIZIT	91	124	105	**104**

** This figure excludes Plansee Group Functions with its administrative services.

KPI (Definition)		2021/22	2022/23	2023/24
Energy				
Total consumption of natural gas and electricity in GWh	Plansee Group	758	748	**664**
Specific energy consumption (in MWh/t, energy consumption per ton metal input)	Plansee Group	44	40	**51**
Total renewable energy consumption (used amount of energy from a non-depletable source, such as wind/water/solar power or biomass in GWh)	Plansee Group	245	359	**342**
Percentage of energy from renewable sources (energy from a non-depletable source, such as wind/water/solar power or biomass)	Plansee Group	32%	48%	**51%**
Percentage of electricity from renewable sources (electricity from a non-depletable source, such as wind/water/solar power or biomass)	Plansee Group	/	/	**92%**
Circular economy				
Tungsten Recycling Rate**	Plansee Group	/	75%	**90%**
Molybdenum Circularity Rate**	Plansee HPM	/	29%	**32%**

** This figure excludes Plansee Group Functions with its administrative services.

KPI (Definition)		2021/22	2022/23	2023/24
QHSE				
Percentage of employees at production sites covered by an ISO 9001 quality management system** (an employee is covered by ISO 9001 if the site is ISO 9001 certified)	Plansee Group	93%	93%	**97%**
	Plansee HPM	100%	100%	**100%**
	CERATIZIT	90%	90%	**96%**
Percentage of employees at production sites covered by a certified ISO 14001 environmental management system** (an employee is covered by ISO 14001 if the site is ISO 14001 certified.)	Plansee Group	68%	68%	**68%**
	Plansee HPM	84%	78%	**75%**
	CERATIZIT	61%	64%	**64%**
Percentage of employees at production sites covered by an ISO 45001 H&S management system** (an employee is covered by ISO 45001 if the site is ISO 45001 certified)	Plansee Group	28%	33%	**20%**
	Plansee HPM	44%	43%	**42%**
	CERATIZIT	21%	28%	**10%**
Total Recordable Incident Rate (TRIR)*** (definition according to ESRS S1-14 No. 88 (c) , number of death + number of events with loss of consciousness + number of events with days away from work + number of events with restricted work or transfer to another job + number of events with medical treatment beyond first aid + number of events with significant injury or ill health diagnosed by a physician or other licensed healthcare professional * 1,000,000 / hours worked)	Plansee Group	/	/	**7.31**
	Plansee HPM	/	/	**10.27**
	CERATIZIT	/	/	**5.73**
Lost Time Injury Frequency (LTIFR)*** (number of events with days away from work (number of fatalities + incidents involving days away from work + significant injury or ill health with days away from work) * 1.000.000/hours worked)	Plansee Group	/	/	**5.87**
	Plansee HPM	9.82	10.97	**8.53**
	CERATIZIT	/	/	**4.39**
Number of Incidents with Lost Days (LTI)*** (number of work-related incidents of an employee that results in one or more days of lost time or results in fatality; day of incident is excluded)	Plansee Group	/	/	**102**
	Plansee HPM	55	66	**54**
	CERATIZIT	/	/	**46**

** This figure excludes Plansee Group Functions with its administrative services. It here includes the production sites of Plansee HPM and CERATIZIT.
*** This figure includes the production sites of Plansee HPM and CERATIZIT and the administrative functions of Plansee Group Functions. Sales Offices from Plansee HPM and CERATIZIT are excluded.

KPI (Definition)		2021/22	2022/23	2023/24
Water				
Total water consumption** (in 1,000 m^3)	Plansee Group	/	/	**6,518**
	Plansee HPM	2,583	2,636	**2,428**
	CERATIZIT	/	/	**4,090**
Total wastewater discharged** (in 1,000 m^3, includes all water types discharged including industrial wastewater, sanitary waste water and cooling water)	Plansee Group	/	/	**6,059**
	Plansee HPM	2,213	2,466	**2,064**
	CERATIZIT	/	/	**3,995**
Waste				
Non-hazardous waste** (in metric tons, according to local legislation in the respective country)	Plansee Group	/	/	**6,261**
	Plansee HPM	1,568	1,836	**1,981**
	CERATIZIT	/	/	**4,280**
Hazardous waste** (in metric tons, according to local legislation in the respective country)	Plansee Group	/	/	**7,876**
	Plansee HPM	2,779	2,764	**2,551**
	CERATIZIT	/	/	**5,325**

** This figure excludes Plansee Group Functions with its administrative services. It here includes the production sites of Plansee HPM and CERATIZIT.

KPI (Definition)		2021/22	2022/23	2023/24
Procurement				
Percentage of 3TG materials purchased exclusively from RMI-certified smelters** (amount of tungsten, tantalum, tin and gold (3TG) material from suppliers which are certified by the Responsible Minerals Initiative)	Plansee Group	/	100%	**100%**
	Plansee HPM	/	100%	**100%**
	CERATIZIT	/	100%	**100%**
Rate of suppliers having confirmed the Code of Conduct and Supplier Code of Conduct**	Plansee Group	/	100%	**100%**
	Plansee HPM	/	100%	**100%**
	CERATIZIT	/	100%	**100%**
Percentage of buyers who have received training on sustainable procurement incl. conflict minerals**	Plansee Group	/	/	**/**
	Plansee HPM	/	/	**100%**
	CERATIZIT	/	/	**85%**
Percentage of selected suppliers having undergone a CSR assessment** (e.g. strategic suppliers; covered by an assessment on their environmental and/or social practices)	Plansee Group	/	/	**55%**
	Plansee HPM	/	/	**56%**
	CERATIZIT	/	/	**54%**

** This figure excludes Plansee Group Functions with its administrative services.

KPI (Definition)		2021/22	2022/23	2023/24
General HR figures				
Total number of employees* (headcount, direct employees including temporary staff)	Plansee Group	11,174	11,445	**11,208**
	Plansee HPM	3,082	3,443	**3,421**
	CERATIZIT	7,681	7,532	**7,264**
Percentage of employees by regions*: Europe	Plansee Group	68%	67%	**68%**
	Plansee HPM	60%	58%	**59%**
	CERATIZIT	70%	69%	**70%**
Percentage of employees by regions*: Asia-Pacific	Plansee Group	23%	23%	**23%**
	Plansee HPM	35%	32%	**31%**
	CERATIZIT	19%	21%	**21%**
Percentage of employees by regions*: America	Plansee Group	9%	10%	**9%**
	Plansee HPM	5%	10%	**10%**
	CERATIZIT	11%	10%	**9%**

* This figure includes 50% of the joint venture company CB-CERATIZIT.

KPI (Definition)		2021/22	2022/23	2023/24
General HR figures				
Percentage of female employees	Plansee Group	20%	21%	**21%**
	Plansee HPM	21%	23%	**22%**
	CERATIZIT	19%	19%	**19%**
Percentage of women in top executive positions (female senior managers excluding supervisory board and boards of directors)	Plansee Group	/	8%	**8%**
	Plansee HPM	/	/	**4%**
	CERATIZIT	/	/	**3%**
Percentage of women within the organization's boards	Plansee Group Supervisory Board	37.5%	37.5%	**37.5%**
	Plansee SE Board of Directors	0%	0%	**0%**
	CERATIZIT S.A. Board of Directors	14%	14%	**17%**
"8 out of 10"				
Percentage of internally filled senior and middle management positions (senior and middle management positions hired/backfilled from internal staff)	Plansee Group	85%	85%	**80%**
	Plansee HPM	/	/	**94%**
	CERATIZIT	/	/	**78%**

KPI (Definition)		2021/22	2022/23	2023/24
Training				
Average hours of training provided per employee	Plansee Group	/	/	**8.9**
	Plansee HPM	/	/	**/**
	CERATIZIT	/	/	**8.9**
Percentage of employees who participated in a career- or skill-related training	Plansee Group	/	/	**64%**
	Plansee HPM	/	/	**/**
	CERATIZIT	/	/	**64%**
Talent Management				
Percentage of employees who received regular performance and career development reviews (calculation based on headcount)	Plansee Group	/	/	**54%**
	Plansee HPM	/	/	**61%**
	CERATIZIT	/	/	**54%**

KPI (Definition)		2021/22	2022/23	2023/24
Whistleblower system				
Number of whistleblower cases (reported cases by employees, customers, suppliers, or other persons via the whistleblower system)	Plansee Group	/	/	**3**
	Plansee HPM	/	/	**1**
	CERATIZIT	/	/	**1**
Internal audit				
Number of internal audits (conducted audits in accordance with the audit plan approved and monitored by the Executive Board of the Plansee Group and the Audit Committee of Plansee Holding AG)	Plansee Group	28	38	**25**
	Plansee HPM	11	8	**14**
	CERATIZIT	14	16	**5**
Data protection				
Percentage of employees trained through e-learning on data protection (EU: GDPR) (The percentage indicates the ratio of those employees who have completed the assigned e-learning training relative to the overall number of colleagues to whom e-learning training sessions were assigned.)	Plansee Group	/	/	**78.1%**
Absolute number of data subject requests (regardless of whether the request was complied with or ended/completed otherwise)	Plansee Group	/	/	**4**
Absolute number of data protection breaches (which trigger a corresponding notification to the responsible data protection authority)	Plansee Group	/	/	**0**

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Glossary

B

Biodiversity
This is the variability among living organisms from all sources including, among others, terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part. This includes diversity within species, between species and of ecosystems.

C

Carbon footprint
A carbon footprint is the sum of greenhouse gas emissions and greenhouse gas removals of a product system or an organization, expressed as a carbon dioxide equivalent (CO_2e).

Carbon-neutral
No carbon dioxide (CO_2) is emitted into the atmosphere, or its emissions are fully compensated.

CDP
The CDP (formerly Carbon Disclosure Project) is a non-profit organization with the aim that companies and also municipalities disclose their environmental data, such as climate-damaging greenhouse gas emissions and water consumption. Once a year, the CDP collects data and information on behalf of investors using standardized questionnaires on CO_2 emissions, climate risks, reduction targets and strategies of companies.

Compensation
Reducing the negative impact of greenhouse gas emissions in the atmosphere by saving greenhouse gas emissions elsewhere, e. by supporting climate protection projects.

Compliance
In general, compliance means conforming to a rule, such as a specification, policy, standard, or law. Regulatory compliance describes the goal that organizations aspire to achieve in their efforts to ensure that they are aware of and take steps to comply with relevant laws, policies and regulations.

Conflict minerals
Conflict Minerals refer to raw materials or minerals that come from a specific part of the world where conflict is occurring and affecting how those materials are mined and traded.

E

EcoVadis
EcoVadis is a leading provider of corporate sustainability ratings. The rating methodology is based on internationally recognised sustainability standards and enables the comparison of different management systems. It evaluates companies' policies, actions and activities in the four areas of environment, labour and human rights, ethics and sustainable procurement.

ESG – Environmental, social and governance standards
Environmental, social, and governance (ESG) refers to the three central factors in measuring the sustainability and ethical performance of a company or business.

ESRS – European Sustainability Reporting Standards
The ESRS is the new EU framework for sustainability reporting and is a key element of the EU's new Corporate Sustainability Reporting Directive (CSRD). The goal is to make reports more standardized and comparable. It is mandatory for the Plansee Group from 2026 onwards for the 2025/26 BY.

G

GHG – Greenhouse gas emissions
Emissions of gases that contribute to global warming by absorbing infrared radiation, thereby heating the atmosphere. The main contributors are carbon dioxide (CO_2), methane (CH4) and nitrous oxide (N2O).

GRI – Global Reporting Initiative
The Global Reporting Initiative (known as GRI) is an independent international standards organization that helps businesses, governments and other organizations understand and communicate their impacts on issues such as climate change, human rights and corruption. The purpose of GRI is to develop globally applicable guidelines for sustainability reporting.

I

Internal audit
The internal audit supports an organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

I

ISO 9001
An international standard for the certification of quality management systems.

ISO 14001
An international standard for the certification of environmental management systems.

ISO 45001
An international standard for the certification of occupational health and safety management systems.

K

KPI
The term key performance indicator describes indicators in business economics which are used to measure progress or achievements related to important targets or critical success factors within an organization.

N

Net zero
No greenhouse gases are released into the atmosphere, or emissions are fully compensated.

R

Risk management
The central task of a risk management system is to identify potential risks at an early stage and to plan or initiate measures to avoid, or at least limit, the adverse effects of negative developments on the net assets, financial position, and results of operations. The risk management system is supported by an internal control system that is appropriately adapted to the company‘s area of activity. All risks associated with business activities are recorded, assessed, and communicated internally as part of a risk management system. Specific action plans are adopted according to the priority of the risks.

S

SBTi
The Science Based Target initiative (SBTi) is a collaboration between the CDP, the United Nations Global Compact (UNGC), World Resources Institute (WRI), and the WorldWide Fund for Nature (WWF). The initiative defines and promotes best practices in science based target setting and independently assesses companies’ targets for consistency with the level of decarbonization required according to the latest science.

S

Science-based targets (SBT)
Targets adopted by companies to reduce greenhouse gas emissions are considered “science-based” if they are in line with what the latest climate science deems necessary to keep the global temperature increase below 1.5°C compared to pre-industrial temperatures, as described in the Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).

Scope 1, 2, & 3 emissions
Scope 1 emissions are direct GHG emissions from owned or controlled sources. Scope 2 emissions are indirect GHG emissions from the generation of purchased energy. Scope 3 emissions are all indirect GHG emissions (not included in scope 2) that occur in the upstream value chain (cradle-to-gate).

Stakeholders
All internal and external persons or groups affected directly or indirectly by business activities currently or in the future.

(Further) Abbreviations

A	**APT**	Ammonium Paratungstate
C	**CAHRAs**	Conflict Affected and High Risk Areas
	CDP	(formerly) Carbon Disclosure Project
	CIP	Continuous Improvement Process
D	**DIE**	Diversity, Inclusion and Equity
E	**ETP**	Effluent Treatment Plant
G	**GDPR**	General Data Protection Regulation
	GWh	Gigawatt hours
H	**HPM**	High-performance Materials
	HR	Human Resources
	HSE	Health, Safety, Environment
I	**IMS**	Integrated Management System
	ISMS	Information Security Management System
I	**ISO**	International Organization for Standardization
K	**KPI**	Key Performance Indicator
	kWp	Kilowatt–peak
M	**MES**	Manufacturing Execution System
	MoO_3	Molybdenum trioxide
N	**NPI**	New Product Introduction
O	**ÖCGK**	Austrian Corporate Governance Code
	OECD	Organization of Economic Cooperation and Development
P	**PCF**	Product Carbon Footprint
	PDCA	Plan, Do, Check, Act
Q	**QHSE**	Quality, Health, Safety and Environment
R	**RIR**	Recycling Input Rate
	RMAP	Responsible Minerals Assurance Process
R	**RMI**	Responsible Minerals Initiative
S	**SBPP**	Sustainability Best Practice Program
	SBTi	Science Based Targets initiative
	STP	Sewage Treatment Plant
U	**UNGC**	United Nations Global Compact
W	**WC**	Tungsten carbide
	WMP	Tungsten metal powder
	WO_x	Tungsten oxide
	WO_3	Tungsten trioxide
	WP	Watt Peak
	wt%	Percentage By Weight

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