



# Planet

We open the doors wide to a  
low-carbon and circular economy

# Energy & Emissions

We are demonstrating leadership in the transition to a low-carbon economy within the industry and beyond.

## Our approach

The emission of greenhouse gases (GHG), which are generated through the burning of fossil fuels, is one of today's biggest challenges. Every business, government, and individual has a role to play in meeting the goals of the Paris Agreement. We understand the risks posed by climate change, and we are taking action to reduce our energy consumption and related emissions to strive for a low-carbon economy. We use the latest scientific knowledge to guide a sound management approach, and our emission reduction targets have been validated by the [Science Based Targets initiative \(SBTi\)](#).

Our energy consumption and GHG emission reduction program is part of our global [Environment Directive](#). Furthermore, our Environment, Health & Safety, and Sustainable Products Expert Groups are developing and implementing initiatives to achieve the related targets. One such target is the establishment of [energy management systems](#) at our manufacturing sites, which is key to managing and reducing our energy consumption. As of 30 June 2023, 35% of our plants, local assembly centers, and regional logistics centers have established energy management systems (which is the same as in the previous financial year).

## Our contribution to the fight against climate change

In 2021, the SBTi approved our targets for operational and value chain emissions. We aim to **reduce operational (Scope 1+2) emissions by at least 42% in line with a 1.5°C future by 2030, without the use of carbon offsets** (baseline 74,770 tCO<sub>2</sub>e in FY 19/20). Any residual emissions will be voluntarily compensated through Gold Standard offsets to achieve our target of **becoming carbon neutral by 2030**. We also aim to reduce **our value chain emissions (Scope 3) from purchased goods and services, and the use of sold products by 25% by 2030** (baseline 1,124,936 tCO<sub>2</sub>e in FY 19/20). Progress against the operational emissions target is being tracked as part of our [sustainability-linked credit facility](#).

Many components used to create our products are manufactured in-house through processes including melting, aluminum and zinc die casting, machining, purchased parts processing, and final assembly. The aforementioned processes also require controlled, HVAC conditioned space for process control, labor efficiency, and maintenance of a healthy working environment. Together, these processes drive our total energy demand. As a result, we are focusing many of our energy-saving initiatives in this area. In line with our science-based emission reduction targets, we aim to **reduce the energy intensity of our operations by 25% by 2030** (baseline 100.5 MWh/mCHF in FY 19/20).

To achieve our ambitious targets, we are focusing on the following activities:

- Investing in energy efficiency projects
- Increasing on-site production of solar power
- Purchasing electricity from renewable sources
- Electrifying our fleet
- Improving the energy efficiency of our products in the use phase

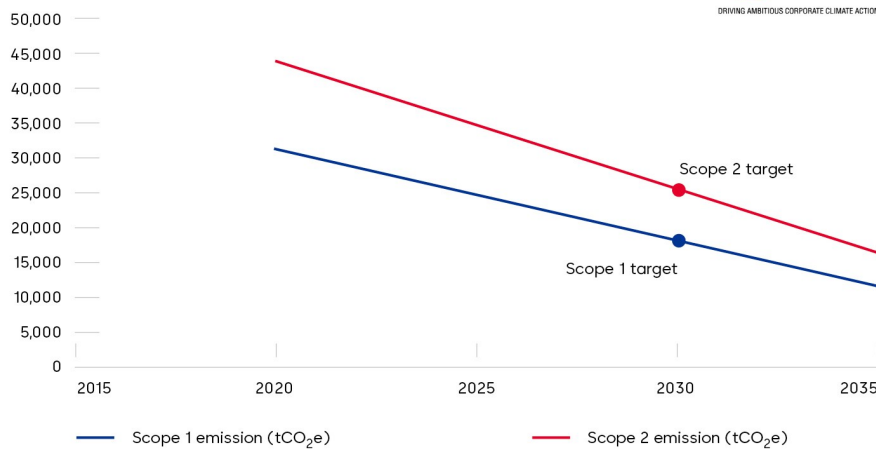
# Our climate transition plan

We are opening the doors wide to a low-carbon economy. In fact, we aim to be net zero by 2050 at the latest. As a first concrete milestone, we have set a target to reduce our operational emissions (Scope 1+2) by 42% in line with a 1.5°C future by 2030 (baseline 74,770 tCO<sub>2</sub>e in FY 19/20). Additionally, we will reduce value chain emissions (Scope 3) by 25% over the same time frame. Let's look closer at our Scope 1+2 targets.

## Absolute emissions targets: Scope 1+2

Approved by the Science Based Targets initiative (SBTi), our target is to reduce absolute Scope 1+2 greenhouse gas (GHG) emissions by 42% by 2030. This means annual emissions savings of 43,366 tCO<sub>2</sub>e.

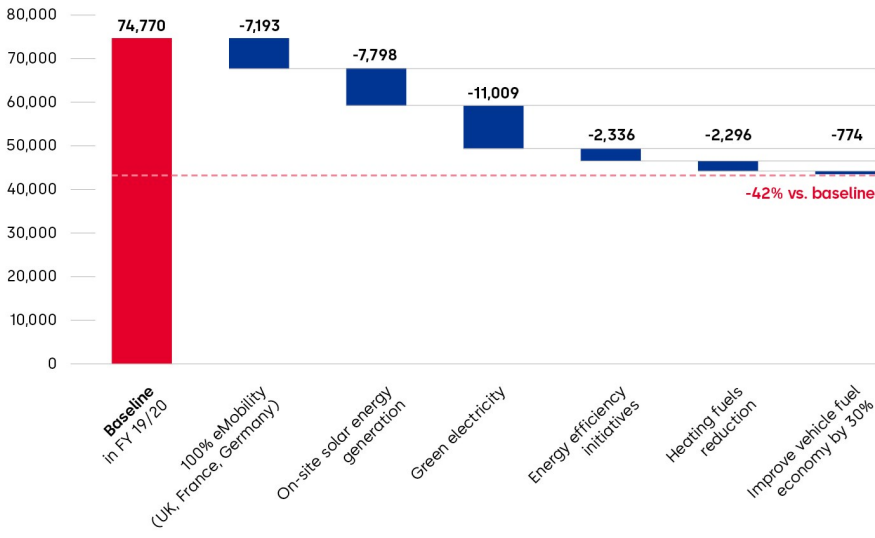
Absolute emissions targets | 1.5°C



## Our strategy

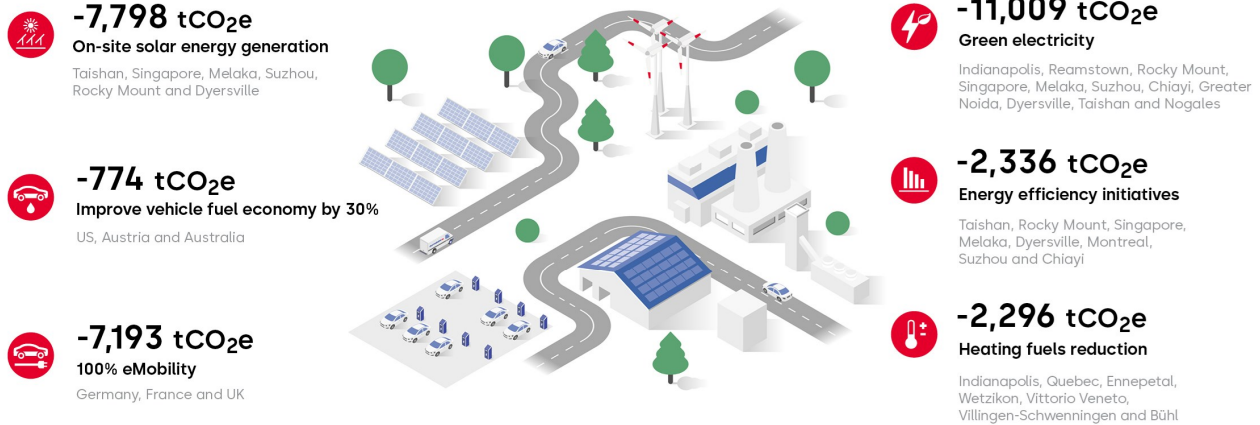
To achieve the 42% reduction (43,366 tCO<sub>2</sub>e), we have set Must-Have initiatives along six levers, that must be completed by 2030. These initiatives will be executed at dormakaba sites, where we can have the largest impact on reducing our CO<sub>2</sub> emissions.

### CO<sub>2</sub> reduction by action (tCO<sub>2</sub>e)



### dormakaba locations around the world with Must-Have initiatives





We welcome stakeholder feedback, questions, or suggestions related to our climate transition plan. Should you like to share your opinion, kindly send an email to [sustainability@dormakaba.com](mailto:sustainability@dormakaba.com)

## Our performance

### Greenhouse gas emissions

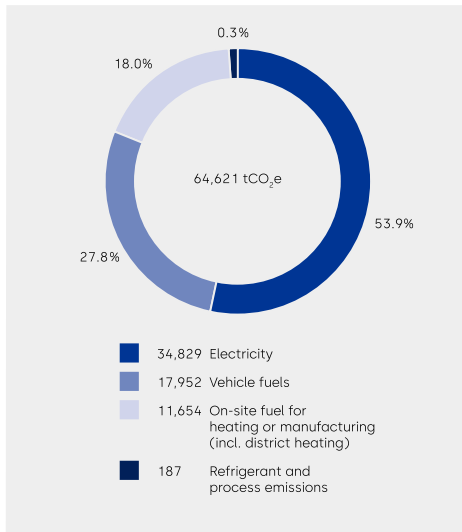
In FY 22/23, our total greenhouse gas (GHG) emissions (Scope 1+2) amounted to around 64,600 tCO<sub>2</sub>e. Nearly 54% were emitted as a consequence of electricity consumption, followed by vehicle and heating fuel consumption, and volatile as well as process gas emissions. Climate-related initiatives implemented during the reporting year resulted in total annual savings of approximately 17,300 tCO<sub>2</sub>e (nearly 27% of our total footprint from own operations).

Thanks to the implementation of the energy-saving initiatives outlined in the next section, we expect to reduce our annual GHG emissions by approximately 1,500 tCO<sub>2</sub>e. We have worked diligently to source renewable electricity or generate our own renewable energy where feasible, leading to annual emissions avoidance of approximately 15,800 tCO<sub>2</sub>e. In addition, we have expanded the production of on-site solar energy by 50%.

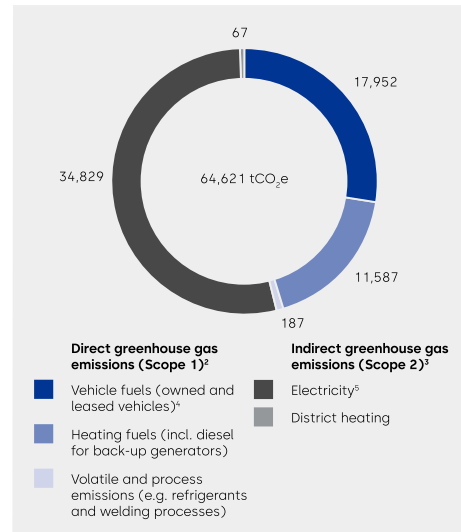
During FY 22/23 we increased the generation of solar energy at our sites. Since January 2023, we have generated enough solar energy on site to cover 100% of the electricity needs at our manufacturing site in Chennai (India). The installation is equipped with 440 solar panels with a capacity of 240 kilowatts peak (kWp). Furthermore, at our facility in Wah Yuet (China) we have begun the construction of a large-scale solar installation with a total planned capacity of 9,500 kWp that will provide 9,050 MWh green electricity annually. With this, we plan to avoid 5,671 tons of CO<sub>2</sub> emissions per year for the lifetime of the installation (25 years).

Our Key & Wall Solutions factories in Senai (Malaysia) and Greater Noida (India) also consume energy from their own solar installations, covering 42% and 15% of their electricity needs respectively. In FY 22/23 Vittorio Veneto installed 3,189 panels and 12 inverters for peak output of 1,308 kWp, producing 1,539 MWh per year. This last installation does not, however, reduce our baseline emissions, as the location already consumed renewable energy before. Still, the initiative does contribute to our energy independence.

**Greenhouse gas emissions by source (tCO<sub>2</sub>e)**



**Scope 1 and Scope 2 greenhouse gas emissions (tCO<sub>2</sub>e)<sup>1</sup>**

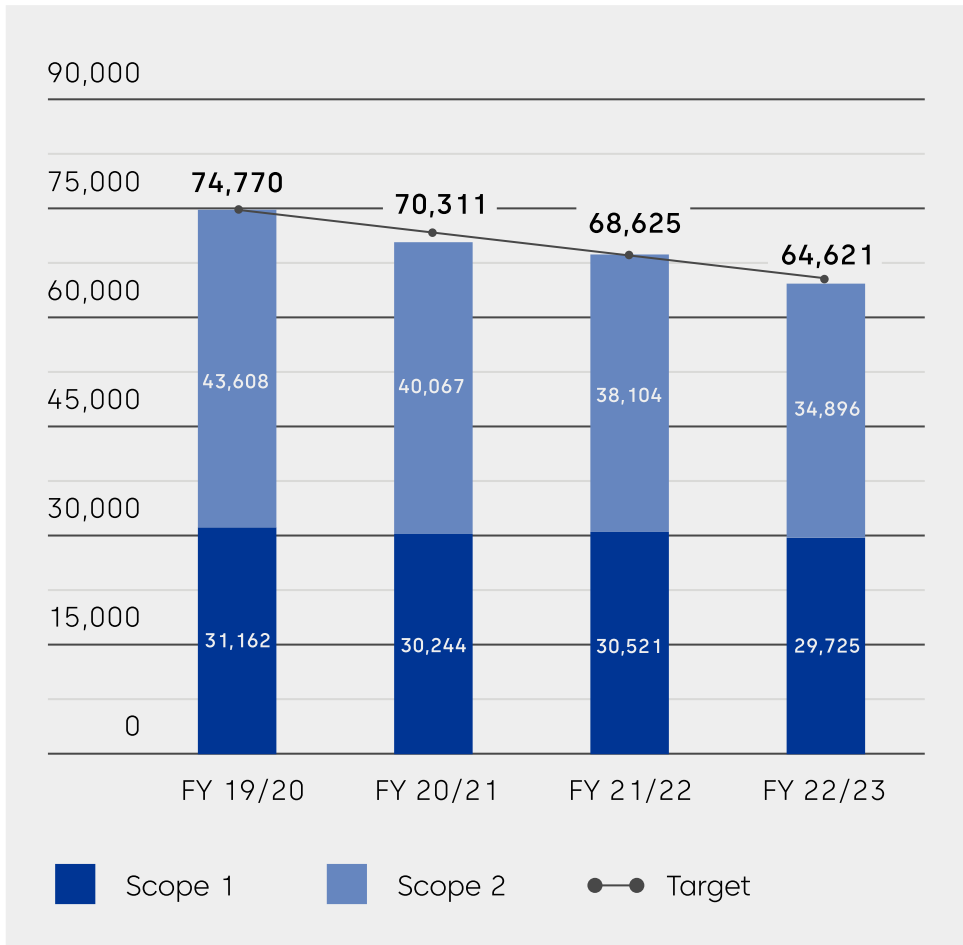


- Greenhouse gas inventory calculated in accordance with the WRI/WBCSD Greenhouse Gas Protocol. Emission factor sources: UK Defra (2019), US EPA eGRID (2018), IEA (2019), AIB (2018).
- Scope 1: direct greenhouse gas emissions from sources owned or controlled by dormakaba.
- Scope 2: indirect greenhouse gas emissions from sources owned or controlled by another entity, as a consequence of the company's activities.
- Biogenic emissions associated with the combustion of biofuel amount to 73 tCO<sub>2</sub>e. These are called "outside of scopes" emissions and reflect the impact of burning biomass and biofuels. The fuel source itself absorbs an equivalent amount of CO<sub>2</sub> during the growth phase to that released through combustion.
- The greenhouse gas emissions associated with electricity consumption are reported according to the "market-based approach", as defined in the Greenhouse Gas Protocol Scope 2 Guidance.

For historical and more detailed emissions data, view the ESG Performance Table.

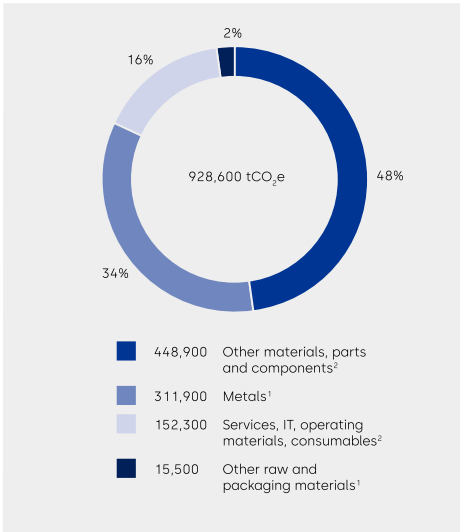
[ESG Performance Table](#)

Year-on-year absolute Scope 1+2 emissions (tCO<sub>2</sub>e)

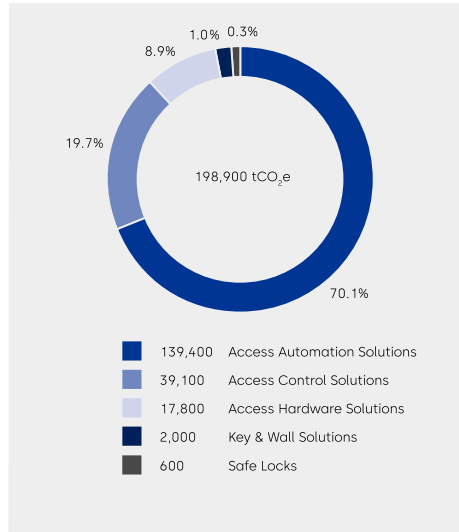


Scope 3 emissions constitute around 90% of our combined Scope 1, 2, and 3 carbon emissions, highlighting the importance of Scope 3 emissions for our climate strategy. In FY 19/20, we carried out screening and carbon inventory development of Scope 3 emissions, which showed that the largest sources of Scope 3 emissions are purchased goods and services (75%) and the use phase of sold products (11%). For FY 22/23, value chain emissions for the use phase of products totaled 198,900 tCO<sub>2</sub>e. As mentioned, value chain emissions from purchased goods and services represent the vast majority, totaling 928,600 tCO<sub>2</sub>e in the reporting period. In FY 22/23 we saw an increase in procurement spend vs. the previous year, as well as an increase in purchases of more carbon-intensive metals. While emissions stemming from purchased goods and services has risen, those from product use have decreased. Overall, these have offset each other over the past two years, and which means we are thus still close to the baseline figure.

Scope 3 emissions: purchased goods and services (tCO<sub>2</sub>e)<sup>1, 2</sup>



Scope 3 emissions: use phase of products (tCO<sub>2</sub>e)<sup>3</sup>

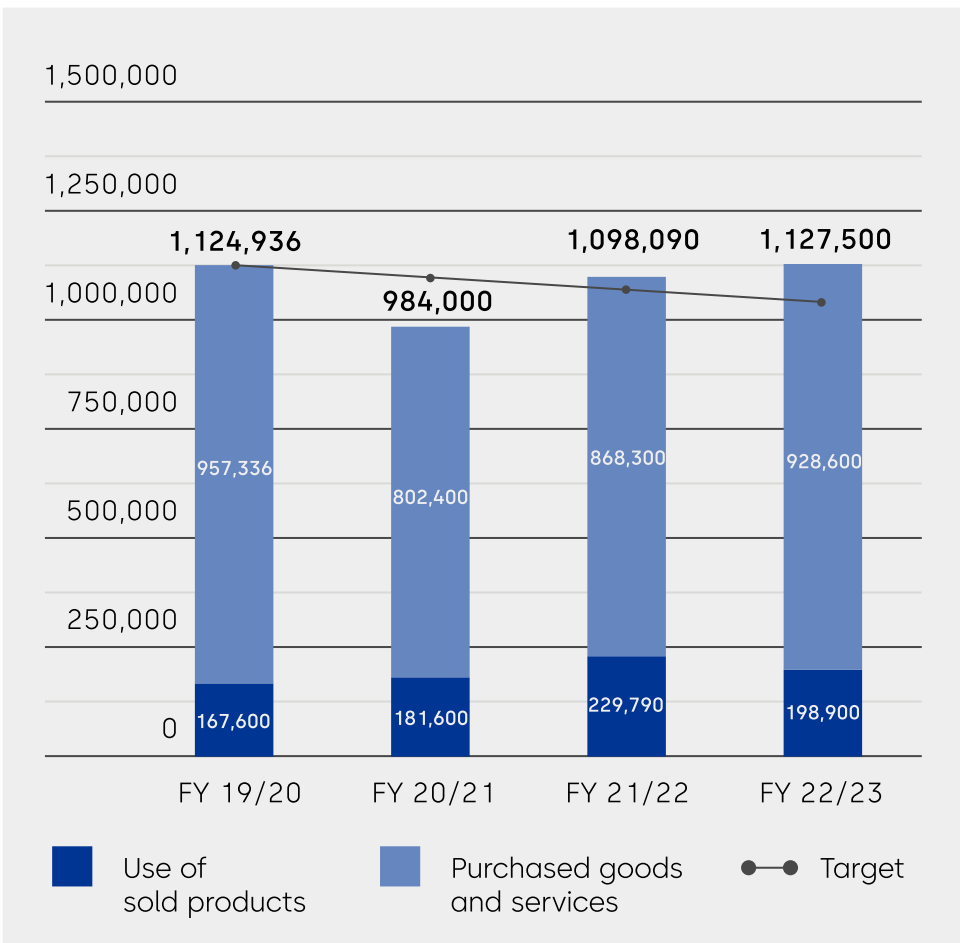


<sup>1</sup> Calculated via direct material weight. Emission factor sources: UK Defra (2019), US EPA eGRID (2018), IEA (2019), AIB (2018).

<sup>2</sup> Calculated via spend volume.

<sup>3</sup> Calculated via energy consumption during the use phase. Emission factor sources: UK Defra (2019), US EPA eGRID (2018), IEA (2019), AIB (2018).

Year-on-year absolute Scope 3 emissions (tCO<sub>2</sub>e)





## Digital energy calculator for the product use phase

In terms of primary energy consumption, the building sector is one of the largest energy users in the world – as a result, its influence on climate change is enormous. Therefore, we have set a target of **having best in class energy efficiency for new products by 2023**. Our digital Product CO<sub>2</sub> Inventory Tool supports us in this as it provides information on the carbon emissions of energy-consuming products during their use phase (the calculation method is in line with the GHG Protocol). The tool includes the footprint of around 350 products that consume energy after installation, including those that are battery-operated or connected to the electricity grid. This supports product development and optimization activities to create more energy-efficient products and also contributes to our target of decreasing Scope 3 emissions from the use phase of sold products.

# Sustainable door and access solutions to improve the energy balance of buildings

## Door Efficiency Calculator

During the operation of automatic entrance doors (sliding doors, swing doors), in many cases there is an unnecessary loss of heating and cooling energy. This not only increases the carbon footprint of the building but also its energy costs.

To address this issue, dormakaba launched a new consulting tool, the Door Efficiency Calculator. The tool compares different dormakaba automatic doors in terms of energy efficiency, costs, and carbon footprint. It takes into account the type of building, the usage, and the frequency of people passing through the door. This helps customers to find the most energy-efficient solutions that also meet the requirements of the building in question and its use. The calculator considers various aspects, such as the geographical location and climatic conditions, as well as the energy sources used to heat and cool the building. The calculation result is summarized in a customer-specific report showing the compared input solutions' ecological and economic aspects.

## Improving energy balance of the building with our smart automatic door system

Sensor-controlled automatic door systems are essential for seamless and controlled access, whether in airports, train stations, or hotels. To ensure the doors open for both slow- and fast-walking pedestrians, current solutions are based on a large detection field and long hold-open times. This leads to an average opening time of ten seconds. However, our studies show that 85% of users enter through a door in less than four seconds, which means there are six seconds of wasted time and energy loss.

To tackle this inefficiency, our sustainable product experts developed an intelligent system that opens the door only when it is actually necessary and closes it immediately after passage. The system detects the speed, distance, and angle at which a person approaches the door and reacts accordingly. This can make a significant contribution to improving the energy balance of the building and reducing operating costs. The individual adaptation of the opening and closing processes also ensures greater safety during operation. The service life of the drive technology is also extended, as unnecessary openings are avoided.

In a test scenario with a swing door (ED 100/250 operator), 3,750 kWh per year is saved, which corresponds to Scope 4 emissions of 1,372 kg CO<sub>2</sub> (vs. 2,745 kg CO<sub>2</sub> without the smart system).





## Energy consumption

Our total energy consumption for FY 22/23 was over 239,000 MWh. Electricity and fuels for heating or manufacturing constitute 72% of total energy consumption and play a crucial role in our production processes. Fuel consumption of our vehicle fleet makes up for the remaining energy consumption.

In collaboration with our global partner Siemens, we completed Investment Grade Audits at five large plants in Region Asia Pacific and Key & Wall Solutions. This was a followup to the first phase of the project, which included value discovery audits to evaluate potential facility improvement measures. The results of the IGAs will help inform efficiency initiatives for the five plants in the upcoming years.

Additionally, energy-saving initiatives were implemented at various sites. This work included: retrofitting facilities to feature LED lighting, upgrading equipment such as air compressors, and the optimization of heating and cooling systems.

Below are some specific examples of activities from our facilities across the world in FY 22/23:

- At our manufacturing plant in Singapore, we optimized the operation of several system workloads and operating times. This includes our cooling towers, centralized chiller plant, and air handling units. By optimizing system sequencing based on capacity, efficiency, loads, automation, and optimal scheduling using our Building Management System, our plant is projected to save approximately 698 MWh or 284 tCO<sub>2</sub>e annually.
- In Fougères (France), we replaced an air compressor with a more energy-efficient model, equipped with a heat recovery system, which will contribute to heating the premises. The initiative is estimated to reduce electricity consumption by 28 MWh (2.8 tCO<sub>2</sub>) and the gas consumption by 17 MWh (3.9 tCO<sub>2</sub>) annually. Furthermore, 18 skylights were replaced to improve natural light quality, insulation, and ventilation.
- We have installed LED lights in the Westerstede (Germany) facility, saving about 5 MWh per month.
- At our facility in Greater Noida (India), we optimized the operation time of two press machines and replaced the motor of a milling machine. Together, these initiatives contribute about 1.3 MWh in energy saving monthly.

- In Vittorio Veneto (Italy), a piping system was installed to connect compressors to the factory and to use them to heat the building using recovered hot air. As a result, the site used 29,073 m<sup>2</sup> less heating fuel in March 2023 versus the same period in 2023.
- In France we relocated our premises from Creteil Cedex and Le Mesnil-Saint Denis to a certified green office building in Antony (NF HQE standard). During the setup of the new location, we made several responsible choices, such as buying furniture made of industrial waste, eco-designed workstations, floor coverings made of econyl (regenerated nylon), and replacing neon lights with LED lighting.

As a result of these and other activities, we realized total quantifiable annual energy savings of approximately 6,200 MWh for the sites covered within the scope of this report. In addition, over 57,800 MWh (50.3%) of the electricity that we consumed came from renewable sources.

Regarding our efforts to reduce vehicle fuels consumption and promote eMobility, we installed EV charging stations at three locations: five double stations in Hitchin (UK) and 16 in Herzogenburg and Seekirchen (Austria). Unfortunately, the planned installations in Germany did not materialize due to resource gaps in project management.

## Increasing energy efficiency through the implementation of energy management systems

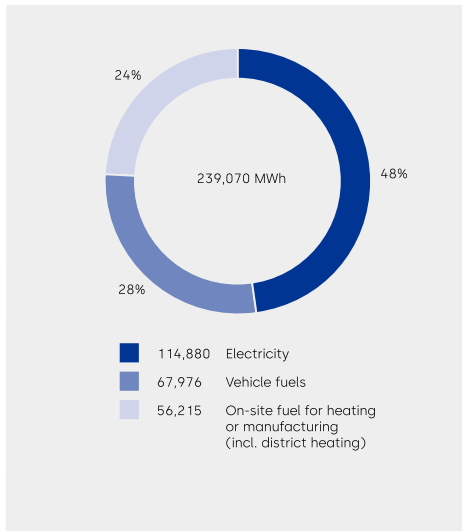
Energy management systems are key to managing and reducing our energy consumption. Our sites in Tocancipá (Colombia) and Lima (Peru) were among those that began the implementation of an energy management system in FY 22/23. During the planning phase, project managers took part in a global internal training and received templates and checklists that supported their work to develop the process. To start measuring the energy consumption of the industrial processes, some refurbishment was needed in the factories, including upgrading the electrical network and some insulation work. Furthermore, the electrical panels were modernized in Peru, and the heating system of the nickel baths in Colombia was replaced with a more efficient system. In addition, the project managers reorganized schedules and shifts in a way that was better aligned with the production plan to minimize the hours of usage of certain equipment.

While some of these initiatives are already contributing to increased energy efficiency, their main goal was to create an environment that made it possible to accurately measure the energy consumption of most of the production processes, and to identify what are known as the Significant Energy Users for each site. With this knowledge, operational managers are now able to identify opportunities for improvement, and put in place action plans to increase energy efficiency.

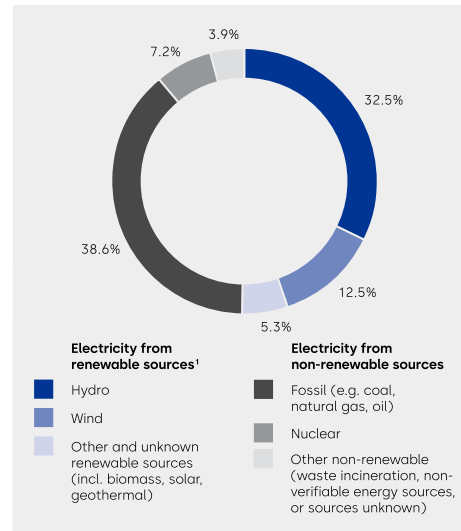


Inside our Silca factory in Tocancipá (Colombia)

Energy use (in MWh)



Electricity by source (in %)



<sup>1</sup> Including own generation

# EU Taxonomy

## EU taxonomy for sustainable activities

The EU taxonomy allows financial and non-financial companies to share a common definition of economic activities that can be considered environmentally sustainable, in recognition of the fact that the shift of capital flows towards more sustainable activities has to be underpinned by a shared, holistic understanding of the environmental sustainability of activities and investments.

Based on the EU taxonomy technical screening criteria, a company’s internal economic activities can be classified according to their environmental sustainability. The classification system is broken down into six environmental objectives:

- Climate change mitigation
- Climate change adaptation
- Transition to a circular economy
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems
- Sustainable use and protection of water and marine resources

Economic activities that have the potential to contribute to one of the environmental objectives are referred to as taxonomy-eligible. Those taxonomy-eligible activities that are actually environmentally sustainable are referred to as taxonomy-aligned. Taxonomy alignment requires fulfillment of the following three criteria sets:

- Substantial contribution to one of the six environmental objectives
- No significant harm regarding the other five environmental objectives (Do No Significant Harm, DNSH)
- Compliance with minimum social and governance requirements (minimum safeguards)

Articles 3 and 9 of Taxonomy Regulation (EU) 2020/852 (Taxonomy) require dormakaba to disclose sales, capital expenditure (CapEx), and operating expenditure (OpEx) related to environmentally sustainable economic activities. In this reporting year, taxonomy eligibility and taxonomy alignment must be reported for the first two environmental objectives.

## Approach and methodology

A review of EU taxonomy requirements and technical screening criteria against the full scope of our products and solutions was conducted together with the Product Sustainability department and Product Managers. It was found that the EU taxonomy classification is largely not applicable to the majority of our revenue-generating activities – nor to that of the access solutions industry in general. Eligibility was found only under the Taxonomy Report Technical Annex 1, section 3.5. Manufacture of energy efficiency equipment for buildings; relating to “doors with U-value lower or equal to 1.2 W/m<sup>2</sup>K”. Revenues from all doors that could be installed as external doors were therefore defined as eligible. Product management then reported the U-values for all such doors to determine taxonomy alignment.

In addition to revenue-relevant activities, cross-cutting activities to which only capital and operating expenditures are attributed were also considered, such as solar PV projects, electric vehicle charging installations, and energy efficiency initiatives. These are related to sections 4.1 Electricity generation using solar photovoltaic technology, 7.3. Installation, maintenance, and repair of energy efficiency equipment, 7.4. Installation, maintenance, and repair of charging stations for electric vehicles in buildings (and parking spaces attached to buildings), and 7.5. Installation, maintenance, and repair of instruments and devices for measuring, regulation, and controlling energy performance of buildings in the aforementioned annex.

The investment and spend values were taken into account only for those initiatives that are eligible and/or aligned and that are tracked and controlled in our global Sustainability Initiatives tracker tool to ensure against double counting. A due diligence assessment versus the minimum safeguards and DNSH criteria was undertaken by our Human Rights function.

## Calculation

	Taxonomy-aligned	Taxonomy-eligible but not aligned	Taxonomy-eligible	Taxonomy non-eligible
<b>Turnover</b> <sup>1</sup>	0.05%	1.78%	1.83%	98.17%
<b>CapEx</b> <sup>2</sup>	0.2%	0.0%	0.2%	99.8%
<b>OpEx</b> <sup>3</sup>	0.0%	0.0%	0.0%	100.0%

<sup>1</sup> Turnover (eligible): Net sales from external doors; Turnover (aligned): Net sales from doors with a thermal efficiency U-value of less than or equal to 1.2 W/m<sup>2</sup>K

<sup>2</sup> CapEx includes: CapEx for generation of renewable energy (e.g. solar power installations); CapEx for energy efficiency initiatives; CapEx for electric vehicle charging points, plug-in hybrids, and full-electric vehicles in the fleet

<sup>3</sup> OpEx includes: OpEx for energy efficiency projects

## Outlook

On a central level, we will focus on completing the solar installation at our plant in Taishan (China) and begin construction of solar installations for our plants in Singapore, Suzhou (China), and Melaka (Malaysia). And in our plant in Indianapolis (USA) we will also improve HVAC energy efficiency by replacing two air rotation units.

# Circular Economy & Materials

We are accelerating circular solutions to develop material-efficient, energy-efficient, high-quality products that reduce our customers' environmental impact and meet the needs of a sustainable built environment.

## Our approach

We live in and depend on an interconnected world, with complex environmental, social, economic, and cultural systems. Damaging one element may have an unexpected impact elsewhere. We understand the limits of our planet and that we must act more sustainably in order to meet increasing social and economic demands. As a leading manufacturer, dormakaba is committed to incorporating the latest product life cycle approaches and environmental technologies to continuously advance our product development and improve our own and our customers' sustainability performance. This not only provides new opportunities for our design and manufacturing processes; it also addresses our customers' expectations regarding environmentally friendly products.

We are aware that product sustainability is essential for our success. Therefore, the new Product Sustainability department was established under the Global Product Development function. The Center of Excellence Product Sustainability functions as a competence center for all product clusters globally. It provides the right resources, skills, and expertise and is responsible for shaping a state-of-the-art development environment for product sustainability. This includes developing Environmental Product Declarations, incorporating sustainability criteria into all product development-related processes, and elaborating guidelines.

Our Group-wide [Environment Directive](#) regulates minimum business standards in manufacturing practices, product circularity, and eco-design. In FY 22/23, this Directive was updated to reflect further product-related sustainability criteria, including minimum energy efficiency and recycled content benchmarks per product class. These have also been integrated into our global development process.

The dormakaba sustainability commitment and life cycle approach are also integrated into our Product Design Manual.

## Our activities

### Product design with the circular approach

With an average life span of 40 to 50 years, buildings should ideally be constructed in a way that allows the required materials and natural resources to be used efficiently. We are dedicated to producing high-quality and reliable products and solutions, while also integrating our customers' desire for environmentally friendly options. As a result, product design remains a core focus of our sustainability strategy, with an emphasis on energy consumption and carbon emissions during the product's use phase, waste management, and recyclability at its end of life.

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Learn about our Door Efficiency Calculator and other product sustainability innovations related to carbon emissions in our Energy & Emissions chapter.

Energy & Emissions

# Our circularity guidelines for new product development

About 80% of the environmental impact of a product is predetermined in the design phase. Therefore, it is key to integrate sustainability criteria during the design phase of product developments. During FY 22/23 we achieved our target to cover all new product developments and optimizations with our circularity approach. A circular economy provides solutions to some of the key global challenges by eliminating waste and pollution and circulating products and materials.

We achieved this aim by developing an EcoDesign Specification Template, which will be mandatory for all new product developments starting from FY 23/24. The template will be used as a single source of truth for every product development-related process within the dormakaba Group. Therefore, its use is mandated and described in our global product development directive, the Adaptive Innovation Methodology (AIM) Directive. All local product development processes will need to adhere to the AIM Directive. The EcoDesign criteria include guidelines on energy use, materials selection, longevity/durability, reparability, adaptability, and disassembly. The template also defines standard values for the use of recycled content and how to design and select the product packaging. Further guidance and explanations for the implementation of the different EcoDesign criteria are provided in the updated Environment Directive.

## Our Circularity Approach



## Designing environmentally friendly packaging

For the packaging of our products, we mostly use plastic, wood, paper, and carton. It is our aim to substitute packaging materials with more sustainable alternatives. **By 2027 we want to use zero fossil fuel-based plastic in our packaging** (baseline 223 tons in FY 20/21) and **100% of the paper, wood, and carton used should stem from Forest Stewardship Council (FSC)-certified sources.**

In FY 22/23 we included requirements for FSC-certified packaging in our Corporate Packaging Design Guideline, as well as requirements to avoid polystyrene, PVC, or fossil fuel-based plastic packaging.

We welcome regulations that foster the use of environmentally friendly packaging. For example, since 2022, all packaging imported to Italy has had to carry a material declaration. The declaration is made according to official material codes. We are already anticipating that other countries will follow Italy's example. Also in 2022, France introduced a regulation to ban aromatic mineral oil hydrocarbons (MOAH) and saturated petroleum hydrocarbons (MOSH) in packaging and printing inks in two steps starting in 2023. A review with our main packaging suppliers from Germany and Asia confirms that we will be compliant with the

French law. Nonetheless, we will be adding this new requirement to our Corporate Packaging Design Guideline as well.

Another example of an environmentally friendly packaging initiative is the introduction of reusable packaging for internal deliveries to our service technicians throughout Germany. These make up a high percentage of daily shipments. Previously, each internal delivery was made with single-use carton boxes, creating a large amount of waste. With this initiative, we switched 80% of the deliveries to reusable packaging, thus minimizing the amount of waste. Our aim is to change all local deliveries to a sustainable packaging solution.

## Providing transparent information about our products

Since early 2021, components imported or sold in the European Union containing with Substances of Very High Concern (SVHCs) in a concentration higher than 0.1% have had to be reported in the what's known as the SCIP Database created by the European Chemicals Agency. To be compliant with European regulations, we are continually uploading the required data on SVHCs to the [SCIP database](#). Furthermore, we adhere to the requirements of the [RoHS Directive 2011/65/EU](#), which restricts the use of certain hazardous substances in electrical and electronic equipment.

In addition to adhering to the EU RoHS, REACH, and SCIP regulations, we adhere to California Proposition 65, TSCA (Toxic Substances Control Act of 1976), and PFAS regulations for products imported into and/or sold in the US. Proposition 65 requires businesses to provide warnings to Californians about significant exposures to specified chemicals that cause cancer, birth defects, or other reproductive harm. The TSCA addresses the production, importation, use, and disposal of specific chemicals. PFAS (Per- and Polyfluorinated Substances) chemicals are increasingly regulated due to their link to harmful health effects in humans and animals. Several US states have enacted regulations restricting the use of PFAS in products sold in their state, and increased restrictions and reporting are on the horizon in the US through state and federal regulations such as the TSCA.

### Product declarations and green building certifications

We quantify and disclose a product's environmental impact across its entire life cycle in our [Environmental Product Declarations \(EPDs\)](#), which are based on the international standards ISO 14025, 14040, and 14044. Our EPDs meet all mentioned standards to ensure that our environmental information is transparent, reliable, and credible.

dormakaba also offers various health-related product declarations, which transparently account for the materials found in our products. These take the form of [Health Product Declarations \(HPDs\)](#) or [Building Product Declarations \(BPDs\)](#), depending on local market requirements.

By 2027, we aim to **double our sustainability-related product declarations/certifications, including Cradle to Cradle and for recycled content** (baseline 170 in FY 20/21). We can currently provide our customers with 240 such declarations and certifications. By providing transparency regarding our sustainability performance, we secure our market position and offer added value to customers seeking green building certifications.

Our product declarations are based on Life Cycle Assessments (LCA), which provide a reliable calculation of the environmental performance of a product. This includes the systematic assessment of the environmental impacts arising during the extraction of raw materials, and all the way through the production, distribution, and use phases, which are quantified based on materials, energy consumption, transport routes, emissions, and the life span of the products.

There are two LCA approaches: cradle-to-gate and cradle-to-grave. The first approach considers all production stage modules: raw material supply, transport, and manufacturing. The latter covers all life cycle modules, which means that in addition to the cradle-to-gate stages, cradle-to-grave analyzes the building construction process, the product use stage,

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Take a look at our sustainability-related product declarations and certifications on our website.

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and end of life (i.e. the upstream value chain). We mainly use cradle-to-gate “with options” so that we can select the relevant upstream life cycle module(s).

Product information from environmental or health-related product declarations can contribute to our customers attaining the highest levels of green building certifications, such as Leadership in Energy and Environmental Design (LEED). dormakaba publishes the product information on internationally recognized sustainability platforms such as the Sustainable Product Information Module (SuPIM) by the Institut Bauen und Umwelt (IBU). SuPIM provides all product-related sustainability data from the manufacturers for various building certification systems such as LEED, the German Sustainable Building Council (DGNB), Bewertungssystem Nachhaltiges Bauen (BNB, evaluation system for sustainable construction), and the Building Research Establishment Environmental Assessment Method (BREEAM). These are compiled in a data sheet and supplemented with the corresponding verification documents. For quality assurance purposes when it comes to the underlying documents, IBU offers manufacturers a review of the entered data.

Such databases provide transparent environmental and health information for users and ensure easy access to specific product data. By providing this level of product information, we seek to lower market entry barriers in the green building industry, enabling our inclusion in related bidding processes.

## Production with lower environmental impact

At dormakaba, we recognize that environmental responsibility is integral to producing world-class products. Besides adhering to environmental laws and regulations, we focus on improving our management of environmentally relevant processes and on monitoring and reducing our energy consumption, carbon emissions, water consumption, and effluents, as well as monitoring our waste disposal and recycling rates.

### Responsible use of materials

Among the raw materials we use for our products, there are metals such as steel, brass, aluminum, nickel silver, and zinc, as well as gypsum board, glass, and plastics. Since the primary extraction of metals from ore and the subsequent refining processes are resource-intensive, one key focus is to increase the use of metals with a high level of recycled content. Other important materials are wood, paper, and carton, which are made from renewable resources.

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Activities and key results regarding carbon emissions (Scope 1 & 2) and energy consumption during production.

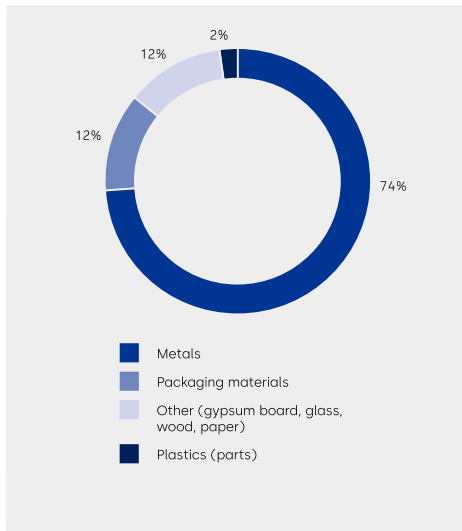
[Energy & Emissions](#)

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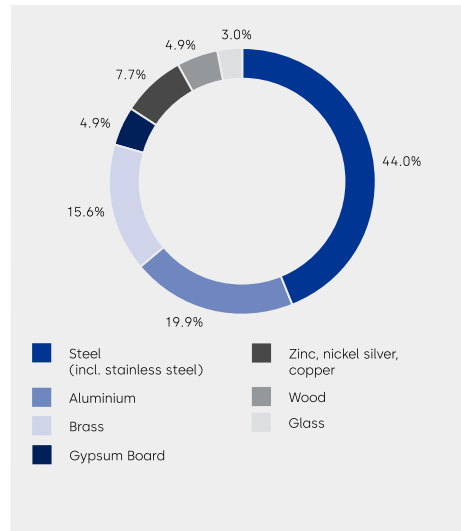
Historical information on material use.

[ESG Performance Table](#)

Material use (in %)



Raw material use (in %)



Several production sites focus on closed-loop systems in their material use. The manufacturing facilities recycle most internal scrap metal, either back into their own processes or by selling it to a local approved recycler. Scrap material is also sent back to the original producer, who then uses it to make our purchased materials, resulting in a closed-loop system. Examples of the responsible use of materials in FY 22/23 include:

- Our team in Chino (USA) developed a maximum security full height turnstile door that provides seamless entrance, it can be used for both indoor and outdoor applications for a more secure building perimeter. They designed it such that 98.5% of its materials are recyclable, and also results in a 40% reduction in raw materials compared to its predecessor. The prototype has already been tested, and the team is in the process of finalizing the product launch.
- dormakaba Austria is conducting a research study to find solutions to substitute lead in metal alloys. Initially, this study will focus on serrated keys, but ideally the results will later be applied to other products. Several performance tests have been evaluated for four possible lead-free materials that can be processed within our plants. In addition, the team is also investigating how tools, machines, and processes have to be adapted to include the use of these new substitute materials.

**Waste management**

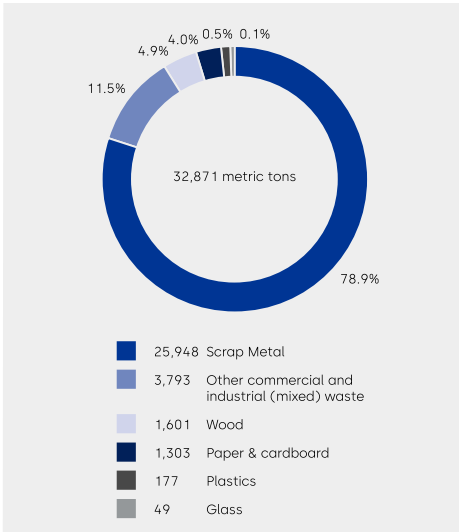
In addition to water consumption and effluents, waste management is of key importance during the electroplating, surface finishing, and painting processes. We work to minimize the volume and toxicity of waste from these operations through continuous improvement projects. Our filter systems ensure that potentially hazardous substances are not released externally. Toxic waste arising from painting and electroplating is disposed of as special waste. Certified disposal companies are commissioned to dispose of industrial waste and chemicals, and to recycle materials.

We monitor our waste by treatment method and waste type. At 73.6% by weight, the largest proportion of waste is scrap metal. In FY 22/23, approximately 90% of the waste stream was recycled, reused, recovered (including raw materials and energy recovery), or stored on-site.

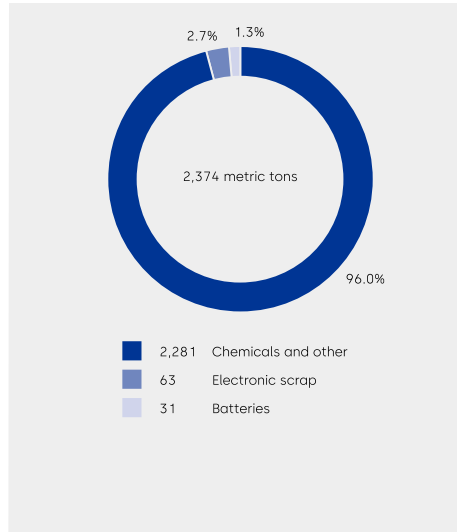
We respect the universal human right to safe and clean drinking water and sanitation. Learn about our activities and key results regarding water and effluents management.

Human Rights

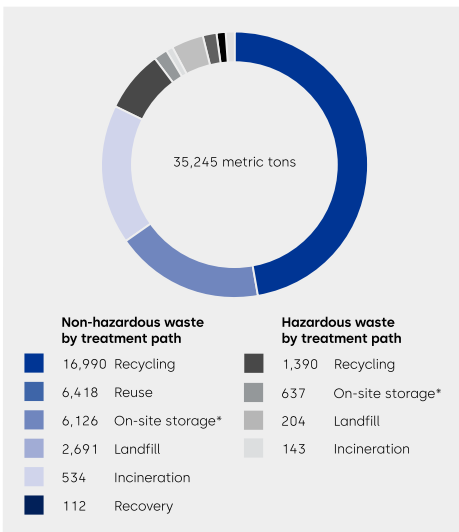
Non-hazardous waste by type  
(in metric tons)



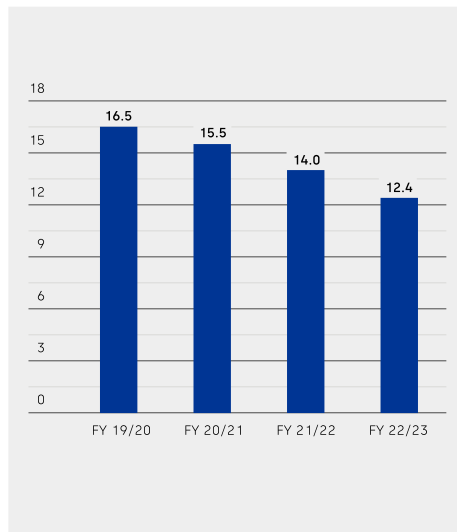
Hazardous waste by type  
(in metric tons)



Waste by treatment path\*  
(in metric tons)



Waste intensity  
(t/mCHF net sales)



\*On-site storage includes waste that is temporarily stored at the premises before being directed to treatment/disposal

The generation of different waste streams is an inevitable consequence of our operations, although by implementing the circular economy approach, we aim to send **zero waste to landfill** in our operations by 2027 (baseline 3,443 tons in FY 20/21).

To start working toward this aim, 33 manufacturing sites were tasked with developing road maps in FY 22/23. On a central level, external experts provided all locations with training, guidance, and best practices. Additionally, three sites with a combined 50% of our waste-to-landfill baseline received one-on-one support, including an on-site waste audit and specific waste optimization action plan.

The specific action plans include waste stream characterization, segregation to find waste value, diverting key materials from landfill waste, and identifying potential local partners and users of waste streams.

Additionally, local actions to reduce the amount of waste going to landfill took place.

Examples in FY 22/23 include:

- Our plant in Indianapolis (USA) eliminated disposable Styrofoam cups by providing reusable cups and mugs to staff instead.
- Our production plant in Melaka (Malaysia) developed a waste segregation program, identifying waste streams and providing awareness raising on waste-saving practices for employees. Since the implementation of the program in December 2022, there has been a reduction in waste treatment costs of about 50% compared with the previous year's average, thus reducing waste discharged to the environment. We will continue monitoring the development of this program and identify new partners that can collect other types of waste produced in this location.
- In Johannesburg (South Africa) we launched a pallet reuse program. All pallets received with shipments – that are not reused – are now sent on to other companies for repurposing.
- Our manufacturing sites in Germany developed a program to reduce wood waste. Now, 99% of our wood scrap will become source material for new wood pellets, and at the same time will reduce waste treatment costs. We will strive to include more wood waste types in the program, like wood dust.
- Additionally, our plant in Rocky Mount (USA) started a carbide and steel scrap waste recycling program. The purpose of this project is to recycle the carbide tools, chips, and sludge from the manufacturing process via a third-party recycler. We are currently collecting information about the volume of material recycled.

## Take-back programs

Most of our products have a long life span of up to 20 years, but their purpose should not end after deinstallation. Some of the components of our products can be reused, repaired, or reintroduced as raw materials back into the manufacturing cycle.

Collecting products and components from customers and partners requires collaboration between various dormakaba departments. Logistics, quality management, product development, and production are all important functions that should be involved. Take-back programs have multiple benefits, such as stronger customer relationships, development of an alternative supply of critical raw minerals, mitigated risks associated with hazardous materials handling, reduced environmental impact, and cost savings.

By 2027, we plan to **offer extended producer responsibility take-back schemes for all products and packaging** in the top ten sales countries.

## Collaboration with KEDGE Business School on take-back programs

In FY 22/23, we accompanied Master's students from the KEDGE Business School's "Business Transformation Program for Sustainability" program in France through what they call company challenges, where the students were given the opportunity to address the concrete transformational sustainability challenges of various companies. This program brings benefits for the students as well as our businesses – students gain hands-on experience of stakeholder and project management, while we get to explore valuable areas of business development.

dormakaba's challenge was for the students to develop a concept for take-back programs for nine countries, focusing on one top-selling product per country. A take-back program is an extended product responsibility scheme, meaning that whoever introduces a product into a country's market remains responsible for that product after the end of its life.

Offering take-back schemes will allow our customers to gain green building credits for certifications such LEED, so we see the growth potential and business incentive. Simultaneously, we are strengthening our customer relationships and reducing our production costs because the material is recycled or reused – not to mention the significant positive environmental impact.

The students began by interviewing the nine designated project managers on dormakaba's side, one per country, to understand the logistics, distribution channels, and product returns processes. A regulatory review and benchmarking of best practice by other companies followed. The KEDGE students also ran market research analyses to find potential recycling partners, collaborated with dormakaba Procurement to understand current recyclers and logistics companies in the supply chain, and developed a website mock-up for customer communication and process workflows. All in all, the concept developed by the students is actionable, and we will begin its implementation in FY 23/24.



The KEDGE project team together with our Group Sustainability Officer Stephanie Ossenbach during the jury presentation of the company challenges in June 2023. From left to right: Martin de Lataillade, Pia Frieman, Stephanie Ossenbach, Karim Bouyadamine, and Remi Leclere

## Outlook

During the next financial year, we will focus on the following activities:

- We will convert 25% of all procurement spend for paper, wood, and carton to FSC-certified goods, and we will reduce spend on fossil fuel-based packaging by 25%.
- We will continue to develop at least 28 new sustainability-related product declarations, including pilot work on our first Cradle2Cradle certificates.
- We will digitalize our product environmental data, transforming it into machine-readable formats and linking to Building Information Modelling (BIM) systems and other digital

processes and platforms common in the construction industry, including the [madaster](#) platform.

- Three additional sites – representing an additional 22% of our waste-to-landfill baseline – will receive on-site support from external experts, and undergo waste audits and optimizations.
- We will begin the implementation of the product take-back program concept developed as part of the collaboration with the KEDGE Business School.