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 take action to reduce our energy consumption and related emissions 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 Expert Groups Environment, Health & Safety, and Sustainable Products 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 at 30 June 2022, 67% of our plants, local assembly centers, and regional logistic centers have established energy management systems (vs. 21% in the previous financial year).

Our contribution to the fight against climate change

In 2018, we committed to setting science-based targets and in 2021, the SBTi approved our targets for operational and value chain emissions. We aim to **reduce operational (Scope 1+2) emissions at least 42% in line with a 1.5°C future by 2030, without the use of carbon offsets** (baseline 74,770 tCO_2e in FY 2019/20). Any residual emissions will be voluntarily compensated through Gold Standard offsets to achieve our target of **becoming carbon neutral as of 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_2e in FY 2019/20). 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, and purchased parts also require further processing. Both of these processes impact 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 2019/20).

SCIENCE BASED TARGETS
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

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
- Working with suppliers to reduce their emissions

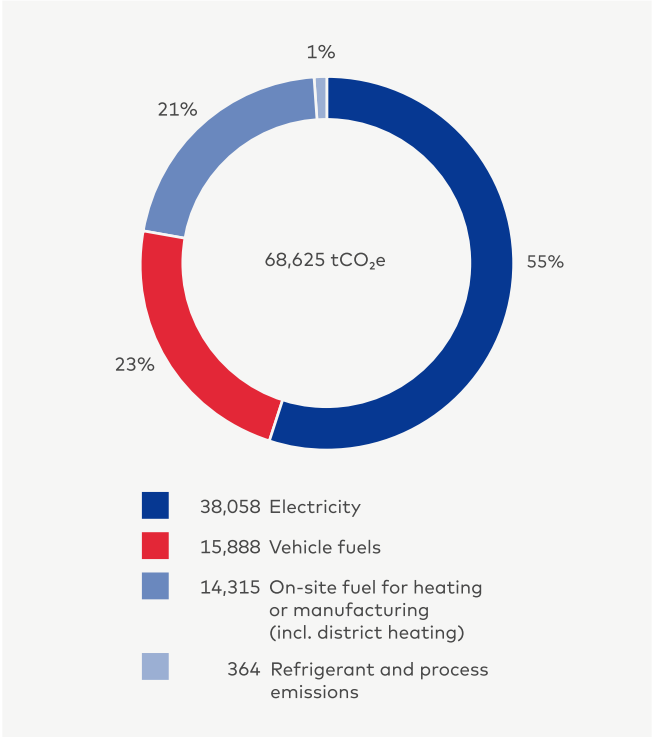
Our performance

Greenhouse gas emissions

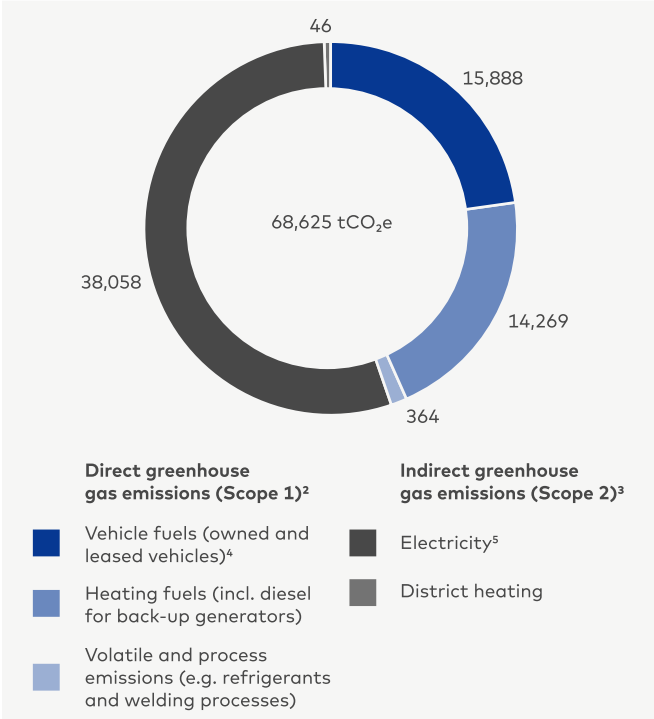
In FY 2021/22, our total greenhouse gas (GHG) emissions (Scope 1+2) amounted to around 69,000 tCO_2e. More than 55% were emitted as a consequence of electricity consumption, followed by vehicle and heating fuel consumption, and volatile as well as process gas emissions. Climate-related initiatives implemented during the reporting year resulted in total annual savings of approximately 17,400 tCO_2e (over 25% of Scope 1+2 emissions).

Due to the implementation of the energy-saving initiatives outlined in the next section, we expect to reduce our annual GHG emissions by approximately 430 tCO_2e. We have worked diligently to source renewable electricity or generate our own renewable energy where feasible, leading to an annual emissions avoidance of approximately 17,000 tCO_2e. In addition, we expanded the production of on-site solar energy by 10%.

Greenhouse gas emissions by source (tCO_2e)



Scope 1 and Scope 2 emissions (tCO_2e)[1)]



1) 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).

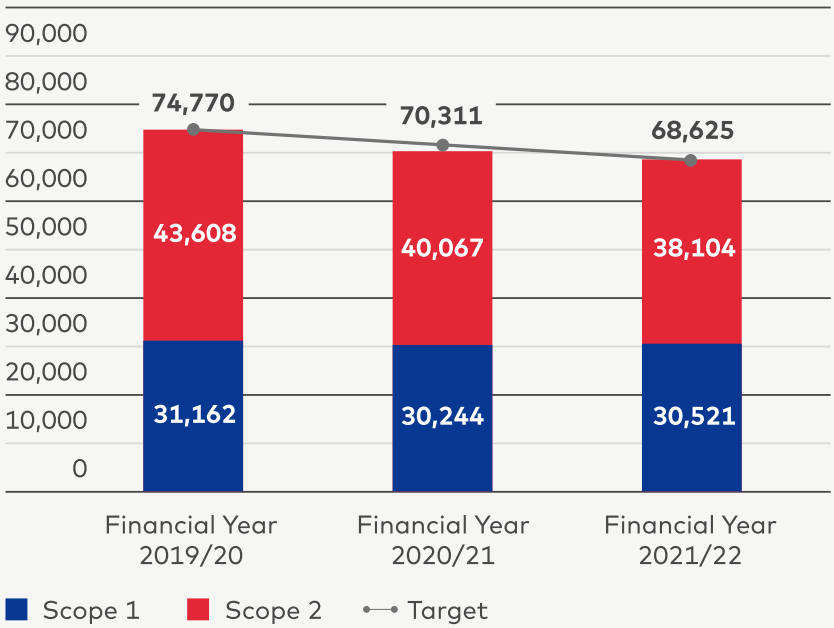
2) Scope 1: direct greenhouse gas emissions from sources owned or controlled by dormakaba.

3) Scope 2: indirect greenhouse gas emissions from sources owned or controlled by another entity, as a consequence of the company's activities.

4) Biogenic emissions associated with the combustion of biofuel amount to 15 tCO_2e. 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_2 during the growth phase to that released through combustion.

5) 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.

Year-on-year absolute Scope 1+2 emissions (tCO_2e)



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

ESG Performance Table

Further expansion of solar power generation in Chennai

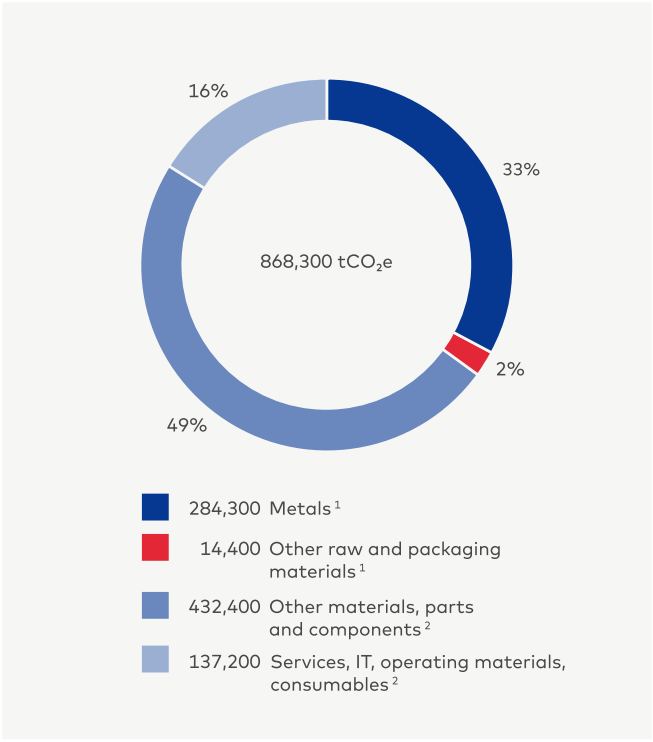
dormakaba employees on the rooftop of the manufacturing facility in Chennai (India)

A key element of our climate transition strategy is to expand the scope of solar panel installations, particularly in regions where green electricity is not readily available on the market. Our manufacturing facility in Chennai (India) had already installed solar panels on the roof in FY 2018/19. In the reporting year, the installation was expanded to generate 200% additional capacity. Today, the site can cover 25% of its total energy needs from own renewables.

"In line with dormakaba's commitment to contribute to a sustainable industry and future, we have taken steps to reduce the carbon footprint of our operations in India progressively. Our additional investment in solar panels further fortifies this, and we are becoming less dependent on fossil fuels and embracing this renewable source of energy." - Krishna Kumar Kp, Deputy Vice President Operations Region Asia Pacific.

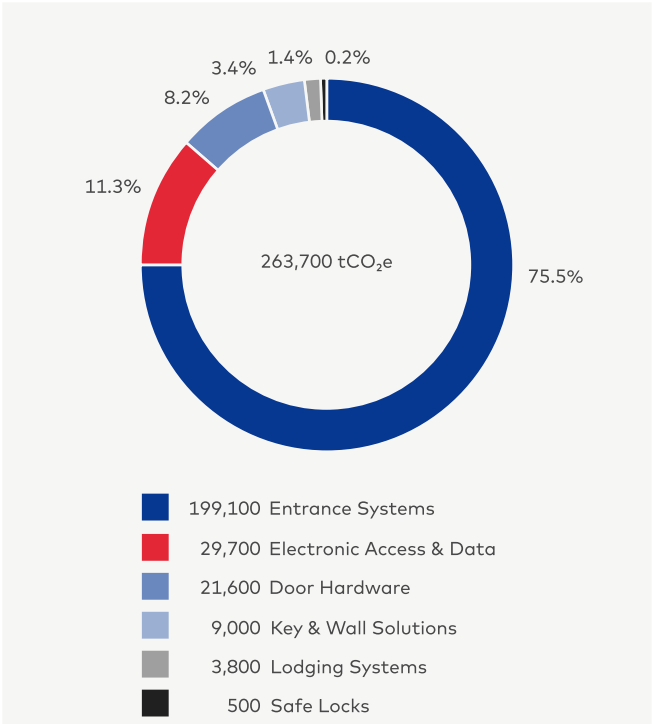
Scope 3 emissions constitute around 90% of our combined Scope 1, 2 and 3 carbon emissions, highlighting the importance of Scope 3 emissions for our climate strategy. In FY 2019/20, we carried out a screening and carbon inventory development of Scope 3 emissions, which showed that the largest sources of Scope 3 emissions stem from purchased goods and services (75%) and the use phase of sold products (11%). For FY 2021/22, value chain emissions for the use phase of products totaled 263,700 tCO_2e. As mentioned, value chain emissions from purchased goods and services represent the vast majority, totaling 868,300 tCO_2e in the reporting period. Although emissions from purchased goods and services have decreased, improvements in data collection systems - including in the precision of country-level sales figures - have led to an increase in Scope 3 emissions as a whole (+0.62% versus baseline FY 2019/20).

Scope 3 emissions: purchased goods and services (tCO_2e)[1, 2)]



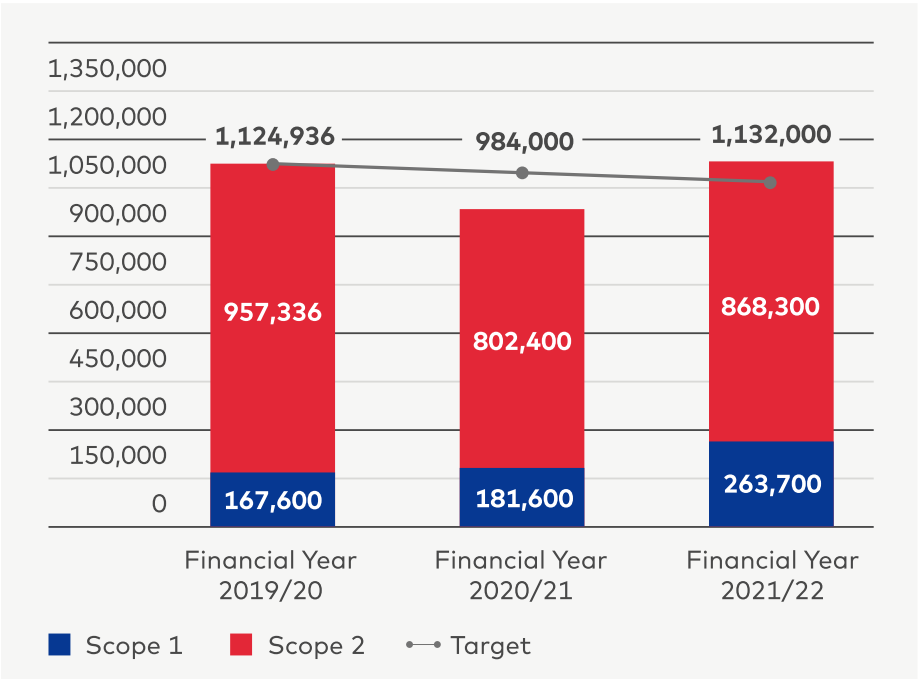
1) Calculated via direct material weight. Emission factor sources: UK Defra (2019), US EPA eGRID (2018), IEA (2019), AIB (2018). 2) Calculated via spend volume.

Scope 3 emissions: use phase of products (tCO_2e)[3)]



3) 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_2e)



We **reduce value chain emissions** among others by procuring more goods with higher recycled content and by improving the energy efficiency of our products. Life cycle assessments and our digital Product CO_2 Inventory Tool are key to understanding and reducing our impact.

Learn more

Energy consumption

Our total energy consumption for FY 2021/22 was over 254,000 MWh. Electricity and fuels for heating or manufacturing constitute over 76% of the 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.

Energy-saving initiatives were implemented at various sites within the reporting coverage during FY 2021/22. This work included: retrofitting facilities to feature LED lighting and monitoring systems; upgrading equipment such as air compressors, air heaters and air dryers; and the optimization of heating and cooling systems.

Below are some specific examples of activities from our facilities across the world:

- In Fougères (France), by replacing one air heater, the energy consumption reduced from 600 to 356 MWh/year.
- In Suzhou (China), the replacement of an old air compressor reduced energy consumption by about 15%.
- At our Melaka (Malaysia) facility, retrofitting with LED lighting and the regulation of the cooling fan and pump operations from 100% to 65% daily, resulted in a reduction in electricity consumption of 7,689 kWh/year and 19,625 kWh/year respectively.
- At our facility in Singapore, an energy monitoring application for the air conditioning system was implemented, reducing the system's energy consumption by 25% versus the previous financial year.

As a result of these and other activities, we realized total quantifiable annual energy savings of approximately 2,700 MWh for the sites covered within the scope of this report. In addition, over 58,000 MWh (46.4%) of the electricity that we consumed came from renewable sources.

Focusing on energy efficiency and carbon savings potentials globally

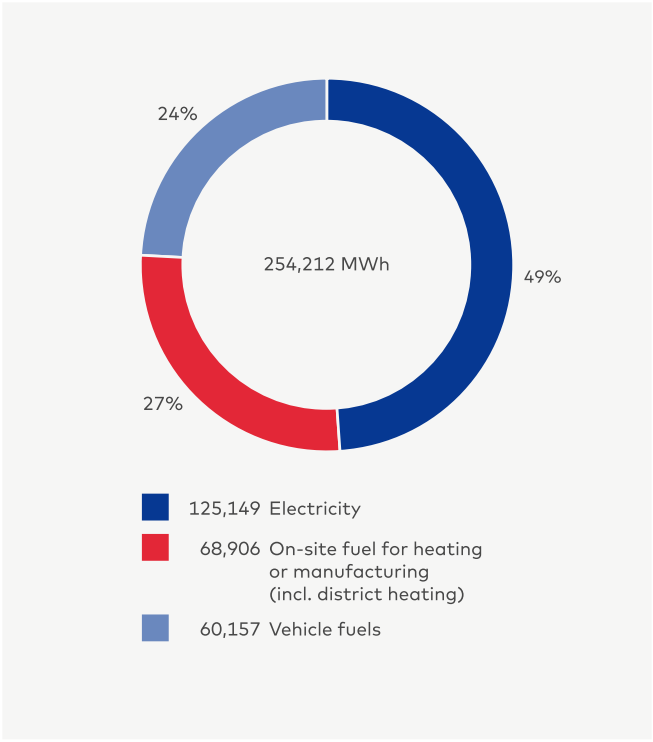
dormakaba production site at Melaka, Malaysia

Part of our commitment towards a 1.5°C future is to reduce our operational emissions by 42% by 2030 (baseline 74,770 tCO_2e in FY 2019/20). To reach this goal, we started a Value Discovery Audit process in partnership with Siemens at 10 of our largest manufacturing sites (Taishan (China), Chiayi (Taiwan), Rocky Mount (USA), Dyersville (USA), Indianapolis (USA), Montreal (Canada), Quebec (Canada), Melaka (Malaysia), Singapore, and Suzhou (China)).

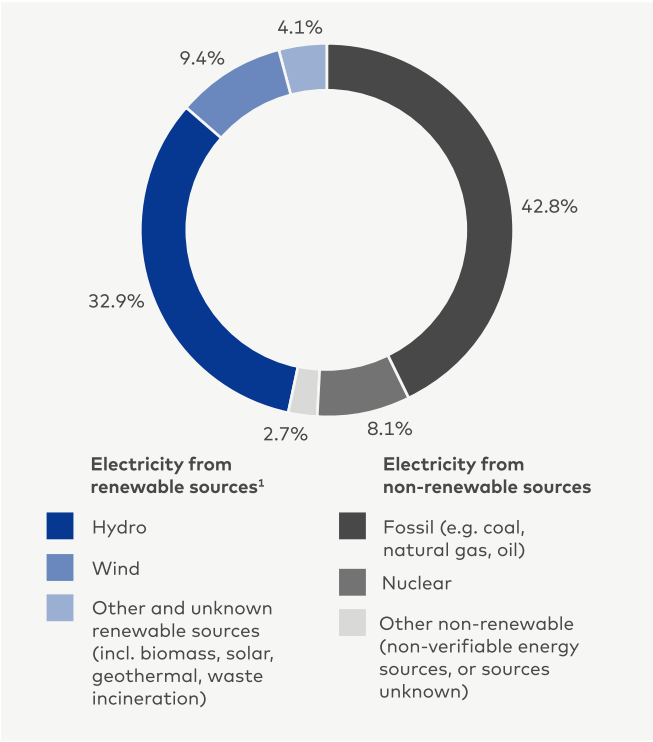
The aim of the partnership is to execute projects based on audits to discover energy efficiency and carbon savings potentials, to maximize energy and CO_2 savings by implementing the right strategies and measures for the unique site. Siemens, in cooperation with dormakaba employees, identified efficiency and savings opportunities, ranging from low-cost operational improvements and control optimization approaches, to capital-intensive equipment retrofits with an emphasis on the highest priority conservation initiatives.

The Value Discovery Audit has been successfully closed at the ten sites, resulting in a discovered potential reduction of over 4,000 tCO_2. To reach our 42% reduction target, further initiatives are planned to fill the gap, including the electrification of the fleet, and green electricity projects.

Energy use (in MWh)



Electricity by source (in %)



1) Including own generation

Outlook

One of the major areas of work in the upcoming financial year will be the continued global partnership with Siemens to support the development of Investment Grade Audits for larger plants in Asia and the Americas. We expect the installation of more energy-efficient equipment to begin in the second quarter of 2023.

To support the transition to e-mobility in Germany, we will install 25 EV charging stations at our sites and 100 charging stations in employees' homes. Additionally, solar panels will be installed on the rooftops of two large manufacturing sites in the Region Asia Pacific. Finally, 13 sites will complete the set-up of energy management systems.

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.

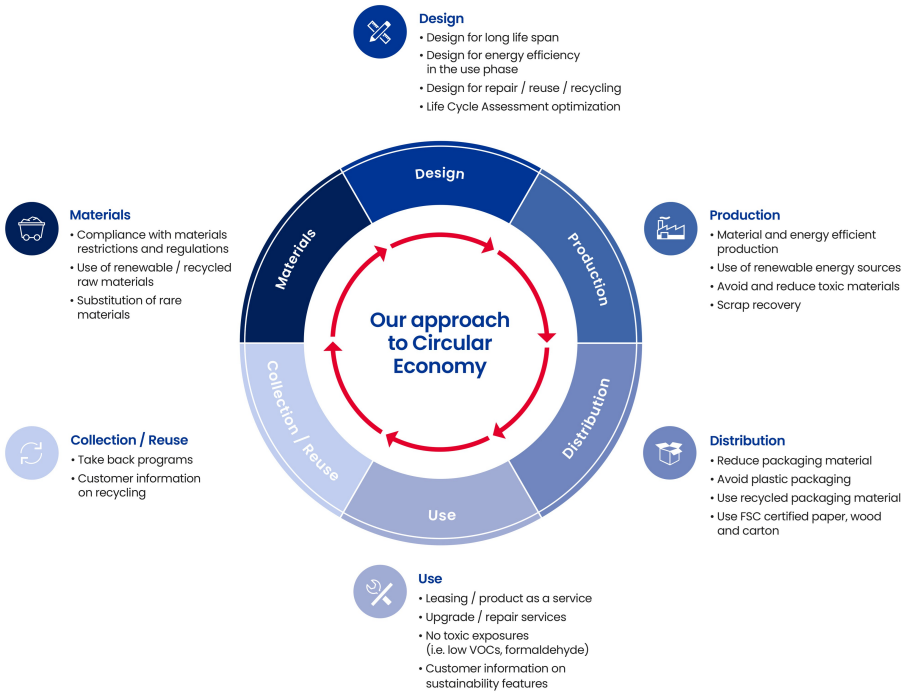
Our approach

We live in and depend on an interconnected world, with complex environmental, social, economic, and cultural systems. Damaging one element may cause 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 as well as 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.

Our Group-wide Environment Directive regulates minimum business standards in manufacturing practices, product circularity, and eco-design, including material selection and the energy efficiency of the product use phase. The dormakaba sustainability commitment and life cycle approach are also integrated into the company's Product Design Manual.

A circular economy provides solutions for some of the key global challenges by eliminating waste and pollution and circulating products and materials.

Our Circularity Approach



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.

Our sustainability commitment and sustainable design criteria are integrated into our Product Design Manual, which is binding for all new dormakaba-branded products. **By 2023, we plan to cover all new product developments and optimizations with our circularity approach**.

Life Cycle Assessments (LCA) 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, through 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, 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).

Learn about our activities and key results regarding value chain emissions (Scope 3) from purchased goods & services, and the use of sold products.

Energy & Emissions

Digital energy calculator for the product use phase

The energy-efficient ST PRO Green RC3 sliding door

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**. In FY 2021/22, we launched the ST PRO Green RC3 in the Austrian and Swiss markets, for example, which is a new, energy-saving automatic sliding door with a thermally separated profile system that reduces energy loss in the building due to a very low heat transfer coefficient.

Our **digital Product CO_2 Inventory Tool** provides information on the carbon emissions of energy-consuming products during their use phase. 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.

The Product CO_2 Inventory 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. Through the tool, our Product Managers and Engineers are able to continuously check and improve data quality based on product parameters, easily make updates to include new products, and have a better understanding of where the biggest impact is taking place.

The tool collects information for example about the products' lifetime, the number of operating days per year, energy consumption and related features. The parameters are in line with requirements found in the Environment Directive (see section B.9). Based on the number of sold products and country-specific emission factors, we are able to determine the greenhouse gas emissions for the whole lifetime of a product. Our calculation method is in line with the GHG Protocol.

Designing environmentally friendly packaging

For the packaging of our products, we mostly use plastic, wood, paper, and cardboard. 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 2020/21) and **100% of paper, wood, and carton used should stem from Forest Stewardship Council (FSC)-certified sources**. We have started exploring possibilities, and at our Vittorio Veneto (Italy) manufacturing site, it is already the standard to use FSC-certified packaging.

Providing transparent information about our products

As of early 2021, components imported or sold in the European Union, with Substances of Very High Concern (SVHCs) in a concentration higher than 0.1% must be reported in the so-called SCIP Database, created by the European Chemical 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.

Product declarations and green building certifications

We quantify and disclose a product's environmental impact through its entire life cycle in our Environmental Product Declarations (EPDs), which are based on the international standards ISO 14025, 14040, 14044 and the European standard EN 15804. 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 2020/21). To date, we can provide our customers with 200 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.

Product information from environmental or health-related product declarations can contribute to Building Information Modelling (BIM) and specifications or help attain 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 DGNB, BNB, LEED, and BREEAM. These are compiled in a data sheet and supplemented by the corresponding verification documents. For quality assurance purposes regarding 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 high recycled content. Other important materials are wood, paper, and cardboard, which are made from renewable resources.

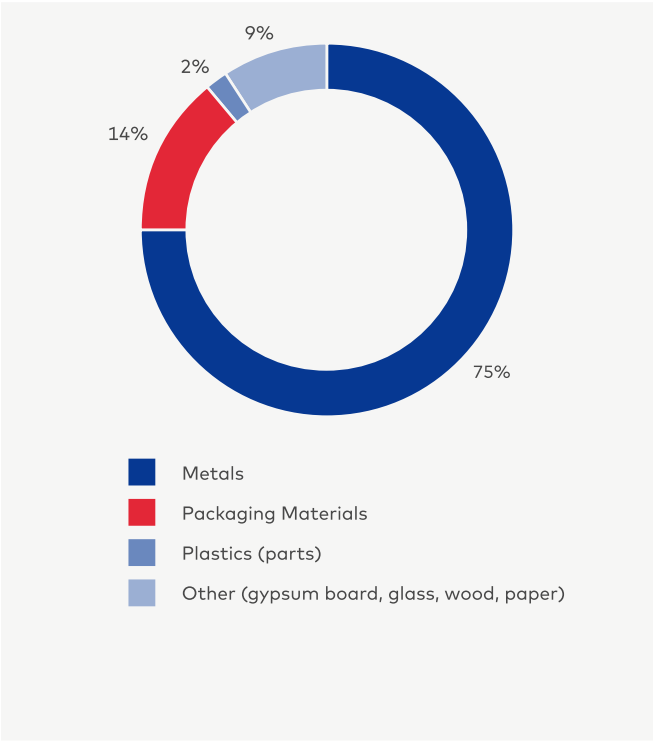
Activities and key results regarding carbon emissions (Scope 1 & 2) and energy consumption during production.

Energy & Emissions

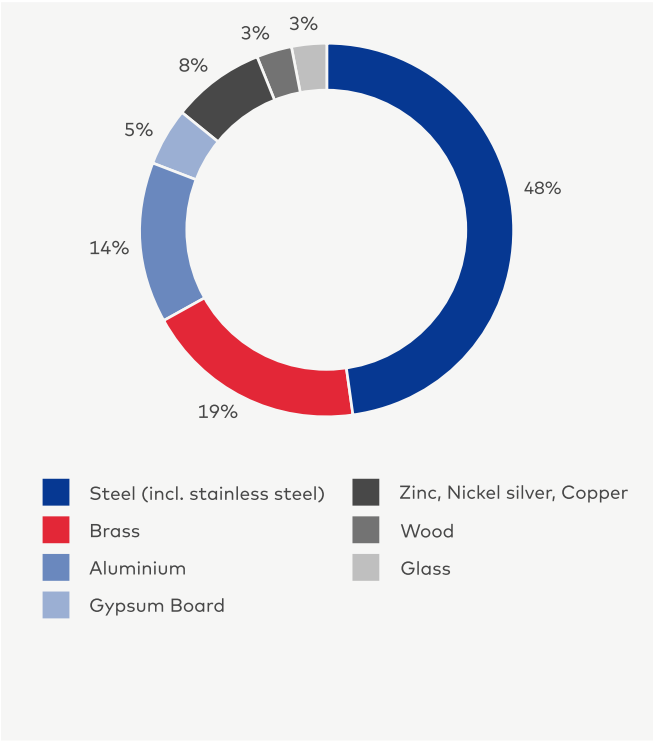
Historical information on material use.

ESG Performance Table

Material use (in %)



Raw material use (in %)



Successful substitution of materials with lead content

Brass has been substituted by eco-brass in the dormakaba Lock Series 122

The heavy metal lead (Pb) is often used as a minor addition to alloys found in components of our products, to improve their mechanical properties. This allows better and more efficient machining and cutting, and thus plays a key role in our production processes and in the quality of our finished products. It is challenging to substitute it, and we are continuously searching for solutions by taking part in industry-wide discussions and through own R&D.

In the previous year, Key & Wall Solutions redesigned several steel components with high lead content and started the sale of lead-free steel keys in the Region Europe & Africa. During FY 2021/22, we were able to substitute brass with eco-brass in one component of our Lock Series 122, after thorough examination of this material's specifications, including strength, elasticity, color, weight, and external testing. We are planning to substitute other small parts in several other products within our portfolio, as we have done for the c-lever coupling system.

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 include:

- For over six years, the production facility in Vittorio Veneto (Italy) has had over 70% of produced scrap going back into its closed-loop system.
- The facility in Taishan (China) reuses zinc alloy scrap in the die casting process, while in Melaka (Malaysia), aluminum chips are remelted in the foundry for reprocessing.
- In Suzhou (China), the wooden pallets in which door closers arrive from Melaka (Malaysia) are reused for delivering other products to Singapore (approximately 610 pieces per year), where they are used for internal processes or provided to local suppliers, who use them to deliver other components back to the Suzhou plant. The Singapore team is investigating how to eventually circulate the pallets back to the Melaka plant.

Waste management

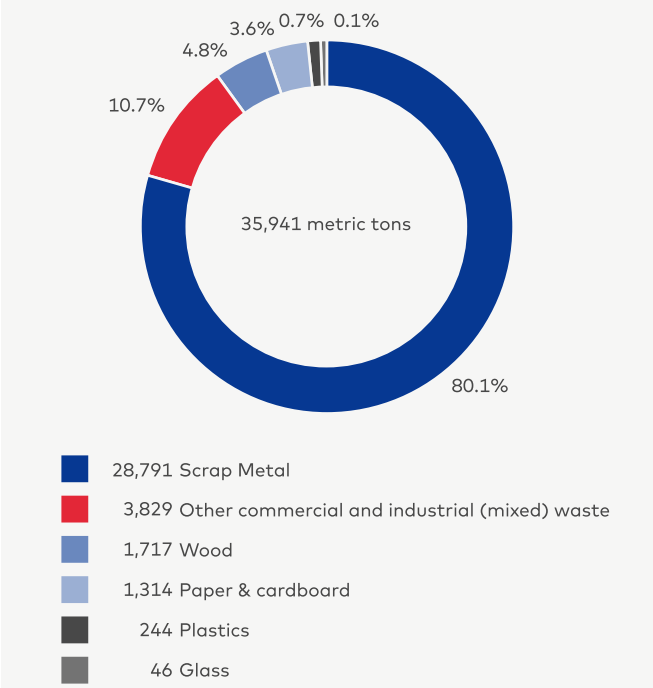
In addition to water consumption and effluents, waste management is of key importance during the electroplating, surface finishing, and painting processes. Our filter systems ensure that potentially hazardous substances are not released externally. Toxic waste arising from painting and electroplating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

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 2020/21). We monitor our waste by treatment method and waste type. At 74.6% by weight, the largest proportion of waste is scrap metal. In FY 2021/22, approximately 73% of the waste stream was recycled, reused, or recovered (including raw materials and energy recovery). In Dyersville (USA), for example, the wood sent to landfill has been decreased by 40%, as a result of the replacement of wooden crates with returnable containers, in which they receive glass from a supplier. In Le Mesnil St-Denis (France), waste is separated into nine categories. Today, approximately 95% of the waste generated on site is sorted according to these categories. Recycling is processed by specialized and certified companies, one of which employs people with disabilities or who are socially disadvantaged.

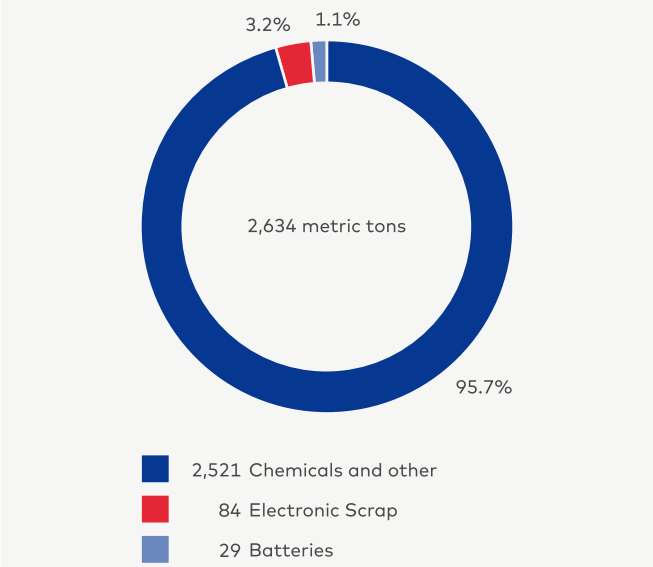
We respect the universal human right to safe and clean drinking water and sanitation. Learn about our activities and key results regarding water and effluents management.

Human Rights

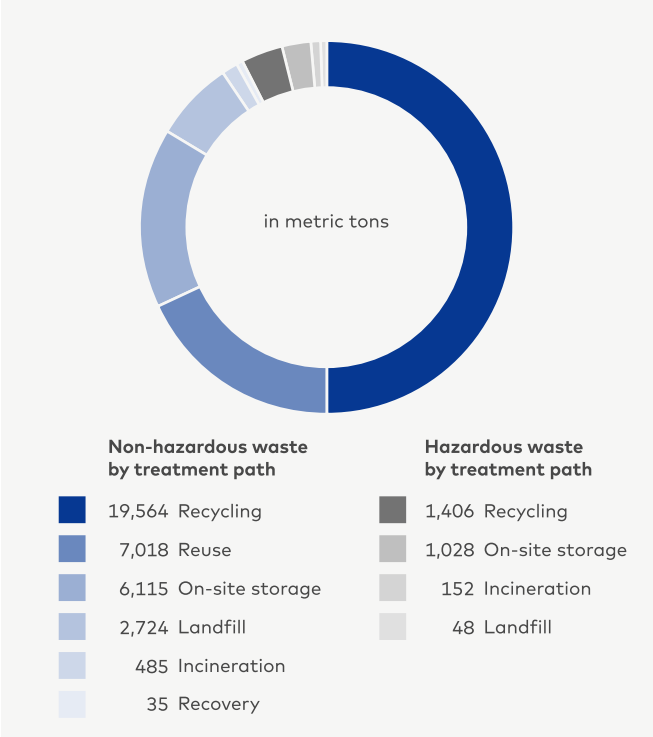
Non-hazardous waste by type (in metric tons)



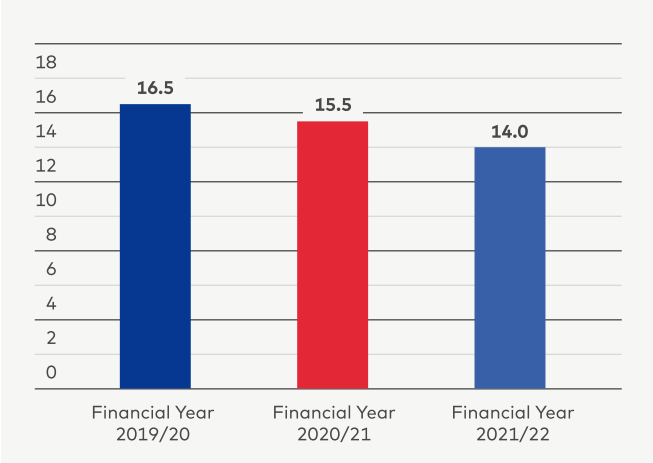
Hazardous waste by type (in metric tons)



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

Take-back programs

All 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, 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 ten top sales countries. During FY 2021/22, we started the development of a pilot program in Switzerland and Austria for locks and cylinders.

Outlook

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

- We have identified further products for which we will develop sustainability-related declarations/certifications, including pre- and post-consumer recycled content certifications. Additionally, we will develop circularity guidelines for new product developments.
- Together with an external consultancy, we will develop further benchmarks for high recycled content and energy efficiency.
- Our leadership teams in nine out of the ten top selling countries will develop detailed four-year action plans for launching take-back programs and to evaluate local recycling companies for partnerships.
- Lastly, 33 manufacturing sites will develop detailed zero waste to landfill action plans, showing how they will achieve a 25% reduction per year starting in FY 2023/24.