4 PLANET DIMENSION

Protecting the environment today – and safeguarding the health of tomorrow's world

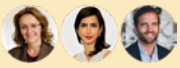
People need a healthy environment. We therefore see it as our responsibility to protect the climate and the environment and to make wise use of natural resources. This is in line with our principle:

WE ACT TODAY FOR A BETTER TOMORROW

Over 100 years of heritage. Mindful of future needs and resources.

As a healthcare company, we operate in a special field of tension. On the one hand, we want to do our best to reduce potentially adverse environmental impacts to a minimum. On the other hand, we must never lose sight of the strict requirements that are placed on patients' safety and hygiene. Our aim is to promote human health while further reducing our ecological footprint. To this end, we have implemented environmental management systems at all locations. These help us to make our activities more environmentally friendly and gradually improve our performance. Our management systems give us a range of levers to pull: For example, we are promoting the use of renewable energies in order to achieve our climate targets and are closely examining our use of resources. This also includes making responsible use of water as a valuable resource.

Comment from the Sustainability Advisory Board



Prof. Dr. Judith Walls
Expert on business and environmental sustainability

"Being 'Committed to Life' means not only the lives of people but also the life of the planet. By taking care of the planet, we also take care of the future and the ability of people to live a healthy, fulfilling life. This is why it is so important that #FutureFresenius considers topics like climate change, natural resources, and water.

Science has shown that human lives will be affected by rising global temperatures, for example, the young, the old, and the poor will be disproportionally affected by rising temperatures, as a result of infectious diseases, heat exposure, and agricultural decline. Similarly, loss of biodiversity, groundwater, and natural resources affect companies' operations and supply chains. By committing to reducing the emission of greenhouse gases, Fresenius is committing to life in the future."

The following texts explain how we are tackling these challenges along our key environmental protection topics.

Securing energy supply and reducing emissions – climate protection at Fresenius

As a global healthcare company, Fresenius also contributes to global greenhouse gas emissions, for example through our energy consumption in production and in our hospitals. A constant supply of energy to our facilities is indispensable for our vital medical and therapeutic products and services. For this reason, we need a reliable energy supply at all times. But we also want to limit the consequences of climate change and are therefore constantly reducing our emissions.

Fresenius manufactures medical products and operates healthcare facilities, which inevitably results in energy consumption and associated greenhouse gas emissions. In production, for example, the machines and containers have to be sterilized regularly, and in our hospitals a wide variety of technical systems are in constant operation. This presents us with special challenges: On the one hand, we want to consume as little energy as possible, but on the other hand, we must guarantee the safety of the patients in our facilities at all times and ensure a stable supply of energy in our production.

Weather extremes caused by climate change are already affecting the working and living conditions of our employees and patients. We are acting now and taking measures both to prepare for these risks and to counteract climate change.

OUR CLIMATE PROTECTION TARGETS

OUR CLIMATE TARGETS

- Target by 2030: a 50% absolute reduction of our total Scope 1 and 2 emissions (base year: 2020)
- Target by 2040: climate neutrality in Scopes 1 and 2
- Target by 2050: net zero emissions in Scopes 1, 2, and 3

Scope 1 comprises direct emissions that we cause through our own business activities. Scope 2 relates to indirect, energy-related emissions that are caused by the consumption of purchased energy. Scope 3 covers other indirect emissions from our value chain.

Details on our goals can be found under **Our sustainability ambition**.

We want to live up to our responsibilities and help achieve the goal of the Paris Climate Agreement: Our climate targets aim to limit global warming to 1.5 °C. All our climate protection activities contribute to our long-term objective of attaining net zero by 2050: This requires a company to reduce its avoidable greenhouse gas emissions, while unavoidable emissions must be offset by removing an equivalent amount of CO_2 from the atmosphere and storing it for the long term.

Scope 3 emissions are a decisive factor on our path to net zero. They include greenhouse gases that we release indirectly in our upstream and downstream value chains – such as when we purchase raw materials or at the end of the life cycle of the products that we sell.

Axel Faupel
Head of Sustainability Fresenius Kabi & Group Sustainability Strategy

"Around 88% of our emissions are generated in our value chain. If we want to achieve our long-term climate targets, we must also effectively reduce these emissions in the future. Collaboration with partners and stakeholders in the healthcare industry is an essential step in this direction."

PULLING THE RIGHT LEVERS – EFFECTIVE DECARBONIZATION AT FRESENIUS

We have identified the most important levers that will help us achieve our climate targets. These focus on the use of renewable energies, improving energy efficiency, and optimizing production technologies.

DECARBONIZATION LEVERS

LEVER 1

Extending the use of renewable energies

- Purchasing electricity from renewable energy sources
- Electrifying processes
- Replacing energy sources with climate-neutral alternatives

LEVER 2

Increasing efficiency

- Increasing energy efficiency in buildings and processes
- Measuring the performance of relevant energy consumers
- Optimizing, renovating or retrofitting equipment

LEVER 3

Changing fuels, technologies, and processes

- Modifying processes
- Replacing fuel sources with renewable alternatives
- Converting technologies

LEVER 4

Electrifying the vehicle fleet

- Replacing inefficient and carbon-intensive vehicles with electric alternatives
- Extending the charging infrastructure

USING RENEWABLE ENERGY TO A GREATER EXTENT

The energy we use to generate electricity causes greenhouse gas emissions. However, electricity from renewable sources such as hydro, solar, and wind power causes significantly lower greenhouse gas emissions than fossil energy sources. Since the source of our electricity is crucial to reaching our climate targets, we strive to source it from renewable sources wherever possible. We also generate our own electricity, for example from biomass obtained from renewable raw materials such as wood chips and pellets. Photovoltaic systems at various production and hospital sites serve to supplement our electricity generation. By 2030, we aim to obtain as much of our electricity as possible from renewable sources.

RELIABLY SUPPLIED WITH POWER DAY AND NIGHT

Energy is indispensable for our products and services – and it is vital for our patients. In all our efforts to save energy, we never lose sight of their safety. To ensure an uninterrupted energy supply for direct patient care at all times, all our hospitals in Germany and Spain have emergency power systems: In the event of a power failure, they ensure the continued operation of important devices and systems within a matter of seconds.

CLEVER USE OF ENERGY

We want to maximize efficiency in all areas. In our buildings and processes, we focus on renewing our infrastructure by constantly optimizing the energy consumption of heating, ventilation, and air conditioning (HVAC) systems and replacing old components with more efficient units.

In production, we reduce energy consumption by various means. We renew technology and pumps, prevent leaks, and additionally insulate pipes and valves. We use steam, for instance, to sterilize pipelines and equipment in the production of medicines, since heat reliably kills germs. We then reuse the condensate.

LINZ: UTILIZING BRAKING ENERGY FROM CENTRIFUGES

Our production site in Linz extracts the active ingredient lactulose for laxatives. Lactose (milk sugar) is separated from the original lactulose solution by centrifuges. The subsequent deceleration process generates energy that is converted entirely into heat but has not yet been utilized. The team in Linz is setting out to change this. The idea: a technical solution that allows the braking energy of one centrifuge to be used to accelerate another. The potential savings in the plant's total electricity consumption with this method amount to as much as 125,000 kWh per year.

TAKING A DIFFERENT APPROACH TO FUELS, TECHNOLOGY, AND PROCESSES

We aim to gradually phase out fossil fuels by replacing them with renewable alternatives and are also looking into the use of new technologies such as hydrogen and industrial heat pumps.

In our hospitals, we give great attention to the anesthetic gases used in operating theaters, which are released into the outside air via the exhaust air system – where they are more harmful to the climate than CO_2. They account for a relevant proportion of a clinic's greenhouse gas emissions. In our hospitals, we are

therefore gradually replacing anesthetic gases detrimental to the climate with more environmentally friendly alternatives or are recycling them.

FRIEDBERG: RETHINKING HEATING PROCESSES

At the Friedberg site, we currently use natural gas to heat the production building. To reduce the associated CO_2 emissions, an alternative method has been developed that reuses heat from the production process.
The heating system is supplied with waste heat from the return flow of the cooling water, and the additional heat required is generated by a heat pump powered by green electricity. Implementation is planned for 2025.

Estimated savings per year:

- 1,118,000 kWh of gas
- 200 tons of CO_2 emissions
- 1,600 m^3 of water

CHARGING INSTEAD OF REFUELING

We are shifting gears on climate protection in our vehicle fleet and also offer electric company cars. We are also replacing some of the vehicles in our company transport fleet with electrically powered alternatives. In addition, we want to promote e-mobility right on our own doorstep by installing charging points at more and more locations for employees' private cars. This is another way we can help reduce emissions and come closer to reaching our climate targets.

CLIMATE PROTECTION MEANS HEALTH PROTECTION

We are aware that climate change requires swift and decisive action. Its impact on our health is already being felt in our everyday lives: Heatwaves can be highly detrimental or even life-threatening to elderly and sick people. That is why our public hospitals in Spain receive alerts from the health authorities when temperatures reach certain levels.

Prolonged periods without rain leave pollutants such as particulate matter in the air, which can cause or aggravate respiratory diseases. Moreover, some insects benefit from the changes in weather and climate and now inhabit more regions than before; the viruses they may carry can cause infectious diseases to spread further. Prevention and treatment of climate-related diseases are therefore essential for us. With our medical care, we are thus also facilitating adaptation to climate change.

WATER – RESPONSIBLE USE OF A VITAL RESOURCE

Water is one of our most valuable resources.
Life on this earth would not be possible without it.
As a healthcare company, we too are dependent on water:
We need drinking water of the highest quality to ensure safe patient care. It is crucial for hygiene and for their well-being.
We also use water to manufacture our pharmaceutical products.

We want to cover our daily water requirements as efficiently as possible. The greatest potential for saving water lies in the processes for the manufacture of our products, for example cooling or sterilization.

Water is also an important component of some pharmaceutical products, such as infusion solutions. We cannot reduce this use.

An adequate supply of fresh water is important in hospital operations in order to meet the highest hygiene standards. We strive to use water as efficiently as possible in our clinics, but the potential for savings here is limited.

VITAL AND PURE: WATER IN PHARMACEUTICAL PRODUCTS

The water used in our products must meet strict quality requirements so that we can guarantee quality and safety for patients. When used in infusion solutions, it must be of an even higher quality than drinking water.

Kirsten Nyland
Senior Vice President, Environmental & Occupational Management at Fresenius Kabi

“Reliable access to clean water is essential for our business. At the same time, we know that only 0.5 percent of the world’s water resources are drinking water. To conserve this scarce resource, we operate a comprehensive water management system.”

We distil water or filter it in a special process to remove germs and other impurities. We use this water for injection (WFI) as an ingredient in medicinal products.

A CLEAR APPROACH: EFFICIENT WATER CONSUMPTION IN PRODUCTION

In order to use water in our processes in a conscious and efficient way, we have implemented water management systems at all our production sites.

Regular analysis shows us which production sites are at high risk of water shortages. Here in particular, we are working to identify potential savings.

To counteract water shortages, we set ourselves a specific target for 2024:

Fresenius Kabi

Water Reduction

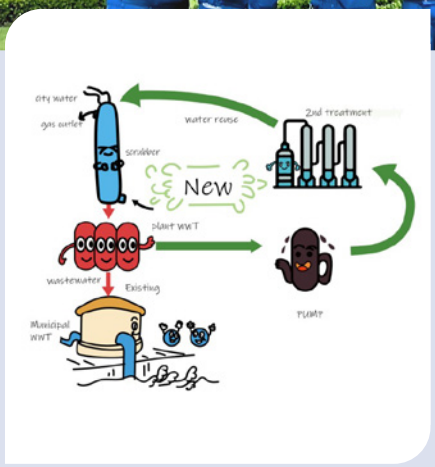
Efficient use of water is among our priorities. By 2030, we will reduce process water withdrawal at production sites in areas of high water stress by 20% (baseline: 2023).

- 20%

Details on our goals can be found under **Our sustainability ambition**.

You can gain an insight into how we use water in production and what aspects are relevant in our **Highlight story: The journey of water in production**.

The team



The new filter system

CHINA: WASTEWATER RECLAMATION FOR MORE SUSTAINABLE WATER USE

At our site in Beijing, China, we produce medicines for the treatment of chronic kidney disease. A new filter system enables us to reuse water that has previously absorbed an organic solvent, rather than sending it to the wastewater treatment plant. We thereby save 20,000 m^3 of water per year, reduce the need for fresh tap water, and lower the costs of water procurement and treatment. This improves the availability of water for the local community.

HANDLING ANTIBIOTICS IN WASTEWATER

Handling water in compliance with the law and in a controlled manner is a top priority for us – including when it is returned to the environment from our production processes. One important aspect is how we handle antibiotics: These medicines should help people and not cause harm. However, they can enter the environment via wastewater and enable the development of bacteria that are resistant to antibiotics. To solve this problem, we engage in responsible antibiotic production. We have also been a member of the Antimicrobial Resistance Industry Alliance (AMRIA) since 2020 and are working on solutions together with associations and other companies.

TEST CENTERS FOR DRINKING WATER: CLINICS AS GUARDIANS OF WATER QUALITY

To maintain the highest standards of hygiene in our healthcare facilities, we need sufficient fresh water. We monitor it in all our facilities to detect any contamination or deviations in its quality. In Germany, some of our clinics even serve as test centers for the municipal drinking water supply. We communicate directly with the authorities and inform them if we detect critical deviations from drinking water standards. In this way, we protect not only our patients, but also the population in the areas concerned.

CRISIS MANAGEMENT: WATER TREATMENT AND EMERGENCY SUPPLIES

All hospitals have emergency plans in place to ensure patient care even in the event of supply bottlenecks. If fresh water should become polluted or contaminated with hazardous substances, our hospitals can use water treatment techniques.

In such cases, our German hospitals can for example deploy additional water treatment modules upstream of their own networks and thus use their own treatment systems. Most of our Spanish hospitals use a technology that leaves a reserve of water in the pipes, so that we can maintain a supply in the event of a drinking water outage.

Ensuring hygiene, avoiding waste: A balancing act of resource conservation

Natural resources are under increasing utilization pressure all over the world, but sustainable economic activity would not be possible without them. As a healthcare company, we depend on valuable raw materials – such as metals for the production of medical devices, crude oil for plastic items such as cannulas, or active pharmaceutical ingredients for the manufacture of medicines.

We are committed to conserving natural resources wherever possible. In doing so, we always have to strike a balance between resource efficiency and hygiene requirements. Disposable items are often used in clinics for hygienic reasons. Our options for saving resources are limited here. There are also strict regulations for medication packaging that make this difficult for us. Our most important levers for conserving resources are therefore developing durable and resource-saving products, reusing resources wherever possible, and disposing of waste safely and systematically.

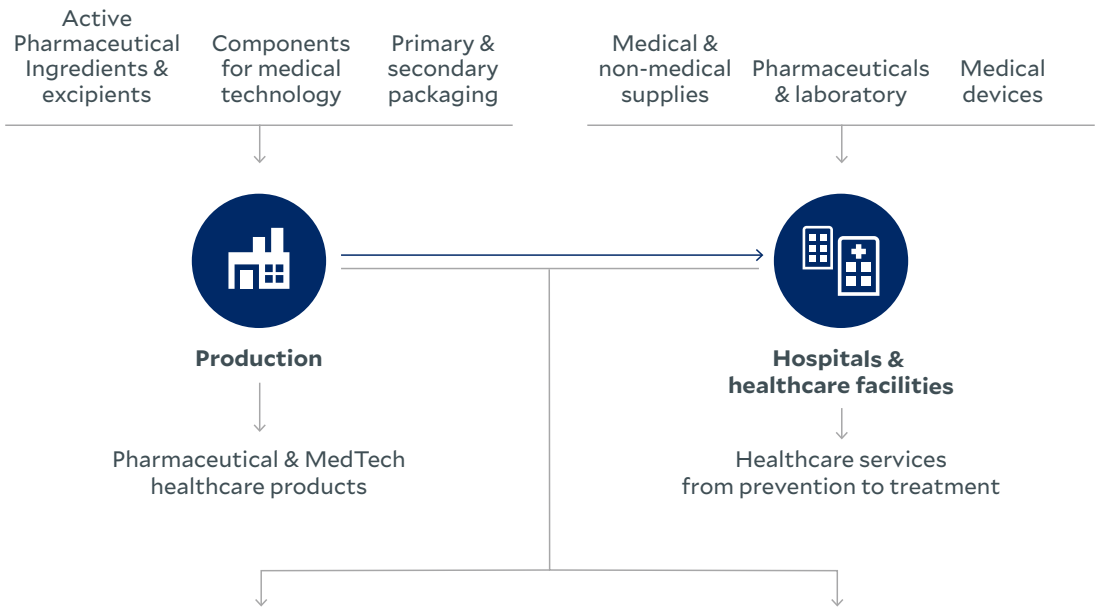
RESOURCE EFFICIENCY AT A GLANCE: FROM PROCUREMENT TO DISPOSAL

To use raw materials efficiently and responsibly, we must closely monitor our resource inflows – in other words, all the raw materials and substances that we procure and use. At the same time, resource outflows in the form of waste offer great potential for the recovery of valuable resources. We strive to minimize

waste and reuse or recycle it wherever possible. Appropriate handling and hygienic disposal of waste are essential.

Active pharmaceutical ingredients (APIs) play a key role in our production, followed by plastic parts and packaging. Consumables for care and medical treatment are indispensable in our healthcare facilities.

Insight into our resource flows



Examples of potentially hazardous waste

- Contaminated syringes & needles
- Infectious samples & tissues
- Biological waste such as blood or cell cultures
- Chemicals for disinfection
- Residues from chemical reactions
- Residues of filtration & cleaning processes
- Waste from chemotherapy
- Sharp & pointed objects such as scalpels

Examples of non-hazardous waste

- Uncontaminated packaging & containers made of paper, plastic, & glass
- Uncontaminated disposable gloves
- Plastic & metal waste from administrative areas & medical devices
- Production waste from non-toxic & non-reactive materials
- Food waste
- Uncontaminated medical devices
- Disposable clothing, bandages & diapers

The AmiCORE apheresis system for blood donations has a service life of 15 years.

LONG-LASTING PRODUCTS: REPAIR AND PROLONGED USE

A long product service life makes it possible to use medical devices for longer and to delay replacement. This conserves resources and reduces waste. The medical devices from Fresenius Kabi, such as infusion pumps, are designed for a service life of several years and can be repaired by trained service personnel. We provide appropriate manuals and manufacture spare parts at our production sites. With regular maintenance, our products currently have a service life of seven to fifteen years. After the end of production, spare parts remain available for a seven- to ten-year period.

PRODUCT DEVELOPMENT: CONSERVING RESOURCES FROM THE OUTSET

We also take environmental considerations into account when designing new healthcare products and improving existing ones. For example, we have reduced the plastic content of our EasyBottle containers for nutritional drinks by more than 30% since 2011. We are also striving to reduce the amount of packaging required for finished products. We also take customer and patient feedback into account to reduce unnecessary waste in our product packaging. However, since we have to meet strict requirements for pharmaceutical products, we can only optimize medicines and their protective packaging to a certain extent in order to conserve resources. After all, safety always comes first.

EFFICIENCY IN EVERYDAY CLINICAL PRACTICE: REUSING PRODUCTS SAFELY

Particularly strict safety and hygiene regulations apply in hospitals; aids such as face masks and syringes must be disposed of after a single use. Nevertheless, we aim to conserve resources and to use products several times wherever possible. For example, medical instruments and aids such as scalpels and clamps can be carefully cleaned, sterilized, and repackaged for reuse. This helps us to save on disposable items.

Gloves are among the most frequently used disposable items at Helios in Germany. We use them to ensure the hygienic handling of secretions or blood, for example. In some situations, however, pathogens can be more easily transmitted by gloves than by disinfected hands. With a campaign in our German clinics that includes training courses, posters, and stickers, we are therefore drawing attention to the improper use of disposable gloves – and the associated high consumption of resources. As a result, in 2024, we returned to the pre-COVID-19 pandemic consumption level.

FOCUS ON SAFETY AND HYGIENE: CORRECTLY DISPOSING OF AND RECYCLING WASTE

Systematic waste management helps us live up to our claim of efficiently using resources – while having as little impact on the environment as possible.

Waste disposal is subject to strict regulations that are designed to prevent the environment from being polluted or people from being put at risk. In some cases, these regulations vary depending on the municipality, country, and business segment, which is why we adapt our waste management in line with the respective business activities.

Depending on its type, our waste undergoes various disposal and recycling processes.