We stay connected

BUILDING BRIDGES

Annual Report 2022

wilo

CONTENTS

WE

BUILD BRIDGES.
ARE A RELIABLE PARTNER.
INVEST IN OUR MARKETS.
STRENGTHEN OUR SUPPLY CHAINS.
DIVERSIFY.

WILO PROFILE

The Wilo Group is one of the **world's leading premium suppliers** of pumps and pump systems for the building services, water management and industrial sectors. In the past decade, we have developed from a hidden champion into a visible and **connected champion.** Today, Wilo has **8.457 employees** worldwide.

Our innovative solutions, smart products and individual services move water in an **intelligent, efficient and climate-friendly** manner. We are also making an important contribution to climate protection with our **sustainability strategy** and in conjunction with our partners. We are systematically pressing ahead with the digital transformation of the Group. We are already the **digital pioneer** in the industry with our products and solutions, processes and business models.

MARKET SEGMENTS

BUILDING SERVICES RESIDENTIAL

We are a full-range supplier and customers' first choice.

BUILDING SERVICES COMMERCIAL

We are a market, innovation and smart solutions leader.

OEM

We are the preferred partner for smart integrated solutions.

WATER MANAGEMENT

We are a global market player and digital solutions provider.

INDUSTRY

We specialise in selected sectors and applications.

KEY FIGURES

		2022	2021	2020	2019	2018
Net sales	EUR million	1,885.7	1,651.9	1,451.5	1,477.8	1,463.5
Net sales growth	%	14.2	15.1*/13.8	1.8*/-1.8	1.0	2.7
EBITDA	EUR million	196.7	181.1	141.2	180.1	153.5
Cash flow from operating activities	EUR million	42.1	126.7	161.5	168.5	81.7
Cash	EUR million	264.5	189.9	189.0	166.1	135.4
Capital expenditure**	EUR million	155.3	172.3	120.9	155.7	154.8
R&D costs	EUR million	70.6	64.8	63.8	63.2	64.0
(as % of sales)	%	3.7	3.9	4.4	4.3	4.4
Equity	EUR million	930.9	836.8	764.9	792.4	738.4
Employees (annual average)	Number	8,457	8,200	7,836	7,749	7,830

* Adjusted for exchange rate effects ** Investments in intangible assets, property, plant and equipment and company acquisitions

NET SALES

EUR 1,885.7 million

The Wilo Group continued on its profitable growth path with strong net sales growth of 14.2 percent. Net sales increased to EUR 1,885.7 million. Organic net sales growth, i.e. after adjustment for exchange rate and acquisition effects, amounted to 12.8 percent.

EMPLOYEES

8,457

The employees of the Wilo Group are the foundation and the driving force behind its business success. Their dedication made an important contribution to the company's sustainable and profitable development in the year under review. Wilo employed an average of 8,457 people over the year.

EBITDA

EUR 196.7 million

Despite the challenging environment, Wilo also recorded a year-on-year increase in EBITDA to EUR 196.7 million.

INVESTMENTS

EUR 155.3 million

Wilo continues to invest heavily in the future. Among other things, EUR 155.3 million was invested in the construction and expansion of new and existing sales and production locations, the modernisation and capacity expansion of production machinery and company acquisitions. A new facility in Cedarburg, Wisconsin (USA) was opened in June, and state-of-the-art new production and administrative buildings are currently being constructed in China and India.

WE

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BUILDING BRIDGES

Oliver Hermes, President & CEO of the Wilo Group

DEAR READERS,

Although 2022 began with growing concern from month to month, we remained optimistic in our 150th anniversary year.
Despite all the uncertainties and the unfavourable global conditions, the Wilo Group enjoyed excellent performance. We continued on our profitable growth path in 2022 and are strategically extremely well positioned for future challenges.

The Wilo Group again proved to be resilient and crisis-resistant in the face of considerable uncertainty and unfavourable global conditions. We continued on our profitable growth path in 2022 with encouraging increases in net sales and earnings. The 2022 financial year was a success, with net sales totalling around EUR 1.9 billion and earnings before interest, taxes, depreciation and amortisation (EBITDA) coming in at around EUR 197 million.
The Wilo Group derives its corporate strategy from the megatrends that are especially pertinent to us: Globalisation 2.0, urbanisation, energy shortage, water scarcity and climate change. These are supplemented by digital transformation, which is a key factor in all five megatrends.

As well as celebrating our 150th anniversary with a superb family festival attended by around 3,500 guests and soundtracked by our in-house Wilo band, last summer saw us respond to the global political situation by addressing the opportunities and risks of expected future development in terms of the global megatrends even more intensively than before.

Globalisation 2.0

From companies and their employees to the members of civil society, we are all facing what is being described as a geopolitical or historical turning point. The watershed moment was Russia's invasion of Ukraine on 24 February 2022.

As a direct result of these geopolitical developments, we also find ourselves at a "geo-economic turning point". We are currently seeing policy reversals in terms of the energy transition, inflation is back with a vengeance, interest rates are on the rise and real estate bubbles are bursting.

30 years of hyper-globalisation are coming to an end!

It is simply too late for supply chains to be decoupled – the world is already too connected and intertwined. However, European companies with global operations are advised not only to understand the geopolitical objectives and activities of individual states and regions, but also to take political responsibility in their own right by actively contributing to decision-making processes. The findings of various studies, like the Edelman Trust Barometer 2023, have again shown that society considers companies to be particularly capable and ethically responsible in their actions – while also increasingly expecting them to take a position on issues such as climate protection. When politics and the economy work together in a spirit of mutual partnership rather than separately, the benefit for society can be up to four times greater.

As part of its corporate political responsibility, the Wilo Group pursues this approach by expressing opinions on political topics publicly as a family-owned company and by taking responsibility. We seek out active dialogue with policy-makers.

Our "region-for-region" approach means we are excellently positioned, allowing us to meet regional and local customer requirements highly efficiently with products that are manufactured regionally or locally.

Over a billion euros in capital expenditure

Over the past decade, we have invested more than a billion euros globally in production capacities, sales infrastructures and company acquisitions. Our organisation is designed to allow as much decentralisation as possible and only as much centralisation as necessary. This helps us to respond flexibly and find answers to the economic challenges and risks arising from the "geo-economic turning point".

Urbanisation

The world's population has grown abruptly since our company was founded in 1872. According to the United Nations (UN), it passed 8 billion people on 15 November 2022. This development mainly stems from the technological achievements during the age of industrialisation. Comfort and hygiene in residential buildings has also improved, including thanks to the use of Wilo technology.

The proportion of the population living in urban conurbations is increasing rapidly all around the world

Over half of all people currently live in cities, and the UN estimates that this figure will be 75 percent by 2050. In addition to today's existing cities and metropolitan regions, which are constantly growing, entirely new major cities are being built in a short space of time. This dramatic urbanisation and consistently high population growth go hand in hand with numerous ecological, economic and social challenges. Sustainable and intelligent urban development in these regions is therefore essential. Smart cities and smart urban areas are being planned around the world. Connected digital infrastructures are being established to make these cities more efficient, less wasteful of resources, and more social.

New capital cities are emerging

One trend in urbanisation is the establishment of new secondary capital cities in Asia and Africa. Already under construction, the city of Xiong'an will fulfil this function in China alongside the national capital, Beijing. The new metropolitan area is located some 180 kilometres from Beijing and will be home to around 2.5 million people.

In Egypt, a city called "New Administrative Capital" is being constructed in the middle of the desert, 60 kilometres away from the national capital Cairo.

Jakarta, the current capital of the Asian island nation of Indonesia, is slowly sinking into the ocean. This is mainly because of the groundwater that has been pumped out to supply the city's population with water. In response to this development, the Indonesian government decided to build a new capital city, Nusantara, on the island of Borneo.

The megatrend of urbanisation, especially when it comes to the digital features of smart urban areas, is the source of excellent long-term growth potential for the Wilo Group in the Building Services Residential and Commercial, OEM and Water Management market segments.

We are supporting all the aforementioned projects with our products, systems and solutions and the smart urban area approach we have developed in recent years.

Energy shortage

The rapid growth of cities in the wake of urbanisation and the sustained dynamic economic development in many parts of the world, especially in the emerging economies, are triggering huge growth in demand for energy.

Europe is lagging behind when it comes to making the energy transition a reality. Efficient regulatory incentives are required in order to advance the diversification of sources of supply for energy Europe, for example. But this will take time. Another way of resolving the dilemma with quick and visible success is to increasingly incentivise measures aimed at reducing demand for energy.

Saving energy is the order of the day

As well as making our European economies more resilient and slowing the pace of climate change, this will free up the financial resources that are needed to strategically restructure and upgrade our critical infrastructures. The energy transition must be intensified, including the significant expansion of the energy efficiency measures taken.

A considerable share of global energy consumption is caused by electric pumps. We are aware of the enormous potential of efficient technology and want to advance its use in the interests of climate protection and ensuring the secure supply of energy.

The majority of all pumps in use worldwide are outdated. Vast potential for energy and CO_2 savings can be achieved by replacing old, uncontrolled pumps with modern, highly efficient Wilo pumps.

We inform operators of public buildings, plants and properties around the world of the many benefits of switching to a high-efficiency Wilo product at an early stage. In addition to the environmental benefit, arguments in favour include an 80 percent reduction in energy costs, future-proofing, security of supply and hygiene safety.

Water scarcity

The uninterrupted supply of water for drinking, for agriculture and for industry has always been one of the greatest challenges to humanity. The growing world population, urbanisation and climate change are making this task even more challenging.

According to estimates from the World Health Organisation (WHO) and UNICEF, around 785 million people currently have no access to a rudimentary supply of drinking water, and this figure is on the rise.

More than two billion people live without basic sanitation. Water supply and wastewater disposal present a substantial problem, especially in the rapidly growing megacities in the emerging nations. At the same time, huge quantities of drinking water are lost due to outdated and dilapidated pipe systems.

No food without water

As well as calling established alliances and international supply chains into question, global crises, protectionism and nationalism are complicating the food supply. Some countries need to find long-term solutions to reduce their dependency on grain imports.

As the world's largest wheat importer, Egypt has been particularly hard hit by this development. Imports account for around 70 percent of its wheat consumption, with the majority coming from Ukraine and Russia. The Egyptian government is now doing everything in its power to make the country independent of wheat imports in order to secure its food supply for the long term. To this end, it aims to increase the proportion of arable land in the country to 25 percent.

Converting deserts to farmland

In the hot and dry southwest of the country, between Lake Nasser and the oases of the Libyan Desert, one of the world's biggest pumping stations has been constructed as part of the Toshka project.

MEGATRENDS

Wilo has defined five megatrends that it applies as part of its long-term strategy. They describe the changes that will shape our society, our economy and the world in which we live in the medium and long term. They are accompanied by the key factor of digital transformation, which facilitates the technical solutions that allow the challenges arising from the five megatrends to be addressed.

GLOBALISATION 2.0

For decades, globalisation – the connection and integration of markets across national boundaries – has been the driving force behind global economic development, leading to huge growth and a broad-based upturn in prosperity.
But the world finds itself at a turning point and multinational cooperations are being realigned. Globalisation has entered a new phase characterised by growing volatility and uncertainty.

URBANISATION

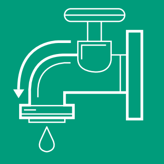
The world's population has now reached 8 billion and continues to grow every day. At the same time, urban conurbations are expanding. According to forecasts, 75 percent of the world's population will live in cities by 2050. This will be accompanied by a sharp rise in the number of megacities with more than 10 million inhabitants.

CLIMATE CHANGE

Greenhouse gases in the atmosphere have long been known to be damaging to the environment. But CO_2 emissions, the main cause of the greenhouse effect, are still on the rise. And they are changing our planet's climate: The global temperature is rising, water is becoming scarcer, and extreme weather events are becoming more frequent. We need to intensify our efforts, e.g. by expanding the use of renewable energies, if we are to preserve the Earth for future generations.

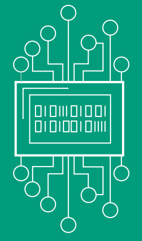
ENERGY SHORTAGE

Rising energy requirements accompanied by limited fossil fuel capacities are leading to a bottleneck in terms of the energy supply for businesses and society, with rising prices as the inevitable result. Because fossil fuels are finite and damaging to the climate, switching to renewable energy sources like hydrogen is the only remedy. In turn, this requires the conversion of the energy infrastructure.



WATER SCARCITY

Water is set to become increasingly scarce globally as a result of population growth, urbanisation and climate change. Water scarcity occurs when the available water resources are insufficient to supply the population. This may be due to temporary water crises – such as droughts – or longer-term structural considerations, such as the volume of water used exceeding the renewable fresh water reserves. The responsible use of water is critical for our survival.



DIGITAL TRANSFORMATION AS A KEY FACTOR

Digital transformation describes a disruptive technological shift that is changing society and the economy at an unprecedented rate. The accompanying innovations are helping to address the challenges resulting from the megatrends.

The River Nile is Egypt's lifeline. Flood waters from the Nile used to seep away into the desert sand. Today, the waters are channelled and brought to their destination via a network of additional pumping stations. Huge volumes of water are being removed from Lake Nasser and used to permanently transform the desert into land that can be used for agriculture. Wilo is supplying the necessary technology and expertise.
With the biggest infrastructure project in its 150-year history, Wilo is making a substantial contribution to ensuring the supply of food and water in Egypt.
However, sustainable water management focuses on more than just the production and supply of drinking water. The disposal and treatment of sewage are also increasingly important. With floods becoming more and more frequent due to climate change, drainage and flood control are a further key factor.
We improved our market access in China in 2022 with the acquisition of another two companies specialising in flood control and wastewater cleaning. With these strategic acquisitions, the Wilo Group enhanced its portfolio for water management in a targeted manner and expanded its production capacities and direct market access in China.
As a result, we can now offer our customers an even broader range of solutions and implement local projects even more quickly and from a single source.
In addition to combating the decoupling tendencies resulting from economic policy developments, this means we are systematically pursuing our strategic evolution into a full-service provider of solutions for all applications in the areas of transport and the utilisation and treatment of water and wastewater.

Climate change

The megatrend of climate change remains a major issue of our time. Global warming, water shortages and extreme weather events are challenges for which answers must be found.
Wilo can make an immense positive contribution here with its highly efficient and sustainable products, systems and solutions. Wilo always has been and still is an energy efficiency pioneer.

We have underscored our own climate protection targets by signing the "Business Ambition for 1.5°C". In conjunction with the campaign by the Science Based Targets initiative (SBTi), companies and organisations are pledging to reduce global harmful emissions to zero by 2050, thereby limiting global warming to 1.5 degrees Celsius.
One step towards achieving this is climate-neutral production. In 2022, our production sites in Aubigny, France, and Bari, Italy, became climate-neutral. This means we have implemented climate-neutral production at all of Wilo's European sites, and this will be the case for all of our sites worldwide by 2025.
In response to the energy crisis, this year also saw extensive efforts to significantly reduce energy consumption at our European sites in particular.

Hydrogen as a future market

We are also working with our international network partners to advance pioneering, climate-friendly solutions. At the Wilopark in Dortmund, we have built the H_2POWERPLANT – a hydrogen-based, safe, compact and sustainable energy system of the future. The plant was ceremonially opened in September 2022 together with our partner, the French company Schneider Electric.
This provides us with the foundations for a self-sufficient, decentralised and renewable power grid and demonstrates how industrial companies can use pioneering, technology-neutral solutions to make an essential contribution to climate protection and sustainability.
This was one reason why the world-leading independent rating agency EcoVadis awarded us the highest sustainability status of platinum last August.

Financing structure sustainably optimised

In light of the uncertain geopolitical environment and growing capital market volatility, we also optimised our financing structure and made our investor base more international.
We successfully concluded the biggest refinancing in our 150-year history while also adhering to "green" criteria.
The Wilo Group successfully placed a traditional promissory note loan with a volume of EUR 224 million on the international capital market for the first time, as well as realising a US private placement with a volume of EUR 95 million. The promissory note loan includes an ESG (environmental, social and governance) component, ensuring that Wilo's leading holistic sustainability approach is also reflected in its financing strategy.

Megatrends present more opportunities than risks for the Wilo Group

Although all the megatrends entail both positive and negative potential for economic players, I am confident that, on the whole, they present more opportunities than risks for our Wilo Group.
Throughout our 150-year history, we have consistently mastered difficult tasks even in historically challenging times. Not content with merely emerging from three years of the COVID-19 pandemic in excellent shape, we also expanded our market share and strengthened relations with our market partners. In this spirit, we intend not only to overcome these turbulent geopolitical and geo-economic times, but to make the best of them.

Yours,

Oliver Hermes
President & CEO, Wilo Group

WE STAY CONNECTED

"We shape the transformation in a time when conditions are continuously changing."
Dr. Patrick Niehr
Chief Change Officer

"As a multinational corporation, we remain in contact across all continents even in challenging times. This is part of our identity as a connected champion."
Oliver Hermes
President & CEO
of the Wilo Group

"Our efficient products and digital solutions conserve resources and set new standards in climate protection."
Georg Weber
Chief Technology Officer

"We ensure long-term stability through sustainable growth and targeted investment."
Mathias Weyers
Chief Financial Officer

BUILDING BRIDGES

Security in uncertain times

The world finds itself at a geopolitical and geo-economic turning point. International supply chains have been disrupted by the pandemic and protectionism. Politically motivated decoupling tendencies can be observed around the world. Although the decoupling of markets is meant to ensure sovereignty and protect a country's critical infrastructure, the consequences also include loss of prosperity and negative economic impacts.

Wilo responded to these developments at an early stage by diversifying and adopting a long-term **"region-for-region" strategy.** This means it can already meet regional customer requirements efficiently with products and solutions that are manufactured locally. Highly efficient and innovative Wilo technology helps to secure and improve critical infrastructure, thereby safeguarding the reliable supply of water, energy and food.

In times of uncertainty, Wilo makes a point of staying connected – with its partners and customers, and across national borders. After all, global challenges can only be overcome by working together.

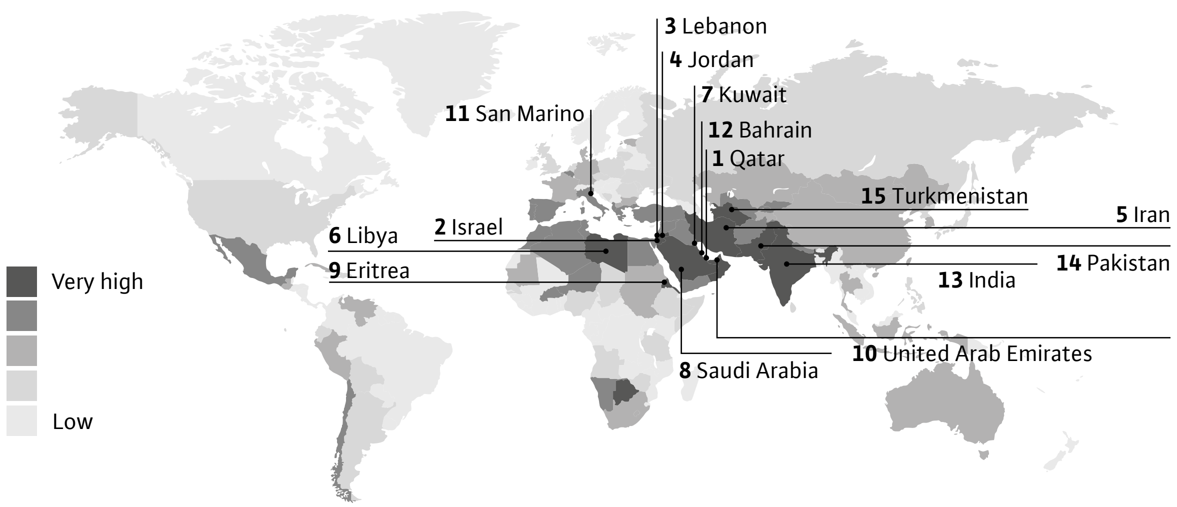

SECURITY
WATER

WATER – THE SOURCE OF LIFE

Water is the basis for all life and an indispensable part of every society. Globally, however, there are big differences in terms of the available resources and the proportion of people with access to clean fresh water. Wilo moves water – reliably, efficiently and sustainably. Our innovative products and holistic solutions improve the quality of the water supply while protecting valuable resources.

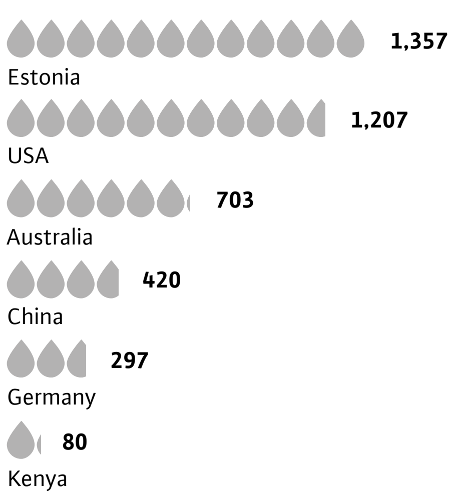
Risk to the population due to water crises

Risk calculation based on average withdrawals from all available water reserves, 15 most at-risk countries, 2019



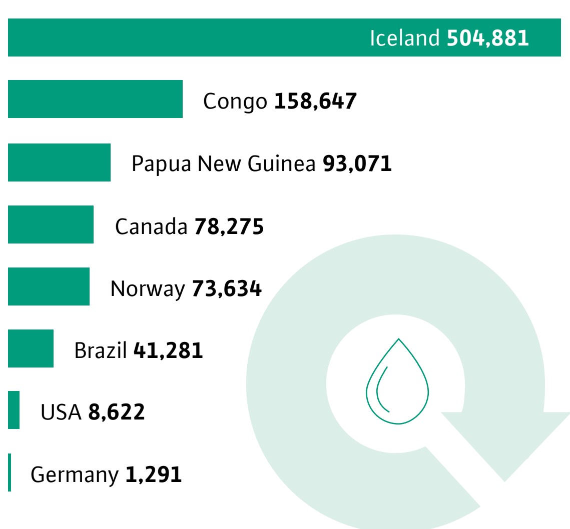
Water consumption

Litres per capita per day, selected countries, 2018



Renewable fresh water reserves

Fresh water reserves that regenerate annually, e.g. through rain, litres per capita, selected countries, 2018



Source: Bloomberg/World Resources Institute's Aqueduct Water Risk Atlas (map); Statista (other charts)

WILO HELPS TO SECURE THE WATER SUPPLY

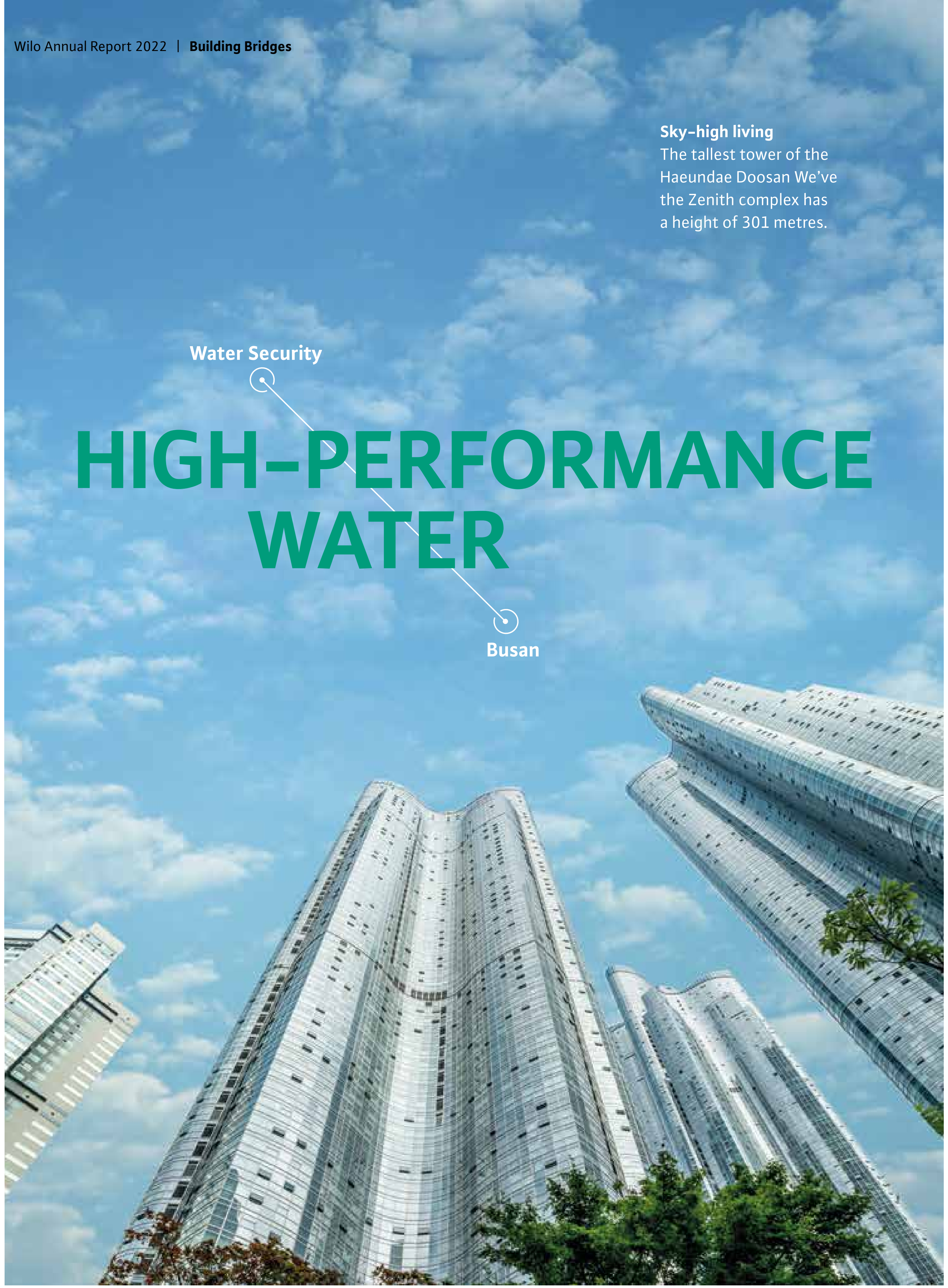
100

million people will have better access to clean water by 2025 thanks to Wilo.

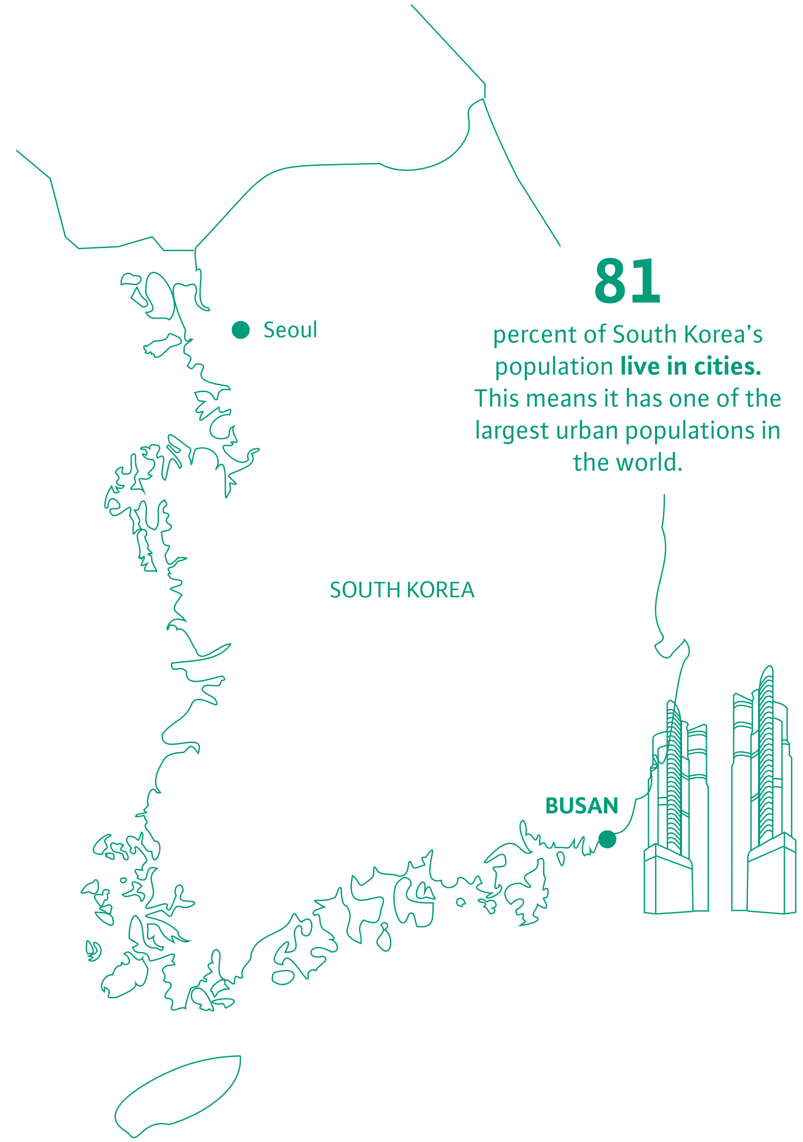
Water Security

HIGH-PERFORMANCE WATER

Busan



Sky-high living
The tallest tower of the Haeundae Doosan We've the Zenith complex has a height of 301 metres.



81
percent of South Korea's population **live in cities.** This means it has one of the largest urban populations in the world.

URBANISATION has been a global megatrend for some time now. More and more people are moving to urban areas. Cities already account for ten percent of global water consumption. People are living and working in increasingly tall buildings – a development that poses considerable challenges for the water supply. The volume of water transported to major cities and pumped to great heights is increasing as a result of urbanisation.

Haeundae Doosan We've the Zenith is a perfect example of this challenge. The trio of skyscrapers is one of Korea's tallest residential complexes. The towers make a striking impression on the skyline of the South Korean metropolis of Busan. Wilo pumps and systems ensure the supply of heating water, drinking water and water for fire-fighting – all the way to the top floor.

The facts and figures are impressive: Reaching a height of 301 metres, Tower A, the tallest of the three buildings, is just 30 metres shorter than the Eiffel Tower in Paris. It offers housing across 80 floors in the best location in Busan. Altogether, the three towers contain around 1,800 apartments. Wilo pumps and systems are used to safeguard the reliable supply of heat and water.

134 WILO-CRONOLINE-IL PUMPS transport heating water through the veins of the skyscraper, while 15 Wilo-PUZeN-MVI pressure boosting systems and twelve Wilo-Multivert MVI high-pressure centrifugal pumps are in place to supply drinking water. Additionally, 19 Wilo-PMT and Wilo-PMV fire-extinguishing systems have been installed to supply water to the building in the event of a fire. ››

Metropolis by the sea
Busan is South Korea's second-largest city with a population of 3.5 million.
The skyscrapers in the We've the Zenith complex occupy a prime seafront location.

180
Wilo pumps are used in the residential towers.

1,800
apartments can be found in the three skyscrapers of the Haeundae Doosan We've the Zenith complex.

The requirements for building services in skyscrapers are particularly exacting: Pumps have to transport water over long distances and to great heights. To ensure that water comes out of the taps and rooms are properly heated even on the 80th floor, particularly reliable and high-performance pumps are called for. Wilo has the know-how and the products to meet the demands of high-rise construction – which is why Haeundae Doosan We've the Zenith is not the only high-rise construction project in Korea to use Wilo pump technology.

THE THREE SKYSCRAPERS with the eye-catching name occupy a prime location in Busan: Haeundae Beach, a popular destination for locals and tourists alike, is just a few minutes' walk away. The city in southeastern Korea also enjoys a global reputation as an industrial location and is home to one of the world's busiest container ports. With 3.5 million inhabitants, Busan is the second-largest city in the country after the capital, Seoul. /

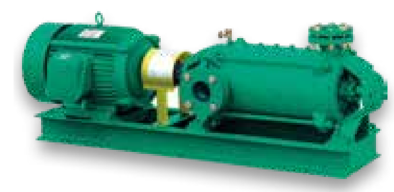
THREE QUESTIONS TO

Daniel Jun, Managing Director, Wilo Korea

How would you assess the water supply situation in Korea?
Daniel Jun: The major cities in Korea are home to a large number of high-rise buildings, commercial office buildings and apartment complexes. These will become even more commonplace in future as the number of people moving to cities to live and work increases. After all, people need places to live and physical workplaces. This gives rise to considerable technical challenges, including in terms of the water supply. More and more people need a growing volume of water in increasingly tall skyscrapers – and reliable pump technology is essential if these needs are to be met.

How is Wilo positioned in Korea in order to address these challenges?
Daniel Jun: Wilo Korea has around 300 employees. In addition to a sales organisation covering the entire country, we have a strong customer service team that performs commissioning, maintenance and repairs. We also have a production team, since Busan is one of Wilo's 15 primary production locations. In addition, we are well connected to colleagues from neighbouring countries and have good access to the major production sites in China.

Wilo-PMT
The pump is used to supply water for fire extinguishing.



How important is the Haeundae Doosan We've the Zenith project when it comes to the challenge of ensuring the water supply?
Daniel Jun: The project clearly demonstrates the challenges posed by the megatrend of urbanisation in terms of the water supply in major cities. In a residential building, a large quantity of water is consumed at a large number of outlet points. Height is another factor: At 80 storeys, Tower A is tall even by Korean standards, and the possibilities in this respect have yet to be exhausted. As such, we can expect the demands on the water supply to intensify further as a result of urbanisation.

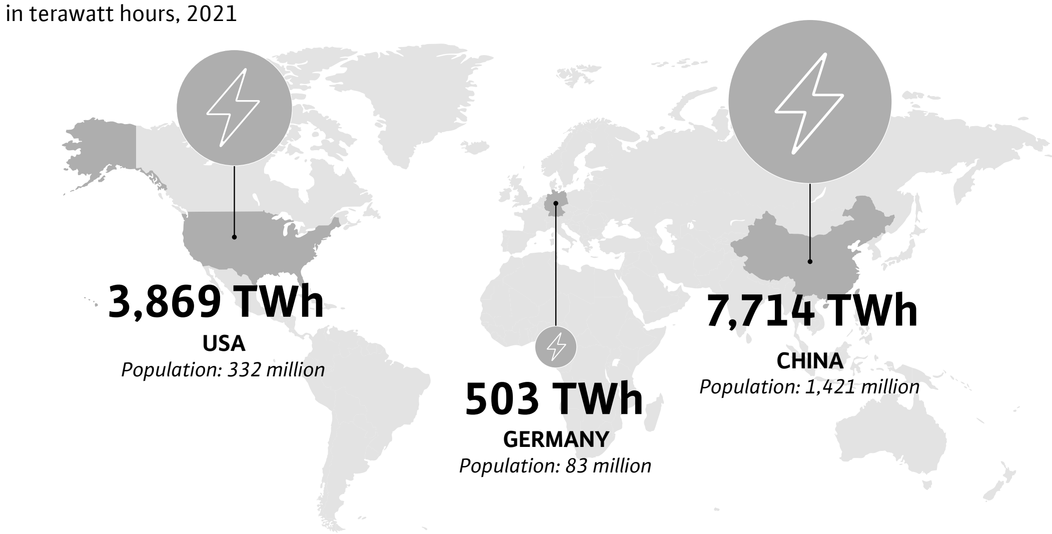
Daniel Jun
is the Managing Director of Wilo's subsidiary in Korea.

ENERGY SECURITY

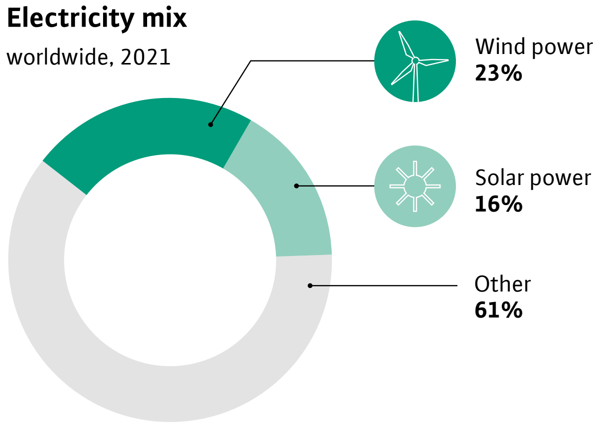
ENERGY – THE RESOURCE OF PROSPERITY

A reliable, climate-friendly energy supply is the foundation on which every modern economy is built. Ensuring this supply requires the expansion of renewable energy sources and the systematic leveraging of potential savings. Wilo is making an important contribution to energy security in both of these areas with its high-efficiency products and pioneering systems and solutions.

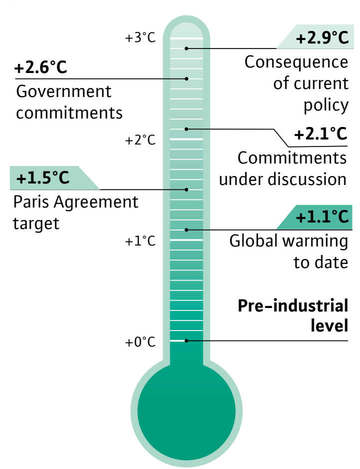
Electricity consumption
in terawatt hours, 2021



Electricity mix
worldwide, 2021

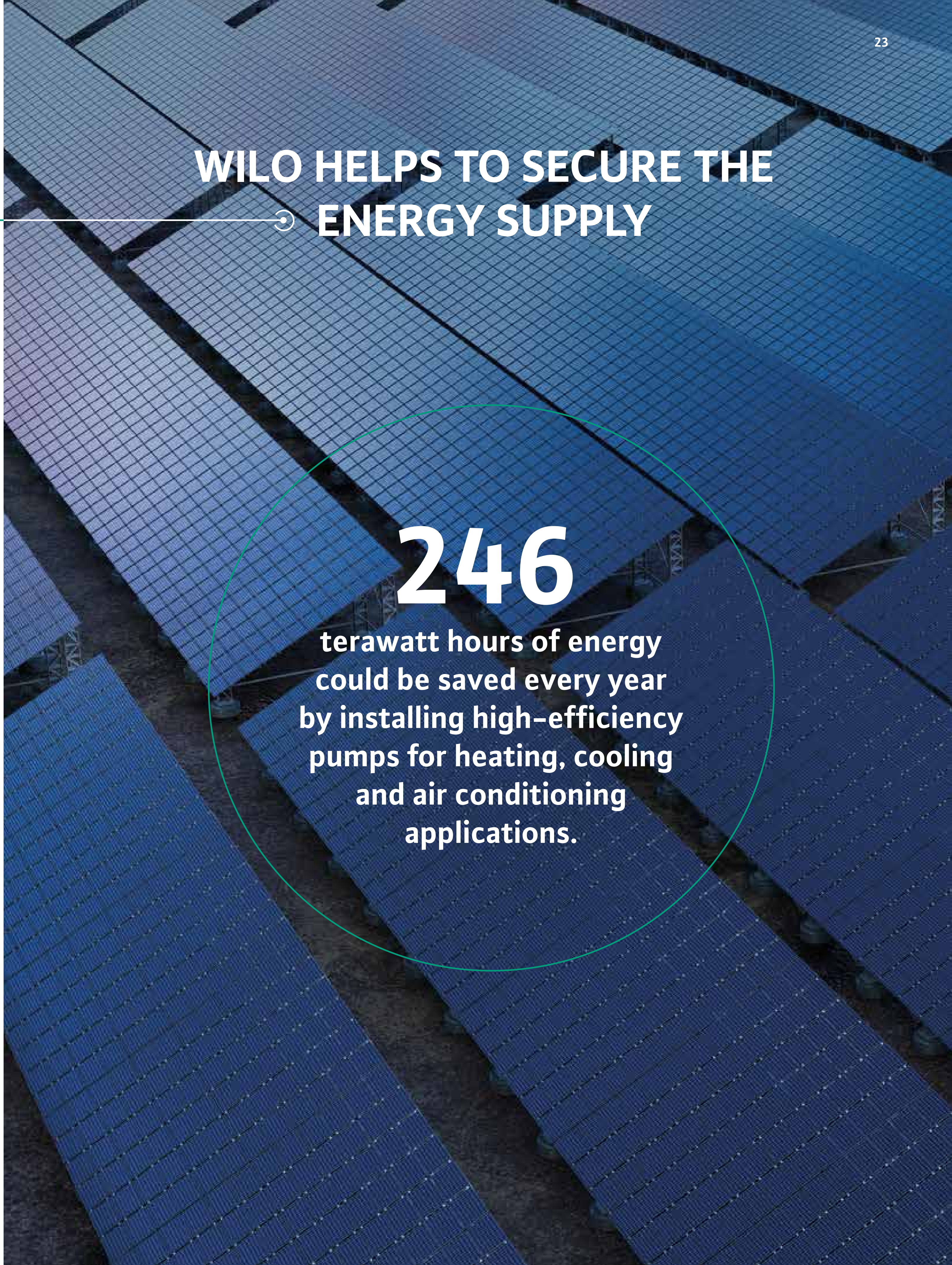


Forecast temperature rise
compared with pre-industrial levels, by 2100, depending on climate protection measures



Sources: Statista (map); Yearbook Enerdata (electricity mix); Geo (thermometer)

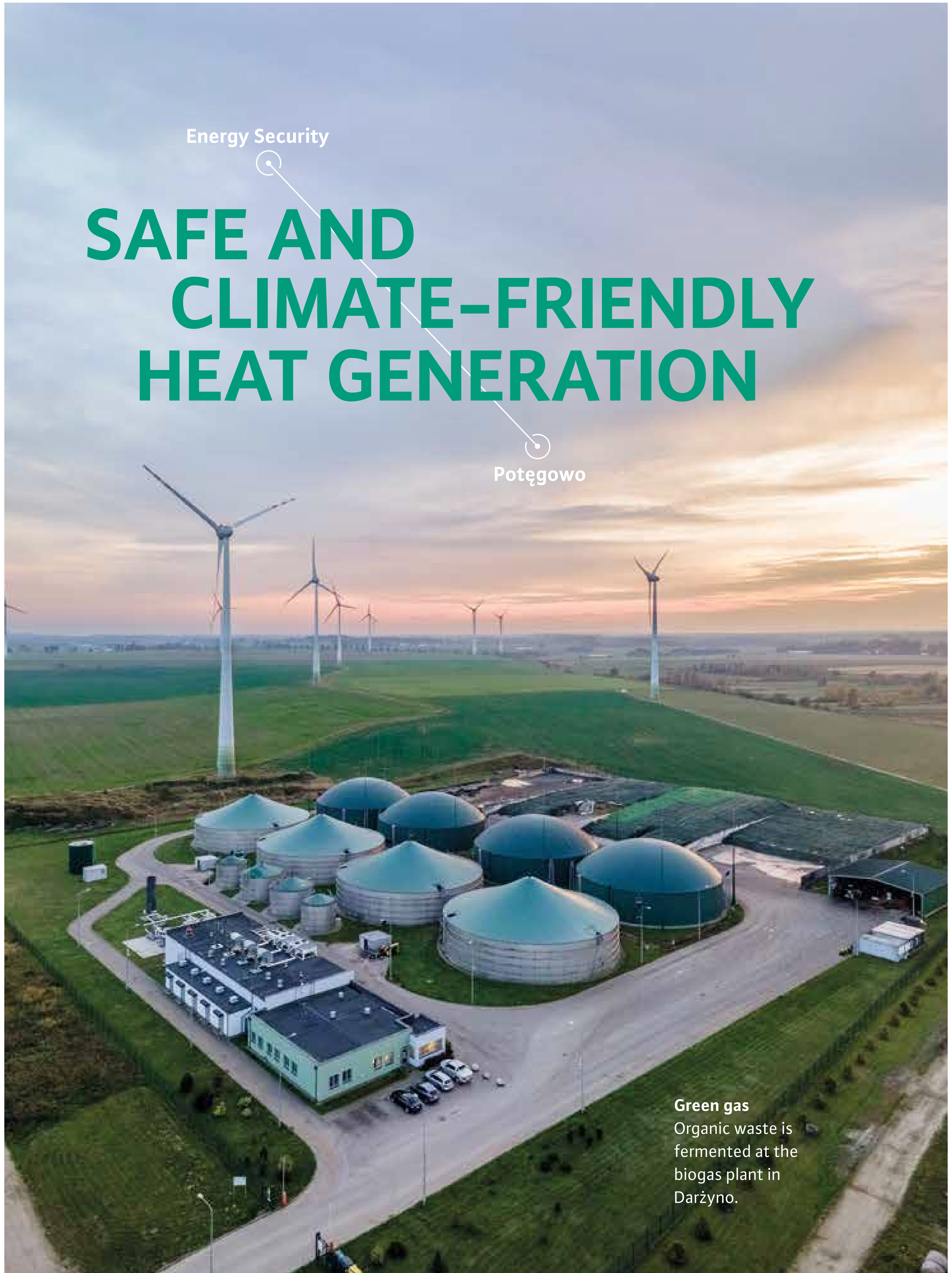
WILO HELPS TO SECURE THE ENERGY SUPPLY



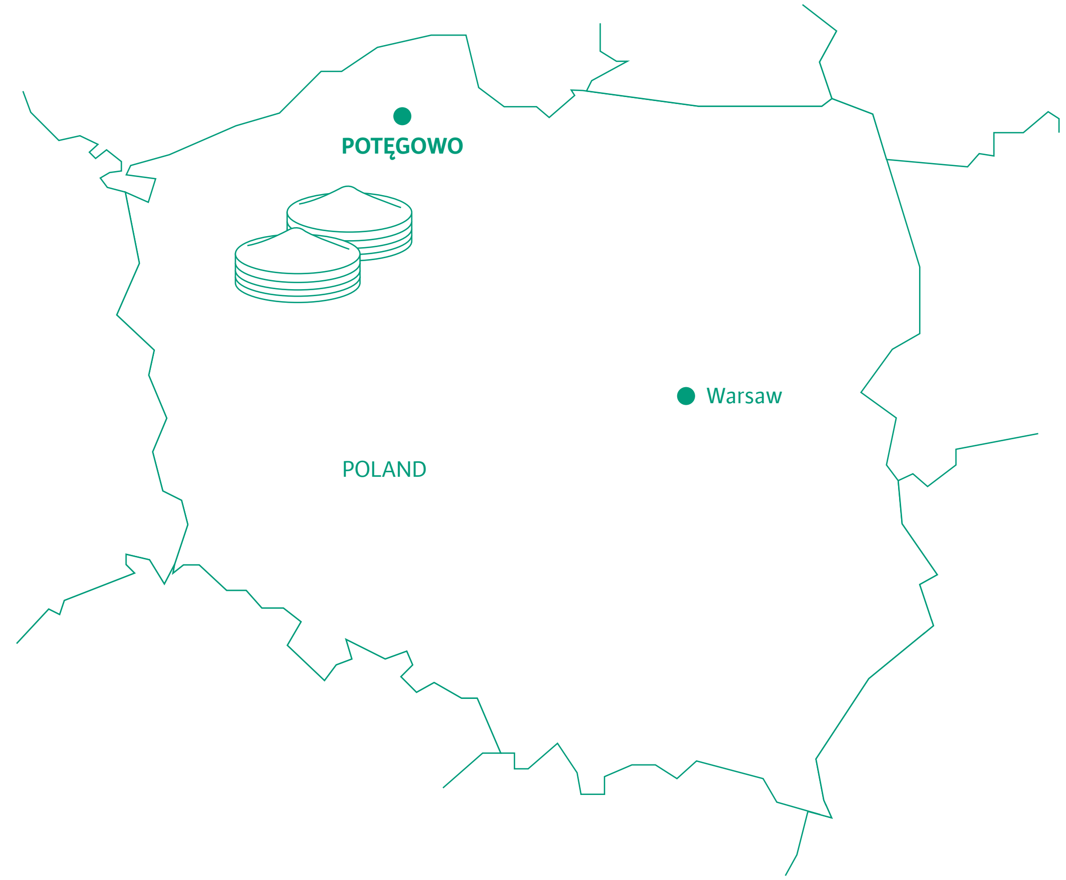
246

terawatt hours of energy could be saved every year by installing high-efficiency pumps for heating, cooling and air conditioning applications.

SAFE AND CLIMATE-FRIENDLY HEAT GENERATION



Green gas
Organic waste is fermented at the biogas plant in Darżyno.



THE AVAILABILITY OF COAL AND GAS is both limited and finite. To reduce dependency on fossil fuels, countries around the world are looking to implement renewable solutions without endangering the security of supply. The municipality of Potęgowo in Poland has already found its response to this global challenge.

Having modernised the majority of its energy infrastructure, electricity for the region is now supplied by a biogas plant in the village of Darżyno instead of by coal-fired power plants. Wilo products transport the resulting waste heat – a positive side-effect of the process – to a district heating network in the form of water. By generating energy regionally and using dependable technology, the municipality has increased its security and independence.

Potęgowo is located in Pomerania province in northern Poland. Comprising 24 villages and around 7,000 inhabitants, the municipality is just a short drive from the Baltic Sea. In addition to constructing the biogas plant, Potęgowo has modernised sections of its energy and district heating network. The upgraded infrastructure means the supply of energy and heat to residents is not only more secure, but also more climate-friendly. This is because the project involved shutting down several coal-fired boiler houses – thereby significantly reducing environmentally harmful emissions.

ORGANIC WASTE IS FERMENTED at the biogas plant in Darżyno, including silage, maize and agricultural waste. The gases released by this biomass are converted to electricity in a power plant. This electricity is then fed into the grid. As a side-effect, this generates heat that is stored in the form of water.

Three Wilo-CronoLine-IL-E pumps and three Wilo-VeroLine-IP-E pumps are used in this process. The highly efficient glanded pumps transport the hot water from the power plant at the biogas plant to the district heating network, where it is distributed to household and industrial consumers – reliably and dependably. ››

Dependable and efficient
The highly efficient Wilo glanded pumps transport the hot water from the power plant at the biogas plant to the district heating network.

The **Wilo-Yonos GIGA2.0-I** is an electronically controlled inline glanded pump and the successor to the Wilo-VeroLine-IP-E pump series.

BIOGAS PLANTS GENERATE environmentally friendly and renewable energy. The fermentation process makes use of energy-rich organic material that would otherwise have gone to waste. Operators of biogas plants can use biomass that is available locally, thus helping to keep distances short. Plants can also be constructed decentrally wherever the corresponding energy requirements exist. This reduces the cost of distribution and improves the security of supply, because energy is produced exactly where it is needed. /

THREE QUESTIONS TO

Grzegorz Celmer, Sales Engineer, Wilo Poland

How would you assess the energy supply situation in Poland?
Grzegorz Celmer: Electricity and heat generation in Poland are still dominated by coal. Gas also accounts for a large proportion of heat generation, but its availability is extremely limited. Dependency on fossil fuels is problematic not only in light of rising prices, but especially with a view to the accompanying supply risk. In other words, independence and security of supply depend on developing renewable energy sources to a greater extent than ever before. Green energy currently accounts for around 20 percent of the Polish energy mix. Biomass is one of the biggest renewable energy sources in Poland. It is also used to feed the biogas power plant in Darżyno.

How is Wilo positioned in Poland in order to address these challenges?
Grzegorz Celmer: Our customers are currently concerned with two topics in particular.
The first is energy efficiency, which has become considerably more important lately as a result of rising energy costs. But it is also a critical factor for the medium to long term, both economically and in terms of climate policy.
The second topic is the growing complexity of the projects in which we are involved, which requires the development of tailored solutions. This has led to organisational changes at Wilo Poland: We have established a Solution Sales Team to work directly with commercial customers. With a team of dedicated, experienced and approachable experts, modern and energy-efficient products and a strong brand, we are now excellently positioned to address this challenge. Wilo's Polish subsidiary in Lesznowola also manages the sales platform for northeastern Europe. Its aim is to exchange information with the other countries using the platform in order to generate synergies and tangible benefits.

How important is the biogas plant in Darżyno when it comes to the challenge of ensuring the energy supply?
Grzegorz Celmer: The biogas power plant in Darżyno is now one of the main suppliers of heat for the municipality of Potęgowo. It has replaced some coal-fired boiler houses and hence reduced the region's dependency on coal and gas. Organically generated heat makes a clear contribution to environmental protection by reducing carbon emissions. I am proud of the fact that environmentally friendly, energy-efficient and reliable Wilo pumps were selected for such an important project.

Grzegorz Celmer knows everything about the project in Potęgowo.

Hydrogen

THE ENERGY SOURCE OF THE FUTURE

Hydrogen at the Wilopark
The H_2POWERPLANT generates hydrogen from solar power and stores it in a 29.8 metre tank, where it serves as the emergency and back-up power supply for the Wilopark.

Because hydrogen is an essential storage medium of the future when it comes to achieving climate neutrality, the corresponding infrastructure needs to be put in place today. And Wilo intends to make its contribution to this process.

Green hydrogen is the energy source of the future. As a storage medium for carbon-free energy generated from solar, wind or hydro power, it is one of the key technologies for achieving the Paris climate goals. Hydrogen also allows energy to be stored, transported and distributed efficiently. This means hydrogen can connect different energy sectors across national boundaries and contribute to the establishment of a sustainable global energy system.

Hydrogen currently covers two percent of the world's primary energy requirements. This figure is set to increase dramatically in future. According to estimates, hydrogen technology is set to create 30 million jobs worldwide by 2050, while the potential of the market over the same period is forecast at EUR 2,100 billion. In other words, we are seeing the emergence of a highly dynamic global market that entails considerable business opportunities – including for Wilo.

WILO EXPERTISE FOR HYDROGEN SOLUTIONS

As a climate protection company, developing a long-term hydrogen strategy is an obvious step for the Wilo Group. Wilo products and systems have long been used in various renewable technologies, from wind turbines to biogas plants. Wilo's portfolio is also in demand along the entire hydrogen value chain. With its expertise as a provider of pump system solutions, Wilo intends to make its contribution to the generation, storage, distribution and use of hydrogen.

The commissioning of the H_2POWERPLANT at the Wilopark in Dortmund represents a major step in this direction. The hydrogen plant at Wilo's corporate headquarters was constructed in cooperation with Schneider Electric. On the occasion of the grand opening, Oliver Hermes, Chairman of the Executive Board and CEO of the Wilo Group, and Jean-Pascal Tricoire, President and CEO of Schneider Electric, signed a memorandum of understanding in which the two companies agreed to intensify their strategic cooperation.

H_2POWERPLANT GENERATES AND STORES GREEN HYDROGEN

The H_2POWERPLANT produces green hydrogen from energy captured by the photovoltaic system on the roof of the Smart Factory. It can store up to 520 kilograms of hydrogen in a 29.8 metre tank. Although the pilot plant currently serves as an emergency and back-up power supply, the designs allow for an expansion for a self-sufficient energy supply of up to two days.

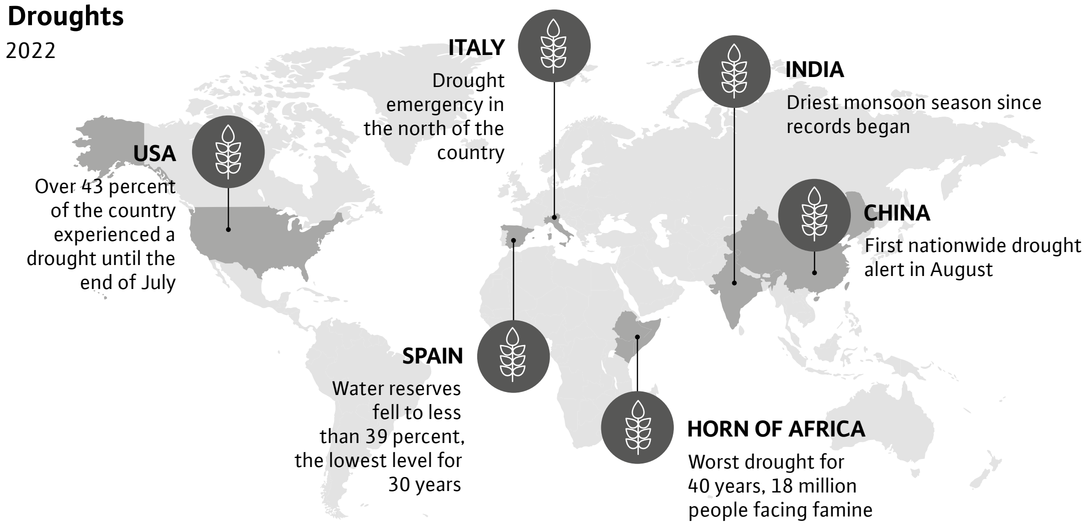
The Wilo Group has also laid the foundations for the expansion of hydrogen business in its corporate structures with the establishment of Wilo Projects GmbH. The team is supporting the market launch of the H_2POWERPLANT. In future, it will assist customers with planning, executing and commissioning systems in new and existing building structures and for private and commercial uses. /


SECURITY
FOOD

FOOD – THE BASIS OF EXISTENCE

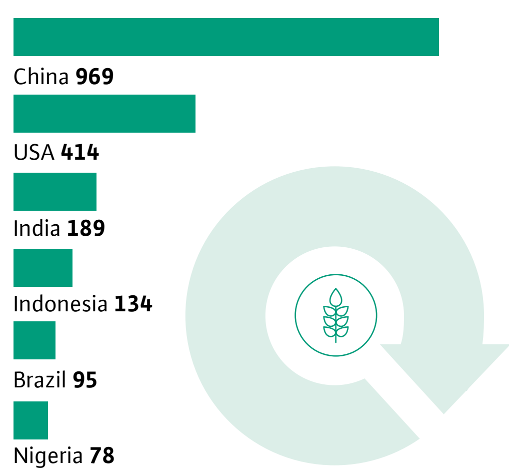
The war in Ukraine and various drought crises brought the risks to the security of the food supply into sharp focus in 2022. Accelerating climate change will significantly increase the pressure on the food supply in the long term. By improving the water supply in agriculture with its expertise, tailored products and reliable technology, Wilo is making a substantial contribution to safeguarding the supply of food.

Droughts
2022



Largest wheat importers
worldwide, in 1,000 tonnes, 2021/2022

Largest food producers
worldwide, in billions of dollars, 2017



Sources: World Economic Forum, Bloomberg (world map); US Department of Agriculture (wheat importers); The Economist (food producers)

WILO HELPS TO SECURE THE FOOD SUPPLY

4,500

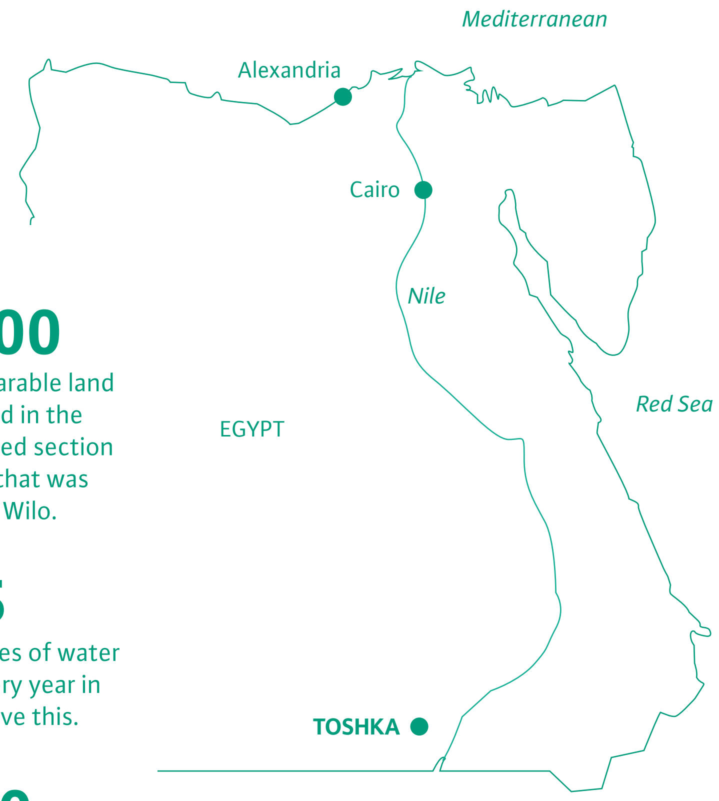
cubic metres of water can be moved by a Wilo-Atmos TERA in 24 hours – enough to grow 80 tonnes of wheat.

Food Security

RECLAIMING LAND FOR SUSTAINABLE USE

Toshka

Water for the desert
The Toshka project is set to reclaim around a million hectares of desert for agricultural use.



56,700
hectares of new arable land will be irrigated in the recently completed section of the project that was supplied by Wilo.

5.5
billion cubic metres of water are required every year in order to achieve this.

>300
high-efficiency Wilo split case pumps are being used in the project.

FIRST CONCEIVED DECADES AGO, the Toshka project in southern Egypt has gained new momentum under the current presidency of Abdel Fattah el-Sisi. The aim is for the country to become less dependent on food imports. Wilo is supplying important technologies for irrigating the Egyptian deserts.

The idea of converting around a million hectares of desert into arable land was first proposed in the mid-1990s. The objective: To make Egypt independent from grain imports in the long term and secure the food supply. The Toshka project was born. It is intended to help ensure the country's sustainable development as part of the "Egypt Vision 2030" agenda, which was developed in line with the Sustainable Development Goals (SDGs) and the Sustainable Development Strategy for Africa 2063.

THE COUNTRY ON THE NILE imports more wheat than any other nation. However, global crises, protectionism and nationalism are calling established alliances and supply chains into question. Because Russia and Ukraine are two of the world's most important wheat exporters, the war in Ukraine represents an additional risk to the supply of staple foods to the Egyptian people. Long-term solutions are called for if the country is to free itself from grain imports and ensure that it can feed its population independently. ››

Withstanding extreme conditions
The Egyptian government is using more than 300 high-efficiency Wilo split case pumps, which can work in temperatures of up to 50 degrees Celsius and are sandstorm- and earthquake-proof.

IN THE HOT AND DRY SOUTHWEST of the country, one of the world's biggest pumping stations has been constructed. The Mubarak Pumping Station transports up to 1.2 million cubic metres of water per hour from Lake Nasser into the Sheikh Zayid Canal. It is the centrepiece of the Toshka project. Flood waters from the Nile used to seep away into the desert sand. Today, the vital waters are channelled.

In one of the first phases of the project, the Egyptian government is irrigating the desert using more than 300 high-efficiency Wilo split case pumps, which can work in temperatures of up to 50 degrees Celsius and are sandstorm- and earthquake-proof. Around 56,700 hectares of new arable land will be irrigated in this way. This is expected to require 5.5 billion cubic metres of water every year, which will be taken from Lake Nasser for this purpose.

This huge volume of water will permanently transform the desert into land that can be used for agriculture. In one of the world's driest regions, however, it is no surprise that every drop of water is highly sought after. The Nile Water Treaty of 1959 sets out how much water Egypt is permitted to take from the Nile every year. Some of Egypt's neighbours and other countries on the Nile fear that the Toskha project could exceed this amount. However, because Egypt's water supply also depends on rainfall, groundwater and recycled agricultural drainage water, the government is optimistic that it can implement the project without exceeding the country's quota of Nile water.

TOSHKA – WHERE DOES THE NAME COME FROM?

The Nile was dammed to create Lake Nasser, the largest man-made lake in the world. To prevent overflowing when the Nile flooded, the excess water used to be diverted into the Toshka Depression, where it evaporated unused. Preventing this waste was one of the reasons behind the government's decision to launch the Toshka project.

FOUR SECTIONS OF THE TOSHKA PROJECT are already complete, with additional phases currently in development. They will also use Wilo pumps and systems, because the multinational technology group has concluded a long-term partnership with the Egyptian state. /

THREE QUESTIONS TO

Amgad Elfishawy, Managing Director, Wilo Egypt

How would you assess the food supply situation in Egypt?

Amgad Elfishawy: Egypt's land area is predominantly desert. That is why the Nile is so important to us – it is our lifeline. Productive farming is generally possible only in the immediate proximity of the river. But this area is nowhere near enough to meet the country's food requirements. This explains why Egypt is traditionally highly dependent on food imports from other countries. As a result, the growing uncertainty of global supply chains entails a risk to the food security of the country – and even to peace.

How is Wilo positioned in Egypt in order to address these challenges?

Amgad Elfishawy: If Egypt wants greater security of supply, it needs more agriculture of its own. In turn, this requires the reliable and efficient movement of water. In other words, Wilo products are crucial to the Egyptian government's plans for reducing the country's dependency on food imports. I am delighted that Wilo's Egyptian subsidiary has been involved in these efforts since it was founded in 2017. However, we have also been represented in Egypt via local distributors for more than 20 years. My colleagues and I successfully look after our customers' needs from our office in Cairo. We are seeing growing demand for high-efficiency Wilo products in Egypt in the building services and water management segments.

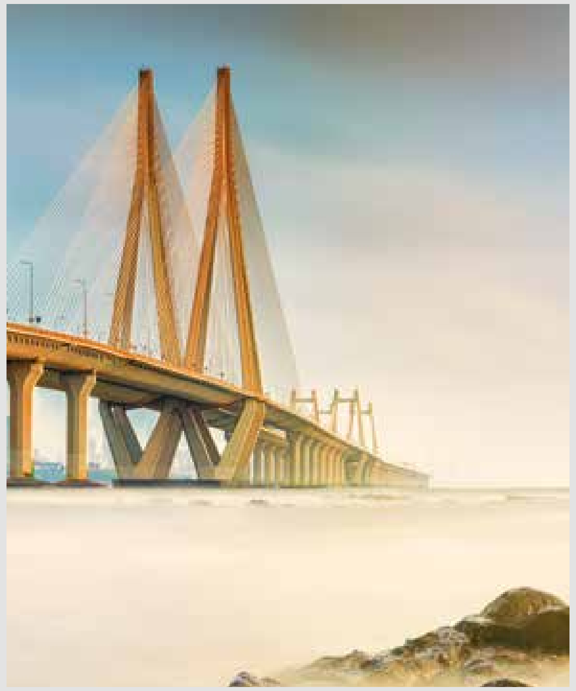
How important is the Toshka project when it comes to the challenge of ensuring the food supply?

Amgad Elfishawy: Toshka is a groundbreaking project for Egypt. By bringing water to the desert, it will increase the settlement area of the country to 25 percent. This will stabilise the food supply in Egypt for the long term and contribute to food security. My colleagues and I are proud to be involved in this vast project.

Amgad Elfishawy
was closely involved in the delivery of Wilo pumps for the Toshka project.

NEXT GOAL: FIVE TRILLON

A subcontinent on the rise
As well as becoming the world's most populous nation in 2023, India is enjoying strong economic development.



India is an important growth market for the Wilo Group. The new plant in Kesurdi will be Wilo's third primary production location in the southern Asian nation. In this guest article, Rajesh Nath, Managing Director of VDMA India, discusses the rapid development of the Indian economy and the resulting opportunities.

The impact of the 3 Cs – covid, climate and conflict – has been felt globally. After the two years of pandemic, in 2022 the global economy was expected to be back on course. However, the Russia-Ukraine conflict has again impacted businesses worldwide. Additionally, the strict zero COVID policy followed by China, disrupted the global supply chains.

GLOBAL SOURCING is moving from being a strategic advantage to being a competitive necessity. Fierce competition has seen many companies source from low-cost countries. Investor expectations of higher returns on investment, combined with increased competition, are driving organisations to reduce costs and expenditures for an immediate and direct impact on the bottom line. At the same time, they are challenged to maintain service levels and prevent any loss of control.

FOR THE GERMAN COMPANIES, this disruption is a wake-up call to minimize the risk and look at alternative supply chain and manufacturing possibilities. In India, we are seeing an increased interest of the German companies to enhance their existing presence in the Indian market through sourcing as well as looking at the Indian operations as "centre of excellence" and manufacturing certain range of products here for the global market. This gives the German companies another supplier base and helps them pursue the "China+1" strategy. However, diversification cannot happen overnight and needs a certain gestation period to identify and develop suppliers as well as increase the product portfolio in manufacturing. Steps undertaken now will allow reaping fruits in the coming period.

RAJESH NATH is the Managing Director of the German Engineering Federation (VMDA) in India. He and his team act as the link between Indian and German industry, ensuring the exchange of information and experiences.

SOURCING FROM INDIA has gained an upsurge in recent times. Easy availability of raw materials, lower labour cost, skilled workforce, abundant resources, improving infrastructure, advanced technologies, plenty of engineering colleges and universities, coupled with supportive government policies, make India a favourable sourcing destination. Further, qualified manpower at reasonable cost, makes India an attractive destination to outsource R&D activities for global operations. This trend is being followed not only by larger companies but also by the typical German "Mittelstand" as well, which is using the IT skills in India to setup technology centres for Industry 4.0 development as well as service functions.

AFTER A DIFFICULT PANDEMIC YEAR in 2020, bilateral trade between Germany and India in the capital goods sector managed a turnaround in 2021, which continued in 2022. However, this was realized not only by the significant increase in exports to India by the German mechanical and plant engineering sector, but also by imports from India to Germany. 2021, shipments from India to Germany in the mechanical engineering sector increased by over 41 percent year-on-year to around 980 million euros. And in the first ten months of 2022, imports from India rose by an additional 30 percent compared with the same period in the year before. We can therefore assume that 2022 imports from India will break through the one billion euro barrier for the first time. This is a clear sign that India is moving further into focus as a procurement market in the machinery and plant engineering industry. ››

A booming metropolis
Mumbai is the biggest city in India and the country's financial centre.

WHAT ARE THE KEY DRIVERS of this development? First of all, it is no secret that international supply chains are under pressure and that export-oriented companies in particular are therefore developing strategies to make their supply chains more resilient and diversified. The focus here is on reducing dependencies in order to maintain or secure their own ability to supply. "Dual source" or "multiple source" are thus "magic words" of the present. And besides, India is still a developing country in terms of customs, with duty-free import opportunities into the EU, an advantage not to be neglected.

IN THE FUTURE, the Indian procurement market should become even more interesting for foreign players. The massive disruption of supply chains and the associated delayed deliveries, especially from East Asia, have startled international producers from the capital goods industry. Currently, there is a clear trend towards diversification so that companies can reduce their dependencies on individual suppliers. The old adage of "not putting all your eggs in one basket" could enable qualified Indian manufacturers to push ahead with their internationalisation and establish themselves as a reliable partner of globally operating machine building companies. At the same time, this could again create additional business opportunities for the German mechanical engineering industry, as the Indian customer industries continue to have a high need for modernisation. The success of Indian suppliers could thus also become an accelerator for German-Indian machinery trade.

WILO ON THE INDIAN GROWTH MARKET
Around 1,000 employees currently work for Wilo India, meeting the growing demand among customers from the building services, water management and industry segments. Wilo serves the billion-strong market with 19 sales offices throughout the country and its primary production locations in Pune and Kolhapur. Once the new plant in Kesurdi is complete, Wilo will have three production sites allowing it to meet regional customer demand with products manufactured in the region. The Wilo Group has also significantly expanded the resources of its export department in India. This means its activities in India are systematically geared towards the company's "region-for-region" strategic approach.

"Global procurement is evolving from a strategic advantage into a competitive necessity."

INDIA HAS SHOWN RESILIENCE and has withstood the disruptions due to conflict quite well. In fact, India's economic growth reached 4.4 percent in October to December 2022 quarter. Since 1990, India has seen a tenfold increase in GDP to 3.2 trillion USD in the fiscal year ended in 2022. The average income per capita has multiplied more than fivefold to 2200 USD in the same period. The Manufacturing sector attracted FDI worth 21.34 billion USD in the fiscal year 2021/2022 which was an increase of 76 percent year-over-year.

THE INDIAN MANUFACTURING industry continued in its path of resilience in the second half of 2022 with factory orders and production continuing to rise. The Purchasing Managers Index (PMI) dipped to 57.2 in January 2023 from December's six-month high of 58.5, below market forecasts of 58.1, due to softer rises in output and new orders.

LOOKING AHEAD, Indian manufacturers remained confident of a rise in production volumes. Predictions of better sales and marketing efforts were among the reasons cited for upbeat projections. Govt. of India is working to achieve US$ 5 Trillion economy with a substantial contribution of manufacturing and service industry. This will have significant export opportunities.

THE RESULTS FROM THE RECENTLY conducted Business Climate Survey conducted by VDMA amongst the members in India strongly reflected the positive sentiments amongst the German companies in India. 96 percent of the respondents reported good and satisfactory business in 2022 with only 4 percent reporting negative. 88 percent reported above normal to normal capacity utilisation. Only 10 percent of the companies report that their current stock of orders is below normal while 56 percent assess their total stocks to be above normal which is a great leap from the previous survey. The main hindrances faced by businesses are cost of raw material, shortage of raw material and delay in delivery from the head office. In fact, 56 percent plan to increase their manpower, whereas 42 percent plan to hold on to their current workforce and only two percent might decrease their workforce over the next six months. For the next six months 58 percent of respondents expect the situation to improve, 40 percent expect the situation to remain unchanged and only two percent of the participants expect the situation to get worse.

IN THE CONTEXT of new geo-political and new geo-economic challenges, the trade between India and rest of the world is poised for a multi-fold growth. /

HIGHLIGHTS 2022

1

top EMPLOYER DEUTSCHLAND GERMANY 2022
CERTIFIED EXCELLENCE IN EMPLOYEE CONDITIONS

FEBRUARY

Wilo certified as Top Employer 2022

WILO SE was awarded Top Employer Germany 2022 certification by the independent Top Employers Institute. This meant Wilo was recognised for its excellent employee orientation for the eighth year in succession. The certification is proof of Wilo's performance, especially in the areas of careers, digital HR and sustainability.

2

APRIL

Wilo donates 60 water backpacks to Ukraine

The mobile water treatment system PAUL (Portable Aqua Unit for Lifesaving) can filter around 1,200 litres of water per day and hence supply up to 400 people with drinking water. In April, Wilo donated 60 of these backpacks to Ukraine in order to maintain basic supplies in severely crisis-hit areas. A number of additional donations took place during the rest of the year, with a total of 144 PAUL water backpacks being supplied to Ukraine in the course of 2022.

3

MAY

ImpactSite in Senegal successfully opened

The social enterprise Africa GreenTec opened the first holistic ImpactSite in Africa in May. The project, which gives people from N'diob in Senegal access to electricity and clean water, was supported by the Wilo-Foundation and the Wilo Group.

4

MAY

Wilo at IFAT 2022

Experts in water, wastewater, waste and raw materials management met at the world's leading trade fair, IFAT, from 30 May to 3 June 2022. At its 390 square metre main booth, Wilo presented technological solutions for the challenges in the treatment and transportation of water and wastewater.

JUNE

Wilo wins prestigious German Brand Award 2022

The Wilo Group won the German Brand Award for the seventh year in a row – and received awards in multiple categories in 2022. The German Brand Institute recognised Wilo for its digital application landscape "Wilo-World" and its 2021 Annual Report.

5

6

JULY

Oliver Hermes meets French ambassador

At a meeting in Berlin, the French Ambassador to Germany, H.E. Anne-Marie Descôtes, and Oliver Hermes agreed that the close partnership between France and Germany has proven to be intrinsically important for European cohesion in times of multiple crises.

JULY

Wilo intensifies German-Kazakh relations

Oliver Hermes met the new Ambassador of the Republic of Kazakhstan to the Federal Republic of Germany, H.E. Nurlan Onzhanov. Their bilateral discussion focused on topics such as security of supply, fragile supply chains, and the fundamental economic relationship between the two countries.

7

AUGUST

Wilo achieves platinum EcoVadis rating

The sustainability rating agency EcoVadis assesses 90,000 companies every year – with only one percent achieving the platinum rating. Having previously been rated silver (2019 and 2020) and gold (2021), Wilo was awarded the highest EcoVadis rating for the first time in 2022.

8

9

FSM FRANKENBERGER
EQUIPMENT FOR WATER AND WASTE WATER INLET WORKS
A WILO COMPANY

AUGUST

Wilo acquires two wastewater treatment specialists

The Wilo Group acquired FSM Frankenberger GmbH & Co. KG, Pohlheim, and WSM Walower Stahl- und Maschinenbau GmbH, Walow, in order to expand its solutions expertise in the area of wastewater treatment. The two companies specialise in technologies for the mechanical cleaning and treatment of wastewater.

10

SEPTEMBER

International Wilo industry conference 2022

How can the industry respond to growing international tension, decoupling tendencies and the energy crisis? Eminent representatives from politics, business and science came together to discuss this question at the Wilo industry conference, which was held at the Wilopark on 9 September. The approximately 200 guests included Edna Schöne (member of the Board of Euler Hermes), Jean-Pascal Tricoire (President and CEO of Schneider Electric), S.E. Arif Havas Oegroseno (Ambassador of the Republic of Indonesia and spokesperson for all ASEAN embassies in Germany) and international executives of the Wilo Group.

150 wilo

There was every reason for Wilo to celebrate in 2022: The company marked 150 years since it was founded in Dortmund in 1872. This anniversary was celebrated at all of the company's locations, including Dortmund, Beijing, Buenos Aires, the USA and Turkey.

The festivities were opened by Oliver Hermes and Dr.-Ing. E.h. Jochen Opländer at the kick-off event in February.

The family festival at the Wilopark in September was attended by around 3,500 employees, family members and friends. Musical accompaniment was provided by the in-house Wilo band composed entirely of employees, which was formed specially for the occasion.

The anniversary was also celebrated at Wilo's site in China in September. More than 800 employees of Wilo China gathered with family members and friends to enjoy events including the cutting of a five-tier birthday cake.

Wilo USA celebrated the anniversary in June along with the grand opening of the new headquarters of Wilo Americas in Cedarburg.

The anniversary film

Landmark anniversaries were also marked in Turkey, where Wilo has now had a presence for 30 years, and the Argentinian capital Buenos Aires, where Wilo LATAM celebrated its 25th birthday.

SEPTEMBER

H_2POWERPLANT opened at the Wilopark

Hydrogen is one of the keys to achieving the Paris climate goals. With this in mind, Wilo developed the H_2POWERPLANT at the Wilopark in cooperation with Schneider Electric. The grand opening of the plant took place during the international industry conference in September. The H_2POWERPLANT generates hydrogen from solar power and stores it in a 29.8 metre tank, where it serves as the emergency and back-up power supply for the Wilopark. The designs also allow for the plant to be expanded to include a self-sufficient energy supply. Wilo and Schneider Electric are now planning the serial production of green hydrogen systems for the decentralised energy supply of industrial and private applications.

11

12

SEPTEMBER

Green finance at Wilo

The Wilo Group successfully placed a traditional promissory note loan with a volume of EUR 224 million on the international capital market for the first time, as well as realising a US private placement with a volume of EUR 95 million. The promissory note loan includes an ESG component, ensuring that Wilo's leading holistic sustainability approach is also reflected in its financing strategy.

SEPTEMBER

Wilo declares SDG Action Days

Seven sustainability goals, seven events, seven locations: Wilo declared the SDG Action Days in September. On each event day, one company location held an online event to discuss the seven relevant sustainability goals for the Wilo Group with partners and colleagues. Wilo's sustainability strategy is geared toward the international standards of the 17 United Nations Sustainable Development Goals (SDGs).

13

OCTOBER

Wilo becomes Borussia Dortmund's sustainability partner

Wilo has been a champion partner of Borussia Dortmund since 2011, and October saw the long-established Dortmund-based companies extending this partnership to 2026. They also concluded a sustainability partnership starting from 2023. The objective of the new cooperation is to work together for the benefit of society and the environment.

14

15

OCTOBER

Expansion in Lebanon

Wilo opened new offices in Beirut, Lebanon. Eminent guests joined Wilo to celebrate the opening of the complex with a footprint of around 800 square metres, which includes office space, a test bed for pumps, a digitalised showroom and a training centre.

16

马廷膜 MATING MO

泹鸿环保 GUHONG

NOVEMBER

Wilo acquires two companies in China

Mating (Shanghai) Membrane Technology Co., Ltd. produces membrane bioreactors for wastewater treatment. The Wilo Group acquired all shares in the joint venture in November. Wilo also increased its stake in the German-Chinese joint venture Guhong (Shanghai) Environmental Engineering Equipment Co., Ltd. – a flood control specialist – to 75 percent.

NOVEMBER

Wilo's smart factory recognised as Factory of the Year

Wilo's smart factory at the company's headquarters in Dortmund was awarded the accolade of "Factory of the Year 2022". Wilo won the prestigious industrial award in the "Outstanding Transformation: Digitalisation" category. With this prize, the organisers A.T. Kearney and SV Veranstaltungen recognise targeted digitalisation solutions that have significantly increased the efficiency of new production within a very short space of time.

17

GROUP MANAGEMENT REPORT 2022

The Wilo Group is looking back on a financial year characterised by significant challenges and uncertainty. The ongoing coronavirus pandemic, Russia's war on Ukraine, the dramatic rise in energy and material prices, further supply shortages affecting already strained supply chains, and high inflation were disruptive factors that posed a considerable burden. This required particularly forward-looking, risk-aware and flexible management accompanied by prudent yet decisive action. Wilo overcame the challenges in the past financial year and delivered exceptionally good business performance on the whole, not least thanks to the exemplary commitment of all its employees around the world. In these times of crisis, the Wilo Group has once again demonstrated its future viability and resilience.

CONTENTS

THE 2022 FINANCIAL YEAR AT A GLANCE

NET SALES

EUR 1,885.7 million

↗ 14.2 %

The Wilo Group continued on its profitable growth path with strong net sales growth of 14.2 percent. Net sales increased to EUR 1,885.7 million. Organic net sales growth, i.e. after adjustment for exchange rate and acquisition effects, amounted to 12.8 percent.

CONSOLIDATED NET INCOME

EUR 61.1 million

Consolidated net income also saw strong growth to EUR 61.1 million.

EBITDA

EUR 196.7 million

Despite the challenging environment, Wilo also recorded a year-on-year increase in EBITDA to EUR 196.7 million.

RESEARCH AND DEVELOPMENT

EUR 70.6 million

With its Ambition 2025 corporate strategy, Wilo is underlining its intention to establish itself as the digital pioneer of the pump industry and set new standards as an innovation leader. This means research and development play an important role. Research and development costs amounted to EUR 70.6 million in 2022, corresponding to 3.7 percent of net sales.

INVESTMENTS

EUR 155.3 million

Wilo continues to invest heavily in the future. Among other things, EUR 155.3 million was invested in the construction and expansion of new and existing sales and production locations, the modernisation and capacity expansion of production machinery and company acquisitions. A new facility in Cedarburg, Wisconsin (USA) was opened in June, and state-of-the-art new production and administrative buildings are currently being constructed in China and India.

MERGERS & ACQUISITIONS

Strategic acquisitions in Germany and China were made to strengthen the water management portfolio and to increase production capacity and direct market access in China.

EMPLOYEES

8,457

The employees of the Wilo Group are the foundation and the driving force behind its business success. Their dedication made an important contribution to the company's sustainable and profitable development in the year under review. Wilo employed an average of 8,457 people over the year.

GREEN FINANCE AT WILO

In its anniversary year, WILO SE completed the biggest refinancing in its 150-year history. A traditional promissory note with a volume of EUR 224.0 million was placed on the international capital market for the first time and senior notes with a volume of EUR 95.0 million were issued as part of a US private placement. The promissory note includes an ESG component, ensuring that Wilo's leading holistic sustainability approach is also reflected in its financing strategy.

BASIC INFORMATION ON THE WILO GROUP

→ **Premium provider of products, system solutions and services for building services, water management and industry**

→ **Wilo is represented in all key markets with a global production and distribution network and more than 8,400 employees**

→ **Targeted acquisitions in Germany and China strengthen the water management portfolio and expand the foundations for continued profitable growth**

→ **The Wilo Group aims to set new standards as an innovation leader – research and development activities remain at a high level**

Customers and products

Wilo is a premium supplier of pumps and pump systems for heating, ventilation and air-conditioning, water supply and wastewater disposal around the world. As a full-service provider, the Wilo Group meets all its customers' needs with its portfolio of products, system solutions and services. The extensive product portfolio ranges from high-efficiency pumps designed for houses, apartment blocks and public and commercial buildings, via special pumps, agitators and wastewater treatment solutions for water management, through to products and solutions for industrial applications or flood control.

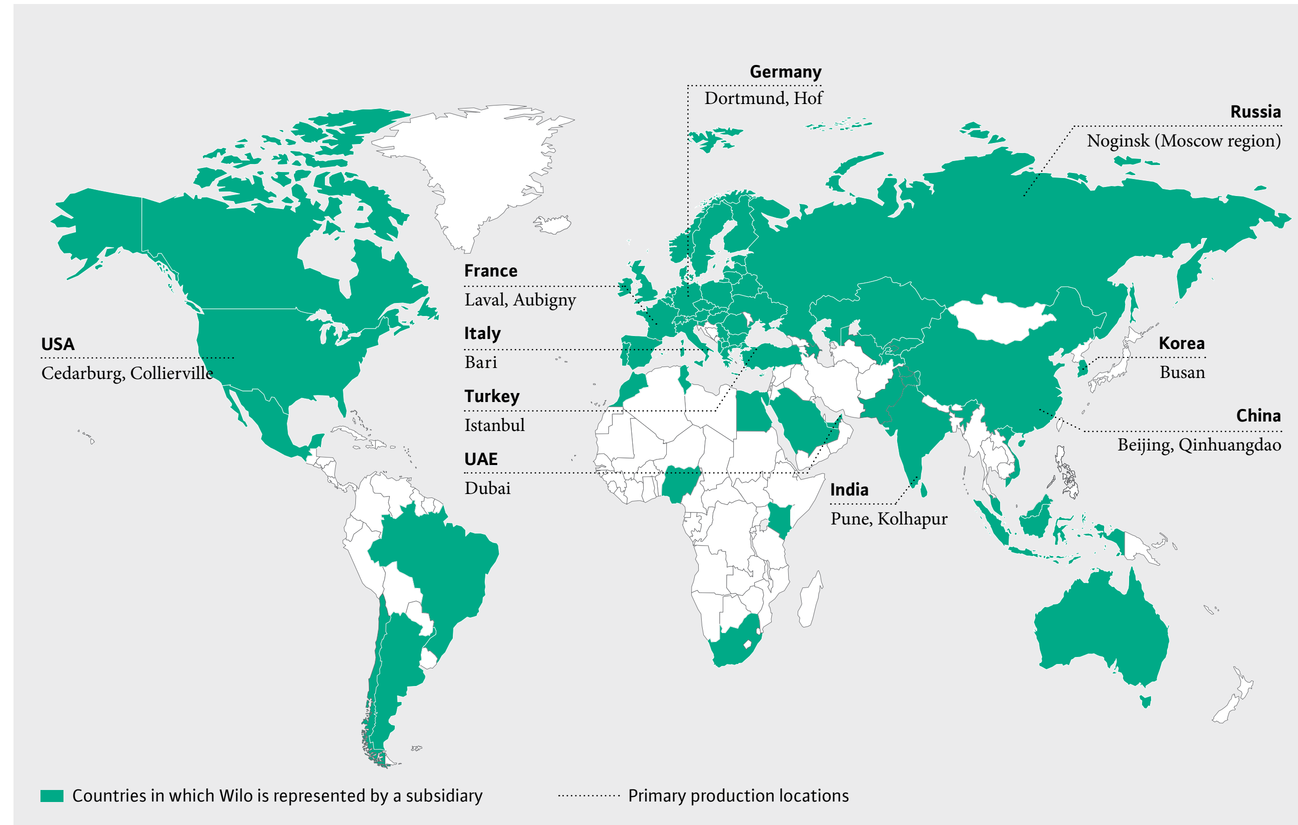
The Group's corporate strategy and the operational focus of its more than 8,400 employees are systematically geared towards one central point of orientation: Wilo's customers and their specific needs and requirements for products, applications and services. Wilo has a history of close cooperation with OEM partners, consultants, specialist retailers and tradesmen as well as general contractors, investors and end users in a spirit of mutual trust. This approach forms the foundation of the Wilo Group's market success. As a premium provider, Wilo aims to develop leading technology and intelligent solutions that make people's everyday lives noticeably easier. This is the principle behind the claim "Pioneering for You".

The Wilo Group manufactures pumps and pump systems at 15 primary production locations in Europe, Asia and the Americas. In accordance with the global production strategy (GPS), these production sites constitute Wilo's global production network in the narrower sense. They are coordinated and managed accordingly.

The Wilo Group also operates smaller locations – including Sonneberg, Brüsewitz, Lich, Taunusstein, Wülfrath, Pohlheim and Chemnitz in Germany, Sanford (Florida) in the USA, and Shanghai in China – at which it develops and manufactures highly specialised products such as water supply, wastewater treatment and flood control systems. In addition, products for local markets are assembled at a variety of locations.

With this structure, the Wilo Group has an efficient, customer-oriented network of more than 80 production and sales companies in over 50 countries. In combination with numerous additional branches and independent sales and service partners, this ensures that customers' needs and requirements are met at all times and in reliably excellent quality worldwide.

Wilo Group locations



Market segments

The Wilo Group operates in five market segments: Building Services Residential, Building Services Commercial, OEM (Original Equipment Manufacturers), Water Management and Industry. The portfolio of products, system solutions and services is systematically tailored to the specific needs of customers in the respective market segments. This clearly defined focus, the Group's traditionally high innovative strength and proximity to customers thanks to its local presence are key factors in its success. Thanks to its targeted combination in the respective markets, the Wilo Group is able to identify the different trends in each region and changing requirements at an early stage and respond to them quickly and flexibly.

Building Services Residential & Commercial

Around the world, energy and resource efficiency is becoming markedly more important due to ecological and economic reasons. Accordingly, the aspects of economic efficiency and sustainability are playing a more pronounced role when it comes to commercial and domestic building use. This makes it increasingly necessary to use innovative systems that incorporate optimally coordinated components – not only for new builds, but especially also for the conversion and modernisation of buildings in light of the more stringent climate targets. Wilo offers the necessary energy-efficient concepts for the Building Services Residential and Building Services Commercial market segments. These relate to heating technology and air-conditioning as well as water supply and wastewater disposal. The Wilo Group's product and system solutions are used in houses and apartment blocks, public buildings, industrial and office buildings, hospitals and hotels.

OEM

Wilo is a strong partner of leading OEMs and manufacturers of boilers, heat pumps and air-conditioning systems. The Wilo Group's pumps and hydraulic systems are characterised by maximum reliability, flexibility and efficiency. OEM customers benefit in particular from Wilo's many years of experience, detailed knowledge of the market and pronounced application expertise. The Wilo Group is also a development partner for these customers, an innovative forward thinker and a trendsetter. Taking into account current and future regulatory requirements, Wilo anticipates the new demands of the global market and constantly changing market requirements at an early stage, allowing it to develop and offer future-oriented solutions that are ideally tailored to the specific needs of the respective customers and markets. Wilo offers a broad range of established, tried-and-tested integrated products and intelligent, individually developed solutions for OEM customers.

Water Management

Due to the fast pace of urbanisation and climate change as well as growing environmental pollution, water as a raw material is becoming a scarce and precious commodity around the world. Providing the rapidly growing global population with sufficient clean drinking water is already a fundamental problem in many regions of the world.

In addition, the demand for water from agriculture and industry is rising very sharply around the world. The massive increase in lithium carbonate mining for use in electric vehicle batteries and other battery applications also represents a substantial threat to the drinking water supply in the affected regions. The safe and sufficient purification and supply of water for the continuously growing world population therefore involves extensive global challenges, not least since this problem is continuously and rapidly intensifying. As an expert partner to the water management industry, Wilo offers professional solutions designed to meet the increasingly complex requirements involved in drinking water extraction, water pumping, the transportation and processing of wastewater, and flood control. Wilo's pumps and pump systems for water management set benchmarks around the world in terms of technical performance, efficiency and sustainability.

Industry

As a premium provider, Wilo develops and manufactures pumps that guarantee the highest level of reliability, flexibility and efficiency. These are vital and process-critical factors for pumps and pump systems in industrial applications in particular. The Wilo Group's particular strength in the Industry market segment lies in support applications for processes in various industries. As each industrial sector has its own individual and often highly specific demands in terms of pumps and peripherals, Wilo develops tailored concepts and solutions for every industrial requirement in order to ensure smooth installation, safe operation and efficient maintenance. The Wilo Group's pumps and system solutions are used around the world for applications such as pumping cooling water in power plants or wastewater treatment on board ships. Other important areas of application include data centre cooling, dewatering in the mining industry, and food production.

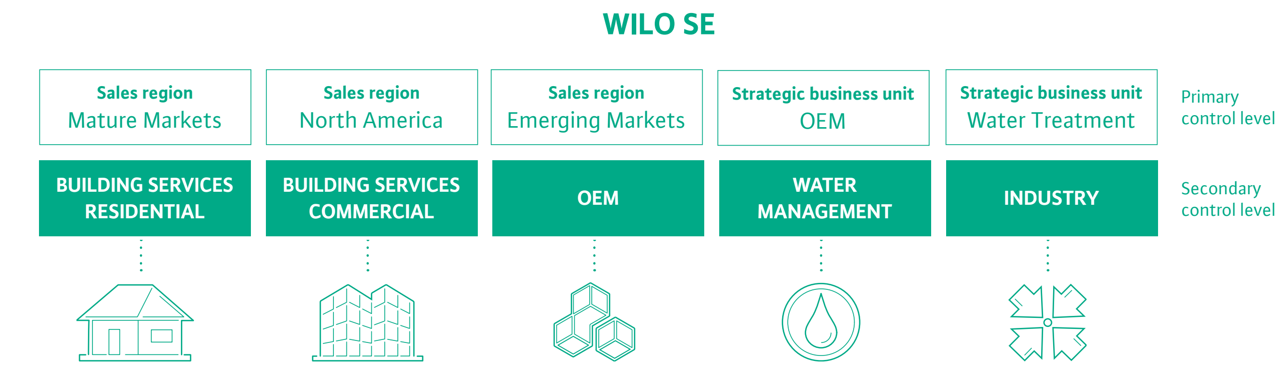
Group organisation and management

The Wilo Group can look back on a long and successful corporate history. The company celebrated its 150th anniversary in 2022 with events including a family festival at the Wilopark with around 3,500 guests. Founded in Dortmund in 1872 as "Kupfer- und Messingwarenfabrik Louis Opländer", today's WILO SE is a European stock corporation (Societas Europaea). The company is still headquartered in Dortmund, Germany. As the parent company of the Wilo Group, WILO SE performs central management activities for the entire Group as well as its own operations. With around 90 percent of the shares in WILO SE, the majority shareholder is the Wilo-Foundation. The issued capital of WILO SE amounts to EUR 26,980 thousand.

As at 31 December 2022, the Wilo Group encompassed WILO SE and more than 80 production and sales companies worldwide. WILO SE holds a direct majority interest in most of its subsidiaries.

In August 2022, ABIONIK Group GmbH, a subsidiary of WILO SE, acquired all shares in FSM Frankenberger GmbH & Co. KG and WSM Walower Stahl- und Maschinenbau GmbH in Walow in Mecklenburg-Western Pomerania, both of which specialise in technologies for the mechanical cleaning and treatment of wastewater. The acquired companies were merged into FSM Frankenberger GmbH as part of the integration process.

Organisation and management structure of the Wilo Group



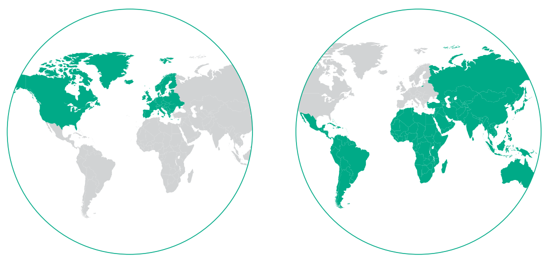
In November 2022, ABIONIK Group GmbH also acquired all shares in the existing joint venture Mating Membrane Technology Co., Ltd., Shanghai, China, which specialises in membrane bioreactors for wastewater treatment. Abionik also increased its stake in the German-Chinese joint venture Guhong Environmental Engineering Equipment Co., Ltd., Shanghai, China – a flood control specialist – to 75 percent, thus acquiring a majority interest. These strategic acquisitions were made to strengthen the water management portfolio and to increase production capacity and direct market access in China.

The acquired companies are being integrated into the Water Treatment Strategic Business Unit (SBU), which combines all Wilo Group's activities in the field of water and wastewater treatment. Wilo established the Water Treatment SBU a year ago in response to the significant increase in the importance of this highly complex business area and has now strengthened it in a targeted manner with these acquisitions.

The three sales regions – Mature Markets, Emerging Markets and North America – and the OEM and Water Treatment Strategic Business Units are the top-level organisational and management units by which the Wilo Group is primarily controlled. These units in the primary control level are each headed by an experienced manager who reports directly to the Executive Board. The Wilo Group also manages its business via the five market segments that make up the secondary control level. The management and controlling of the Building Services Residential, Building Services Commercial, Water Management and Industry market segments are covered by the managers of the Group Market Segment Management function. By contrast, the management and controlling of the OEM market segment is organised directly in the Strategic Business Unit OEM due to the specific nature of business with original equipment manufacturers.

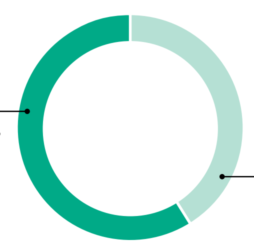
These two levels, which are aligned as part of a matrix organisation, allow sales activities to be closely and flexibly geared towards the different requirements of the respective markets and regions while simultaneously harnessing cost and efficiency benefits by bundling expertise globally.

Composition of established markets and growth markets
as at 31 December 2022



For the purposes of external reporting, the Wilo Group differentiates between established markets and growth markets. In the 2022 financial year, 59.1 percent of consolidated net sales were generated in the established markets and 40.9 percent in the growth markets.

Net sales
by region in 2022



The organisational structure has an entirely functional alignment. The management and controlling of the Wilo Group are the responsibility of the Executive Board of WILO SE, which consists of four members. The following schedule of responsibilities reflects the allocation of functional responsibilities within the Executive Board.

The Supervisory Board of WILO SE appoints, controls and monitors the Executive Board. The Supervisory Board, which comprises a total of six ordinary members, is appointed by the Annual General Meeting. Two members of the Supervisory Board are employee representatives appointed at the proposal of the European Works Council of WILO SE. Detailed information on the cooperation between the Executive Board and the Supervisory Board can be found in the Report of the Supervisory Board[1] in this Annual Report.

In managing the Wilo Group, the Executive Board focuses on the development of net sales and earnings power. Earnings power is primarily measured on the basis of EBITDA (operating earnings before interest, taxes, depreciation and amortisation) and the EBITDA margin as a percentage of net sales. As the accelerated increase in net sales from organic and external growth that is planned as part of Ambition 2025 and the high level of capital expenditure both require substantial financial resources, leverage is applied as an additional performance indicator. Leverage describes the ratio of consolidated net debt (financial liabilities and lease liabilities less cash) to consolidated EBITDA, adjusted for any restructuring costs. Net sales, EBITDA, the EBITDA margin and leverage are the central financial performance indicators for the Wilo Group, meaning they are included in the analysis of the course of business, the assessment of the position of the Group and the outlook for the purposes of external financial reporting in accordance with GAS 20.

Another financial key performance indicator at Group level is the cash flow from operating activities, i.e. the liquidity generated by the Wilo Group in the course of its operating business. A constantly positive cash flow from operating activities serves to ensure the financial independence and liquidity of the company and is a key indicator of internal financing strength. The main levers for improving the cash flow from operating activities are increases in net sales and EBITDA. The development of the operating cash flow is also actively aided by the systematic management of working capital.

[1] The report of the Supervisory Board does not form part of this Group management report. In line with the statutory provisions, KPMG AG Wirtschaftsprüfungsgesellschaft has not audited the report of the Supervisory Board, and consequently does not express an opinion or any other form of assurance conclusion thereon.

Schedule of responsibilities

President & Chief Executive Officer (CEO)
Oliver Hermes

- Government & Public Affairs
- Sales Regions Mature & Emerging Markets, North America
- Strategic Business Unit OEM
- Group Service
- Digitisation Team
- Coordination of Executive Board activities

Chief Change Officer (CCO)
Dr. Patrick Niehr

- Group Market Segment Management
- Group Product Management
- Group Marketing
- Group Legal & Insurance
- Group Human Resources
- Strategic Business Unit Water Treatment

Chief Technology Officer (CTO)
Georg Weber

- Group Research & Development
- Group Procurement & Supply Chain Management
- Group Operations
- Group Quality
- Group Location Management

Chief Financial Officer (CFO)
Mathias Weyers

- Group Controlling
- Group Finance, Accounting & Taxes
- Group Internal Audit & Compliance
- Group Information Management
- Group Mergers & Acquisitions

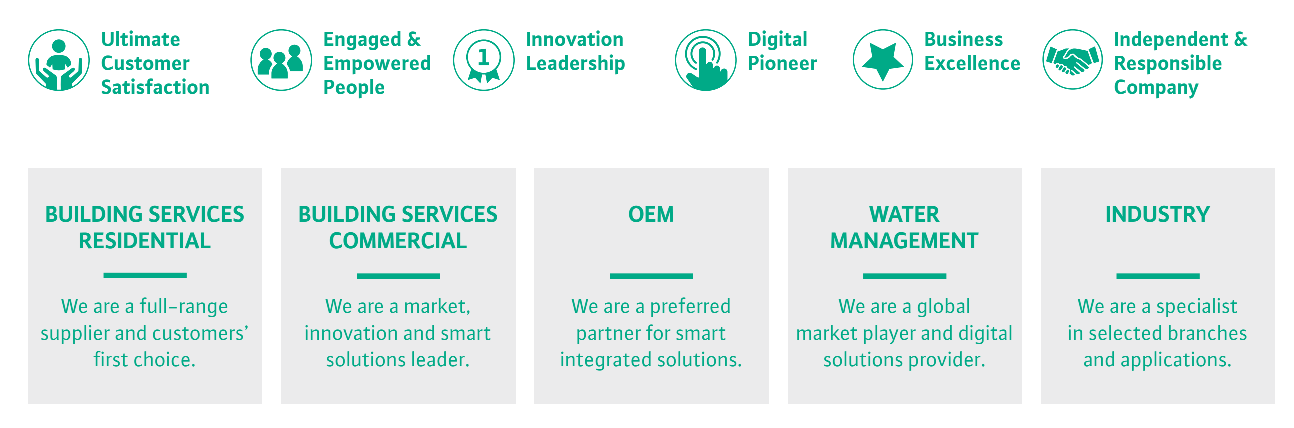
The Wilo Group is required to maintain standard financial ratios (financial covenants) under the terms of its long-term financing agreements. In addition to leverage, this relates in particular to the equity ratio and the interest cover ratio, which is defined as the ratio of consolidated EBITDA to consolidated interest expenses. These ratios are also regularly reviewed and reported to the Executive Board in order to ensure compliance with the required minimum values at all times. The Wilo Group continued to comply with the agreed financial ratios in 2022.

All management-relevant key indicators are derived from the key indicators in the consolidated financial statements prepared in accordance with International Financial Reporting Standards (IFRS).

In addition to the performance indicators and ratios described above, non-financial aspects such as employees, processes along the value chain, sustainability and social engagement play an important role in the business success and the development of the Wilo Group. → *More information can be found in Wilo's Sustainability Report, which is available at wilo.com/sustainability-report.*[2]

[2] The content accessed via the link does not form part of this Group management report. In line with the statutory provisions, KPMG AG Wirtschaftsprüfungsgesellschaft has not audited the references or the information to which they refer, and consequently does not express an opinion or any other form of assurance conclusion thereon.

Ambition 2025



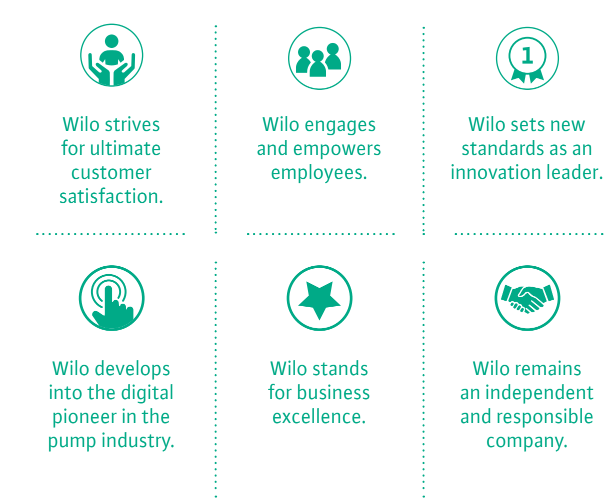
Corporate strategy

Ambition 2025 sets out Wilo's corporate objectives, development and strategic growth path until 2025 and beyond.

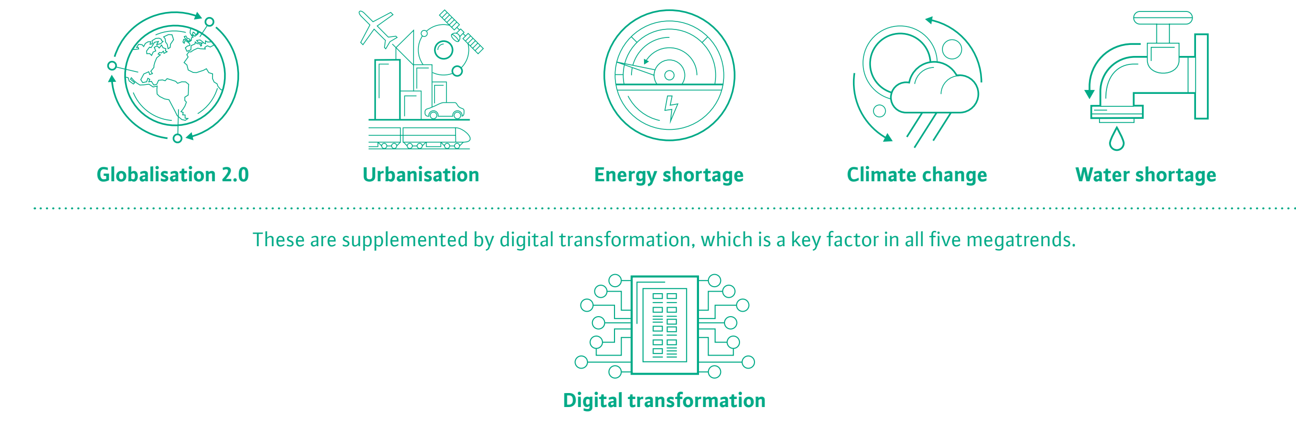
"Together we accelerate our profitable growth as a worldwide solutions provider" defines the main strategic objectives in greater detail and highlights the particular importance of international cooperation with various stakeholders across sector and industry boundaries. Accordingly, the Wilo Group is actively pressing ahead with its globalisation strategy and intensifying cooperation and networking among all stakeholders along the entire value chain in a targeted manner. This involves a clear focus on its aspiration to continue developing from a component manufacturer into a digital pioneer and provider of integrated solutions for the pump industry. To this end, Wilo is intensifying the development of smart products, systems, services and solutions and actively pressing ahead with its digital transformation.

This strategy of accelerated and profitable growth is based on six clearly defined strategic pillars:

- Wilo strives to ensure maximum customer satisfaction – this is the principle behind the claim "Pioneering for You".
- Wilo enables and develops its employees – they are the backbone of the company.
- Wilo is setting new standards as an innovation leader – including innovations in terms of new technologies and materials, products and services, process and (digital) business models.
- Wilo aspires to establish itself as the digital pioneer of the pump industry – by seizing the opportunities presented by digital transformation.
- Wilo stands for business excellence in all processes – along the entire value chain.
- Wilo will remain an independent, responsible company – based on a stable organisation and shareholder structure.



Megatrends



To achieve the strategic objectives, the specific fundamental strategic directions were defined for each of the five market segments that also make up the Wilo Group's secondary control level. The objective in the Building Services Residential market segment is to be a full-service provider and preferred supplier. The Building Services Commercial market segment is focused on the expansion of market and innovation leadership as a solutions provider. In the OEM market segment, Wilo is reinforcing its position as a preferred partner with smart and integrated solutions. Strengthening Wilo's global market presence through digital solutions for the water management industry is the objective in the Water Management market segment. The Industry market segment will continue to focus on selected sectors and applications in future.

At a business level, Ambition 2025 is being implemented via the primary control level, i.e. the sales regions (Mature & Emerging Markets, North America) and the Strategic Business Units (OEM, Water Treatment). These units are each headed by an experienced manager who reports directly to the Executive Board. To ensure that operating business is specifically aligned with the Ambition 2025 corporate strategy, ten-point plans have been created for the established markets and growth markets and five-point plans have been created for the OEM and Water Treatment Strategic Business Units. These plans set out clearly defined, action-based, project-driven measures that will be implemented over the coming years. The steering committee meets regularly to discuss the current implementation status of the respective measures.

Five megatrends that are relevant for the company have been identified and defined in the context of long-term strategic planning. Both individually and by way of mutual reinforcement, globalisation, urbanisation, energy shortage, climate change and water shortage will all significantly influence the Wilo Group's business in the future and are already having a visible impact on the company's current development. An important megatrend in its own right, digital transformation will play a central role when it comes to managing the various challenges the aforementioned megatrends will entail, both for the company and for society, business and politics. At Wilo, the digital transformation is appreciably helping to support the targeted and efficient implementation of solutions.

In a targeted corporate foresight process, risks and opportunities are derived and analysed on the basis of forecast future developments regarding the global megatrends. In this way, the results are systematically taken into account in the ongoing development of the corporate strategy. This process also supports the enhancement of existing business areas and growth areas, as well as the development of new ones. Areas on which the Wilo Group is focusing include water technology, renewable energies and, in particular, hydrogen technologies and systems.

The coronavirus pandemic has illustrated the risks of the current world economic order and its tightly intertwined value chains all too clearly, providing fuel for the movement towards the regionalisation and localisation of production networks. The pandemic has magnified existing protectionist tendencies and the desire of individual countries and regions to isolate themselves and become self-reliant, thereby clearly illustrating the ongoing decoupling of international economic relations. Russia's war on Ukraine intensified this development even further and marked a geopolitical and geo-economic turning point. Established alliances are fracturing and multinational cooperations need to be realigned. Trade barriers, extraterritorial sanctions and technology embargoes are the consequences of the supply chain decoupling that has been initiated and accelerated for political reasons. Thanks to its well-established region-for-region approach, the Wilo Group is excellently positioned to counteract these challenges and minimise the risk of major upheaval, business interruptions and delivery failures in times of crisis. The approach is designed to allow the individual regions as much decentralisation as possible and as much centralisation as necessary, allowing Wilo to manufacture locally for domestic and regional markets in an efficient and customer-oriented manner. The Executive Board already resolved to intensify the process of localisation in 2020. This included scrutinising the existing make-or-buy strategies and redefining the appropriate degree of vertical integration for Wilo in the individual regions and countries. Insourcing activities for critical components were broadly intensified. To this end, the value chains were also critically evaluated and the degree of vertical integration in selected areas has already been increased. Further elements of risk minimisation include multiple sourcing to reduce dependency on individual suppliers and redefining the necessary stock buffers in the warehouses.

The overarching vision and mission and the corporate values provide the framework for Ambition 2025. The vision is the guiding objective that the Wilo Group wants to achieve and a confident statement of Wilo's clear position in a constantly changing world.

On the basis of this vision, the mission defines the main purpose or undertaking that Wilo is pursuing. It also serves as a set of instructions for meeting current and future challenges. The Wilo Group wants to use its products and the accompanying system solutions and services to make people's lives easier all around the world. Integrity, fairness, respect, passion and responsibility are the inviolable values by and with which Wilo works and lives. They form a shared foundation to which each individual in the company commits – regardless of their position, duties and responsibilities. Traditionally, the sustainable success of the Wilo Group has been based to a large extent on these shared values.

Ambition 2025 also forms the basis for the Wilo Group's sustainability strategy. The central tenet of this strategy is to supply more people with clean water while simultaneously reducing the ecological footprint. A total of 17 strategic objectives have been formulated within the four strategic action areas of "Water", "Energy & Emissions", "Material & Waste" and "Employees & Society". These objectives are integrated into the functional strategies of the individual departments and hence form part of regular reporting and corporate governance. ➔ *More information can be found in Wilo's Sustainability Report, which is available at wilo.com/sustainability-report.*[3)]

Vision, mission and values

OUR VISION	OUR MISSION	OUR VALUES
Wilo, the water solution leader for a smart and resource efficient world.	Inventing and managing responsible water solutions that benefit everyone, everywhere.	Integrity, fairness, respect, passion, responsibility.

Research and development

Strategy and direction

The Wilo Group's research and development activities are firmly enshrined in Ambition 2025 and the corporate objectives, meaning that the overarching R&D framework is defined and prescribed in accordance with the corporate strategy. The primary aim is to continuously expand the Wilo Group's existing strong position with regard to technology, innovation and quality. Derived from the relevant megatrends for Wilo, the key strategic action areas for research and development are still energy and resource efficiency, systems technology, solutions expertise, and digital technologies. These action areas are defined in greater detail in the corporate product strategy with a view to current and future requirements. This involves breaking them down into the corresponding specific areas of application in the product portfolio, which is continuously enhanced and updated.

In addressing the strategic action areas, Wilo works in close cooperation with external partners and other industrial companies as well as universities and innovative start-ups. The aim is to enrich and expand internal know-how with external expertise. With this in mind, the Wilo Group has established a global research and development network to help it address the various research projects. Wilo also takes advantage of government grants for application-related basic issues. As part of the digitalisation process, Wilo is increasingly also shifting its development focus to new business models and complementary services.

Guided by the principle of "green solutions for a better climate", Wilo has formulated the clear aspiration of generating sustainable value added for the environment through the continuous development and optimisation of innovative and energy-efficient products, systems and solutions. Based on the holistic sustainability strategy derived from Ambition 2025, Wilo successfully pressed ahead with its work in the areas of climate, energy savings and sustainability in product development in the year under review.

In 2022, CO_2 emissions were substantially reduced and significant energy savings of 2.2 TWh were generated through the use of highly efficient, environmentally friendly technologies in Wilo products. This was well in excess of the annual savings target of 1.8 TWh formulated in the sustainability strategy. This figure is defined as the electrical energy saved by using high-efficiency pumps compared with the corresponding uncontrolled previous models.

The central research and development organisation is responsible for the management of all R&D activities. Traditional areas of development such as hydraulics, engines, microelectronics and software are addressed by dedicated central developer teams. This ensures that the challenges arising from aspects such as the digital transformation of products and processes in all areas of the company are tackled collectively and efficiently. Product series development is carried out locally at the Wilo Group's various locations, but is also coordinated centrally. In addition to a more agile way of working, this two-tier organisation enables global, cross-divisional and interdisciplinary cooperation and the optimal transfer of knowledge. This joint approach is supported by continuous progress in terms of digitalisation and process optimisation, thereby making it more efficient. Product development continues to place particular weight on the growth markets in Asia.

3) The content accessed via the link does not form part of this Group management report. In line with the statutory provisions, KPMG AG Wirtschaftsprüfungsgesellschaft has not audited the references or the information to which they refer, and consequently does not express an opinion or any other form of assurance conclusion thereon.

Results

Wilo's modular global platform concept for the different product series was continuously expanded in the year under review, while a number of new product series were launched on the basis of the modular components already developed. This platform concept systematically harnesses the results and development components of the various projects across divisions and projects, thereby permanently lowering development costs for the respective projects and significantly reducing the time to market. Multi-project management was a key focal point once again in 2022. In addition to various structural measures, activities focused on the centralised management of the global project portfolio with a view to controlling the deployment of globally available resources in an even more targeted manner.

One of the Wilo Group's core competencies is supplying water for heating, air-conditioning and cooling applications in large buildings. This is a highly complex task that can allow for no compromises in terms of operational reliability. In the previous year, Wilo already launched the highly efficient Wilo-Stratos GIGA2.0-I smart glanded pump, which is suited for a wide range of applications. In the 2022 financial year, additional specifications were offered on the basis of the platform that was introduced for this high-performance pump for the first time. In addition, Wilo launched the lower-priced Wilo-Yonos GIGA 2.0-I, which is also based on this platform and which is suited for mobile access via Wilo-Smart Connect. Boasting the same drive technology and the same features, the multistage Wilo-Helix2.0-VE was also launched in 2022. It is mainly used to boost pressure in the water supply for large buildings.

With regard to firefighting pumps and systems, the new Wilo-Atmos GIGA NF (VdS) pump series was launched in 2022. It is based on the norm pump platform that was already presented some years ago. The Wilo-Atmos GIGA NF (VdS) is designed for sprinkler systems and complies with the strict VdS security guidelines. VdS is a globally recognised special institution of the German insurance industry with a focus on risk assessments, system inspections and product certifications, among other things.

The year under review also saw the launch of the new Wilo-Stratos PICO plus, which represents the next generation of small high-efficiency premium glandless pumps. It is very easy to operate and includes expanded smart control functions and connectivity options. The Wilo-Stratos PICO plus can be set up and taken live in just a few steps. It can also be operated using an external module via Bluetooth and the Wilo-Smart Connect app.

New submersible pumps with macerators for wastewater treatment applications were also presented: the Wilo-Rexa FIT-S and PRO-S and the Wilo-Rexa Mini3-S. These new hydraulic combinations based on the Rexa platform are designed for use in domestic settings and in wastewater receptacles with intermittent operation.

The radial macerator with double shear effect reliably chops solids in order to prevent clogging.

Employees

With a largely constant headcount, the employee structure in research and development remained almost unchanged in 2022 compared with the previous year. The needs-driven recruitment of qualified young candidates in the disciplines of technology and the natural sciences represents a growing challenge both in Germany and internationally. Accordingly, the Wilo Group continues to implement extensive and targeted measures to ensure that potential applicants perceive it as an employer of choice. This includes special talent promotion programmes and a number of internal and external training and mentoring programmes at national and international level. As previously, these measures are also focusing on Asia to a growing extent. This package of measures is intended to ensure that Wilo continues to successfully attract and retain highly qualified employees in the future.

Patents and licences

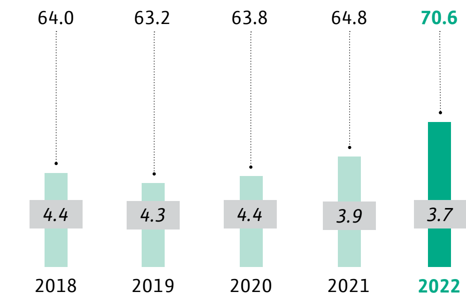
The Wilo Group's systematic patent strategy is aimed at securing its competitive edge by protecting innovative unique selling propositions through patents and other property rights in order to prevent them from being copied or imitated. Almost half of the Group's net sales in the 2022 financial year were again generated from products involving at least one solution that is patented or for which a patent application has been submitted. Wilo further expanded its patent portfolio compared with the previous year. Patent protection means that products, techniques and solutions can be used exclusively by Wilo, thereby supporting the company's profitable growth.

Investment and expenditure

In the 2022 financial year, capital expenditure on research and development again focused on the expansion and networking of the global laboratory infrastructure with a view to establishing globally interlinked and automated processes.

Total research and development costs* amounted to EUR 70.6 million in the 2022 financial year (previous year: EUR 64.8 million). The ratio of research and development costs to net sales remained high at 3.7 percent (previous year: 3.9 percent).

R&D expenses*
in EUR million and *as a percentage of net sales*



* Research costs and capitalised and non-capitalised development costs (excluding amortisation of capitalised development costs)

Development costs were capitalised in the amount of EUR 11.5 million (previous year: EUR 15.2 million). Research costs and non-capitalised development costs were recognised in the income statement in the amount of EUR 67.3 million (previous year: EUR 55.8 million). This includes amortisation of capitalised development costs in the amount of EUR 8.2 million (previous year: EUR 6.2 million).

BUSINESS REPORT

- → **World economy and construction industry come under abrupt pressure in 2022**
- → **Strong net sales growth of 14.2 percent exceeds expectations**
- → **Significant improvement in EBITDA and consolidated net income, but profitability impacted by sharp rise in material, logistics and energy costs as well as strained supply chains**
- → **Biggest refinancing in the company's 150-year history successfully completed**

General economic and industry-specific conditions

World economy: Economic growth brought to an abrupt halt in 2022 by the pandemic, war, the energy crisis, inflation and the turnaround in interest rate policy

The global economic environment deteriorated considerably in 2022. This was due in particular to the far-reaching consequences of the Russian war of aggression against Ukraine and the repeated COVID-19 lockdowns in China. This introduced further disruption to global supply chains that were already highly strained. Energy, important raw materials and precursors and logistics costs became significantly more expensive for the most part. The war combined with severe heatwaves and droughts in Europe, Central Asia and South Asia triggered a sharp rise in food prices around the world. As a result of this overall situation, inflation leapt to its highest level in decades, prompting almost all central banks to rapidly and dramatically tighten their monetary policy. According to the Kiel Institute for the World Economy (IfW), global economic momentum slowed considerably towards the end of 2022. Despite substantial fiscal stimulus packages aimed at cushioning the rise in energy prices and supporting the economy, the major advanced economies in particular were faced with the prospect of a weak economic phase as 2023 began. The substantial problems affecting the Chinese economy also remained in place. In terms of gross domestic product (GDP), the IfW expects global economic growth to have almost halved to 3.2 percent in 2022 (previous year: +6.1 percent). According to the International Monetary Fund (IMF), global growth slowed from 6.2 percent in the previous year to 3.4 percent in 2022. Economic output in the industrialised nations increased by 2.7 percent (previous year: +5.4 percent), while economic output in the emerging economies rose by 3.9 percent overall (previous year: +6.7 percent).

The following section presents the macroeconomic and industry-specific developments in 2022 in the regions that are relevant to the Wilo Group. In addition to the general economic development of individual countries and regions, the economic performance of the Wilo Group is influenced in particular by the construction and sanitary industries as well as the water and wastewater industries.

Established markets: Construction industry experiences growing headwinds throughout 2022

EUROPE. The European economy enjoyed a robust start to 2022, including as a result of the low prior-year level, until Russia initiated a war of aggression with its invasion of Ukraine in late February. This prompted the EU and other nations to impose additional sanctions on Russia, which responded by suspending natural gas deliveries to Western Europe. The war had huge economic consequences, not least since the economy was already struggling with sustained supply chain disruption and the problems emanating from COVID-19 restrictions in China. The main negative factors for Europe were the dramatic rise in the cost of energy and various precursors, as well as rising food prices. According to the European Central Bank (ECB), Europe saw a substantial, broad-based slowdown in economic growth in the third quarter. To combat the rapid rise in inflation, the ECB and the British and Swiss central banks raised their key interest rates significantly. Europe was on the verge of a recession as 2022 ended. According to the Eurostat statistical office, the euro area economy expanded by just 3.5 percent across 2022 as a whole (previous year: +5.3 percent). This economic slowdown affected all countries, albeit to differing degrees. Italy, Spain, Portugal, Austria, the Netherlands and most of the countries in Scandinavia and Eastern Europe outperformed the euro area average to a certain extent, whereas France and Finland saw below-average growth. A tangible economic slowdown was also observed in Switzerland and especially in the United Kingdom.

The German economy was also hit hard by the external supply-side shocks described above. According to the ifo Institute, energy supply bottlenecks, problems affecting deliveries of raw materials, precursors and merchandise and the growing labour shortage were having an adverse effect on the production of goods and services in almost all sectors of the economy at the end of 2022. However, demand for goods and services remained strong and industry continued to report high levels of orders on hand. This helped to support the industrial sector even in the face of the energy crisis. Private consumer spending benefited from catch-up effects and the savings made by households during the pandemic. By contrast, investment in residential construction in particular slumped during the summer months. According to the German Federal Statistical Office, gross domestic product (GDP) in Germany increased by just 1.8 percent overall in 2022 (previous year: +2.6 percent).

Thanks to the high level of orders on hand, the European construction industry remained relatively robust in 2022 despite the growing deterioration in the sector environment following the Russian invasion of Ukraine. At the same time, increased uncertainty, the pronounced problems affecting the availability of construction materials and dramatic cost inflation had a tangible negative impact. Higher interest rates also had a dampening effect for the first time, although the braking effect of restrictive monetary policy will only take full effect gradually and over a longer timeframe. Eurostat data shows that growth in real construction output in the EU came to a sudden halt following a strong start to the year (+5.7 percent in the first quarter). The growth rates for the following two quarters were just 2.3 percent and 1.6 percent respectively. According to a preliminary estimate by the Euroconstruct industry network (including the ifo Institute), construction output in the 19 most important European countries for the industry increased by 3.0 percent in real terms across 2022 as a whole (previous year: +5.8 percent). However, there were considerable regional variances within this figure.

In Germany, the construction industry buckled under the pressure of various factors in the second quarter of 2022 and found itself increasingly dragged down as the year continued, even as orders on hand remained high. Demand for new construction declined substantially on the back of the dramatic increase in construction costs and the deterioration in the financing environment, as well as the uncertainty prompted by the war in Ukraine and the energy crisis. There was a significant downturn in the number of residential building permits and the level of cancellations reached an all-time high. As a result, residential construction saw an even more pronounced slump than the more economically sensitive commercial construction sector, while public-sector construction also declined. According to the German Institute for Economic Research (DIW), the broadly defined nominal construction volume grew by 13.6 percent. Adjusted for external price inflation of 15.8 percent, however, the construction volume contracted for the first time in many years (2022: -2.1 percent). New construction accounted for just under one-third of the residential construction volume. This meant the lion's share was attributable to construction work in existing buildings, especially expansion, conversion, maintenance and modernisation.

Despite the gloomy environment in the construction sector, the German sanitary industry again enjoyed positive performance on the back of lively demand in 2022. The high level of capacity utilisation, the skills shortage and supply bottlenecks were limiting factors. According to projections by the German Sanitary Industry Association (VDS), the heating/ventilation/air-conditioning segment recorded full-year net sales growth of 11.0 percent to almost EUR 47 billion in 2022 (previous year: +3.9 percent). Subsidies under the German government's climate package were a key driver of this development. The war in Ukraine and the threat of an energy crisis significantly accelerated the move away from fossil fuel heating systems. Among other things, this led to clear double-digit growth in the number of heat pumps sold (2022: +53 percent).

USA. Growth momentum in the USA slowed considerably over the course of the year. This was due in particular to the rapid and pronounced interest rate hikes and high inflation. Despite this, industrial output increased and capacity utilisation continued to improve. In this environment, investments in equipment picked up further, thus providing support for the economy along with solid private consumer spending and lively exports. According to initial official data, the US economy is expected to have grown by 2.1 percent in 2022 (previous year: +5.9 percent).

The financing environment in the construction sector deteriorated considerably as a result of the dramatic turnaround in the US Federal Reserve's interest rate policy. In real terms, investment in residential construction increasingly slowed as 2022 progressed, declining by 10.7 percent across the year as a whole (previous year: +10.7 percent). In terms of nominal expenditure, however, the value of US construction output increased by a further 10.2 percent in 2022 on the back of supply bottlenecks and cost increases for construction materials, among other things.

Growth markets: Construction industry under pressure in 2022, but lively investment in housing and infrastructure in some markets

CHINA. The Chinese economy was repeatedly impacted by the country's strict zero-COVID policy in 2022, losing some of its growth momentum as a result. Development on the real estate market was also heavily impacted by financing problems, while exports were impaired by supply chain disruption and weaker demand from abroad. The central bank responded by lowering interest rates slightly on two occasions. China's industrial production increased by just 3.6 percent in 2022 (previous year: +9.6 percent). Capacity utilisation declined across almost all industrial sectors, while consumer spending was hit by the lockdowns. As a result, the Chinese economy saw weak broad-based development in 2022. According to the NBS statistical office, economic growth amounted to just 3.0 percent (previous year, revised: +8.4 percent).

The construction industry is an important pillar of the Chinese economy. Having benefited from urbanisation and substantial investments in housing and infrastructure for a number of years, the previously booming construction industry saw a sharp downturn in 2022 as the crisis that emerged in the previous year worsened dramatically. In addition to the restrictions resulting from the COVID-19 lockdowns and the loss of income in the population, negative factors included the already high level of government and corporate debt and the structural crisis in the real estate sector. With investments in housing having outstripped demand for a number of years, some areas are seeing huge vacancy rates. Construction investment fell by 10.0 percent in nominal terms in 2022.

SOUTH KOREA. South Korea's economic recovery was curbed by the global economic slowdown. The Bank of Korea also raised its key interest rate seven times during the course of 2022 to 3.25 percent in November. In this environment, investments in plant and equipment and construction declined and growth in exports was muted. Private consumer spending delivered momentum thanks to pandemic-related catch-up effects. According to the Bank of Korea, the South Korean economy saw moderate growth of 2.6 percent in 2022 after a strong 4.1 percent in the previous year.

The construction industry saw a substantial slump in the first half of 2022 from which it had not recovered by the end of the year. According to estimates by the Bank of Korea, construction investment is likely to have again declined by -2.4 percent in real terms across 2022 as a whole (previous year: -1.6 percent).

INDIA. The subcontinent's economy enjoyed robust development in 2022. Although growth slowed slightly, it remained substantial. According to the IMF, GDP increased by 6.8 percent (previous year: 8.7 percent). Domestic demand enjoyed momentum from private consumer spending in particular, while the government was a major driver thanks to substantial investment in infrastructure. However, the upturn was curbed by higher energy and raw material costs. The Indian central bank also raised interest rates in order to combat inflation and to stabilise the currency. Capital expenditure by private companies remains muted.

The Indian economy is also being structurally driven by the construction sector to a large extent. Although infrastructure was the main driver in this respect, residential and commercial construction also saw positive development. Urbanisation is driving demand for housing in conurbations. The construction industry returned to broad-based growth in 2022. Additionally, a number of new projects were initiated as part of the central investment programme for water management. According to the government agency India Invest, the total construction volume including infrastructure construction is set to have increased by a substantial 16 percent in 2022 thanks to catch-up effects.

SOUTHEAST ASIA. The most important emerging economies in this region (ASEAN-5) enjoyed an extremely lively upturn in economic growth as they recovered from the impact of the pandemic. Private consumer spending consistently proved to be the main driver, but capital expenditure also picked up significantly in some cases. The IMF expects these countries to have recorded growth of 5.2 percent in 2022 (previous year: +3.8 percent).

The construction industry in Southeast Asia found its feet again in 2022, not least thanks to the gradual resolution of the project backlog caused by the pandemic. This was particularly the case for the Philippines, where office buildings also enjoyed especially strong growth. In Malaysia, the construction volume is set to have risen by a total of 11.5 percent in 2022 thanks to the strong momentum delivered by residential construction and investments in infrastructure expansion. Vietnam saw strong growth in residential and industrial construction as well as the construction of logistics buildings. By contrast, Indonesia's construction industry saw muted development, including due to excess capacity for residential and office buildings. Meanwhile, construction investment In Thailand declined further in the first half of 2022.

TURKEY. Having enjoyed strong growth momentum recently thanks to pandemic-related catch-up effects, the economic upturn in Turkey stalled in the year under review. The World Bank expects economic growth to have slowed to +4.7 percent in 2022 after +11.4 percent in the previous year as a result of exceptionally high inflation and currency weakness. These factors were exacerbated by expansionary monetary policy and the upturn in global market prices for raw materials, precursors, energy and food.

Inflation more than doubled within the year, peaking at 85.5 percent in October. The Turkish lira lost around one-third of its value against the euro in 2022.

Against this backdrop, the Turkish construction industry experienced weak performance in 2022 as project realisation was complicated by construction costs that more than doubled at their peak, as well as supply bottlenecks and payment difficulties. The Turkish government regularly supports the construction industry with substantial investments in housing and infrastructure. Despite this, the official statistical agency TurkStat reports that the economic output of the construction industry as a contribution to GDP declined at an even faster rate in real terms in 2022.

MIDDLE EAST & AFRICA. Economic development across the region as a whole was extremely varied. While the oil-exporting nations in particular saw stronger growth on the back of the hike in global fossil fuel prices and increased oil and gas production, other countries were adversely affected by this cost shock and the huge rise in food prices accompanied by restrictions on supply, causing economic growth to flatten. The World Bank estimates overall economic growth in the Middle East and North Africa at +5.7 percent in 2022 (previous year: +3.7 percent). Among the oil-exporting nations, Saudi Arabia, Iraq, Kuwait, Qatar and the United Arab Emirates (UAE) enjoyed strong growth, whereas the upturn in Algeria was only moderate due to high inflation and unemployment. In terms of the oil-importing nations, Egypt again enjoyed substantial growth in the wake of reforms. By contrast, the strong economic recovery recorded in Morocco in the previous year more or less came to a standstill as a result of high energy costs combined with a poor harvest. Growth in the Sub-Saharan region also slowed to 3.4 percent on the back of the global impact of the war in Ukraine, and especially the rise in inflation (previous year: +4.3 percent).

Against this mixed macroeconomic backdrop, the construction industry in the oil-producing countries was generally positive, with Qatar recording growth and the United Arab Emirates (UAE) seeing a particularly broad-based upturn thanks to air-conditioning systems in particular. Egypt's important construction sector also remained on its growth path. Urbanisation is stimulating investments in housing, commercial and infrastructure construction. However, financing problems increased in 2022 as a result of high energy prices, among other things. In 2020, the South African government announced major expenditure on construction over a ten-year period and initiated reforms to facilitate private investment. However, the anticipated upturn in the construction industry failed to materialise in 2022, including due to the impact of interest rate rises.

LATIN AMERICA. Economic growth in Latin America slowed considerably in the year under review following the strong recovery in the previous year as pandemic-related restrictions were lifted. According to the World Bank, the region suffered from the upturn in inflation from an already high level as well as monetary policy tightening in 2022. The loss of purchasing power, interest rate rises and political uncertainty weighed on private consumer spending and the propensity to invest in 2022. Exports were also curbed by the global economic slowdown, especially in the USA. According to IMF calculations, economic growth in Latin America weakened to +3.9 percent compared with +7.0 percent in the previous year.

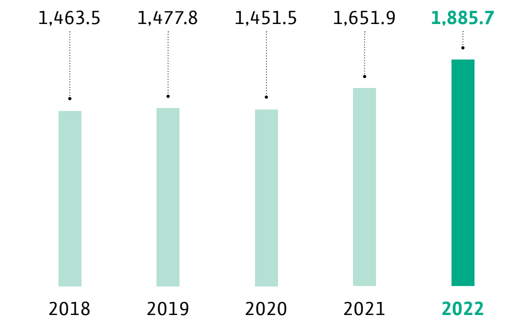
Results of operations

Net sales development

The Wilo Group increased its net sales by an impressive 14.2 percent to EUR 1,885.7 million in the 2022 financial year. Positive exchange rate effects provided moderate support of 0.5 percentage points for this development. Organic sales growth, i.e. after adjustment for exchange rate and acquisition effects, amounted to 12.8 percent.

Net sales development in the individual sales regions was as follows in the 2022 and 2021 financial years:

Net sales development
in EUR million



Net sales development by region

EUR million	**2022**	2021	Change in %	Change after adjustment for exchange rate effects in %
Established markets	1,113.8	963.3	15.6	14.4
Growth markets	771.9	688.6	12.1	12.7
Total	1,885.7	1,651.9	14.2	13.7

The established markets and growth markets consisted of the following countries as at 31 December 2022:
– Established markets: All European nations, USA and Canada
– Growth markets: China, India, South Korea, the Southeast Asian nations, Australia and Oceania, Russia, Belarus, the Caucasian nations, Turkey, the Middle East, Africa, Latin America

ESTABLISHED MARKETS. Net sales in the established markets increased by 15.6 percent or EUR 150.5 million to EUR 1,113.8 million in 2022. After adjustment for exchange rate effects, growth amounted to 14.4 percent. This meant that net sales in these markets broke through the billion-euro barrier for the first time. Development was largely consistent across the established markets. The main growth drivers were the successive price increases imposed in response to the sharp rise in material, component, energy and logistics costs. However, volumes also increased in spite of the supply chain disruption and the resulting limited availability of precursors in some cases. The increasingly stringent environmental regulations concerning CO_2 reductions mean that demand for energy-efficient products is unbroken. This trend is being supported by a wide range of government subsidy programmes.

In Europe in particular, the dramatic rise in energy prices led to a substantial upturn in demand for energy-saving high-efficiency pumps and alternative heating systems. The second half of the year was also characterised by catch-up effects. As the availability of precursors improved from the third quarter of 2022 onwards, Wilo was able to gradually process the high level of orders on hand, which had been building up since 2021 as a result of sustained disruption to global supply chains.

Germany, the Wilo Group's largest individual market, saw substantial year-on-year net sales growth of 12.4 percent in 2022. As previously, the growth drivers were the Building Services segment and OEM business thanks to substantial demand for modern, energy-efficient and non-fossil fuel heating systems. Government subsidies for improving energy efficiency as part of the climate package also supported this development. France saw similar performance, with net sales rising by 12.5 percent.

Italy recorded more moderate net sales growth of 4.7 percent. While strong project business in the Building Services segment delivered growth, net sales in the OEM market segment remained at the prior-year level.

Double-digit growth rates were recorded in almost every market in Eastern Europe, with growth exceeding 30 percent in some cases. In Poland and the Baltic states, new business with systems and solutions generated healthy growth. Wilo's market position in this segment is particularly strong in these countries. One exception to the regional trend was Ukraine due to the outbreak of war in late February 2022. Net sales declined by more than 26 percent on a full-year basis. Faced with extremely difficult local conditions, the subsidiary is continuing its business activities as best as possible and supporting the operation and rebuilding of critical infrastructure in water management, among other things.

In the Benelux nations, net sales increased by around 18 percent year-on-year overall. Strong growth was recorded in the Netherlands on the back of good wholesale business in Building Services as well as service business, which benefited from the reorientation and successful integration of the service company WRI-TECH that was acquired in the previous year. Net sales development in Belgium was more muted, although OEM business delivered positive momentum.

In the Nordic nations, Wilo enjoyed dynamic net sales growth of more than 23 percent. Sweden performed especially well on the back of OEM business in particular. The other Nordic nations also recorded positive business development.

Net sales in the United Kingdom increased by 13.8 percent. In addition to good performance in the Water Management market segment, Building Services picked up over the course of the year as product availability improved, allowing orders on hand to be processed. The OEM segment also recorded high growth rates.

Net sales on the North American market increased significantly. The USA enjoyed extremely strong net sales growth of 40.9 percent. Among other things, this was due to positive exchange rate effects and the acquisition of QuantumFlo, Inc. in late 2021. Even adjusted for these developments, organic growth was higher than the Group-wide average at 16.8 percent. The plant in Cedarburg that was opened in the year under review allows the local market to be served efficiently and in line with requirements. The bundling of production capacities at the plant enabled Wilo to leverage additional potential for efficiency improvements and rapidly process the high level of orders on hand as material and component availability continued to improve during the course of the year. In Canada, net sales also increased by 11.6 percent year-on-year thanks to strong project business.

GROWTH MARKETS. Net sales in the growth markets rose by 12.1 percent. In absolute terms, this represented an increase of EUR 83.3 million to EUR 771.9 million. After adjustment for exchange rate effects, net sales rose by 12.7 percent.

China saw net sales growth of 11.2 percent. This development was supported by the appreciation of the Chinese renminbi against the Group currency, the euro. After adjustment for exchange rate effects, net sales rose by just 3.6 percent. New outbreaks of COVID-19 infections and the strict lockdowns imposed by the Chinese government led to renewed disruption to supply and service chains. Together with the general slowdown in the country's construction industry, this curbed development in local currency.

On the South Korean market, net sales increased by 6.4 percent year-on-year despite the weak performance of the construction sector. The Building Services segment saw the highest growth rate on the back of the expansion of the distribution network and targeted sales campaigns. Strong project business in the Industry market segment also contributed to this positive business development, including the installation of cooling pumps in data centres.

Net sales in India increased by an impressive 32.3 percent, or 25.2 percent after adjustment for exchange rate effects. One of the growth drivers was the Industry market segment, where orders were completed in the oil and gas sector and the energy sector. Strong project business also contributed to the above-average growth thanks to targeted market cultivation in the Water Management segment. This development was supported by the infrastructure measures initiated by the Indian government in the areas of water supply and wastewater disposal.

Net sales in Southeast Asia increased by 9.8 percent, with strong growth in Vietnam, Malaysia, Taiwan and Singapore more than offsetting the downturn in Indonesia. The Building Services segment saw positive development, whereas net sales declined in the Industry and Water Management market segments.

Net sales in the Eurasian region declined by 7.3 percent. Uzbekistan and Kazakhstan recorded growth rates of over 50 percent and 60 percent respectively. However, this was not sufficient to offset the downturn in net sales in Russia, where business contracted significantly compared with the previous year due to the imposition of sanctions and the accompanying restrictions on the movement of goods. Net sales fell by around 15 percent in absolute terms or almost 30 percent after adjustment for exchange rate effects.

Net sales in Turkey increased by 15.4 percent in spite of the extremely difficult external business conditions resulting from the weak local currency. This development was driven in particular by the Building Services Commercial market segment, which saw lively business with major distributors, as well as strong project business. The Industry market segment also developed positively, including the completion of some projects in the oil and gas sector.

In the Middle East and North Africa, net sales saw extraordinary strong growth of 41.7 percent. As previously, the main growth driver was Egypt, where work continued on a major project in the Water Management market segment. Wilo is delivering the pumps for the Toshka project, which involves the construction of a system of canals to irrigate the Western Desert of Egypt. Growth momentum was also delivered by strong project business in the Building Services Commercial and Building Services Industry market segments in the United Arab Emirates.

Net sales in Central and Southern Africa increased by 4.2 percent. The Wilo Group's activities in this region are characterised by project business, meaning that they are subject to more pronounced fluctuations. While Nigeria and Kenya saw substantial growth in net sales in 2022, a downturn was recorded in Cameroon and Côte d'Ivoire. Net sales in South Africa remained at the prior-year level.

Net sales in the Latin American nations enjoyed exceptionally strong growth of 71.6 percent. All countries in the region recorded high growth rates. Even Brazil, which was particularly hard hit by the COVID-19 pandemic, saw a pronounced recovery in 2022 with net sales more than doubling.

Earnings development

Earnings development

EUR million		2022	2021	Change in %
Net sales	in EUR million	1,885.7	1,651.9	14.2
Gross profit *Gross margin*	in EUR million *in %*	615.0 *32.6*	529.6 *32.1*	16.1 *0.5 pp*
Earnings before interest, taxes, depreciation and amortisation (EBITDA) *EBITDA as a percentage of net sales (EBITDA margin)*	in EUR million *in %*	196.7 *10.4*	181.1 *11.0*	8.6 *–0.6 pp*
Earnings before interest and taxes (EBIT) *EBIT as a percentage of net sales (EBIT margin)*	in EUR million *in %*	97.0 *5.1*	92.5 *5.6*	4.9 *–0.5 pp*
Net finance costs	in EUR million	–8.2	–8.6	4.7
Consolidated net income before taxes	in EUR million	88.8	83.9	5.8
Consolidated net income	in EUR million	**61.1**	49.0	24.7

Gross profit increased by EUR 85.4 million year-on-year to EUR 615.0 million. The gross margin improved by 0.5 percentage points to 32.6 percent. This was due in part to positive mix effects resulting from above-average growth in the established markets, which generate higher margins than the Group average. At the same time, the dramatic increase in material, component, energy and freight costs was largely offset by the implemented price increases. The higher net sales volume also had a positive effect in terms of fixed cost degression.

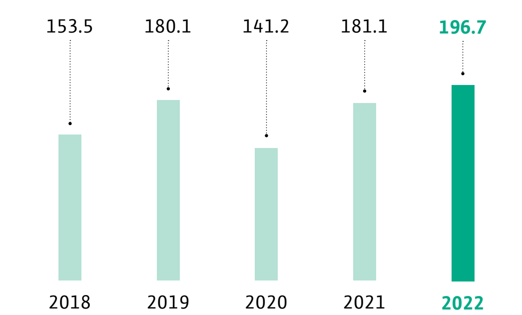
Selling and administrative expenses increased by 16.4 percent or EUR 63.6 million year-on-year to EUR 451.2 million. Among other things, this was due to higher staff costs following the workforce expansion as well as regular salary increases. In addition to company acquisitions, the number of employees increased due to the fact that the Group strengthened its global sales and service structures in particular so that it can participate in the expected future growth in the respective regions to an even greater extent. As in the previous year, vacant positions in administrative and support functions around the world were also gradually filled in the year under review. Many positions were left temporarily vacant due to strict cost targets and the uncertainty in connection with the onset of the COVID-19 pandemic in early 2020. Selling expenses also increased as a result of trade fair appearances, customer events and business travel, which continued to return to normal levels following the pandemic-related reduction in the previous years. Higher energy prices and the sharp rise in the cost of outgoing shipments due to net sales growth and inflation also had an impact. Furthermore, the IT security infrastructure was strengthened significantly in the year under review by implementing additional protective measures in response to the growing threat of cyber crime. Finally, non-recurring costs were incurred in the year under review for the worldwide events and celebrations to mark the Wilo Group's 150th anniversary.

As a customer-oriented premium provider, the Wilo Group relies on pioneering, innovative products and technologies. This means research and development play a central role. In the year under review, the Wilo Group therefore continued its activities in this area unabated and with intensity. Research costs recognised in profit or loss and non-capitalised development costs amounted to EUR 67.3 million (previous year: EUR 55.8 million). This equates to an increase of 20.7 percent. Among other things, this substantial rise was due to the fact that many of the current development projects were still at an early stage and hence did not yet fulfil the conditions for capitalising the respective development costs.

Other operating income declined from EUR 6.3 million to EUR 0.6 million. This was mainly due to a EUR 8.3 million decrease in the foreign exchange result from operating activities.

Earnings before interest, taxes, depreciation and amortisation (EBITDA) therefore increased by EUR 15.6 million or 8.6 percent to EUR 196.7 million. The EBITDA margin (ratio of EBITDA to net sales) declined from 11.0 percent in the previous year to 10.4 percent. The Wilo Group's profitability was impacted by the dramatic increase in material, energy and logistics costs as well as higher selling and administrative expenses, which could not be fully passed on in the form of price increases. With write-downs of EUR 10.0 million also affecting profitability, operating earnings before interest and taxes (EBIT) improved by just EUR 4.5 million to EUR 97.0 million.

EBITDA
in EUR million

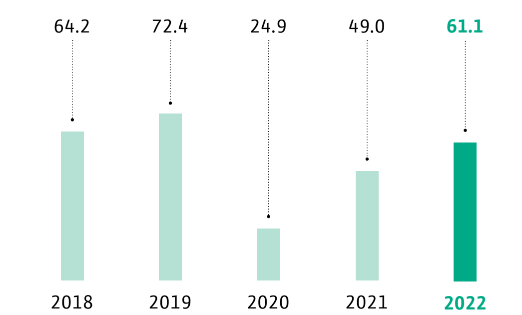


The net finance costs of the Wilo Group improved slightly by EUR 0.4 million, from minus EUR 8.6 million in the previous year to minus EUR 8.2 million in the year under review. Although net interest costs deteriorated from minus EUR 6.4 million to minus EUR 9.7 million, this was more than offset by the EUR 2.4 million improvement in net foreign-currency income from financing activities and the EUR 1.3 million increase in net income from the utilisation and measurement of derivative financial instruments. The EUR 3.3 million rise in net interest costs was due to the increase in financial liabilities in absolute terms as well as the higher average interest rate for the credit portfolio following the issuance of the promissory note and senior notes in August and September 2022 respectively.

Income taxes amounted to EUR 27.7 million (previous year: EUR 34.9 million). The improvement in pre-tax earnings meant that current tax expense increased from EUR 28.9 million to EUR 30.7 million. Deferred tax income of EUR 3.0 million was recorded in the year under review after deferred tax expenses of EUR 6.0 million in the previous year, which were largely due to non-recurring effects. The reversal of deferred tax assets recognised in connection with restructuring provisions led to higher deferred tax expenses in the previous year.

Consolidated net income improved significantly by EUR 12.1 million to EUR 61.1 million. The return on sales, which describes the Wilo Group's ratio of consolidated net income to net sales, increased from 3.0 percent in the previous year to 3.2 percent in the year under review.

Consolidated net income
in EUR million

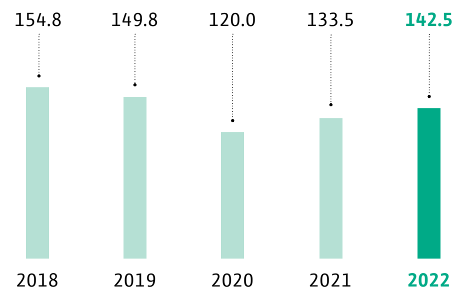


Cash flows

Capital expenditure

Capital expenditure on intangible assets and property, plant and equipment (not including company acquisitions and leases) increased by EUR 9.0 million year-on-year to EUR 142.5 million in 2022. To secure the strategic objective of long-term profitable growth, activities again focused on the further development of global capacities and structures for production and sales as well as the implementation of new technologies.

Capital expenditure on intangible assets and property, plant and equipment*
in EUR million



* not including company acquisitions and leases

In the year under review, capital expenditure again primarily related to the strategic location development project in Dortmund with a timeframe of several years and the modernisation and adjustment of the corresponding production capacities. Investment in this area totalled around EUR 60 million in 2022. The comprehensive transformation of Wilo's headquarters – the Wilopark – is centred on the smart factory, a state-of-the-art production facility that integrates key elements of the Industry 4.0 vision. This was completed in 2019, with production subsequently commencing as planned. In the year under review, the smart factory won the prestigious industrial award "Factory of the Year 2022" in the "Outstanding Transformation: Digitalisation" category. In 2020, the Group moved into the Pioneer Cube, a modern office building that is home to around 500 head office employees. Construction work at the Wilopark continued as planned in the year under review. This included the start of work on the building shell for the Networking Cube, a new centre for customers, training, events and seminars. The Innovation Cube is a state-of-the-art complex that will be home to the research and development department including a test laboratory from the end of 2023. At the family festival in September 2022 to mark the company's 150th anniversary, Wilo's own hydrogen plant was inaugurated at the Wilopark. The Wilo-H_2POWERPLANT uses electrolysis to convert energy from the sun and water into green hydrogen, which is stored locally and converted back into electrical and thermal energy as required. Among other things, it can be used as a back-up power system or to supply energy to buildings. This system is a pilot project for solutions that can be rolled out to other Wilo locations around the world and offered to external partners.

The Wilo Group also invested in corresponding production capacities with a view to current and future changes in the product portfolio, growing market demand and further improvements in cost efficiency. In the year under review, the smart factory in Dortmund was fitted with an additional fully automated line for electronics production as well as a state-of-the-art line for the series production of high-efficiency circulator pumps of the Wilo-Para MAXO series. Additional systems for the automated manufacturing of parts for engine production were also purchased as part of the increase in vertical integration. These systems are characterised by superior manufacturing technology thanks to a high degree of automation and efficiency gains. The existing production capacities in Aubigny, France, were also adjusted to reflect the high level of demand for OEM products.

Considerable investments were also made in new and existing sales and production locations around the world in the year under review. A new plant combining the business activities of the Wilo, Scot Pump and Weil Pump brands was opened in Cedarburg, Wisconsin (USA), in June. Around 23,000 square metres in size, it encompasses the production and administrative facilities as well as a research and development department, a training centre and warehouse and logistics facilities. The bundling of production capacities for the US market allows additional potential for efficiency improvements to be leveraged. New, state-of-the-art production and administrative buildings are currently also being built in Changzhou, China, and Kesurdi, India. As well as meeting the requirements of modern digital factories, the new smart production sites have been designed with sustainability as a guiding principle in order to make an important contribution to climate protection in future. Construction work at both locations is already at an advanced stage and is expected to be completed during the first and second quarter of 2023 respectively. The engine production facility currently based in Qinhuangdao will also be integrated into the Changzhou site. Once the production systems have been successfully relocated, the plant in Qinhuangdao will be closed.

Above and beyond this, a large portion of capital expenditure in 2022 was again attributable to the expansion of IT infrastructure as part of the Wilo Group's digital transformation. Wilo is developing a new digital commerce platform for wholesale customers around the world, including in cooperation with external partners. The new platform will be fully integrated into its digital sales processes in future.

Development costs including borrowing costs were capitalised in the amount of EUR 12.0 million in the year under review (previous year: EUR 16.1 million).

Further information on purchase commitments for planned capital expenditure on property, plant and equipment can be found in the notes to the financial statements under (13.2) "Contingent liabilities and other financial obligations".

Capital expenditure on intangible assets and property, plant and equipment (not including company acquisitions and leases) broke down as follows in the 2022 and 2021 financial years:

Capital expenditure on intangible assets and property, plant and equipment

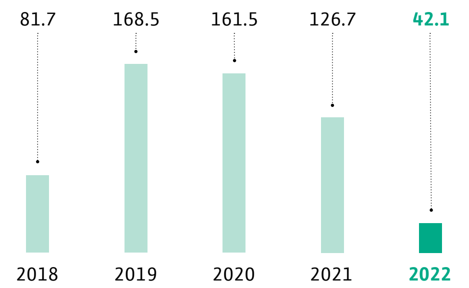
EUR million	2022	2021	Change
Capital expenditure on intangible assets	**21.3**	**25.2**	**-3.9**
Land and buildings	4.5	16.6	-12.1
Technical equipment and machinery	15.4	15.4	0.0
Operating and office equipment	17.4	17.5	-0.1
Advance payments and assets under construction	83.9	58.8	25.1
Capital expenditure on property, plant and equipment	**121.2**	**108.3**	**12.9**
Total	**142.5**	**133.5**	**9.0**

As part of its M&A activities, the Wilo Group acquired all shares in the German companies FSM Frankenberger GmbH & Co. KG and WSM Walower Stahl- und Maschinenbau GmbH. It also increased its stake in the German-Chinese joint venture Guhong Environmental Engineering Equipment Co., Ltd., to 75 percent, thus acquiring a majority interest. Furthermore, the Wilo Group acquired all shares in the existing joint venture Mating Membrane Technology Co., Ltd., China. Including company acquisitions, investments amounted to EUR 155.3 million in the past financial year.

Cash flow and liquidity

In the 2022 financial year, cash flow from operating activities declined by EUR 84.6 million to EUR 42.1 million. This was largely due to the substantial increase in working capital of EUR 134.3 million after adjustment for exchange rate effects. Inventories rose substantially to EUR 103.4 million. In addition to inflation, this was attributable to the increase in inventories to reflect the high level of incoming orders and orders on hand, as well as the establishment of targeted stock buffers in order to counteract the ongoing supply chain restrictions and bottlenecks and to minimise their impact on production processes. The growth in net sales meant that trade receivables increased to a greater extent than in the previous year, amounting to EUR 45.0 million. Although trade payables also rose by EUR 14.0 million, this development was considerably less pronounced than the growth in inventories or compared to the previous year.

Cash flow from operating activities
in EUR million



Net cash used in investing activities fell slightly by EUR 23.0 million to EUR 145.4 million in the year under review. This was mainly due to two offsetting effects. Although payments for capital expenditure on property, plant and equipment increased compared with the previous year, payments for company acquisitions declined over the same period. At EUR 121.2 million, payments for capital expenditure on property, plant and equipment were EUR 12.9 million higher than in the previous year. Construction work on the Wilopark in Dortmund and new production and administrative buildings in China and India continued in 2022. The new plant in the USA was inaugurated in June. Investments were also made in the expansion and modernisation of production capacity. Payments for company acquisitions amounted to EUR 12.8 million in the year under review, down EUR 26.0 million on the previous year.

Net cash from financing activities amounted to EUR 177.8 million, representing a year-on-year increase of EUR 144.9 million on the previous year.

As part of the biggest refinancing in the history of the Wilo Group, the 2022 financial year saw the placement of a traditional promissory note with a volume of EUR 224.0 million and the issuance of senior notes with a volume of EUR 95.0 million as part of a US private placement. This was offset by the repayment of the syndicated loan, which meant that utilisation of the loan facility was EUR 140.0 million lower than in the previous year. A cash inflow of EUR 15.3 million resulted from the sale of treasury shares, while the dividend payment to the shareholders of WILO SE resulted in a cash outflow of EUR 11.8 million (previous year: EUR 8.1 million). In addition, repayments of lease liabilities and the corresponding interest payments reduced the cash flow from financing activities by EUR 15.8 million (previous year: EUR 16.5 million).

The individual cash flows for the 2022 and 2021 financial years were as follows:

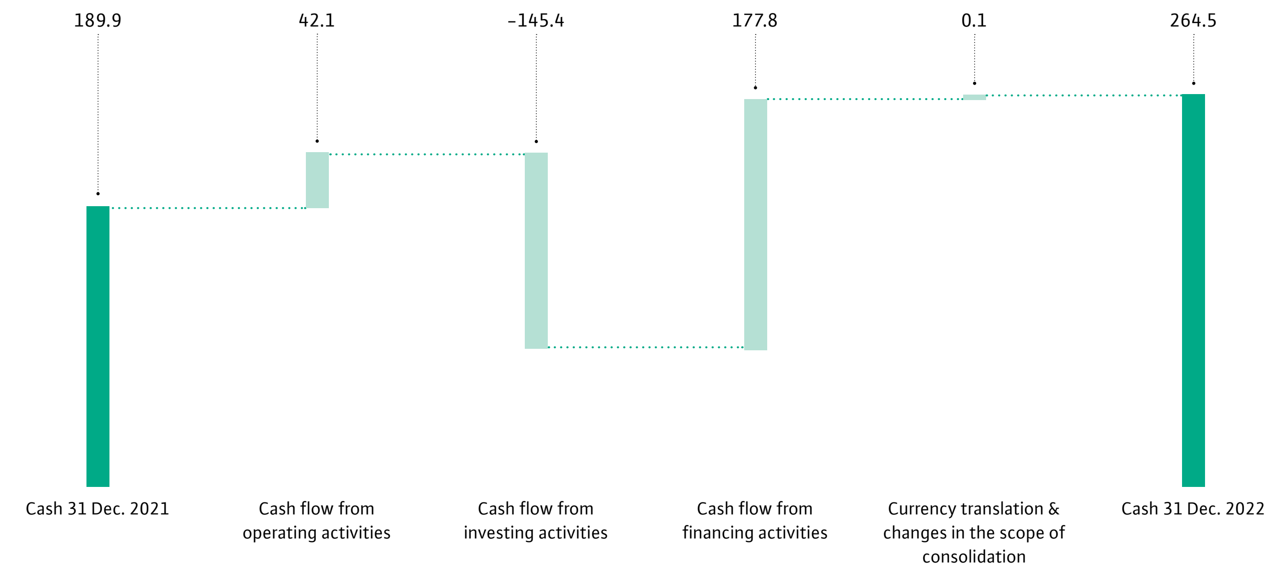
Cash flows

EUR million	2022	2021	Change
Cash flow from operating activities	42.1	126.7	-84.6
Cash flow from investing activities	-145.4	-168.4	23.0
Cash flow from financing activities	177.8	32.9	144.9
Change in cash	**74.5**	**-8.8**	**83.3**
Cash at the end of the financial year	264.5	189.9	74.6
Free cash flow	-114.7	-49.3	-65.4

The substantial increase in working capital meant that the Wilo Group generated a negative free cash flow of minus EUR 114.7 million. This is calculated as the difference between the cash flows from operating and investing activities including interest income and expenses and dividends received.

Including the slightly negative net effects of currency translation in the amount of EUR 0.1 million and changes resulting from the basis of consolidation in the amount of EUR 0.2 million, cash increased by EUR 74.6 million to EUR 264.5 million as at 31 December 2022.

Change in cash
in EUR million



Financial management

The goal of financial management is to maintain the financial independence of the company, ensure liquidity at all times and support the operating activities of the Wilo Group. In addition to its operating cash flow, the Wilo Group has sufficient financing facilities from international banks for this purpose, consisting of short and medium-term cash credit facilities as well as guarantee and margin facilities with a total volume of around EUR 400 million. In particular, this includes a syndicated loan with a credit facility of EUR 300.0 million and a term to 2024. EUR 2.5 million of the cash credit facilities were utilised as at 31 December 2022 (previous year: EUR 175.6 million). Guarantee and margin facilities were utilised in the amount of EUR 25.6 million (previous year: EUR 27.9 million).

The Wilo Group's financial liabilities increased by EUR 202.3 million to EUR 616.3 million as at 31 December 2022.

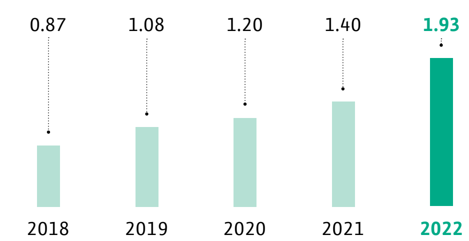
In August 2022, WILO SE placed a traditional promissory note on the international capital market for the first time with a volume of EUR 224.0 million. The terms of the various tranches range from three to ten years. Despite the difficult market environment, the transaction met with a very high level of interest among national and international investors. Almost 40 investors received an allotment. This "green promissory note" includes an ESG (environmental, social and governance) component, ensuring that Wilo's leading holistic sustainability approach is also reflected in its financing strategy. In this way, the Wilo Group is visibly reinforcing its commitment in the area of climate protection and sustainability and underlining its aspiration to think and act sustainably. A US private placement with a volume of EUR 95.0 million and terms of between ten and 15 years was also realised in September 2022. The promissory note and the US private placement both have a bullet maturity. With these two successful placements, the Wilo Group completed the biggest refinancing in its 150-year history, optimising its financing structure and expanding its investor base in a highly uncertain geopolitical environment characterised by increasingly volatile capital markets.

Financial liabilities also include senior notes in the amount of EUR 37.0 million and USD 30.0 million. These senior notes, each of which has a ten-year term, were issued by WILO SE in US private placements in 2013 and 2017. The Wilo Group has another senior note with a volume of EUR 90.0 million maturing in 2035 that was issued in 2020 as part of a US private placement. The Group also has a promissory note loan with a volume of EUR 50.0 million and a term of ten years that was taken out in 2017. This loan has been repaid in instalments since 2022. An additional promissory note loan with a volume of EUR 15.0 million and a term to 2030 was taken out in 2020 and will be repaid in instalments. Furthermore, a KfW development loan of EUR 19.5 million with a term of ten years was concluded in 2017 to finance the administrative building as part of the construction project at the Dortmund location. The loan amount has been drawn down since 2018 according to the progress of construction. Repayment is made in instalments since the expiry of two redemption-free years. The KfW development loan had a carrying amount of EUR 12.2 million as at 31 December 2022 (previous year: EUR 14.6 million).

The Wilo Group operates active portfolio management with regard to the origin, type and maturity structure of its borrowings. Financing policy focuses primarily on both return and security targets.

WILO SE currently expects to be able to repay all the tranches of the senior notes and promissory note loans and all other loan liabilities and overdrafts on time from its budgeted cash flows from operations, as well as through refinancing measures as required. There is no indication that the volatility and deterioration of the global economic and financial market environment could have a material negative impact on the Wilo Group's financing activities. As at 31 December 2022, cash amounted to EUR 264.5 million (previous year: EUR 189.9 million). The Wilo Group's leverage, i.e. the ratio of the net financial position (financial liabilities and lease liabilities less cash) to consolidated EBITDA (adjusted for any restructuring costs), increased from 1.40 at the end of the previous year to 1.93 as at 31 December 2022. This was largely due to the higher level of financial liabilities.

Leverage



→ *More detailed information on the financing structure can be found in note (9.11) of the notes to the consolidated financial statements on* ***page 140 et seq.***

Financial position

The Wilo Group's total assets increased considerably by 17.4 percent or EUR 322.7 million compared with the end of the previous year to EUR 2,178.6 million as at 31 December 2022. Non-current assets rose by 7.2 percent or EUR 73.1 million to EUR 1,087.2 million. This was attributable in particular to capital expenditure on intangible assets and property, plant and equipment in the amount of EUR 142.5 million. Capital expenditure on property, plant and equipment amounted to EUR 121.3 million and mainly related to location development projects in Dortmund, China, India and the USA, as well as new manufacturing technologies. The Wilo Group also invested EUR 21.3 million in intangible assets, of which EUR 11.5 million related to capitalised development costs plus capitalised borrowing costs of EUR 0.5 million. The acquisition of all the shares in FSM Frankenberger GmbH & Co. KG and WSM Walower Stahl- und Maschinenbau GmbH and the increase in the stake in Guhong Environmental Engineering Equipment Co., Ltd. resulted in derivative goodwill of EUR 9.2 million in the year under review. Amortisation of intangible assets and depreciation of property, plant and equipment amounted to EUR 99.7 million in the year under review. In addition, positive exchange rate effects resulted from the remeasurement of intangible assets and property, plant and equipment originally held in foreign currency in the amount of EUR 13.7 million. Intangible assets and property, plant and equipment therefore increased by EUR 80.3 million in total.

The carrying amount of current assets also rose very sharply by 29.7 percent or EUR 249.6 million to EUR 1,091.4 million in 2022. The main reason for this development was the EUR 114.3 million increase in inventories to EUR 436.3 million, which was primarily due to three factors. Firstly, the high level of orders on hand and the encouraging volume of incoming orders required correspondingly high order volumes for raw materials and components. The year under review also saw significant inflation in terms of material and component prices. Moreover, additional stock buffers were established in a targeted manner in response to the extensive disruption on the procurement markets and global supply chain problems. In addition to these main factors, a further EUR 11.3 million related to the first-time consolidation of the companies acquired in the year under review.

Current trade receivables rose by 18.0 percent or EUR 51.0 million to EUR 335.1 million as a result of the net sales development. Working capital, which is defined as current and non-current trade receivables plus inventories less current and non-current trade payables, increased by 38.8 percent overall to EUR 529.0 million. This was due in particular to the growth in inventories, most of which was pursued actively. Cash amounted to EUR 264.5 million as at 31 December 2022 and was thus EUR 74.6 million higher than at the end of the previous year.

The Wilo Group's equity increased by 11.2 percent or EUR 94.1 million year-on-year to EUR 930.9 million as at 31 December 2022. This was mainly due to the consolidated net income of EUR 61.1 million. Equity was also increased by the positive effects of the translation of the foreign-currency financial statements of subsidiaries into the Group currency in the amount of EUR 5.8 million and actuarial gains from pension obligations after deferred taxes in the amount of EUR 19.5 million. Furthermore, WILO SE sold treasury shares in the amount of EUR 15.3 million in December 2022. By contrast, the dividend payment to shareholders reduced equity by EUR 11.8 million. As equity did not increase to the same extent as liabilities, the equity ratio declined slightly from 45.1 percent at the end of the previous year to 42.7 percent as at 31 December 2022.

As at 31 December 2022, non-current liabilities in the amount of EUR 666.1 million primarily consisted of financial liabilities in the amount of EUR 542.9 million and provisions for pensions and similar obligations of EUR 63.1 million. Non-current financial liabilities increased by EUR 154.7 million as at the end of the year under review. This was due in particular to the placement of a traditional promissory note in the amount of EUR 224.0 million and the issuance of senior notes with a volume of EUR 95.0 million and terms of between three and 15 years as part of a US private placement. By contrast, the syndicated loan of EUR 140.0 million was repaid in full, meaning it was no longer utilised at the reporting date. A senior note with a volume of EUR 37.0 million that will mature in 2023 was reclassified to current financial liabilities. Provisions for pensions and similar obligations declined substantially by EUR 27.7 million to EUR 63.1 million. This was mainly due to the increase in the discount rate from 1.24 percent to 3.87 percent.

The carrying amount of current liabilities rose by EUR 89.9 million year-on-year to EUR 581.5 million as at 31 December 2022. Current financial liabilities increased by EUR 47.5 million to EUR 73.4 million, largely as a result of the senior note with a volume of EUR 37.0 million that is scheduled for repayment in 2023.

Other current liabilities rose by EUR 30.2 million to EUR 142.1 million. This was mainly due to liabilities to employees and advance payments received, which increased by EUR 14.2 million and EUR 7.5 million respectively. Liabilities for other taxes also increased by EUR 6.5 million.

The net assets of the Wilo Group were as follows as at 31 December 2022 and 2021:

Financial position

EUR million	2022	%	2021	%
Non-current assets	1,087.2	49.9	1,014.1	54.6
Inventories	436.3	20.0	322.0	17.4
Current trade receivables	335.1	15.4	284.1	15.3
Cash	264.5	12.1	189.9	10.2
Other current assets	55.5	2.5	45.8	2.5
Total assets	**2,178.6**	**100.0**	**1,855.9**	**100.0**
Equity	930.9	42.7	836.8	45.1
Non-current liabilities	666.1	30.6	527.6	28.4
Current trade payables	247.3	11.4	233.5	12.6
Other current liabilities	334.3	15.3	258.0	13.9
Total equity and liabilities	**2,178.6**	**100.0**	**1,855.9**	**100.0**

Statement by the Executive Board on the economic situation

2022 represented a historical turning point in many respects. Russia's war of aggression against Ukraine not only caused unimaginable suffering for people in the region affected by the conflict, but also led to far-reaching disruption in terms of geopolitics, energy policy and economic development. The invasion in violation of international law delivered a lasting shock to confidence in international agreements and fundamentally called into question the post-war order in Europe. This posed an additional burden to supply chains that were already strained as a result of the COVID-19 pandemic, while energy and material prices increased dramatically. Rising interest rates, high inflation and the volatile economic outlook represented significant challenges for market participants around the world and led to growing uncertainty.

Despite this fragile environment and the large number of adverse factors, the Wilo Group succeeded in bringing the 2022 financial year to a successful conclusion. Net sales increased by more than 14 percent to around EUR 1.9 billion. Organic sales growth, i.e. growth adjusted for the effects of exchange rates and first-time consolidation, amounted to around 13 percent, thus exceeding the target of high single-digit sales growth that had been set at the start of the year. Although this development was mainly due to the successive price increases that were required in response to inflation, total volumes also increased. However, massive disruptions to supply chains prevented stronger volume growth.

Despite extensive measures to secure and stabilise supply chains, shortages of materials and components – including semiconductors – led to disruption to production processes and delays in delivery. As a result the high level of orders on hand and the encouraging volume of order intake could not be adequately processed, especially in the first half of the year. Volume growth picked up from the third quarter onwards as material and component availability improved.

On the back of extremely positive net sales development and in spite of various negative factors, earnings before interest, taxes, depreciation and amortisation (EBITDA) improved to EUR 196.7 million, thereby also exceeding the prior-year level to a slightly greater extent than anticipated. However, the positive effects of the higher net sales volume were offset by a dramatic upturn in energy, material and freight costs. Selling and administrative expenses also increased, especially as a result of higher staff costs and additional investments in IT security to combat heightened cyber risks as well as non-recurring expenses in connection with events such as the company's anniversary. In addition, the prior-year cost base for selling expenses was low due to corona-related contact restrictions and is not directly comparable. All in all, profitability in terms of the EBITDA margin did not increase as originally forecast, but instead declined slightly by 0.6 percentage points to 10.4 percent.

To secure its strategic objective of sustainably profitable growth, Wilo's investments in the year under review were very high once again at around EUR 155 million. As previously, investment activity concentrated on the construction and expansion of new and existing sales and production facilities with a focus on the future-oriented extension of production capacities. A new plant was opened in Cedarburg, Wisconsin (USA), in June. Around 23,000 square metres in size, it encompasses the production and administrative facilities as well as a research and development department, a training centre and warehouse and logistics facilities. Construction work in Changzhou, China, and Kesurdi, India, is now also nearly complete. These sites will also be home to new, state-of-the-art production and administrative buildings. As well as meeting the requirements of modern digital factories, the new smart production sites have been designed with sustainability as a guiding principle. By 2025, all of Wilo's main production sites around the world will be carbon-neutral. The Wilo Group also continued to expand its water management portfolio in a targeted manner with the strategic acquisition of companies in Germany and China specialising in water and wastewater treatment and flood control. In line with its corporate strategy, Wilo therefore systematically pressed ahead with its planned evolution from an expert for heating applications into a full-service provider of solutions for all applications in the areas of transport and the utilisation and treatment of water and wastewater.

In a volatile macroeconomic environment characterised by considerable uncertainty, a solid balance sheet and financing structure are essential for any company looking to ensure stability and successful economic performance even in times of crisis. In the year under review, the Wilo Group completed the biggest refinancing in its 150-year history in order to further reinforce its financial flexibility and stability. In August 2022, a traditional promissory note was placed on the international capital market for the first time. The transaction met with a very high level of interest among national and international investors. As the order book was significantly oversubscribed, the volume of the promissory note was increased from the original target of EUR 150 million to EUR 224 million, with around 40 investors receiving an allotment. The promissory note includes an ESG component, ensuring that Wilo's leading holistic sustainability approach is also reflected in its financing strategy. In this way, the Wilo Group is visibly reinforcing its commitment in the area of climate protection and sustainability and underlining its aspiration to think and act sustainably. Additionally, senior notes with a total volume of EUR 95.0 million were issued in September 2022 as part of a US private placement. Given that the geopolitical environment is highly uncertain at present and expected to remain so in the future, as well as with a view to the ongoing turnaround in interest rate policy and the risk of growing capital market volatility, these transactions have enabled the Wilo Group to further optimise its financing structure and sustainably expand its investor base in a forward-looking manner, including with a view to security. As a result, the Wilo Group will remain robustly positioned for the foreseeable future and will have the ability to act rapidly in order to pursue its objectives even in the face of increasingly challenging external conditions on various fronts.

The increase in working capital was higher than forecast due to sustained supply chain disruption and the stock buffers built up in response to this development. This meant that leverage also increased to a greater extent than originally anticipated. In light of the Wilo Group's stable and profitable growth path, however, leverage of 1.93 still represents a low level that is well within the limits set out in the respective financing agreements.

While the Wilo Group and its stakeholders were faced with a number of concerns and challenges in the past financial year, there were also plenty of reasons to celebrate. In 2022, the Wilo Group looked back with pride at its successful 150-year history. Founded as Kupfer- und Messingwaren-Fabrik by Caspar Ludwig Opländer in Dortmund in 1872, the company has since evolved into a technology group with more than 8,400 employees and a global presence. Two principles have shaped the path of Wilo across five generations of entrepreneurs: consistency and adaptability. Given the serious upheaval affecting the economy and society at present, these qualities will be especially important when it comes to ensuring the company's continued successful economic development in the future. The Wilo Group celebrated its 150-year success story with events in various locations including Germany, France, China, Korea and the USA. One of the highlights was the family festival at the Wilopark in Dortmund, which was attended by around 3,500 employees, family members, friends and invited guests from around the world. After three years of the pandemic and the various hardships and restrictions this entailed, the event was an opportunity to thank all of Wilo's employees for their exemplary dedication and loyalty.

Wilo regards itself as a climate protection company that has been and still is an energy efficiency pioneer. Integrity, fairness, respect, passion and responsibility are the inviolable values by and with which the entire company works. In conjunction with the sustainability strategy developed in 2018, the Wilo Group set itself ambitious goals and began implementing a number of measures. In the year under review, these sustainability initiatives were awarded "Platinum" status – the highest rating – by EcoVadis, a world-leading provider of sustainability assessments for companies. This means Wilo is ranked among the top one percent of companies evaluated. The rating reflects the continuous implementation and integration of measurable and traceable initiatives in the areas of the environment, labour law and human rights, ethics, and sustainable procurement practices. The Executive Board is extremely proud that the Wilo Group has been recognised in this manner. This confirms the success of the continuous sustainability work throughout the Group and demonstrates that industrial companies can use forward-looking and technology-neutral solutions to make an essential contribution to climate protection and sustainability.

In light of the exceptionally challenging macroeconomic and geopolitical environment and the specific factors for the Wilo Group's business, the Executive Board has a very positive assessment of the company's business performance and economic situation in terms of the substantial growth generated, the increase in EBITDA and consolidated net income, its strong market presence and innovative capacity, and its solid financing structure.

In summary, the Executive Board continues to assess the economic situation of the Wilo Group to be stable and sustainable. This assessment is based on the results in the consolidated financial statements and the separate financial statements of WILO SE for 2022 and takes into account business performance up until the preparation of the 2022 Group management report. At the time of this Group management report being prepared, business performance in early 2023 is in line with the Executive Board's expectations.

The Wilo Group again proved to be highly resilient and crisis-resistant in the 2022 financial year. With its stable shareholder structure, clearly defined strategy and financial strength, Wilo is excellently positioned to continue to enjoy successful and profitable development even in turbulent times. Last but not least, the impressive commitment of the entire Wilo team was an important factor in bringing this exceptionally challenging financial year to a successful conclusion.

REPORT ON RISKS AND OPPORTUNITIES

- → **Integrated risk management system ensures transparency and security**
- → **Opportunities management enables the systematic identification and realisation of operational and strategic opportunities**
- → **Balanced, future-oriented risk-reward profile enables continued profitable growth in line with the corporate strategy**
- → **No going concern risks identified**

Risk and opportunities policy

The Wilo Group's corporate strategy and business policy are primarily aimed at ensuring the independence of the company, profitable growth, and a long-term increase in enterprise value. As an enterprise with global operations, the Wilo Group is exposed to various risks. At the same time, however, the global focus also gives rise to numerous opportunities. Accordingly, business activity requires the careful monitoring of all relevant risks and opportunities. As a matter of principle, the Executive Board makes its strategic and operational decisions on the basis of a systematic analysis and assessment of identified risks and opportunities with regard to the income, financial and liquidity situation of the Wilo Group in addition to future development. Risks that could jeopardise the future of the company as a going concern, or that are inappropriately high or unclear, are categorically not entered into.

Accordingly, the comprehensive and systematic risk management system that is installed throughout the entire Wilo Group and the forward-looking procedure for managing opportunities are fixed components of corporate management.

Opportunities management

The systematic identification and realisation of operational and strategic opportunities is essential for promoting and ensuring the profitable growth that is the aim of the corporate strategy. As opportunities management is not directly integrated into the risk management system, opportunities are not assessed in line with the methodology prescribed by risk management.

Accordingly, operational opportunities are identified and assessed directly and systematically in the regions, market segments and central functions, which is where the respective markets are monitored and analysed. This allows trends and new developments to be recognised at an early stage and any potential opportunities to be derived. These are evaluated in detail as part of the planning process and incorporated directly into medium-term planning via scenario calculations along with the corresponding measures. Resources are coordinated and allocated at Group level.

Opportunities of elevated strategic significance arising from acquisitions or partnerships are analysed, assessed and implemented at Executive Board level, as are changes in strategy. The corporate foresight process is used to derive and analyse the risks and opportunities potentially arising from the relevant global megatrends and the accompanying future implications for the Wilo Group. In this way, the corresponding opportunities are systematically included in the ongoing development of the corporate strategy.

Risk management system

The Wilo Group has a state-of-the-art, integrated risk management system that is established globally. It ensures that business risks are identified at an early stage and effective countermeasures are initiated quickly and without avoidable delays. Monitoring the measures initiated and their consistent implementation is a key component of this system. Once identified, risks are assessed, managed as far as possible, and monitored at all times.

Risk management at the Wilo Group is organised on a decentralised basis. Level-two managers throughout the Group who act as risk management officers are responsible for risk tracking and reporting. They work in close cooperation with the Group risk manager and are aided by Controlling. Checklists and risk classification ensure uniform risk assessment and procedural comparability throughout the entire Wilo Group. The relevant communication and information platform is provided by software in line with Group requirements.

The Executive Board bears overall responsibility for risk management and defines the risk strategy for the Wilo Group. The risk strategy is implemented throughout the Group using uniform guidelines and processes.

Integral components of the risk management system are:

- the Risk Management Directive
- the risk atlas
- risk management officers in the regions and central functions
- the Group risk manager
- regular risk reporting
- ad hoc risk reporting

The Risk Management Directive of the Wilo Group sets out the principles for handling risks. It also stipulates the requirements for risk reporting, procedures for the measurement of risk and compulsory reporting thresholds. Furthermore, it defines the duties and authorisations of all persons involved in the risk management process.

The risk atlas sets out uniform categories to be used for the structuring of risk identification. To ensure that all relevant risk areas are tracked at all times, the risk atlas is checked for completeness on an ongoing basis and adjusted as required.

The respective risk management officers of the Wilo Group ensure that risks are tracked and controlled in the divisions for which they are responsible. In this way, specific risks are identified and reported on for the individual sales regions and central functions. The Group risk manager coordinates this decentralised risk management process and reports regularly to the WILO SE Executive Board on a quarterly basis and on an ad hoc basis as necessary.

As part of risk identification, Wilo analyses information on customers and suppliers in line with the respective data protection regulations and for internal purposes only. Furthermore, market and competition analyses are prepared and risks relating to the political and macroeconomic environment are monitored and assessed.

The risks identified are analysed using a uniform methodology set out by the Risk Management Directive. The specific probability of occurrence (in the next twelve months), gross and net risk are calculated for each identified risk. The net risk already includes suitable measures to prevent or mitigate risk. The aim of these measures is to reduce the potential loss or the probability of occurrence. Where possible and economically feasible, risks are limited at the Wilo Group by insurance policies or, for financial risks, by the use of suitable derivative financial instruments. The Risk Management Directive also defines binding reporting thresholds.

It stipulates that the risk management officers must report every risk for which the net potential loss exceeds a defined value regardless of the probability of occurrence.

The risks reported by the divisions are aggregated at Group level in the risk management system. The Executive Board receives quarterly and, if necessary in individual cases, immediate reports on the findings of risk analyses.

In addition, the Supervisory Board and the Audit Committee appointed by it, are being kept fully informed of the status and development of the risk management system.

The basic aim of this controlling system is to keep the Wilo Group's overall risk exposure transparent and within acceptable business limits.

Risk classification and risk assessment

The sections below describe the key risks to the Wilo Group. In line with the net risk analysis approach, suitable counter measures, hedges and the general conditions are already taken into account in calculating the respective probability of occurrence and potential loss resulting from risks.

The risks, their probabilities of occurrence and their possible financial impact on EBITDA are measured and classified as follows:

Probability of occurrence

Unlikely	≤ 20 %
Possible	> 20 % ≤ 50 %
Likely	> 50 %

If the probability of occurrence of a potential risk is between 20 percent and 50 percent, the corresponding risk is classed as possible. A potential risk is considered likely if the possibility of the risk actually occurring is higher than 50 percent and unlikely if the possibility is no greater than 20 percent.

Potential negative impact on EBITDA

Low	≤ 10%
Medium	> 10% ≤ 50%
High	> 50%

Overview of business risks

	Probability of occurrence	Potential negative impact on EBITDA
General risks		
Economic environment	Possible	Medium
Extraordinary external disruptions	Possible	Medium
Legal and regulatory environment	Possible	Medium
Industry-specific risks		
Competition	Possible	Medium
Company-specific risks		
Research and development	Possible	Low
Procurement and production	Possible	Medium
Human resources	Possible	Low
Information technology	Possible	Medium
Acquisitions and strategic partnerships	Possible	Medium
Financial risks		
Exchange rates	Likely	Low
Interest*	Possible	None
Commodities	Possible	Low
Defaults	Possible	Low
Financing and liquidity	Unlikely	Low

* The possible impact of interest rate risk relates to net financial costs and is classed as low.
More detailed information can be found in the "Financial risks and opportunities" section of the Group management report.

In the event of the assumed occurrence of a risk, the possible financial impact on EBITDA that can be derived is classified into one of the three categories low, medium or high based on the forecast percentage deterioration of EBITDA. An EBITDA deterioration of between 10 percent and 50 percent is considered a medium earnings impairment. An earnings reduction that is feasible but considered low would therefore have an estimated negative effect on EBITDA of up to 10 percent, while a high financial impact would be an expected negative effect of more than 50 percent. The overarching risk classification in the Wilo Group's risk profile as summarised in the "Overview of business risks" table did not change compared with the previous year.

General risks and opportunities

Economic environment

Economic and market risks can arise due to general economic, political and social trends. The specific development of the construction sector, the sanitary industry and the water and wastewater industries in the respective countries and regions is considered particularly important in terms of industries. The Wilo Group is dependent on these developments to a significant extent. However, the strong international presence of the Wilo Group also helps to balance risk between activities in individual regions.

On account of the uncertainties and risks involved, the Wilo Group carefully observes and continuously analyses economic developments and expectations from a macroeconomic and political perspective as well as with a view to developments in its customers' industries. This allows corresponding countermeasures to be taken at an early stage where necessary in order to secure the current or future economic situation of the Wilo Group to the best possible extent. In particular, this involves specific country risks, which are minimised by way of targeted countermeasures. Although the conditions on the global markets remain extremely uncertain in some cases, meaning that future expectations are subject to risk, selected markets in Asia, Latin America and Africa offer extremely good growth opportunities. However, these populous, high-growth markets also involve heightened risk. The Wilo Group reduces its risk potential considerably by adopting targeted organisational changes, expanding and upgrading local production capacity, optimising their use and leveraging synergies.

Leading economic researchers expect the world economy to see only very muted growth in 2023. Numerous factors including the war in Ukraine, high energy and commodity prices, uncertainty concerning the energy supply, sustained high interest rates and ongoing supply bottlenecks are set to curb the economic expansion and prevent a quick recovery. In addition, the current forecasts are subject to exceptionally high risks. There are currently no signs of an improvement with regard to the war in Ukraine, and the possibility of the conflict spreading to other regions, including NATO member states, and the use of non-conventional weapons cannot be ruled out. Other geopolitical crises, especially those between China and Taiwan or Serbia and Kosovo, could escalate further. The same applies to the existing trade conflicts between the USA and China. Turbulence on the currency, capital and real estate markets is also a possibility if the inflationary trends around the world persist or intensify. The coronavirus pandemic also continues to entail risks. The emergence of more aggressive and more deadly variants could require the imposition of new restrictions and measures to curb the spread, which would have corresponding consequences for everyday life and the economy.

The Wilo Group is closely monitoring these developments and, if necessary, will selectively adjust business policy decisions in a timely manner in order to limit the financial risks to the Group and reassess the opportunities. All in all, the Wilo Group considers the potential negative impact of the economic environment on the company's results of operations to be moderate (medium earnings impact according to risk classification).

Extraordinary external disruptions

As a globally operating group of companies, Wilo is exposed to various external risks. Natural disasters, terrorist attacks, epidemics, wars, fire and political unrest can potentially impair business activity at the affected location. The Wilo Group classifies the probability of occurrence of such extraordinary disruptions as possible.

In 2022, the Wilo Group again found itself facing considerable challenges due to the repercussions of the global coronavirus pandemic including local outbreaks of the virus, as well as the war in Ukraine and the corresponding impact on everyday life and economic development in the affected regions as well as on global supply chains. The supply bottlenecks caused by the war and the pandemic – especially the sustained semiconductor shortage – led to delays in delivery that were significant in some cases. Additionally, the war in Ukraine, the sanctions imposed on Russia and the strict measures taken in China as part of the country's zero-COVID strategy led to dramatic price rises for energy, raw materials and intermediate products.

The future development of the situation in Ukraine and Russia and the duration and extent of the war are uncertain. The Executive Board has established a cross-divisional Global Impact Task Force to identify, continuously monitor and control the risks arising in connection with the war. The task force is responsible for analysing and permanently monitoring the indirect negative global and regional economic impacts and developing suitable strategies for different scenarios and measures on this basis. It also coordinates and supports the efforts to mitigate the direct impact on the business activities of WILO SE and the subsidiaries affected. Among other things, this includes humanitarian support for WILO Ukraine employees and their families, safeguarding supply chains and minimising exchange rate risks. The Executive Board is following the situation closely and will take additional business decisions and measures as required.

In 2022, the COVID-related risks to employee health, supply chains, production and sales were again restricted thanks to targeted measures. As in the previous years, the necessary measures were coordinated and implemented by the Go-Ahead Task Force, the interdisciplinary team of experienced managers specially established by the Executive Board to manage the effects of the pandemic. Critical supply chains were largely maintained in close cooperation with suppliers and, in some cases, at the expense of increased logistics costs.

Targeted measures have also been taken to proactively minimise the potential impact of further geopolitical crises in individual countries and regions and the relevant forecast risks for the Wilo Group's business. In the event of a further escalation, additional steps will be taken to limit the risk to which the Group is exposed. To the extent possible and reasonable, the Wilo Group is also adequately insured against operational shutdowns and property damage. In addition, Wilo has developed and implemented appropriate emergency plans and preventive measures to minimise the potential negative effects. The Wilo Group classes the earnings effect of extraordinary external disruptions as moderate (medium earnings impact according to risk classification).

Legal and regulatory environment

Material changes in legal conditions and the regulatory environment (e.g. restrictions on trade, tax legislation, product quality, energy efficiency and safety standards) can have a negative or positive effect on the business activities of the Wilo Group.

On the one hand, restrictions on trade could make commodity procurement more difficult or more expensive and the sale of products in certain markets or regions may be restricted. A global rise in protectionist tendencies and a general rejection of free trade and globalisation in favour of a more fragmented world economy have been observable in recent years. In addition, stricter requirements as a result of product quality or safety standards may lead to increased production or research and development costs.

Restrictions on trade, such as stricter export regulations, embargoes and economic sanctions against certain countries, individuals, companies or sectors, entail particular risks on account of the Wilo Group's global orientation. These restrictions could adversely affect the Wilo Group's business activities in the affected regional markets. With this in mind, Wilo seeks to continuously evaluate and control the consequences with regard to logistics, finance and, at an overarching level, the company's reputation. Violations of regulatory provisions can result in penalties, sanctions and reputational damage that may be significant in some cases. In light of the war in Ukraine and the unpredictable developments concerning sanctions and embargoes, export control played a particularly important role in the past financial year.

On the other hand, changes in legal conditions and the regulatory environment can also give rise to opportunities. For example, the introduction or tightening of energy efficiency directives could stimulate demand for energy-efficient products.

With its broad range of high-efficiency pumps, the Wilo Group is in an ideal position to serve the respective markets quickly and comprehensively. The legal conditions and the regulatory environment in all its key markets are continuously observed in order to ensure that it can identify potential problem areas or opportunities at an early stage and quickly adapt its business activities accordingly. The occurrence of risks arising from the legal or regulatory environment is possible. The impact on the Wilo Group's results of operations is considered to be moderate (medium earnings impact according to risk classification).

Urbanisation

The rapid growth of the world's population is unabated, with population explosions being seen in Asia and Africa in particular. According to United Nations (UN) estimates, the world population is set to rise from 8 billion at present to almost 10 billion by 2050.

At the same time, the proportion of the population living in urban conurbations is increasing rapidly all around the world. Over half of all people currently live in cities, and the UN estimates that it will be a good two-thirds by 2050. In addition to today's existing cities and metropolitan regions, which will continue to grow, entirely new major cities are being built in a short space of time in the emerging economies of Asia in particular.

Dramatic urbanisation in the emerging economies and consistently high population growth are reinforcing a number of different ecological, economic and social challenges. Sustainable and intelligent urban development in these regions is therefore essential. The same applies to the established conurbations in industrialised nations, which are increasingly modernising and redesigning their urban structures and public networks with a view to environmental and climate protection. Smart cities and smart urban areas are being planned in almost every part of the world. These are designed to be more efficient, less wasteful of resources and more social than conventional cities. The establishment and expansion of connected digital infrastructures is an essential part of this process. The megatrend of urbanisation, especially in the form of smart urban areas, is a source of considerable long-term growth potential for the Building Services Residential, Building Services Commercial and Water Management market segments.

Water shortage

Water is a scarce resource in many regions of the world. According to estimates from the WHO (World Health Organisation) and UNICEF, around 785 million people currently have no access to a rudimentary supply of drinking water. More than 2 billion people live without basic sanitation, corresponding to around a quarter of the world's population. Water supply and wastewater disposal present a substantial problem, especially in the rapidly growing megacities in the emerging nations. The overuse of groundwater reserves there often results in a drop in the water table, while huge quantities of drinking water are lost due to outdated and dilapidated pipe systems. In future, it will therefore be all the more important to use the available resources efficiently and to utilise intelligent technologies for water extraction and treatment. Wilo has responded to this megatrend with its products and system solutions in the Water Management market segment and provides professional solutions for the complex requirements for drinking water extraction, water pumping and wastewater transportation and processing.

Climate change & energy shortage

Man-made climate change is becoming increasingly visible and tangible thanks to global warming and the growing incidence of extreme weather conditions. The continued melting of the polar ice caps and mountain glaciers, rising sea levels and the clustering of droughts and storms even in temperate climate zones are just a few of the expected effects of climate change that are already relevant. Drastic action is required worldwide to stop, or at least limit, climate change and its consequences. Almost all countries have now initiated new and extensive packages of measures aimed at reducing greenhouse gases, with a particular focus on the transport and energy sectors. In addition to the increased use of renewable energies, there is a heightened focus on developing and using more energy-efficient processes and technologies. At the same time, global demand for energy is continuing to rise on the back of long-term trends like rapid urbanisation and the dynamic economic development of the emerging nations. Demand for energy also remains high in the industrialised countries. The global competition for raw materials is coming up against the finite nature of fossil resources such as oil, coal and gas. In this respect, renewable energies have to be used and sustainable energy savings made for ecological, social and economic reasons.

As such, the megatrends of climate change and energy shortage offer substantial growth opportunities for all five of the Wilo Group's market segments in all of the regions in which the company has a presence. In particular, numerous opportunities are arising in urban conurbations, where increasing populations, stricter environmental standards and heightened requirements for energy and resource efficiency are posing new challenges for urban planners. This is why innovative urban infrastructures based on smart systems and digital solutions are now emerging all around the world. Demand for forward-looking, resource conserving products and system solutions will increase as a result of the tightening of minimum legal standards. Wilo products already offer customers improved energy efficiency throughout the entire operation phase. High-efficiency pumps reduce power consumption by up to 80 percent compared with older, unregulated pumps. Wilo aspires to shape the future as an innovation leader and digital pioneer and to evolve into the leading system provider with tailored, intelligent, and resource-efficient solutions in line with the company's vision. In this way, Wilo is making an important contribution to reducing energy consumption and hence lessening the impact of CO_2 on the environment.

Digitalisation

The digital transformation of society, trade, transport and industry is ever-present. The fundamental changes driven by the establishment of new technologies are affecting almost everything, with modern information and communication technologies finding their way into all areas of life and commerce ever more quickly and comprehensively. New digital technologies are changing traditional production and business processes at considerable speed. Companies' complete value chains are being affected by the digital transformation (Internet of Things, Industry 4.0) and established business models are being called into question, while new and innovative business models and companies are emerging in the wake of this process. The digital transformation presents significant opportunities for the Wilo Group. Existing business processes are being optimised with the aim of generating significant efficiency and productivity improvements, while there is also the possibility of new and innovative business models for the pump industry. The Wilo Group leverages this potential with its smart products and system solutions, for example. Digitalising the Wilo Group itself and taking advantage of the resulting opportunities requires a fundamental and sustainable reorganisation of the value chain and business processes.

To this end, Wilo has defined a digitalisation strategy that is a fixed component of the wider corporate strategy. An interdisciplinary group of experts has been specially formed within the company in order to drive the Wilo Group's digital transformation in a targeted, strategic manner.

Wilo expects the digitalisation of the company to have a positive impact on its business activities in the medium to long term. The smart urban areas emerging around the world have been identified as a particular source of business potential in this context. The Wilo Group is systematically tapping into new business areas here.

Industry-specific risks and opportunities

Competition

Competition risk remained largely unchanged compared with the previous year. Although the growing price competition involves uncertainties, the Wilo Group mitigates these risks in a targeted manner by focusing on the increased use of product lines with unique selling propositions. It also ensures a high level of competitive capability through its technological edge, especially in the area of energy efficiency and digitalisation, and through its outstanding product quality and close-knit global service network. The occurrence of competition risks is possible. Wilo rates the risk of earnings effects for the Group that emerge from the competitive environment and differ from corporate planning as moderate (medium earnings impact according to risk classification).

Technological progress in building management

Manufacturers and consumers are increasingly focusing on smart living. In smart homes, everyday devices and systems in private households are electronically integrated in order to combine higher energy efficiency with greater convenience, economic efficiency, flexibility and safety. Devices and systems can be controlled and accessed both centrally and remotely. Smart homes and office and commercial buildings with corresponding smart technology offer attractive growth opportunities for the Building Services Residential and Building Services Commercial market segments. Wilo has wide-ranging systems and solutions expertise in this area. The opportunities arising from this can positively influence the business activities of the Wilo Group in the medium to long term.

Company-specific risks and opportunities

Research and development

Wilo is firmly committed to technological progress. The Wilo Group continuously invests in the development of new technologies and products in order to strengthen its market position and secure its profitable future growth. In 2022, research and development costs including capitalised development costs amounted to 3.7 percent of consolidated net sales. In order to allow the opportunities of new technologies to be identified at an early stage, Wilo conducts regular technology screening and maintains continuous dialogue with universities and research institutions. The Wilo Group limits the risk of paying insufficient attention to customer requirements in the development process with customer surveys, trend analyses and targeted market tests.

The effectiveness and target conformity of all development activities are examined continuously. This serves to minimise qualitative, time and financial risks in development projects. Professional project management and regular deviation analyses ensure a constant focus on customer requirements. Binding Group-wide standards and guidelines are applied in this area.

The occurrence of risks from research and development is possible, but the impact on the Wilo Group's EBITDA is considered to be low.

Procurement and production

The Wilo Group's business success depends not least on a reliable and efficient supply of materials, parts and components. Supply bottlenecks and capacity restrictions can lead to production downtime and delays in delivery to customers as well as cause additional costs. Similarly, the profitability of the Wilo Group can be negatively influenced by unexpectedly sharp price rises for components, raw materials or transportation services, whether due to market bottlenecks or other reasons. Wilo counters procurement risks by way of integrated procurement and supplier management. Supply bottlenecks are primarily prevented by ensuring the availability of second-source suppliers.

Particularly in light of the coronavirus pandemic and the exacerbation of the crisis on the procurement and logistics markets in the course of the year under review due to the Ukraine war, which involved dramatic price increases in some cases, the Wilo Group considers the risk of future supply chain disruption resulting in production restrictions or production downtime to be fundamentally possible.

In 2020, the Executive Board already decided to scrutinise the existing make-or-buy strategies and redefine the appropriate degree of vertical integration for Wilo in the individual regions and countries. In future, critical components will increasingly be produced in-house. The expansion of multiple sourcing will further reduce dependency on individual suppliers.

The Wilo Group also further professionalised the management of supply chain risks in the context of the COVID-19 pandemic. This involved implementing a comprehensive software-based solution to improve risk transparency and allow the resulting countermeasures to be initiated as quickly as possible. Among other things, this tool enables the automated, real-time identification of relevant developments in the supply chain. The potential impact of loss events on the different elements of the supply chain is visualised with the aid of modern AI technologies, making it easier to implement targeted countermeasures quickly.

This system was refined and adapted to reflect the changed conditions resulting from the energy crisis that emerged in the year under review. The European supplier base was subject to a targeted examination based on the following criteria: "Criticality of the country of origin with regard to energy supply" and "Options for switching production processes to alternative energy sources". Measures such as building up stock buffers were initiated in cases where a high risk was identified. Financial screening was also expanded in order to counter the increased risk of supplier insolvency due to high energy prices. Where predefined criteria are met, the risk cases identified are subject to a separate financial audit.

The company mitigates quality risk through the uniform Group-wide production standards of the Wilo Production System (WPS) and comprehensive quality management. This risk is classed as unlikely. The risk of production stoppages is strictly limited through the use of state-of-the-art production plants and professional control systems.

Insurance is also taken out to offset the financial consequences of the aforementioned business risks. If such risks occur despite this, the company estimates that this could entail a medium earnings effect for the Wilo Group.

Human resources

One of the fundamental criteria for the Wilo Group's success is its qualified employees and their expertise, commitment and motivation. The loss of qualified personnel in strategic positions can lead to the loss of company-specific knowledge, as well as resulting in capacity bottlenecks or decreased productivity. The Wilo Group counters this risk with methods such as coordinated demographic management. Its core elements are active succession planning and the development of new staff as part of Group-wide talent management. The occurrence of HR risks is generally possible. However, the impact on the Group's results of operations is classified as low.

Information technology

All important business processes for the Wilo Group are integrated into efficient IT systems. In extreme circumstances, the failure of key systems or substantial data losses could lead to business interruptions. There remains a risk that confidential information or information with data protection relevance could be stolen, e.g. as a result of cyber attacks on Wilo Group servers, social engineering or data manipulation. This would result in financial loss as well as violations of data protection legislation. The growing threat of cyber crime along the entire value chain is particularly relevant for the Wilo Group's security of supply and demands the continuous protection of internal company data.

Wilo mitigates these IT risks with daily backups of critical business data and extensive preventive measures. In particular, the business database aiding production, materials management, order processing, financial accounting and cost accounting in particular conforms to top security standards. The Wilo Group runs its critical business applications in two separate, certified and highly powerful data centres as well as at certified external providers. Coordinated processes and business recovery plans are also in place for the event of disasters. System downtime is further minimised by targeted utilisation of an in-house support team and outside service providers. With regard to cyber crime, the Wilo Group employs technical and organisational measures to identify security vulnerabilities and fend off attacks. Training and internal reporting on current threats are intended to increase employee awareness of the need to handle sensitive user data with care.

In 2022, the Wilo Group further professionalised its information security management and created a unit to bundle and coordinate the protection of all information assets with the establishment of a Corporate Information Security Office and the appointment of a Corporate Information Security Officer (CISO) within the "Group Internal Audit & Compliance" function.

Given these measures, the occurrence of IT risks is fundamentally possible, but the earnings effects have been limited to a medium level.

Acquisitions and strategic partnerships

In order to expand its technological spectrum and geographical presence, the Wilo Group also seeks to realise external growth opportunities as part of its corporate strategy. The opportunities that can arise from acquisitions and strategic partnerships are varied and offer additional potential for growth and efficiency, as well as opening up access to new sales channels and markets. However, company acquisitions are considered only if they are deemed to be strategically and and commercially advantageous. With regard to research and development in particular, the company enters into strategic partnerships with the aim of advancing joint technology projects. The Wilo Group cooperates with promi-nent universities and research institutes in this area.

In addition to the opportunities resulting among other things from the expected synergies, company acquisitions also always entail risks. Accordingly, each investment decision is preceded by a careful assessment and analysis of the commercial, technical, legal, tax and financial conditions (due diligence). The aim is to identify, quantify and limit the risks associated with the acquisition. In addition, an individual strategy for integration into the Wilo Group is developed and corresponding measures are planned and implemented for each acquisition.

Even with extremely careful examination, risks may emerge after an acquisition that were not identified during the due diligence process, not considered to be material or not accurately quantified. In addition, the identified benefits and synergies may not occur to the expected extent, within the expected timeframe, or at all. An unexpectedly difficult and cost intensive integration process could also jeopardise the realisation of the planned goals and synergies. It may be necessary to recognise goodwill impairment if business develops more poorly than expected in the long term, while the weaker operational development of the acquired business and the countermeasures that may be necessary as a result could also have a direct impact on earnings.

The occurrence of risks arising from acquisitions and strategic partnerships is generally possible. The Wilo Group classifies the corresponding impact on its earnings as moderate (medium earnings impact according to risk classification).

Financial risks and opportunities

Exchange rates

The Wilo Group's global presence makes it important to manage changes in exchange rates. Currency risk for the company primarily results from its operating and financing activities. Wilo limits currency risk, which largely relates to the supply of goods and services to Group companies, through same-currency offsetting transactions and derivative financial instruments.

The occurrence of exchange rate risks from the operating activities of Group companies with third-party customers and suppliers is probable, but the Wilo Group considers the associated earnings impact to be low. These activities are predominantly transacted in local currency.

Currency risk from financing activities mainly results from foreign-currency borrowing from third-party lenders. Foreign-currency loans are also granted to Group companies for financing purposes. Wilo uses derivative financial instruments to reduce such currency risks.

To prepare the consolidated financial statements, the annual financial statements of the subsidiaries that are based outside the euro area, or whose functional currency is not the euro, are translated into the reporting currency (euro). Changes in the average exchange rate of a currency can therefore notionally influence both net sales and income as a result of translation. However, this translation risk is not associated with any effects on the cash flows in local currency.

In summary, the occurrence of currency risks is considered likely, but the Wilo Group classes the associated impact on earnings as low. ➔ *Further information on exchange rate risks in accordance with IFRS 7 and a corresponding sensitivity analysis can be found in section (12) "Risk management and derivative financial instruments" on **page 156 et seq.** of the notes to the consolidated financial statements.*

Interest

Interest rate risk mainly results from floating rate financial liabilities and the investment of cash. Both rises and falls in the yield curves result in interest rate exposure. The Wilo Group mitigates adverse changes in value from unexpected interest rate movements by using derivative financial instruments on a case-by-case basis. The occurrence of interest rate risk is considered possible, but the impact on net finance costs is considered to be low as most financial liabilities have long-term fixed interest rates and most variable-interest tranches are hedged using suitable derivatives.

On the other hand, favourable interest rate developments in connection with the investment of cash could have a positive effect on net interest income. Group Treasury monitors and analyses developments on the financial markets in order to optimise the balance between liquidity retention and the investment of cash in term money or debt instruments with an excellent credit standing and a maximum time horizon of up to two years. ➔ *Further information on interest rate risks in accordance with IFRS 7 can be found in section (12) "Risk management and derivative financial instruments" on **page 158** of the notes to the consolidated financial statements.*

Commodities

The Wilo Group is mainly exposed to commodity price risk as a result of price fluctuations on the global markets for copper, aluminium, stainless steel and their alloys. When it comes to minimising copper price risks, the Wilo Group enters into long-term purchase commitments rather than concluding commodity derivatives. The purchase volume and price are fixed up to a maximum of twelve months in advance, thereby ensuring a high security of supply and counteracting price fluctuations.

The prices for a substantial proportion of the copper procurement volume for the 2023 financial year have already been determined in order to minimise the impact on earnings from the change in copper prices for the Wilo Group. In contrast, Wilo actively refrains from hedging the purchase prices for aluminium and stainless steels and their alloys, as the available financial and other hedging instruments are not suitable for effectively minimising the risk of price changes for these specific commodities.

Commodity price risks are possible, but the Wilo Group classifies the associated impact on earnings as low. ➔ *Further information on commodity price risks in accordance with IFRS 7 and a corresponding sensitivity analysis can be found in section (12) "Risk management and derivative financial instruments" on **page 158 et seq.** of the notes to the consolidated financial statements.*

Defaults

Customer credit risk is countered by way of a uniform and effective Group-wide system that encompasses systematic receivables management and the monitoring of payment behaviour. As the Group does not generate more than 10 percent of its total net sales with any one customer, dependency on individual customers is limited. The Wilo Group did not experience any significant negative influence from its customers' payment practices in the year under review. The possible effect on earnings of default is currently also considered low for 2023. The Wilo Group keep a close eye on ongoing developments and will take corresponding countermeasures as necessary.

There is also a risk of default with regard to the banks with which investments are conducted, at which credit facilities are held, or with which hedges are concluded. The potential default of these partners would have a negative impact on the Wilo Group's financial position and results of operations. All in all, however, the occurrence of this risk is considered to be unlikely as Wilo enters into such transactions only with those banks that have good to very good credit ratings. Group Treasury permanently monitors and assesses the credit ratings of these banks and takes appropriate measures to reduce counterparty risk as required.

Financing and liquidity

Liquidity risk stems from a potential lack of cash for paying due liabilities in full and on time in the agreed currency. There is also a risk of having to accept unfavourable financing terms in the event of liquidity bottlenecks and volatility on the international financial and capital markets. To minimise liquidity and financing risks, the Wilo Group aims to ensure the long-term, cost-effective coverage of liquidity and capital requirements at all times. Various financing instruments are used for this purpose. Liquidity management therefore makes a valuable contribution to the profitable growth of the Wilo Group.

The financing instruments include committed cash credit facilities and guarantee and margin facilities for the parent company and subsidiaries of around EUR 400 million with international banks of good to very good credit standing. EUR 2.5 million of the cash credit facilities and EUR 25.6 million of the guarantee and margin facilities were utilised as at 31 December 2022. As at 31 December 2022, Wilo also had a traditional promissory note of EUR 224.0 million, additional promissory note loans of EUR 56.3 million, and senior notes of EUR 250.1 million issued as part of US private placements. Additionally, there was a KfW development loan with a carrying amount of EUR 12.2 million as at 31 December 2022.

The Wilo Group's leverage, i.e. the ratio of the net financial position (financial liabilities and lease liabilities less cash) to consolidated EBITDA (adjusted for any restructuring expenses), increased from 1.40 at the end of the previous year to 1.93 as at 31 December 2022.

In order to achieve a needs-driven supply of cash with matching maturities and the optimum allocation of cash within the Group, the Wilo Group prepares corresponding liquidity and finance plans based on the budget planning and strategic five-year planning process in addition to the year-to-date forecast. Rolling three-month liquidity planning is also prepared on a monthly basis for each Group company. The cash directly available to the Wilo Group over the course of 2022, including committed cash credit facilities, was at all times higher than the minimum reserve of EUR 100.0 million defined by the Executive Board of WILO SE.

The Wilo Group uses cash pooling, netting and borrowing arrangements to the extent advisable and permitted under local commercial and tax regulations. At Group level, all financial transactions are tracked by central treasury software and monitored by WILO SE, enabling risks to be balanced between the individual companies of the Group.

The Wilo Group is required to maintain standard financial ratios (financial covenants) under the terms of its long-term financing agreements. If it were to fall short of certain minimum values in terms of these financial covenants, the lenders would be entitled to demand early repayment, among other things. As such, a failure to meet the agreed minimum values would potentially have a substantial financial impact. These figures are regularly reviewed, planned and reported to the Executive Board of WILO SE in order to ensure compliance with the required minimum values at all times and to enable suitable countermeasures to be initiated at an early stage as necessary. Due to its strong equity base and profitability, the Wilo Group still expects to comply with its financial covenants throughout the term of the existing financing agreements.

The Wilo Group believes that liquidity and financing risks are unlikely to arise on account of the cash and credit facilities available, the financing structure and the business model. The financial impact on the Group is therefore rated as low. → *More detailed information on the use of derivative financial instruments can be found in note (11) and (12) on **page 149 et seq.** of the notes to the consolidated financial statements.*

Overall assessment

The Wilo Group's current risk situation has changed compared with the previous year insofar as risks in connection with the economic environment, extraordinary external disruptions and the legal and regulatory environment have increased. The integrated risk management system ensures that the measures taken to mitigate the identified risks are controlled. In the view of the Executive Board, no risks or combinations of risks that could jeopardise the company as a going concern are currently discernible. Taken together with the attractive opportunities available to it in the medium and long term in particular, the Wilo Group has a balanced, future-oriented risk-reward profile allowing it to continue to grow profitably in line with its corporate strategy.

OUTLOOK

- → **World economy set to remain weak in 2023 with only limited momentum**
- → **Restrictive monetary policy and high inflation remain a burden – severe geopolitical crises entail risks**
- → **Mid-single-digit net sales growth and moderate increase in EBITDA forecast for 2023**
- → **Location development projects in India and China to be completed, work on the Innovation Cube and Networking Cube at the Wilopark continues**

General economic and industry-specific conditions

Continued pressure on the world economy in 2023 as inflation remains high

Leading economic research institutes expect the limiting factors for the world economy to continue to dominate in early 2023, leading to a further tangible slowdown in global economic growth. Firstly, a number of aspects that supported the economy until recently are becoming less relevant. In the industrialised nations, this includes catch-up effects in contact-intensive industries as the impact of the pandemic recedes, as well as the high level of private consumer spending as households make use of the savings they built up during the lockdowns. Secondly, some areas of global industry are now processing the extremely high level of orders on hand which resulted from supply bottlenecks in the previous year accompanied by lively order activity. However, lower incoming orders combined with higher energy costs are likely to curb production in 2023. Furthermore, existing orders are increasingly being cancelled or postponed, especially in the construction industry. China saw a dramatic rise in infection rates immediately after the strict zero-COVID policy was lifted in late 2022. Unlike in most other regions of the world, this means the pandemic is continuing to impact the domestic Chinese economy and, by extension, the world economy.

The Kiel Institute for the World Economy (IfW) also expects the negative factors emanating from the financial environment to play a more pronounced role in 2023. Investment and consumer spending will be limited by the sharp rise in financing costs. With monetary policy remaining restrictive, demand is likely to dwindle with the result that inflation will gradually slow. This trend will be supported by the expectation of lower cost pressure in terms of raw materials. However, any reduction in inflation will be delayed by the sharp acceleration in pay growth in the industrialised nations. Fiscal policy in many countries will continue to deliver expansionary effects in 2023. Although inflation is believed to have peaked, the leading institutes expect to see further substantial price rises, meaning that the industrialised nations will not get near to the central banks' inflation targets until 2024.

Based on the current situation, the IfW is forecasting global economic growth of just 2.2 percent in 2023. In its January update, the IMF set out a global economic growth forecast of 2.9 percent. It expects economic growth in the industrialised nations to total 1.2 percent. Meanwhile, the developing and emerging nations are expected to see economic growth of 4.0 percent in 2023, albeit with varying trends in the most important countries.

The risks to the world economy in 2023 are extremely high. There are currently no signs of an improvement with regard to the war in Ukraine, and the possibility of escalation in geopolitical crises such as those between China and Taiwan or Serbia and Kosovo cannot be ruled out. Furthermore, there is a risk that inflationary tendencies around the world could persist. Against this backdrop, turbulence on the currency, capital and real estate markets is a possibility. The coronavirus pandemic also continues to entail risks. There is a possibility that infection rates could pick up again or new, dangerous variants of the virus could emerge, which would require the imposition of new restrictions and lockdowns at a regional level at least.

The following section presents the expected macroeconomic and industry-specific developments in 2023 in the regions that are relevant to the Wilo Group. In addition to the general economic development of individual countries and regions, the economic performance of the Wilo Group is influenced in particular by the construction and sanitary industries as well as the water and wastewater industries.

Established markets: Construction industry set to contract in 2023 due to various negative factors, especially in residential construction

EUROPE. According to leading economic research institutes, Europe will initially see a phase of economic weakness during the 2022/23 winter half-year on the back of high inflation, rising interest rates and the gloomy global economic environment. The industrial sector is being impacted by bottlenecks in the supply of energy, raw materials and precursors as well as the dramatic price increases for these items. Although the EU and individual member states have introduced fiscal and regulatory measures to cap energy costs and stabilise private purchasing power, demand for energy is likely to continue to outstrip demand, making it more expensive than before the outbreak of the Ukraine war. Although inflation should decline slightly in 2023, it will remain at a historically high level. Domestic demand will be curbed by higher interest rates and the erosion of purchasing power due to inflation. Accordingly, the IMF has lowered its growth forecast for the euro area for 2023 to 0.7 percent, while the IfW and the Munich-based ifo Institute are both forecasting growth of 0.6 percent.

Due to the various factors weighing on the European construction sector, the Euroconstruct industry network (including the ifo Institute) is not forecasting any growth up to and including 2024. Construction demand has been depressed by the uncertainty and extensive negative consequences resulting from the war in Ukraine and further supply bottlenecks and substantial cost increases affecting construction materials in conjunction with the deterioration in financing conditions. These factors are being exacerbated by the general weakness of the economic and investment environment and falling real income due to high inflation. As such, the omens are especially negative when it comes to residential construction, the main driver of the construction sector in recent years. However, building construction by companies is also likely to come under pressure. Euroconstruct is forecasting a minimal notional increase in construction output of 0.2 percent in 2023 (Western Europe +0.3 percent, Eastern Europe -1.3 percent) followed by further stagnation in 2024. The United Kingdom, Scandinavia and Eastern Europe are expected to see downturns in 2023. Spain, France, Portugal and the Netherlands could see moderate growth.

The German economy saw a phase of weakness in the 2022/23 winter half-year but did not suffer a serious economic downturn. In terms of 2023 as a whole, Germany is expected to see a weak period with no economic growth. The current forecasts by domestic economists range from marginal growth (IfW: +0.3 percent) to contraction (Deutsche Bundesbank: -0.5 percent, ifo: -0.1 percent). The IMF currently anticipates minimal growth of 0.1 percent in Germany.

The situation in the German construction industry is currently characterised by orders on hand that remain high on the whole, a high level of capacity utilisation, a shortage of skilled workers and significant demand for housing. At the same time, however, the industry is feeling the impact of high interest rates that are likely to increase further in 2023, the limited availability of subsidies, falling real income and the sharp rise in construction costs. New business has been in decline since the middle of the previous year, with incoming orders in the main construction sector decreasing by 8.2 percent in real terms in the first eleven months of 2022. In the same period, the number of permits for new residential construction was 5.8 percent lower than one year previously. These factors indicate a continued downturn in the German construction industry in 2023, especially in residential construction. The ifo Institute also expects total construction investment to decline by 3.3 percent in real terms in 2023, with the important residential construction segment seeing particularly negative development of -3.9 percent. However, the energy crisis and the already growing level of investment in climate protection should lead to increased demand for construction measures aimed at energy efficiency in the existing building stock in future.

USA. The US Federal Reserve is set to maintain its restrictive monetary policy in 2023 in order to combat high inflation. Although the speed and extent of future interest rate rises is expected to be more cautious, the US economy is likely to be slowed further by the higher interest rate level. By contrast, the government is keen to generate economic momentum through expansive fiscal policy measures. All in all, growth in the US economy is expected to slow in 2023. In particular, investment and private consumer spending are likely to see a substantial negative reaction to factors such as the sustained high level of inflation and rising interest rates. The IMF expects GDP growth in the USA to slow to just +1.4 percent in 2023.

Key US economic data at the turn of 2022/2023 indicated a deterioration in the order situation. The IfW expects investment in residential construction in the USA to fall significantly by 11.8 percent in 2023.

The forecast for commercial construction is -4.9 percent. However, the industry experts from FMI are anticipating a substantial upturn in investment in the water supply in the coming years, with double-digit growth of +14 percent forecast for 2023.

Growth markets: China's construction industry remains problematic in 2023, but other countries offer selective opportunities in construction and water management

CHINA. The Chinese government surprisingly abandoned its strict zero-COVID policy towards the end of the previous year. This led to a dramatic rise in infection rates at the turn of 2022/23 with corresponding consequences for the economy, and private consumer spending in particular. More prolonged waves of COVID-19 in 2023 could lead to production downtime and further disruption to logistics chains. The weak condition of the world economy means that exports are likely to see only muted development, while domestic demand in 2023 will be curbed by factors such as the high level of debt and the continued real estate crisis. The IMF expects China to record economic growth of +5.2 percent in 2023. Although this would represent a slight improvement on the weak prior-year figure, it would be a considerably lower figure than in the recent past.

The outlook for the Chinese construction sector in 2023 is extremely negative, with new construction activity, land purchases and real estate transactions having seen a dramatic slump of late. The downward spiral has accelerated. The 39.8 percent slump in construction starts in residential construction in 2022 already serves as an indicator that construction output will contract significantly in the current year. Similar trends were observed for office buildings (-39.1 percent) and commercial buildings (-41.9 percent). However, substantial measures to protect the climate and expand and modernise the water and wastewater industries are planned. This will open up significant growth opportunities for business with modern pumps in these segments.

SOUTH KOREA. In its latest economic forecast, the central bank expects the economic upturn in South Korea to continue, albeit with a further slowdown in the pace of growth. GDP is set to rise by 1.7 percent in 2023. In particular, investment activity is likely to contract on a full-year basis due to weak international demand for capital goods and higher financing costs. As exports are forecast to deliver next to no impetus, this means private consumer spending is again expected to be the main driver of the South Korean economy in 2023 even in the face of falling purchasing power and rising interest rates.

The construction industry is forecast to see muted development in 2023. This is because the government has reduced its construction budget, while commercial construction is suffering from the weak economy and higher interest rates. Moreover, the Bank of Korea expects residential construction to increase only slightly despite the good order situation. This is reflected in lower sales of new buildings. All in all, real construction investment is therefore expected to see a marginal downturn of 0.2 percent in 2023 followed by extremely muted growth in 2024.

INDIA. The Indian economy is expected to remain on its strong growth path. However, the pace of growth in 2023 is likely to be a little slower than in recent years due to higher commodity and energy costs, increased consumer prices, more restrictive monetary policy and weaker external demand. The IMF is currently forecasting GDP growth of 6.1 percent in 2023. The government will be one of the main drivers of this development thanks to its investments in the expansion and modernisation of infrastructure and waster management.

Accounting for around 9 percent of total economic output, the construction industry is one of the key sectors of the Indian economy. The recent sharp rise in construction starts and sales of new buildings suggests that the upturn in construction will continue in 2023 even in the face of higher interest rates. The national investment promotion agency, India Invest, expects the construction volume to expand by 6–7 percent p.a. between now and 2025, with the major conurbations in particular requiring an expansion in housing, commercial buildings and infrastructure.

SOUTHEAST ASIA. The most important countries in the region from an economic perspective (ASEAN-5 and Singapore) are closely integrated with the value chains worldwide and, in particular, in China. In terms of external drivers, this means that weaker demand effects from the established industrialised nations and the moderate economic recovery in China are likely to have an offsetting effect in 2023. Higher costs for precursors, increased consumer prices and more restrictive monetary policy are expected to curb domestic demand. The IMF expects economic growth in the ASEAN-5 nations to slow to +4.3 percent in 2023.

A young, growing population, urbanisation and high structural investments in infrastructure are key growth factors for the construction industry in Southeast Asia. This is benefiting the multifaceted applications for pumps in the various areas of residential and commercial construction, as well as in the water and wastewater industry. Although general economic momentum is set to slow slightly in 2023, the main drivers in the region remain intact, with higher construction costs and interest rates offset by government investments in infrastructure and residential construction.

TURKEY. Private purchasing power and the propensity to invest on the part of companies are suffering from the structural weakness emanating from government-dominated monetary policy, which is propelling inflation and making the currency weaker. Accordingly, the World Bank expects the Turkish economy to see extremely moderate growth of just +2.7 percent in 2023.

In light of these conditions, the prospects for the Turkish construction industry are mixed. High construction costs and supply bottlenecks are continuing to have a negative impact, while the residential market is showing signs of stagnation. Numerous companies are still experiencing financing difficulties. The recent reduction in the number of building permits indicates a slowdown in private residential construction activity in 2023. However, the government is planning infrastructure projects including a major scheme by TOKI, the government-backed housing agency, involving 250,000 public housing units primarily in Istanbul with an investment volume of around USD 1.6 billion.

MIDDLE EAST & AFRICA. Generally speaking, the opposing developments in the region are set to continue in 2023. While high inflation and the more strained international interest rate environment are weighing on consumer and investment demand, individual countries are still benefiting from high global commodity and energy prices. The countries in this region are extremely varied both politically and economically, and the opportunities and risks must therefore be considered separately. The World Bank expects overall economic growth in the Middle East and North Africa to slow to 3.5 percent in 2023, while the Sub-Saharan region is set to see growth of 3.6 percent.

According to the World Bank, the economy in the oil-exporting nations remains on track for growth, albeit at a slower pace than in recent years. Egypt is expected to enjoy relatively strong growth of 4.5 percent in 2023 despite the effects of inflation. The World Bank is forecasting extremely muted development in South Africa.

Although the prospects for the construction industry in the region as a whole are generally uncertain and subject to risk, individual markets can be structurally highly attractive when it comes to selected projects. Public investments in infrastructure are a key growth driver, with the creation and expansion of functional water management becoming increasingly important. Furthermore, strong population growth and urbanisation are stimulating investment in residential construction at a structural level. For example, Fitch Solutions expects Egypt's construction sector to enjoy strong medium-term growth of 8.3 percent p.a. However, growth in the region's construction industry in the nearer future is likely to be curbed by limitations on the availability of financing for private and public investors. The strong tailwind enjoyed by the construction industry in oil-producing nations like the United Arab Emirates (UAE) is set to continue in 2023 thanks to the high level of funding.

LATIN AMERICA. In light of the continued burden of restrictive monetary policy, low external demand, high inflation and the political uncertainty affecting some of the countries in the region, the World Bank expects economic momentum in Latin America to slow further in 2023. Investments are likely to come under particular pressure due to higher interest rates, while high energy and fertiliser costs are also having a negative impact. All in all, the World Bank is forecasting only moderate economic growth of 1.3 percent for Latin America in 2023. The growth rates for Brazil and Argentina are expected to decline slightly to +0.8 percent and +2.0 percent respectively. The Peruvian economy will remain weak, while Chile will fall into a recession in 2023. Mexico is also set to see a phase of economic weakness, with growth forecast at just 0.9 percent.

Outlook for the Wilo Group

Future orientation

Leading German and international economic research institutes are forecasting a further slowdown in the world economy in 2023. Economic momentum is also being hindered by global factors such as high energy costs and food prices. There are no signs of an improvement in the Ukraine war and it is not possible to predict how the situation will develop, while an escalation in other geopolitical trouble spots – especially the conflict between China and Taiwan – cannot be ruled out. Furthermore, the COVID-19 pandemic has not yet been overcome at a global level. With China having abandoned its zero-COVID strategy, the country is particularly susceptible to waves of infection leading to renewed disruption, at least temporarily. This could have potential knock-on effects for the world economy. In the absence of lockdowns, however, there is a hope that the Chinese economy will gain momentum and recover during the course of the year. All in all, global economic development is expected to be comparatively weak and fragile in 2023.

The short-term outlook for Wilo's key markets varies by region and market segment. The construction sector in the industrialised nations is being impacted by higher interest rates and construction costs, whereas many countries around the world are seeing extensive investments in infrastructure, including water and wastewater management.

The Executive Board of the Wilo Group is following these overarching external developments and market-specific trends closely and will take the necessary action to limit the impact on the company to the greatest possible extent while also taking advantage of the opportunities arising as a result.

Irrespective of this, the key megatrends for the Wilo Group remain intact and will continue to have a significant influence on the company's future business and current development, including in 2023. In particular, the digital transformation and measures to combat climate change are making companies and consumers more willing to invest, thereby systematically strengthening demand for highly efficient pumps and pump systems. This development is being supported and accelerated by stricter environmental protection regulations and a wide range of government subsidy programmes. For example, one dynamic growth driver is the current boom in heat pumps in Europe.

All in all, the risk and opportunity profile for the world economy and the Wilo Group's specific markets in 2023 is extremely challenging but still positive from a current perspective.

The clear and sustainable implementation of the future-oriented business policy combined with a well-balanced internal risk position are extremely important for the Wilo Group. This is an established strength and will remain so in future. The Group's risk balancing measures include its successful customer orientation and its pronounced innovative ability with the continuous development of new technologies and products. In addition, the Wilo Group's broad international market presence and diversification in terms of regions and market and product segments typically enable it to offset individual risks and temporary market disruption to a certain extent.

Russia's war of aggression against Ukraine represented a sudden and serious breach of the political world order and global value chains. Many countries responded by imposing extensive sanctions. Russian exports of oil and, in particular, natural gas and various commodities were limited or ceased almost entirely. The ongoing threat of an energy crisis in Western Europe and the loss of international economic structures and partnerships are amplifying the trend towards a more fragmented world economy. Growing protectionism, supply chain disruption and the resulting global shortages at various stages of the value chain had already led to the decoupling of the world economy in recent years.

This shift is being accelerated by the war in Ukraine, further geopolitical tensions and the growing impact of climate change. The desire to ensure security of supply by producing more in the respective regions stands in contrast to the tightly-knit, globally connected nature of the world economy. Decoupling means more regional production instead of the international division of labour along the value chain. The Wilo Group identified these trends at an early stage and positioned itself accordingly by strengthening and expanding its presence in the individual regions and by insourcing key components, among other things. This serves to improve the security and resilience of the production processes for the respective markets. With its region-for-region approach, Wilo seeks to achieve a balance between local and decentralised activities that is optimal for the company with the aim of limiting the additional costs and inefficiencies that are unavoidable as a result of decoupling. It seeks to manufacture locally for domestic and regional markets with a focus on the customer and the greatest possible efficiency. The Wilo Group is currently investing in new production facilities in China and India, with construction work in both locations set to be completed in 2023.

Generally speaking, climate change and the dramatic rise in energy costs due to the war in Ukraine are leading to increased investment in heating and air-conditioning systems and water management, and hence also boosting demand for highly efficient pumps and pump systems. The Wilo Group aspires to take targeted measures to successively further its evolution into a solutions provider with a clear customer focus, irrespective of whatever short-term external economic and political influences 2023 may bring. To this end, Wilo is also making focused, large-scale investments in the development of intelligent products, systems, services and solutions irrespective of short-term economic fluctuations. The Group is also pressing ahead with its digital transformation. Wilo is systematically expanding its product portfolio with a clear focus on core competencies in heating, air-conditioning and cooling, water supply and wastewater disposal.

Thanks to a package of strategically defined key measures, the Wilo Group is fit for the future and enjoys a robust position. In addition to accelerated organic growth, acquisitions are an important element of the company's future development. In the 2022 financial year, Wilo further strengthened its technological expertise and market access in the area of water supply and wastewater treatment by making strategic acquisitions in Germany and China. The acquired companies are being integrated into the Water Treatment Strategic Business Unit.

The megatrends relevant to the Wilo Group are central to its long-term strategic orientation irrespective of short-term crises and fluctuations in demand, which is why they serve as the pillars of the Ambition 2025 corporate strategy. Climate change and digital transformation will be crucial factors in 2023 and beyond. With its modern high-efficiency pumps, the Wilo Group is making an important contribution to slowing climate change and the ability to achieve the more stringent climate protection targets. The digital connectivity of pumps and pump systems offers additional potential for considerable energy savings. The Wilo Group is well positioned to benefit from this trend with its portfolio of smart, energy-efficient products, systems and solutions. At the same time, Wilo is continuing to systematically pursue its own path of digital transformation. This includes the fundamental and sustainable reorganisation of its value chain and existing business processes with high levels of investment. The central element of this process is the IT-based, smart networking of production methods, logistics and products. This extensive internal digital transformation is strengthening the Wilo Group's competitiveness for the long term while also generating direct benefits for its customers, particularly in terms of quality standards, punctual deliveries and optimised service. In addition, the Wilo Group is focusing its innovative capacity on providing its customers with intelligent, connectable solutions.

Outlook for the regions

ESTABLISHED MARKETS Although Wilo's specific European markets are generally extremely important from a strategic perspective, they vary considerably from region to region and are characterised by intense competition. This high-volume, high-tech market for pumps and pump systems and associated services is especially attractive for a premium provider like Wilo. Wilo enjoys a strong market position in Europe thanks to its innovative strength, high quality and close customer relationships. This is a critical factor for success in light of the intense competition in the region. In order to continue to overcome the challenges in Europe and take advantage of the available opportunities in future, Wilo is focusing on the following cornerstones of its business in particular: the clearly defined digitalisation strategy, the future-oriented alignment of the organisation, a clear growth strategy, defined measures to reduce costs and increase efficiency, and targeted investments in the future.

Although the European market is very mature, it boasts huge demand for energy-saving and environmentally friendly heating and air-conditioning systems. The majority of the installed systems are outdated and need to be replaced in the next few years in order to meet more stringent environmental protection requirements. Political initiatives like the European Green Deal are intended to ensure that Europe becomes an economy with net-zero greenhouse gas emissions by 2050 and that economic growth is decoupled from resource use. The European Commission has presented specific proposals for reducing net greenhouse gas emissions by at least 55 percent by 2030 compared with 1990, including a new climate and energy policy. At the same time, Germany has strengthened its Federal Climate Protection Act and set itself the goal of reaching net zero in terms of greenhouse gas emissions by 2045. This includes an interim target of reducing emissions by 65 percent by 2030 compared with 1990. Accordingly, investments in efficient, environmentally friendly heating systems are expected to increase significantly throughout Europe in 2023, supported by corresponding subsidy programmes. This trend is being accelerated by the threat of an energy crisis and sustained high energy costs due to the war in Ukraine, as illustrated by the huge growth in demand for heat pumps in Germany and other European countries.

The investments in climate protection are likely to also benefit the modernisation of water and wastewater plants. Building renovation, modernisation and digitalisation are also becoming structurally more important throughout Europe. Smart, connected and digitally controllable devices and systems are playing a central role in this process. The Wilo Group therefore expects innovation-driven demand for high-quality energy-efficient pumps to continue to grow throughout Europe over the coming years.

In the USA, growth is expected to slow in 2023 because significantly higher interest rates typically have a quick and pronounced impact on investment and consumer spending. As such, US construction is expected to have to cope with an extended lean period when it comes to residential construction and other segments. However, the "Inflation Reduction Act of 2022" (IRA), which was enacted by the federal government in 2022 as part of its new decarbonisation strategy, includes the biggest climate and energy package in US history with USD 370 billion set to be invested in the expansion of renewable energies. The USA aims to be climate-neutral by 2050. The Department of Energy is developing solutions for lowering energy consumption in buildings, while a number of other government initiatives are supporting the political drive towards increased energy efficiency. However, the IRA also prescribes an extremely high local content requirement when it comes to the necessary systems and equipment. In addition to expanding its presence in North America in recent years through targeted acquisitions, the Wilo Group has pursued its region-for-region approach by investing in a new production site in Cedarburg, Wisconsin (USA), which was inaugurated in the year under review. Thanks to the acquisitions and investments made and the successful realignment of the sales organisation in previous years, Wilo is excellently positioned to take advantage of the available growth opportunities in North America.

Climate protection and the turnaround in energy policy will be key drivers in the established markets in 2023 and beyond. Corresponding subsidy programmes and the high cost of fossil fuels are stimulating the replacement of old heating systems with new systems. Modern high-efficiency pumps can reduce power consumption by around 80 percent compared with older, unregulated models. In addition to modern gas heating systems with condensing boiler technology, which dominate markets such as Germany and whose market share is continuing to grow, the popularity of heat pumps is increasing dramatically. With its high-performance pumps, the Wilo Group is an important and established partner to the relevant manufacturers (OEMs), and is therefore benefiting from this dynamic growth trend. With the high level of capital expenditure in recent years and its various innovative products and systems, Wilo has laid the foundations for continuing to serve the high-end demand in the established markets in future and reinforcing its market position.

GROWTH MARKETS. The sheer size of the Chinese economy means there are extensive opportunities for the Wilo Group to benefit from the rapid process of urbanisation irrespective of economic cycles. Structurally, there is growing demand for the corresponding pumps and systems in areas such as residential and commercial construction and water management. In the near term, however, these trends will be overshadowed by the sustained crisis affecting the real estate sector. After the previous year was characterised by lockdowns, China is expected to see an economic recovery over the course of this year now that the strict zero-COVID policy has been lifted. This means the short-term and medium-term outlook for China is becoming more positive. In light of widespread environmental contamination, China is planning substantial investments in climate protection and the expansion and modernisation of its water and wastewater industries. These developments are extremely relevant for Wilo.

The construction industry is expected to see a dynamic upturn in India, Vietnam and the Philippines. Structural growth will be driven by the substantial investments in urban development and infrastructure that are required in light of the continuous process of urbanisation, which is taking on a huge magnitude in India in particular. Going beyond 2023, these positive developments also offer significant potential for the Wilo Group in the medium and long term.

The Turkish economy is likely to continue to suffer from the country's structural weakness in the election year of 2023. The short-term prospects for the construction industry are mixed. Although the government is planning some large-scale infrastructure projects, private residential construction looks set to decline in 2023 on the back of financing problems, high construction costs, supply bottlenecks and a reduction in the number of building permits. By contrast, construction investment in Egypt is expected to see further moderate growth, while water management could present opportunities in Tunisia. In Nigeria, the construction industry is expected to see an upturn in 2023 thanks to extensive government investment in housing, roads and bridges. The water management sector is also becoming increasingly important. The construction sector in the oil-producing countries is set to enjoy further lively performance.

Higher interest rates and inflation mean that the economic outlook for Latin America for 2023 is rather muted, with investments in particular suffering from the difficult financing conditions. Business in Argentina remains very challenging on account of these factors combined with extremely high inflation and a weak currency. Growth in Brazil and Mexico is forecast to slow considerably, while Chile is expected to fall into a recession. As such, Wilo does not anticipate any broad-based demand impetus from Latin America in 2023. However, it is able to largely offset any differences within the region thanks to its diversified regional presence and market-appropriate product mix. Although overall demand in most countries is expected to be temporarily depressed in 2023, there are good opportunities for specific projects in individual markets that are enjoying structural growth.

All in all, the outlook for the growth markets remains mixed in 2023. Although some of the individual markets in the region are suffering from the burden of high interest rates and inflation as well as general economic weakness, others offer considerable business potential for the Wilo Group thanks lively residential construction and the growing importance of investments in the water supply and wastewater treatment. The company's broad regional diversification is paying off in this respect.

Statement by the Executive Board on forecast development

2022 was characterised by extensive challenges and a climate of uncertainty, and this remains the case in 2023. Due to the ongoing effects of the pandemic, the war in Ukraine and the resulting dramatic rise in energy prices with the threat of an energy crisis, high inflation and rising interest rates, many people are concerned about the future and there are growing fears of a decline in prosperity. According to economic researchers, the outlook for 2023 is extremely muted. As previously, these forecasts are also subject to an unusually high degree of uncertainty. Companies and consumers have rarely been faced with as many imponderables as at the start of 2023.

This pronounced uncertainty in terms of economic development, and hence the Wilo Group's business development, requires particularly anticipatory, risk-conscious and flexible company management. Accordingly, current developments are continuously observed by the Executive Board and trends are anticipated, analysed and evaluated in a timely manner. Accordingly, identifying trends and changes on the market at an early stage and analysing them quickly is and remains a fundamental management principle. This allows Wilo to devise and implement alternative scenarios very quickly and initiate countermeasures at short notice. The various factors outlined above mean the challenges for 2023 are especially pronounced. More than ever before, this calls for effective crisis management. This also applies in particular in the event of considerable turbulence on the international financial and currency markets or in the event of a further escalation of geopolitical crises with negative consequences for the real economy. If necessary and possible, the Wilo Group will continue to initiate appropriate and prompt countermeasures from this position of strength in future.

In high-risk, challenging markets, a high degree of business flexibility and pronounced adaptability are key factors for success. These parameters are firmly enshrined in the Wilo Group's corporate culture, strategy and controlling and will continue to characterise its corporate management in 2023. Accordingly, the Wilo Group is cautiously optimistic with regard to the current financial year even in light of the fragile geopolitical and economic climate.

On the basis of the forecast business development in the individual regions as described above, the Executive Board is forecasting mid-single-digit net sales growth for the Wilo Group in the 2023 financial year. This is based on the underlying assumptions that the world economy will develop as forecast and that there will be no major upheaval on the currency and capital markets. The planning also assumes that geopolitical tensions will not escalate further and that the challenges in connection with the COVID-19 pandemic and supply chain bottlenecks will recede, or at least not become more pronounced.

The Executive Board adopts strict profitability targets with a view to ensuring the Wilo Group's business agility, flexibility and independence at all times. 2023 is expected to see further adverse effects, especially as a result of wage increases and higher energy, commodity and component prices. This will be at least partially offset by increased productivity and modest price adjustments. In light of the uncertain economic outlook and the geopolitical conditions, the Executive Board has also adopted a policy of strict cost management and is paying particularly close attention to price development on the procurement markets so that it can take countermeasures at short notice as required. EBITDA is expected to increase moderately in absolute terms, but profitability expressed in the form of the EBITDA margin is set to decline slightly. In particular, this is because above-average growth is forecast for the OEM segment, where the margins generated are lower than the Group average. Leverage is expected to increase slightly compared with the year under review.

All in all, the risks and consequences of potential misjudgements concerning the development of the sales markets and, in particular, the procurement markets as well as the financial and currency markets in the 2023 financial year are classified as extraordinarily high. The situation on the energy and procurement markets remains strained and unclear. Other incalculable risks include the continued war in Ukraine and rising geopolitical tensions and their consequences for the world economy. The future development of the COVID-19 pandemic also entails additional risks. Accordingly, the Wilo Group's net sales and EBITDA expectations are subject to an exceptionally high degree of uncertainty. Although regional economic fluctuations can be partially offset by the Wilo Group's global orientation, its growth and profitability targets could still be substantially affected by further military escalations, continued or more pronounced disruption to value chains or the resurgence of the COVID-19 pandemic with new and more dangerous variants of the virus, which would have a corresponding significant impact on the world economy.

Research and development have traditionally played an important role at Wilo and will continue to do so in future. Accordingly, expenditure for research and development will remain at a high level in the 2023 financial year irrespective of temporary factors affecting the economy or the Group's markets.

In recent years, the Wilo Group has made substantial investments in a modern, efficient, future-oriented corporate infrastructure that will promote growth. The localisation efforts initiated prior to the pandemic have been intensified further and the appropriate degree of vertical integration for Wilo in the individual regions and countries has been redefined. At the same time, Wilo has strengthened the degree of vertical integration along its value chains. In terms of the regions, multi-year projects like the strategic location development project at the headquarters in Dortmund and the construction work in China and India will be continued or completed in 2023. A large proportion of the investment volume in 2023 relates to the continued site expansion in Dortmund. Wilo also continuously examines the existing infrastructures and capacities at all of its other locations to ensure that they are fit for the future. In addition to the modernisation and capacity expansion of production facilities worldwide, investment activity will focus on the harmonisation of the IT infrastructure. Moreover, the Wilo Group will continue to press ahead with its digital transformation at a global level. It also intends to focus on further corporate acquisitions in line with Ambition 2025. As such, capital expenditure is 2023 expected to see another year-on-year increase.

All the main location development projects aimed at increasing capacity will be completed in 2023. This will allow the focus of investment to shift to the harmonisation and modernisation of the IT infrastructure to an even greater extent in future. In addition to the global implementation of the SAP S/4HANA ERP software, the harmonisation of CRM software is planned for the coming years. Wilo also intends to firmly press ahead with the expansion of digital customer interfaces.

The long-term financing structure, the very high equity ratio of around 43 percent and cash of almost EUR 265 million constitute a solid basis for the long-term profitable growth of the Wilo Group. Under the terms of the long-term financing instruments in place as at 31 December 2022, WILO SE is required to comply with certain standard financial ratios (covenants). WILO SE fully complied with these covenants at all times in the 2021 and 2022 financial years and there are currently no indications that it will be unable to comply with them in future.

The business targets for 2023 as presented in this report are based on a professional and detailed planning process and are embedded in the Ambition 2025 corporate strategy. They take into account all information on and knowledge of internal and external factors that were available at the time of this management report being prepared. Future unforeseeable developments and events may lead to changes in expectations and deviations from forecasts. All estimates for 2023 assume an unchanged basis of consolidation and unchanged exchange rates compared with the previous year. Planning does not take account of any factors relating to legal and regulatory issues or substantial impairment losses.

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated income statement

for the period 1 January to 31 December 2022

EUR thousand	Note	**2022**	2021
Net sales	(8.1)	1,885,731	1,651,889
Cost of sales	(8.2)	–1,270,770	–1,122,339
Gross profit		**614,961**	**529,550**
Selling expenses	(8.3)	–325,374	–278,373
Administrative expenses	(8.3)	–125,837	–109,201
Research and non-capitalised development costs	(8.4)	–67,299	–55,765
Other operating income	(8.5)	38,257	21,306
Other operating expenses	(8.6)	–37,666	–15,008
Earnings before interest and taxes (EBIT)		**97,042**	**92,509**
Financial income	(8.7)	6,217	5,200
Financial expenses	(8.8)	–14,473	–13,832
Consolidated net income before taxes		**88,786**	**83,877**
Income taxes	(8.9)	–27,653	–34,860
Consolidated net income		**61,133**	**49,017**
of which attributable to non-controlling interests		76	0
of which attributable to the shareholders of WILO SE		61,057	49,017
Basic and diluted EPS: EUR 6.16 (previous year: EUR 5.00) per ordinary share	(8.10)		

Consolidated statement of comprehensive income

for the period 1 January to 31 December 2022

EUR thousand	Note	**2022**	2021
Consolidated net income		**61,133**	**49,017**
Items not reclassified to profit or loss in the future			
Remeasurement of pension obligation and plan assets		27,866	2,130
On which current income taxes	(8.9)	–8,363	–567
		19,503	**1,563**
Items that may be reclassified to profit or loss in the future			
Currency translation differences		–1,702	13,882
		–1,702	**13,882**
Cash flow hedges – reclassified to consolidated income statement	(11.1)	4,180	1,001
On which current income taxes		–1,154	0
Other comprehensive income		**20,827**	**16,446**
Total comprehensive income		**81,960**	**65,463**
of which attributable to non-controlling interests		71	0
of which attributable to the shareholders of WILO SE		81,889	65,463

Consolidated statement of financial position

as at 31 December 2022

Assets EUR thousand	Note	2022	2021
Non-current assets			
Intangible assets	(9.1)	327,280	303,538
Property, plant and equipment	(9.2)	703,401	646,881
Investments carried at equity	(7.)	2,640	2,640
Trade receivables	(9.4)	4,968	8,536
Other financial assets	(9.5)	13,441	9,016
Other receivables and assets	(9.7)	8,940	12,483
Deferred tax assets	(8.9)	26,480	31,020
		1,087,150	**1,014,114**
Current assets			
Inventories	(9.3)	436,253	322,003
Trade receivables	(9.4)	335,092	284,133
Other financial assets	(9.5)	13,871	8,318
Tax receivables	(9.6)	414	304
Other receivables and assets	(9.7)	41,273	35,797
Cash	(9.8)	264,519	189,880
Assets held for sale	(9.9)	0	1,346
		1,091,422	**841,781**
Total assets		**2,178,572**	**1,855,895**

Equity and liabilities EUR thousand	Note	2022	2021
Equity	(9.10)		
Issued capital		26,980	26,980
./. Nominal amount of treasury shares		-937	-1,207
Subscribed capital		26,043	25,773
Capital reserves		45,504	35,680
Other reserves		877,133	799,707
Treasury share reserve		-19,224	-24,410
Equity attributable to the shareholders of WILO SE		**929,456**	**836,750**
Non-controlling interests		1,463	0
		930,919	**836,750**
Non-current liabilities			
Financial liabilities	(9.11)	542,947	388,192
Other financial liabilities	(9.13)	30,227	24,616
Other liabilities	(9.14)	5,084	3,671
Provisions for pensions and similar obligations	(9.15)	63,144	90,798
Other provisions	(9.16)	8,133	6,435
Deferred tax liabilities	(8.9)	16,588	13,873
		666,123	**527,585**
Current liabilities			
Financial liabilities	(9.11)	73,368	25,840
Trade payables	(9.12)	247,265	233,463
Other financial liabilities	(9.13)	50,676	49,813
Other liabilities	(9.14)	142,051	111,840
Other provisions	(9.16)	62,539	62,772
Tax liabilities	(9.17)	5,631	7,832
		581,530	**491,560**
Total equity and liabilities		**2,178,572**	**1,855,895**

Consolidated statement of cash flows

for the period 1 January to 31 December 2022

EUR thousand	**2022**	2021	Change
Earnings before interest and taxes (EBIT)	**97,042**	**92,509**	**4,533**
Depreciation and amortisation of intangible assets and property, plant and equipment	99,689	88,595	11,094
Increase/decrease in provisions	190	-4,704	4,894
Gains on disposals of intangible assets and property, plant and equipment	-1,109	-606	-503
Increase in inventories	-103,374	-70,218	-33,156
Increase in trade receivables	-45,003	-5,276	-39,727
Increase in trade payables	14,034	41,914	-27,880
Increase/decrease in other assets and liabilities not related to investing or financing activities	9,733	15,241	-5,508
Other non-cash expenses and income	4,011	-1,119	5,103
Operating cash flow before income taxes	**75,213**	**156,336**	**-81,123**
Income taxes paid	-33,108	-29,611	-3,497
Cash flow from operating activities	**42,105**	**126,725**	**-84,620**
Purchases of intangible assets	-19,231	-23,939	4,708
Disposals of property, plant and equipment	7,864	3,690	4,174
Purchases of property, plant and equipment	-121,217	-108,285	-12,932
Purchases of consolidated companies	-12,780	-38,819	26,039
Dividends received	250	50	200
Other purchases attributable to investing activities	-253	-1,095	842
Cash flow from investing activities	**-145,367**	**-168,398**	**23,031**
Dividend payment	-11,796	-8,141	-3,655
Proceeds from assuming financial liabilities	368,131	141,935	226,196
Repayment of financial liabilities	-167,353	-92,738	-74,615
Proceeds from the sale of treasury shares	15,281	15,145	136
Repayment of lease liabilities	-14,825	-15,694	869
Interest payments received	2,742	1,842	900
Interest payments made	-14,413	-9,488	-4,925
Cash flow from financing activities	**177,767**	**32,861**	**144,906**
Change in cash	74,505	-8,812	83,317
Effects of exchange rate changes on cash	-103	9,576	-9,679
Changes on cash resulting from the basis of consolidation	237	164	73
Cash at beginning of period	189,880	188,952	928
Cash at end of period	**264,519**	**189,880**	**74,639**

Detailed information can be found in note (10).

Consolidated statement of changes in equity

for the period 1 January to 31 December 2022

	Subscribed capital			Other reserves							
EUR thousand	Issued capital	Nominal amount of treasury shares	Capital reserves	Retained earnings	Currency translation reserve	Hedging reserve	Reserve for remea-surement of pensions	Treasury share reserve	Equity attributable to the shareholders of WILO SE	Non-con-trolling interests	**Equity**
1 January 2021	**26,980**	**-1,477**	**26,161**	**856,119**	**-82,953**	**-1,656**	**-28,554**	**-29,766**	**764,854**	**0**	**764,854**
Consolidated net income 2021	0	0	0	49,017	0	0	0	0	49,017	0	49,017
Other comprehensive income	0	0	0	0	13,882	1,001	1,563	0	16,446	0	16,446
Dividend payments	0	0	0	-8,141	0	0	0	0	-8,141	0	-8,141
Sale of treasury shares	0	270	9,519	0	0	0	0	5,356	15,145	0	15,145
Other changes	0	0	0	-571	0	0	0	0	-571	0	-571
31 December 2021	**26,980**	**-1,207**	**35,680**	**896,424**	**-69,071**	**-655**	**-26,991**	**-24,410**	**836,750**	**0**	**836,750**
1 January 2022	**26,980**	**-1,207**	**35,680**	**896,424**	**-69,071**	**-655**	**-26,991**	**-24,410**	**836,750**	**0**	**836,750**
Introduction of IAS 29	0	0	0	0	7,464	0	0	0	7,464	0	7,464
1 January, restated	**26,980**	**-1,207**	**35,680**	**896,424**	**-61,607**	**-655**	**-26,991**	**-24,410**	**844,214**	**0**	844,214
Consolidated net income 2022	0	0	0	61,057	0	0	0	0	61,057	76	61,133
Other comprehensive income	0	0	0	0	-1,697	3,026	19,503	0	20,832	-5	20,827
Dividend payments	0	0	0	-11,796	0	0	0	0	-11,796	0	-11,796
Sale of treasury shares	0	270	9,824	0	0	0	0	5,186	15,280	0	15,280[1]
Other changes	0	0	0	-131	0	0	0	0	-131	1,392	1,261
31 December 2022	**26,980**	**-937**	**45,504**	**945,554**	**-63,304**	**2,371**	**-7,488**	**-19,224**	**929,456**	**1,463**	**930,919**

Detailed information can be found in note (7) and note (9.10).

[1] EUR 15,280 thousand is shown here due to rounding differences.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(1.) General information

WILO SE ("the company"), based in Dortmund, Germany, is registered with the Dortmund Local Court in section B no. 21356 and is the parent company of the Wilo Group. The Group's core business is the production and worldwide sale of machinery, notably liquid pumps and appliances. The Wilo Group develops, manufactures and markets pumps and building technology systems, primarily for heating, refrigeration, air-conditioning and ventilation systems, for water supply and for sewage and effluent disposal.

(2.) Basis for the preparation of the consolidated financial statements

The consolidated financial statements of WILO SE as at 31 December 2022 have been prepared in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union and with all interpretations of the IFRS Interpretations Committee (formerly International Financial Reporting Interpretations Committee, IFRIC) applicable for the 2022 financial year. WILO SE exercises the option provided for in section 315e (3) of the Handelsgesetzbuch (HGB – German Commercial Code) and is therefore not required to prepare consolidated financial statements in accordance with German commercial law. To ensure equivalence with consolidated financial statements prepared in accordance with German commercial law, the disclosure requirements of section 315e (1) HGB are met in addition to the IFRS disclosure requirements.

A number of items of the income statement and statement of financial position have been combined for clarity of presentation. These items are reported and explained separately in the notes. The consolidated income statement has been prepared using the cost-of-sales method. The amounts in the consolidated financial statements are generally presented in thousands of euro (EUR thousand).

The outbreak of the war in Ukraine and the continuation of the COVID-19 pandemic in 2022 did not significantly impact the Wilo Group either in the year under review or in 2021. The products manufactured and marketed by the Wilo Group for applications in building services, drinking water supply and polluted water and wastewater disposal are essential to everyday life. There are no uncertainties that could cast doubt as to the Wilo Group's ability to continue as a going concern.

(3.) Adoption of new and amended IFRS

The following standards, interpretations and amendments to existing standards were adopted for the first time in the 2022 financial year, but had no or no material effect on the consolidated financial statements of WILO SE:

- COVID-19-Related Rent Concessions (Amendment to IFRS 16)
- Onerous Contracts – Cost of Fulfilling a Contract (Amendments to IAS 37)
- Annual Improvements to IFRSs 2018–2020
- Property, Plant and Equipment – Proceeds before Intended Use (Amendments to IAS 16)
- Reference to the Conceptual Framework (Amendments to IFRS 3)

The following standards, amendments to existing standards and interpretations issued by the IASB and the IFRS Interpretations Committee are not yet effective in the 2022 financial year or have not yet been endorsed by the European Union. However, they will have no impact or no material impact on the consolidated financial statements of WILO SE. WILO SE is not adopting early these standards, interpretations or amendments to existing standards or interpretations:

First-time adoption 1 January 2023:

- Classification of Liabilities as Current or Non-current (Amendments to IAS 1)
- IFRS 17 Insurance Contracts
- Disclosure of Accounting Policies (Amendments to IAS 1 and IFRS Practice Statement 2)
- Definition of Accounting Estimates (Amendments to IAS 8)
- Deferred Tax Related to Assets and Liabilities Arising from a Single Transaction (Amendments to IAS 12)

First-time adoption 1 January 2024:

- Lease Liability in a Sale and Leaseback (Amendments to IFRS 16)
- Non-current Liabilities with Covenants (Amendments to IAS 1)

First-time adoption still open:

- Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (Amendments to IFRS 10 and IAS 28)

(4.) Basis of consolidation

The consolidated financial statements include WILO SE and all significant companies that WILO SE controls directly or indirectly. WILO SE controls an entity when it is exposed, or has rights, to changing returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

All consolidated companies' financial statements are prepared as at 31 December. The financial statements of subsidiaries are included in the consolidated financial statements from the date on which control is achieved until it ends and fully consolidated in accordance with IFRS 10.

In addition to WILO SE, the consolidated financial statements as at 31 December 2022 include twelve (previous year: eleven) German entities and 67 (previous year: 66) foreign subsidiaries. In addition, one joint venture (previous year: one) is included in the consolidated financial statements using the equity method.

A list of all of WILO SE's direct and indirect shareholdings can be found in the annex to the notes to the consolidated financial statements.

(5.) Consolidation methods

The financial statements of the German and foreign companies included in the consolidated financial statements were prepared using uniform accounting policies.

Business combinations are accounted for using the acquisition method in accordance with IFRS 3, with all hidden assets and liabilities disclosed. The assets, liabilities and contingent liabilities of the acquiree identified in accordance with IFRS 3 are measured at fair value at the acquisition date and offset against the purchase price of the acquisition in capital consolidation.

Any excess of the purchase price over the value of acquired, remeasured equity is capitalised as goodwill and tested for impairment annually at the level of the cash-generating unit to which the goodwill is allocated. If the acquired equity exceeds the purchase price at the acquisition date, the difference is reassessed and recognised in profit or loss. Intangible assets are recognised separately from goodwill if they can be separated from the company or result from a contractual or other right.

The increase in the shareholding in a controlled and thereby fully consolidated company is treated as a transaction between owners under IFRS 10 in the consolidated financial statements. Any resulting difference is recognised directly in retained earnings and allocated to the shareholders of WILO SE.

Intragroup sales, income, expenses, receivables, payables and contingent liabilities are eliminated. Profits and losses resulting from intragroup trading and recognised in inventories are eliminated. Any temporary differences arising on consolidation are accounted for by recognising deferred tax items as appropriate.

(6.) Currency translation

Foreign-currency transactions in the separate financial statements of WILO SE and consolidated subsidiaries are translated into functional currency at the transaction date exchange rate. Foreign-currency monetary assets and liabilities are translated at the average rate as at the end of the reporting period and any exchange gains or losses are recognised in profit or loss. Non-monetary assets and liabilities measured at cost are translated at the transaction date exchange rate. Non-monetary items measured at fair value are translated at the measurement date exchange rate.

Items in the separate financial statements of consolidated entities are measured in the currency of the primary economic environment (functional currency).

Financial statements prepared in functional currencies other than the euro are translated into euro for consolidation. The reporting currency used in the consolidated financial statements is the euro. All assets and liabilities are translated at the exchange rate as at the end of the reporting period. Consolidated income statement items are translated for inclusion in the consolidated financial statements at annual average rates that appropriately approximate the transaction date exchange rates. Translation differences are accounted for as a separate item in consolidated equity until a subsidiary is disposed of.

Turkey was classified as a hyperinflationary economy in April 2022. This meant that a functional currency of a consolidated company, namely the Turkish lira, was classified as hyperinflationary as defined by IAS 29 (Financial Reporting in Hyperinflationary Economies) in the 2022 financial year. The assessment, which was based on quantitative and qualitative criteria, resulted in particular from the fact that cumulative inflation in Turkey over the past three calendar years had risen to over 100 percent in the first quarter of the 2022 calendar year and continues to rise. The change is effective for reporting periods ending on or after 30 June 2022. IAS 29 stipulates that the functional currency of the hyperinflationary economy must be treated on first-time application as if the currency concerned had always been hyperinflationary (retrospective application). WILO applied IAS 29 to its subsidiary in Turkey for the first time effective 1 January 2022. The prior-year figures were not restated.

The objective of IAS 29 is to express the financial statements of an entity that reports in the currency of a hyperinflationary economy in terms of the unit currently applicable at the end of the reporting period. Monetary items are not restated because they are already expressed in terms of the unit currently applicable at the end of the reporting period.

The necessary adjustments are made applying a general price index based on data from the Turkish Statistical Institute (TURKSTAT Corporate) on the harmonised consumer price index for Turkey (CPI basis 2003 = 100).

The harmonised consumer price index stood at 686.95 on 1 January 2022 and increased to 1,128.42 as at 31 December 2022.

All items of the statement of financial position and the income statement are translated into the Group's presentation currency in accordance with IAS 21 only after the items concerned have been indexed. In both cases, the exchange rate as at the closing date is applied in translation. The exchange rate as at the closing date on 31 December 2022 was TRY 19.9649 per EUR.

The first-time application of IAS 29 with retrospective effect resulted in a positive translation effect of EUR 7,464 thousand that was recognised in equity under currency translation differences.

The effects of the indexing of non-monetary assets and liabilities, equity and the items of the statement of comprehensive income in the past financial year are reported in net financial income.

All in all, the application of IAS 29 had a negative effect on consolidated net income of EUR -3,921 thousand.

The main exchange rates used in currency translation are as follows:

Exchange rates

		Annual average rates		Rate as at 31 Dec.	
	EUR 1 =	**2022**	2021	**2022**	2021
Pound sterling	GBP	0.8548	0.8584	0.8869	0.8403
Chinese yuan	CNY	7.0744	7.6069	7.3582	7.1947
Indian rupee	INR	82.7154	87.3134	88.1710	84.2290
Polish zloty	PLN	4.6868	4.5720	4.6808	4.5969
Russian rouble	RUB	73.4518	87.3297	78.1134	85.3002
Swedish krona	SEK	10.6571	10.1562	11.1218	10.2503
Swiss franc	CHF	1.0017	1.0799	0.9847	1.0331
South Korean won	KRW	1,354.1607	1,354.6584	1,344.0900	1,346.3807
Turkish lira	TRY	17.5096	10.7071	19.9649	14.2793
US dollar	USD	1.0500	1.1816	1.0666	1.1326

(7.) Accounting policies

The accounting policies applied in the previous year have been retained. Notes on the first-time adoption of new or amended standards and interpretations can be found in note (3). Items presented in the statement of financial position are broken down into current and non-current items. An asset or liability is classified as current if it is expected to be realised within twelve months of the end of the reporting period.

MEASUREMENT BASES The consolidated financial statements have been prepared using a historical cost approach with the exception of the derivatives presented in section 11.

ESTIMATES AND ASSUMPTIONS The preparation of consolidated financial statements in line with IASB standards requires management to make estimates and assumptions that affect the amounts and reporting of recognised assets and liabilities, income and expenses and contingent assets and liabilities. The main matters affected by estimates and assumptions are as follows:

- assessment of impairment on goodwill
- assessment of impairment on capitalised development costs
- measurement of intangible assets and items of property, plant and equipment (recognition of useful life)
- assessment of impairment on trade receivables
- assessment of impairment on deferred tax assets
- recognition and measurement of provisions for pensions and similar obligations
- recognition and measurement of other provisions

In goodwill impairment testing, the recoverable amount of cash-generating units is measured as the higher of fair value less costs to sell and value in use. Fair value is the best estimate of the amount obtainable at the end of the reporting period from the sale of a cash-generating unit in an arm's length transaction. Value in use is the present value of the future cash flows expected to be derived from continuing use of a cash-generating unit. The Wilo Group uses the value in use as calculated using the discounted cash flow method in impairment testing for goodwill. The discounted cash flows are based on the strategic planning for a period of five years.

The cash flows forecasts take into account past experience and are based on the best estimate of future development by the company's management. Cash flows after the detailed planning period are extrapolated using growth rates specific to the business area.

The most important assumptions on which the calculation of value in use is based relate to long-term cash flows, average annual EBIT growth rates and the weighted average cost of capital. In particular, the planning premises take into account expected net sales and EBIT development and the development of sales markets. The forecast growth for the individual divisions also takes account of past growth rates. Future company acquisitions are not included in planning. These estimates and the underlying methods can have a significant influence on the respective values and ultimately on the amount of possible goodwill impairment. The Wilo Group reported goodwill of EUR 156,830 thousand as at the end of the reporting period (previous year: EUR 144,296 thousand). Further information can be found under "Intangible assets" and "Impairment of assets" (note (7)) and in note (9.1).

For intangible assets and items of property, plant and equipment, the useful lives applied are based on management estimates. Moreover, if necessary, impairment tests determine the recoverable amount of an asset or the cash-generating unit assigned to the asset as the higher of fair value less costs to sell or the value in use.

Fair value is the best estimate of the amount obtainable at the end of the reporting period from the sale of an asset in an arm's length transaction. The discounted future cash flow of the asset in question must be determined to calculate its value in use. The estimate of discounted future cash flows includes significant assumptions that themselves are subject to estimation uncertainty, e.g. the discount rate. Although the management presumes that its assumptions of general economic conditions, estimates of discounted future cash flow and of relevant expected useful lives are appropriate, a change in assumptions or circumstances could require a change in analysis. This could result in additional impairment losses in the future if the trends identified by the management reverse or if its assumptions or estimates prove to be inaccurate. The Wilo Group reported intangible assets of EUR 327,280 thousand (previous year: EUR 303,538 thousand) and property, plant and equipment of EUR 703,401 thousand (previous year: EUR 646,881 thousand) as at the end of the reporting period.

Further information can be found under "Intangible assets", "Property, plant and equipment" and "Impairment of assets" (note (7)) and in notes (9.1) and (9.2).

Credit risks and risks of default can arise for trade receivables to the extent that customers do not meet their payment obligations and asset losses occur as a result. The necessary write-downs are calculated taking into account the credit rating of the respective customer, any collateral and experience of historical default rates. The actual default on payment by the customer can differ from the expected default on account of the underlying factors. The Wilo Group recognised total write-downs on trade receivables of EUR 30,022 thousand (previous year: EUR 24,547 thousand) as at the end of the reporting period.

Further information can be found under "Financial assets" (note (7)) and in note (9.5).

The recognition of deferred tax assets on tax loss carryforwards requires the expectation of future taxable profit. The assessment of whether deferred tax assets are impaired starts by taking into account deferred tax liabilities with the same taxable entity and the same taxation authority and the taxable profits that are sufficiently likely to occur in the future. The Executive Board makes a best estimate of the probability of future taxable profits on the basis of strategic corporate planning.

The calculation of provisions for pensions and similar post-employment obligations is based on key premises, such as the discount rates, salary trends, life expectancies and assumptions regarding trends in healthcare. The discount rates used are determined on the basis of the returns on prime fixed-income corporate bonds of the same term and currency as at the end of the reporting period. Actual developments may differ from the premises assumed on account of the fluctuating market and economic situation. This can have a significant effect on the obligations for pensions and similar post-employment benefits. The resulting differences are recognised in other comprehensive income. In total, provisions for pensions and similar obligations of EUR 63,144 thousand (previous year: EUR 90,798 thousand) were reported as at the end of the reporting period. Further information can be found under "Pensions and similar obligations" (note (7)) and in note (9.15).

The amount and probability of utilisation are estimated for the recognition and measurement of other provisions. The measurement is based on the most likely settlement amount or the expected settlement amount if there are equal probabilities. The amount of actual utilisation can differ from estimates. The Wilo Group primarily reports provisions for possible warranty claims, restructuring and provisions for bonuses and customer rebates under other provisions. In total, other provisions of EUR 70,672 thousand (previous year: EUR 69,207 thousand) were reported as at the end of the reporting period. Further information can be found under "Other provisions" (note (7)) and in note (9.16).

The assumptions and estimates are based on current knowledge and the data currently available. Actual developments can differ from estimates. If the actual developments differ from estimates, the resulting consequences for the carrying amounts of the relevant assets and liabilities are taken into account accordingly.

JUDGEMENTS Judgements must be made in the application of accounting policies. In particular, this applies to the following:

- Judgements must be made when allocating financial assets in accordance with IFRS 9 to the measurement categories at amortised cost, at fair value through profit and loss (FVTPL) and at fair value through other comprehensive income (FVOCI).
- The cash-generating units for goodwill impairment testing are formed and defined by product and application and are subject to management judgement. The allocation of goodwill to individual cash-generating units is likewise subject to judgement.
- When using derivatives to minimise the financial risks of hedged items, it must be decided whether hedge accounting is to be used within the meaning of IFRS 9.

EXPENSE AND REVENUE RECOGNITION In accordance with IFRS 15, the Wilo Group realises net sales when control of distinct goods or services is transferred to the customer, that is, when the customer has the ability to determine the use of the transferred goods or services and obtain substantially all the remaining benefits. This requires that an agreement with enforceable rights and obligations exists and receiving the consideration – taking into account the customer's creditworthiness – is probable. Net sales correspond to the transaction price to which the Wilo Group expects to be entitled. At the Wilo Group the transaction does not generally include considerations with various amounts in the transaction price. However, if the transaction price does include considerations with various amounts, the amount of the consideration with the most probable amount is determined. If the period of time between the transfer of goods or services and the agreed time of payment exceeds a period of twelve months, and a significant benefit results from the financing, then significant financing components are reclassified from net sales to net finance costs. If a contract covers several distinct goods and/or services, the transaction price is allocated to the performance obligation on the basis of the relative stand-alone selling prices. If stand-alone selling prices are not directly observable, then these are estimated at an appropriate level. For each performance obligation, net sales are realised either at a point in time or over a specific period time. At the Wilo Group, depending on the relevant Incoterms, net sales are typically realised at a point in time. Exceptions relate in particular to warranty revenue, which is realised over a specific period of time using the input method. Net sales are presented net of sales-related trade discounts and rebates.

Cost includes all direct costs and overheads incurred in generating net sales, including depreciation on production machinery. This item also includes amounts recognised for guarantee provisions. Operating expenses are recognised in profit or loss when service is rendered or the expenses incurred. Interest income and interest expenses are recognised on an accrual basis.

ADMINISTRATIVE EXPENSES AND SELLING EXPENSES Administrative expenses and selling expenses include attributable labour and material costs as well as depreciation applicable to each functional area.

RESEARCH AND DEVELOPMENT COSTS Development costs are capitalised as intangible assets at cost and amortised over their useful lives, provided the capitalisation criteria described in IAS 38 are met. Development costs that do not meet the capitalisation criteria in accordance with IAS 38 and research costs are reported as a separate line item in the income statement. In the year under review, development costs were capitalised in the amount of EUR 11,542 thousand (previous year: EUR 15,216 thousand). Furthermore, the addition to capitalised development costs also includes borrowing costs of EUR 459 thousand (previous year: EUR 903 thousand), meaning that the addition totals EUR 12,001 thousand (previous year: EUR 16,119 thousand).

BORROWING COSTS Borrowing costs are recognised in profit or loss, provided they do not relate directly to the acquisition, development or production of qualifying assets.

If this is the case, these direct borrowing costs are capitalised as incidental costs of acquisition of the qualified asset. Qualifying assets are assets which require a substantial period of time to bring them to a condition suitable for use or sale. In the 2022 financial year, borrowing costs were capitalised in the amount of EUR 1,948 thousand (previous year: EUR 1,227 thousand). The borrowing cost rate, which forms the basis for determining the capitalisable borrowing costs, was 2.13 percent in the year under review (previous year: 2.10 percent).

INTANGIBLE ASSETS Acquired intangible assets with a finite useful life are capitalised at cost and amortised on a straight-line basis over their useful lives (three to five years in the Wilo Group). Amortisation is recognised in the cost of sales, selling and administrative expenses as well as the research and non-capitalised development costs.

In accordance with IFRS 3 and IAS 38 in conjunction with IAS 36, goodwill is not amortised but instead tested for impairment annually and whenever there is an indication that it has become impaired.

If the conditions of IAS 38 are met, development costs on the individual components with a finite useful life are capitalised and amortised on a straight-line basis over their expected useful life of ten to 15 years. Capitalised development costs for intangible assets that are not yet available for use are tested for impairment annually.

PROPERTY, PLANT AND EQUIPMENT Physical assets used in the business for longer than one year are measured at cost less straight-line depreciation. Cost comprises the purchase price plus all directly attributable costs incurred in bringing an asset to the location and condition necessary for it to be capable of operating. This includes costs of employee benefits arising directly from the construction or acquisition of items of property, plant and equipment, costs of site preparation, initial delivery and handling costs, installation, assembly and testing costs, and professional fees. Trade discounts and rebates on the purchase price or incidental costs of acquisition are deducted from the cost of the asset. Borrowing costs that are directly attributable to the acquisition, construction or production of a qualifying asset are also included in the cost of that asset.

The estimated useful life of a building is between ten and 60 years; leasehold improvements and buildings on third-party land are depreciated over the shorter of the lease term or their useful life.

The useful lives for technical equipment and machinery are between three and 14 years. Operating and office equipment subject to normal use are depreciated over three to 13 years. Significant parts of an asset that meet the criteria set out in IAS 16 are accounted for using the component approach. The depreciation for the financial year is allocated to the corresponding functional areas.

ASSETS HELD FOR SALE Non-current assets or disposal groups are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use. For this to be the case, the asset or disposal group must be available for immediate sale in its present condition and its sale must be highly probable. Assets held for sale are no longer written down, and are instead measured at the lower of fair value less costs to sell and carrying amount.

LEASES The Wilo Group does not lease out any items itself, instead acting as a lessee only. The starting point for the initial measurement of the lease liability is the present value of the payments to be made over the lease term. The lease liability is carried forward to subsequent periods depending on the agreed repayment.

The right-of-use assets acquired are capitalised at cost on initial recognition and depreciated on a straight-line basis over the term of the lease. Subsequent measurement is based on the provisions for non-current assets.

Leased property is returned to the lessor at the end of the lease term.

IMPAIRMENT OF NON-FINANCIAL ASSETS The recoverable amount is measured using the discounted cash flow method on the basis of the planning approved the Supervisory Board, which covers a strategic planning horizon of five years. An appropriate, unit-specific growth factor is applied. The plans are based on past experience and projected market development. The product divisions of the Wilo Group are broken down by product groups and applications to form the cash-generating units. As the Wilo Group does not perform voluntary segment reporting in accordance with IFRS 8, a further subdivision of the cash-generating units into additional segments is unnecessary.

The Wilo Group uses the value in use of each product division as its recoverable amount for the purposes of goodwill impairment testing.

The main assumptions used to determine the value in use of each product division for goodwill impairment testing are shown in the table below:

Assumptions used to determine value in use

2022 financial year Product division	Goodwill in EUR thousand	Long-term growth factor in %	Discount rate before income taxes in %
Heating, Ventilation, Air-conditioning	7,572	1.1	10.93
Clean and Waste Water	149,258	1.1	10.93

The sustained growth factor is based on economic targets, such as the European Central Bank inflation target for the business regions in which Wilo operates.

In light of the increase in market interest rates, the massive rise in energy and material prices, the continued supply bottlenecks affecting already strained supply chains, Russia's invasion of Ukraine and the high level of inflation, the uncertainties regarding projected cash flows are higher than in previous years. Accordingly, additional sensitivity analyses were conducted in which the growth rate for both product divisions was halved. The defined change in this assumption would not result in an impairment loss for either of the product divisions.

The discount rate before income taxes is calculated using the capital structure of a peer group and the parameters published by Deutsche Bundesbank to estimate interest rates for hypothetical zero-coupon bonds. The market risk premium is determined based on a recommendation of the Expert Committee for Company Valuations and Business.

Over the planning period, at constantly increasing net sales, slight to substantial EBIT growth is assumed depending on the product division.

Goodwill impairment testing confirmed that there was no need to recognise impairment losses. Goodwill is tested for impairment as part of the annual impairment test on 30 November of every year.

The impairment test for capitalised development costs performed in the 2022 financial year resulted in no impairment losses (previous year: EUR 0 thousand).

FINANCIAL ASSETS The Wilo Group's financial assets comprise loans and receivables, acquired equity and debt securities, cash and derivative financial instruments that are assets. Within the Wilo Group, these financial assets are reported under trade receivables, other financial assets and cash.

On initial recognition, a financial asset is classified and measured as follows:

- at amortised cost
- FVOCI debt instruments (investments in debt instruments measured at fair value through other comprehensive income)
- FVOCI equity investments (equity investments measured at fair value through other comprehensive income)
- FVTPL (at fair value through profit or loss)

Purchases and sales of non-derivative financial assets are accounted for on the settlement date, i.e. the date of delivery and transfer of ownership. Derivative financial instruments are accounted for at the trade date.

Financial assets are not reclassified after initial recognition unless the Group changes its business model for controlling financial assets. In this case, all the affected financial assets are reclassified on the first day of the reporting period following the change in the business model.

A financial asset is carried at amortised cost if both of the following conditions are met and it has not been designated as FVTPL:

- It is held within a business model whose objective is achieved by collecting the contractual cash flows, and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A debt instrument is designated at FVOCI if both of the following conditions are met and it has not been designated as FVTPL:

- It is held within a business model whose objective is achieved by both holding financial assets to collect the contractual cash flows and selling financial assets, and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

When an equity investment that is not held for trading is recognised for the first time, the Group may irrevocably elect whether to present subsequent changes in the fair value of the investment in other comprehensive income. This is done on a case-by-case basis for each investment.

All financial instruments not measured at amortised cost or FVOCI are measured at FVTPL. This includes all derivative financial assets. On initial recognition, the Group may irrevocably elect to designate as FVTPL financial assets that otherwise meet the conditions for recognition at amortised cost or FVOCI if this serves to eliminate or significantly reduce accounting mismatches that would otherwise occur.

The following section describes the subsequent measurement of financial assets and the effects on the income statement:

- *Financial assets at FVTPL* These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognised in profit or loss.

- *Financial assets at amortised cost* These assets are subsequently measured at amortised cost using the effective interest method. Amortised cost is reduced by impairment losses. Interest income, currency gains and losses and impairment losses are recognised in profit or loss. Any gain or loss on derecognition is recognised in profit or loss.

- *Debt instruments at FVOCI* These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, currency gains and losses and impairment losses are recognised in profit or loss. Other net gains or losses are recognised in other comprehensive income. The cumulative other comprehensive income is reclassified to profit or loss on derecognition.

- *Equity investments at FVOCI* These assets are subsequently measured at fair value. Dividend income is recognised in profit or loss unless the dividend evidently covers part of the cost of the investment. Other net gains and losses are recognised in other comprehensive income and are never reclassified to profit or loss.

- *Derecognition of financial assets* The Group derecognises a financial asset when the contractual rights to the cash flows from the financial asset expire or it transfers the rights to receive the cash flows in a transaction that also transfers substantially all the risks and opportunities associated with ownership of the financial asset.

  A financial asset is also derecognised when the Group neither transfers nor retains substantially all the risks and opportunities of ownership and does not retain control of the transferred asset.

- *Impairment of assets* The risk provision and thus any impairment loss is based on the expected loss credit model of IFRS 9. These measurement provisions cover all financial assets not measured at FVTPL, such as loans, lease payments, trade receivables, credit enhancements, contract assets, specific finance guarantees or credit agreements. The measurement approach depends on the change in credit risk since initial recognition. In accordance with IFRS 9, the measurement model consists of the measurement approaches that the risk provision is based either on a twelve-month expected loss or a life time expected credit loss of the financial assets. A lifetime expected credit loss is determined only when the credit risk has significantly increased since initial recognition. An example would be if a receivable is more than 30 days past due or the rating has been downgraded by two or more notches.

For the subsequent measurement of trade receivables and contract assets, there is a simplified approach using an impairment matrix. These receivables are subject to the lifetime expected credit loss.

INVENTORIES Raw materials, supplies and merchandise are measured at the lower of cost and net realisable value. Cost is determined using the weighted average cost method. Work in progress and finished goods are carried at cost. This includes all costs directly attributable to production and appropriate portions of production overheads. Production overheads include production-related depreciation, pro rata administration costs and pro rata social security costs. Cost does not include borrowing costs. Discounts are recognised on raw materials, supplies, merchandise and products for quality and functional defects and for risks of failure to sell. Inventories are measured as at the end of the reporting period at the lower of cost and net realisable value.

DERIVATIVES AND HEDGING TRANSACTIONS The Wilo Group uses derivatives solely to reduce exchange rate, interest rate and commodity price risk. These instruments are hedges from an economic perspective. The Wilo Group uses hedge accounting in accordance with IAS 39.

If the hedges do not meet the requirements of IAS 39 or IFRS 9, they are recognised and measured under FVTPL. Measurement is performed using standard measurement methods based on market parameters specific to each instrument. The fair value of forward exchange contracts and cross-currency interest rate swaps is calculated using net present value models, while the fair value of options is calculated using option pricing models. Where possible, the relevant market prices and interest rates at the end of the reporting period are used as the input parameters for these models.

The fair value of forward exchange contracts is determined using the middle spot exchange rate as at the end of the reporting period and taking into account the forward premiums and discounts for the remaining contract term with respect to the agreed forward exchange rate. The fair value of cross-currency interest rate swaps is determined by discounting the expected cash flows using applicable market rates with the same term as at the reporting date. Commodity futures are measured on the basis of current quoted market prices, taking corresponding forward premiums and discounts into account. In contrast, currency and commodity options are measured using option pricing models. The fair value of derivative financial instruments is calculated by banks.

Changes in the fair value of derivatives as at the end of the reporting period are taken directly to profit and loss under other net finance costs. Income and expenses from the realisation of derivatives are disclosed in the income statement in the item in which the effects of hedged items are reported. Income or expenses from the realisation of currency derivatives are recognised under other operating income or expenses, provided the hedged item is assigned to the operating area and the income and expenses from the measurement of this item were recognised accordingly in the same item. If the item relates to financial activity, the realised income and expenses from the currency forward or currency option are reported in other net financial income. Income or expenses from the realisation of cross-currency interest rate swaps are reported in net interest income. Income or expenses from the realisation of commodity derivatives without physical delivery are reported in cost of sales.

OTHER RECEIVABLES AND ASSETS Other receivables and assets primarily include tax receivables, advance payments, employer pension liability assets, deferrals and receivables from employees that are not financial assets. These other receivables and assets are measured at amortised cost.

DEFERRED TAXES Deferred tax assets and deferred tax liabilities are recognised in accordance with IAS 12 for all temporary differences between the carrying amount of an asset or liability in the IFRS financial statements and its tax base.

Deferred tax assets are also recognised in respect of the expected utilisation of unused tax loss carryforwards in subsequent years provided that, according to the estimates made by the Executive Board, the tax loss carryforwards are sufficiently likely to be utilised. Deferred tax assets are tested for impairment as at the end of the reporting period. To this end, a tax plan is derived from the five-year strategic planning approved by the Supervisory Board. The plans are based on past experience and projected market development, as well as the results of planned measures and measures that have already been initiated. Deferred tax assets on loss carryforwards of EUR 40,578 thousand (previous year: EUR 40,810 thousand) were recognised as at the end of the reporting period. The Executive Board anticipates utilisation of these loss carryforwards in subsequent years, also at companies which reported a tax loss in the year under review.

The Wilo Group also recognises deferred tax liabilities for the tax expenses to arise on the expected profit distributions by the consolidated subsidiaries to WILO SE in the subsequent year. Deferred tax assets and liabilities are measured at the tax rates that apply or that are expected to apply at the realisation date according to the current legal situation in the individual countries.

Deferred tax assets are offset against deferred tax liabilities if they relate to the same taxation authority and have matching terms. Information on the deferred taxes as at 31 December 2022 and offsetting is provided in note (8.9).

GOVERNMENT GRANTS In accordance with IAS 20, a government grant is recognised only if there is reasonable assurance of compliance with the conditions attached to it and that the grant will be received. Research and investment grants received by the Wilo Group are recognised in profit or loss over the periods necessary to match them to the costs they are intended to compensate. Investment grants are recognised as deferred income and reversed to profit and loss over the term of the subsidised assets.

In response to the COVID-19 pandemic, wage subsidies (e.g. allowances for short-time work, waiver of social security contributions) were introduced in various countries in which Wilo subsidiaries are active. In the 2022 financial year, the Group received wage subsidies of EUR 75 thousand (previous year: EUR 156 thousand). The Wilo Group offsets these income-related subsidies against the staff costs of the individual functional areas.

The Wilo Group also received government grants in a seven-digit amount for investments in new assets, mostly relating to buildings, and for employees in connection with the opening of new locations.

EQUITY Treasury shares in the notional amount of EUR 937 thousand (previous year: EUR 1,207 thousand) are openly deducted from issued capital.

FINANCIAL LIABILITIES Financial liabilities primarily comprise liabilities and derivative financial instruments with negative fair values.

In accordance with IAS 32, primary liabilities such as financial liabilities due to banks, trade payables and liabilities reported under other financial liabilities are recognised in the consolidated statement of financial position if the Wilo Group has a contractual obligation to transfer cash or other financial assets to another party. The primary liabilities are assigned to the “at amortised cost” measurement category within the meaning of IFRS 9 and are carried at settlement amount or amortised cost using the effective interest method. Non-interest-bearing and low-interest liabilities with a term of more than one year are discounted if the time value of money is not immaterial. For liabilities with a term of less than one year, the fair value is assumed to be the same as the settlement amount. Transaction costs that are directly attributable are also recognised for all financial liabilities not subsequently measured at fair value and then amortised over their term using the effective interest method.

In accordance with IFRS 9, derivative liabilities are recognised at fair value with changes in value recognised through profit or loss (FVTPL).

Financial liabilities are derecognised when the corresponding contractual obligations are settled or cancelled or have expired.

Financial assets and financial liabilities are generally reported without offsetting.

To a limited extent, the Wilo Group has set up supply chain financing (SCF) for a small group of suppliers. As a result, the suppliers concerned can have their liabilities settled by the participating bank before the actual maturity. In these cases, the Wilo Group reclassifies trade payables to other financial liabilities until the payment of the original bank takes place from the Wilo Group to the bank in line with the payment conditions agreed with the bank. In the 2022 financial year, transaction costs totalled EUR 11,288 thousand (previous year: EUR 9,494 thousand). As at 31 December 2022, other financial liabilities from the SCF of EUR 4,915 thousand were recognised (previous year: EUR 4,614 thousand).

PENSIONS AND SIMILAR OBLIGATIONS Provisions are recognised for uncertain liabilities from pension obligations and other post-employment benefits.

In accordance with IAS 19, pension obligations for defined benefit commitments are calculated using the internationally recognised projected unit credit method. The calculations are based on actuarial appraisals and biometric parameters.

Actuarial gains and losses and gains and losses from the remeasurement of plan assets are recognised in full in other comprehensive income.

The expense relating to pension obligations, with the exception of the interest portion reported in net finance costs, is allocated to the relevant functional areas. The amount of pension obligations is determined using actuarial methods, for which estimates are essential.

The calculations for pension obligations use the following parameters, shown here on a weighted-average basis:

Calculation parameters for pension obligations

Figures in %	31 December 2022	31 December 2021
Discount rate	3.87	1.24
Pension adjustment	2.43	2.07
Salary increase	3.13	3.05

The net interest expense is calculated by multiplying the net pension liability by the discount rate.

The actuarial present value of pension obligations calculated using the projected unit credit method is reduced by the amount of the corresponding assets at the third-party pension provider if the requirements of IAS 19 for plan assets are met.

OTHER PROVISIONS Other provisions are recognised in accordance with IAS 37 when there is a present obligation to a third party resulting from a past event, settling the obligation will probably require an outflow of resources and the amount of the obligation can be reliably estimated. Non-current provisions for obligations not expected to result in an outflow of resources in the next year are recognised at the net present value of the expected outflow of resources. The discount rate is based on market interest rates.

The settlement amount includes expected cost increases. Provisions are remeasured as at the end of each reporting period. Provisions are not offset against rights of recourse.

(8.) Notes to the consolidated income statement

(8.1) Net sales

Net sales break down according to the following regions:

Net sales

EUR thousand	2022	%	2021	%
Established markets	1,113,852	59.1	963,308	58.3
Growth markets	771,879	40.9	688,581	41.7
Total	**1,885,731**	**100.0**	**1,651,889**	**100.0**

The established markets and growth markets consisted of the following countries as at 31 December 2022:
– Established markets: All European nations, USA and Canada
– Growth markets: China, India, South Korea, the Southeast Asian nations, Australia and Oceania, Russia, Belarus, the Caucasian nations, Turkey, the Middle East, Africa, Latin America

Net sales include revenue from the sale of goods of EUR 1,751,678 thousand (previous year: EUR 1,537,045 thousand) and service income of EUR 134,053 thousand (previous year: EUR 114,844 thousand).

(8.2) Cost of sales

This item consists of costs of the products and merchandise sold.

Cost of sales

EUR thousand	2022	2021
Cost of materials	-902,167	-794,686
Miscellaneous costs	-368,603	-327,653
Total	**-1,270,770**	**-1,122,339**

(8.3) Selling and administrative expenses

Selling and administrative expenses

EUR thousand	2022	2021
Selling expenses	-325,374	-278,373
Administrative expenses	-125,837	-109,201
Total	**-451,211**	**-387,574**

Selling expenses include staff costs, depreciation and amortisation, and customer service, advertising, sales promotion, market research and shipping costs for sales in particular.

(8.4) Research and non-capitalised development costs

Research and non-capitalised development costs

EUR thousand	2022	2021
Research and development costs	-78,841	-70,981
of which capitalised development costs	11,542	15,216
Total	**-67,299**	**-55,765**

(8.5) Other operating income

Other operating income

EUR thousand	2022	2021
Foreign-currency gains from operating activities	23,682	10,966
Government grants	2,851	3,038
Income from disposals of intangible assets and property, plant and equipment	1,899	1,055
Insurance compensation	1,872	790
Other	7,953	5,457
Total	**38,257**	**21,306**

The foreign-currency gains from operating activities of EUR 23,682 thousand (previous year: EUR 10,966 thousand) mainly consist of gains due to exchange rate changes between the inception and settlement of foreign-currency receivables and liabilities, and foreign-currency gains resulting from measurement at the exchange rate as at the end of the reporting period. Foreign-currency losses of EUR 30,675 thousand (previous year: EUR 9,658 thousand) from these items are reported under other operating expenses (see note (8.6)). As subsidiaries mostly trade with customers and suppliers in local currency, these foreign-currency gains and losses mainly arise on intragroup transactions. The prior-year figures for foreign-currency gains from operating activities and foreign-currency losses from operating activities have been restated to reflect exchange rate changes due to hedge accounting.

(8.6) Other operating expenses

Other operating expenses

EUR thousand	2022	2021
Foreign-currency losses from operating activities	-30,675	-9,658
Restructuring costs	-2,956	-1,464
Losses on disposals of intangible assets and property, plant and equipment	-789	-449
Other	-3,246	-3,437
Total	**-37,666**	**-15,008**

(8.7) Financial income

Financial income is composed as follows:

Financial income

EUR thousand	2022	2021
Foreign-currency gains from financing activities	2,604	1,923
Interest income from cash and cash equivalents	2,742	1,842
Gains on derivative financial instruments	13	414
Other	858	1,021
Total	**6,217**	**5,200**

(8.8) Financial expenses

Financial expenses are composed as follows:

Financial expenses

EUR thousand	2022	2021
Interest expenses on financial liabilities	-13,471	-8,646
Losses on derivative financial instruments	-977	-2,641
Foreign-currency losses from financing activities	-347	-2,039
Interest rate effects from pensions, non-current liabilities and receivables	-684	-891
Interest expenses for leases	-942	-842
Capitalised borrowing costs	1,948	1,227
Total	**-14,473**	**-13,832**

The foreign-currency gains and losses from financing activities result from the translation of intragroup foreign-currency loans.

In the current financial year, the gains and losses on derivative financial instruments resulted primarily from positive and negative utilisation and measurement effects of forward exchange contracts. In addition, positive and negative utilisation and measurement effects resulted from commodity derivatives used to hedge prices for commodities within the Wilo Group.

(8.9) Income taxes

The income tax expense contained in consolidated net income is composed as follows:

Income taxes

EUR thousand	2022	2021
Current tax expense/income		
– Year under review	-30,690	-27,797
– Adjustments for prior periods	-49	-1,074
Current income taxes	**-30,739**	**-28,871**
Deferred tax expense/income		
– from DTAs on loss carryforwards	-232	607
– from changes in tax rates	-137	223
– from the creation and reversal of temporary differences	3,534	-6,254
– from write-downs on and reversals of deferred tax assets	-79	-565
Deferred tax expense	**3,086**	**-5,989**
Income taxes	**-27,653**	**-34,860**

Deferred taxes are determined according to local income tax rates. For Germany, this is a combined tax rate of 31.8 percent (previous year: 32.1 percent) consisting of corporation tax, solidarity surcharge and trade tax. As in the previous year, local income tax rates for foreign entities range from 9.0 percent to 34.0 percent (previous year: from 9.0 percent to 34.0 percent).

DEFERRED TAXES BY ITEM IN THE STATEMENT OF FINANCIAL POSITION Deferred tax assets and liabilities are recognised as follows in relation to measurement differences on individual items of the statement of financial position and tax loss carryforwards:

Deferred taxes by item in the statement of financial position

	Deferred tax assets		Deferred tax liabilities	
EUR thousand	2022	2021	2022	2021
Intangible assets	8,307	5,466	44,034	41,785
Property, plant and equipment	4,109	3,222	20,953	16,227
Inventories	9,677	6,775	1,897	373
Receivables and other assets	5,844	6,646	3,132	3,116
Cash flow hedges	0	0	1,154	0
	27,937	**22,109**	**71,170**	**61,501**
Financial liabilities	189	0	365	445
Trade payables	1,465	1,577	29	38
Pensions and similar obligations	8,095	16,369	226	316
Other provisions and liabilities	12,850	9,426	9,432	10,844
Tax loss carryforwards	40,578	40,810	0	0
	63,177	**68,182**	**10,052**	**11,643**
Offset	**- 64,634**	**- 59,271**	**- 64,634**	**- 59,271**
Carrying amount	**26,480**	**31,020**	**16,588**	**13,873**

The change in deferred tax assets and liabilities in the year under review was as follows:

Change in deferred taxes

EUR thousand	Net amount of deferred tax assets/liabilities as at 31 Dec. 2021	Recognised in profit or loss	Recognised in other comprehensive income	**Net amount of deferred tax assets/liabilities as at 31 Dec. 2022**
Intangible assets	-36,319	592	0	-35,727
Property, plant and equipment	-13,005	-3,537	-301	-16,843
Inventories	6,403	1,749	-373	7,779
Receivables and other assets	3,507	-727	-90	2,690
Cash flow hedges	0	0	-1,154	-1,154
Financial liabilities	-445	269	0	-176
Trade payables	1,539	-103	0	1,436
Pensions and similar obligations	16,052	180	-8,363	7,869
Other provisions and liabilities	-1,814	4,895	-61	3,020
Initial application of IFRS 9 and IFRS 15	420	0	0	420
Tax loss carryforwards	40,810	-232	0	40,578
Total	**17,148**	**3,086**	**-10,342**	**9,892**

The change in deferred tax assets and liabilities in the previous year was as follows:

Change in deferred taxes

EUR thousand	Net amount of deferred tax assets/liabilities as at 31 Dec. 2020	Recognised in profit or loss	Initial consolidation of ABIONIK	Recognised in other comprehensive income	Net amount of deferred tax assets/liabilities as at 31 Dec. 2021
Intangible assets	-31,899	-2,105	-2,315	0	-36,319
Property, plant and equipment	-15,234	2,326	-188	91	-13,005
Inventories	4,808	2,281	-686	0	6,403
Receivables and other assets	5,180	-1,876	0	203	3,507
Financial liabilities	-1,139	694	0	0	-445
Trade payables	1,196	343	0	0	1,539
Pensions and similar obligations	17,471	-852	92	-659	16,052
Other provisions and liabilities	5,404	-7,408	0	190	-1,814
Initial application of IFRS 9 and IFRS 15	420	0	0	0	420
Tax loss carryforwards	40,203	607	0	0	40,810
Total	**26,409**	**-5,989**	**-3,097**	**-175**	**17,148**

The change in deferred taxes was recognised in other comprehensive income in the amount of EUR -10,342 thousand. Of this figure, a deferred tax expense of EUR -8,363 thousand relates to actuarial changes in the present value of pension obligations and the remeasurement of the related plan assets, while a deferred tax expense of EUR -1,154 thousand relates to hedge accounting. A further EUR -825 thousand relates to currency translation effects in deferred taxes.

Unutilised tax loss carryforwards amounted to EUR 280,742 thousand (previous year: EUR 269,741 thousand) as at the end of the reporting period, EUR 253,452 thousand of which (previous year: EUR 235,075 thousand) can be carried forward indefinitely. The limited tax loss carryforwards amount to EUR 27,290 thousand (previous year: EUR 34,666 thousand) and can be carried forward for between three and 20 years.

Applying local income tax rates, deferred tax assets on loss carryforwards of EUR 40,578 thousand (previous year: EUR 40,810 thousand) were recognised as at the end of the reporting period. The management anticipates utilisation of these loss carryforwards in subsequent years, also at companies which reported a tax loss in the year under review. No deferred tax assets were recognised for German and international tax loss carryforwards amounting to EUR 147,465 thousand (previous year: EUR 134,379 thousand) as future utilisation did not seem sufficiently likely at the end of the reporting period.

As WILO SE is anticipating profit distributions from its consolidated subsidiaries next year, deferred tax liabilities of EUR 2,194 thousand (previous year: EUR 2,100 thousand) have been recognised on these distributions.

In the case of dividends being distributed by subsidiaries or a possible disposal of subsidiaries, 5 percent of the dividend or disposal gains are subject to German taxation. Generally this results in an additional tax charge. As at 31 December 2022, there were retained profits of EUR 217,123 thousand at subsidiaries (previous year: EUR 198,092 thousand) intended for long-term investment, for which no deferred tax liabilities were therefore recognised.

RECONCILIATION OF INCOME TAXES The combined statutory tax rate of 15.8 percent consisting of corporation tax and the solidarity surcharge plus the trade tax rate of approximately 16.0 percent was used in the reconciliation of income taxes in the 2022 financial year. This corresponds to a total tax rate of 31.8 percent (previous year: 32.1 percent). The Wilo Group reported tax expenses of EUR 27,653 thousand (previous year: EUR 34,860 thousand) in its consolidated income statement for 2022. This is EUR 581 thousand lower (previous year: EUR 7,935 thousand higher) than the expected tax expense of EUR 28,234 thousand (previous year: EUR 26,925 thousand) that results from applying the domestic rate of 31.8 percent (previous year: 32.1 percent) at Group level.

The difference is attributable to the following causes:

Tax reconciliation

EUR thousand	2022	2021
Consolidated net income before taxes	88,786	83,877
Expected tax expense	**-28,234**	**-26,925**
Tax rate changes	-137	218
Difference from current tax rates	9,741	12,265
Temporary differences arising on consolidation	-309	-190
Other permanent differences	-3,274	-2,707
Tax-free income	3,808	-2,912
Change in unrecognised deferred taxes on loss carryforwards	-4,292	-10,660
Withholding tax	-3,726	-3,223
Prior-period taxes	-49	-1,074
Other	-1,181	348
Current tax expense	**-27,653**	**-34,860**

(8.10) Earnings per share

Earnings per share are determined by dividing consolidated net income attributable to WILO SE shareholders by the weighted average number of shares outstanding. Both basic and diluted earnings per ordinary share amounted to EUR 6.16 (previous year: EUR 5.00).

Earnings per share

	2022	2021
Earnings attributable to the shareholders of WILO SE in EUR thousand	61,057	49,017
Number of ordinary shares as at 31 Dec.	10,016,294	9,912,527
Weighted average number of ordinary shares outstanding	9,914,833	9,813,084
Earnings per ordinary share (EUR)	**6.16**	**5.00**

(9.) Notes to the consolidated statement of financial position

(9.1) Intangible assets

Intangible assets developed as follows in the 2022 and 2021 financial years:

Intangible assets

EUR thousand	Patents, property rights and customer base	Goodwill	Capitalised development costs	Advance payments	Total
Cumulative cost					
As at 1 January 2021	98,438	107,237	115,352	3,720	324,747
Currency translation	1,842	3,057	339	0	5,238
Additions	2,981	97	16,119	6,066	25,263
Additions from business combinations	9,870	39,454	0	0	49,324
Disposals	–209	0	0	0	–209
Reclassifications	2,306	0	0	–2,306	0
As at 31 December 2021	**115,228**	**149,845**	**131,810**	**7,480**	**404,363**
As at 1 January 2022	115,228	149,845	131,810	7,480	404,363
Currency translation	1,354	3,294	–192	0	4,456
Additions	2,998	0	12,001	6,245	21,244
Additions from business combinations	6,069	9,244	0	0	15,313
Disposals	–324	0	0	–45	–369
Reclassifications	1,142	0	–3	–1,139	0
As at 31 December 2022	**126,467**	**162,383**	**143,616**	**12,541**	**445,007**
Cumulative amortisation					
As at 1 January 2021	68,621	5,566	11,599	0	85,786
Currency translation	752	–17	0	0	735
Amortisation in the financial year	8,620	0	6,228	0	14,848
Write-ups	–350	0	0	0	–350
Additions from business combinations	8	0	0	0	8
Disposals	–202	0	0	0	–202
As at 31 December 2021	**77,449**	**5,549**	**17,827**	**0**	**100,825**
As at 1 January 2022	77,449	5,549	17,827	0	100,825
Currency translation	519	4	–6	0	517
Amortisation in the financial year	8,031	0	8,162	0	16,193
Additions from business combinations	510	0	0	0	510
Disposals	–318	0	0	0	–318
As at 31 December 2022	**86,191**	**5,553**	**25,983**	**0**	**117,727**
Residual carrying amounts					
As at 1 January 2021	29,817	101,671	103,753	3,720	238,961
As at 31 December 2021	**37,779**	**144,296**	**113,983**	**7,480**	**303,538**
As at 1 January 2022	37,779	144,296	113,983	7,480	303,538
As at 31 December 2022	**40,276**	**156,830**	**117,633**	**12,541**	**327,280**

Goodwill is tested for impairment at least annually. Detailed information on impairment testing is provided in note (7).

Goodwill allocated to the product divisions developed as follows in the 2022 financial year:

Development of goodwill by product division

EUR thousand	1.1.2022	Additions	Currency translation	**31.12.2022**
Product division				
Heating, Ventilation, Air-conditioning	7,569	0	2	7,571
Clean and Waste Water	136,727	9,244	3,288	149,259
Total	**144,296**	**9,244**	**3,290**	**156,830**

(9.2) Property, plant and equipment

Property, plant and equipment developed as follows in the 2022 and 2021 financial years:

Property, plant and equipment

EUR thousand	Land and buildings	Technical equipment and machinery	Operating and office equipment	Advance payments and assets under construction	Total
Cumulative cost					
As at 1 January 2021	455,601	261,783	383,833	32,120	1,133,337
Currency translation	5,500	3,698	4,250	332	13,780
Additions	23,974	17,061	25,185	58,788	125,008
Additions from business combinations	2,540	888	1,066	0	4,494
Reclassifications	879	6,169	15,680	-22,728	0
Reclassification to assets held for sale	-1,815	0	0	0	-1,815
Disposals	-2,122	-5,454	-11,752	-216	-19,544
As at 31 December 2021	**484,557**	**284,145**	**418,262**	**68,296**	**1,255,260**
As at 1 January 2022	484,557	284,145	418,262	68,296	1,255,260
Currency translation	5,934	-484	1,248	854	7,552
Additions	16,816	16,622	24,078	83,886	141,402
Additions from business combinations	0	1,513	903	7	2,423
Reclassifications	25,033	11,478	12,015	-48,526	0
Disposals	-12,298	-7,605	-20,141	-2,648	-42,692
As at 31 December 2022	**520,042**	**305,669**	**436,365**	**101,869**	**1,363,945**
Cumulative depreciation					
As at 1 January 2021	75,788	176,909	289,770	0	542,467
Currency translation	1,647	2,651	3,097	0	7,395
Depreciation in the financial year	23,491	17,434	32,482	340	73,747
Additions from business combinations	44	78	146	0	268
Reclassifications	3	1	234	-238	0
Reclassification to assets held for sale	-469	0	0	0	-469
Disposals	-1,129	-4,950	-8,950	0	-15,029
As at 31 December 2021	**99,375**	**192,123**	**316,779**	**102**	**608,379**
As at 1 January 2022	99,375	192,123	316,779	102	608,379
Currency translation	801	-696	627	0	732
Depreciation in the financial year	20,896	19,073	33,363	164	73,496
Impairment in accordance with IAS 36	7,262	886	1,852	0	10,000
Additions from business combinations	0	711	416	0	1,127
Reclassifications	26	55	-40	-41	0
Disposals	-9,573	-7,319	-16,298	0	-33,190
As at 31 December 2022	**118,787**	**204,833**	**336,699**	**225**	**660,544**
Residual carrying amounts					
As at 1 January 2021	379,813	84,874	94,063	32,120	590,870
As at 31 December 2021	**385,182**	**92,022**	**101,483**	**68,194**	**646,881**
As at 1 January 2022	385,182	92,022	101,483	68,194	646,881
As at 31 December 2022	**401,255**	**100,836**	**99,666**	**101,644**	**703,401**

In accordance with IAS 36.12, an entity is required to examine the impact on its assets in the event of certain indications of impairment. In light of the increase in market interest rates, the massive rise in energy and material prices, the continued supply bottlenecks affecting already strained supply chains, Russia's invasion of Ukraine and the high level of inflation, there are objective external indications that assets may be impaired within the meaning of IAS 36.12. Accordingly, an impairment test must be conducted for the assets affected. An impairment loss is recognised if this impairment test establishes that the carrying amount of an asset is higher than its recoverable amount (IAS 36.59). The recoverable amount is the higher of the asset's fair value less costs to sell and its value in use. If a reliable estimate of the market price is not possible, the value in use of the asset is applied as the recoverable amount. In cases where it was not possible to determine the fair value of an individual asset because it is closely integrated into the entity's business operations and separate cash flows could not be identified, the recoverable amount was determined at the level of the smallest identifiable group of assets that generate largely independent cash flows from their defined use.

The value in use is based on the planned free cash flows of the assets or the corresponding cash-generating units discounted using the weighted average cost of capital. The planning horizon until 2027 corresponds to the planning approved by the Supervisory Board, which is based on the strategic planning for a period of five years. The cash flow from the 2027 planning period is applied as the basis of calculation for the perpetual annuity from 2028 onwards. For the purposes of impairment testing, an average cost of capital after income tax of 9.88 percent was determined for the affected regions.

An impairment loss of EUR 10.0 million was recognised at the reporting date, which corresponds to around 30 percent of the value of the respective items of property, plant and equipment. The impairment loss relates to the Heating, Ventilation, Air-conditioning (HVAC) and Clean and Waste Water (CWW) product divisions and is recognised in the cost of sales.

LEASES There are leases for low-value assets in the area of operating and office equipment in particular (e.g. laptops and mobile phones). In accordance with the exemptions provided by IFRS 16, no right-of-use assets or lease liabilities are recognised in the statement of financial position for these leases.

The carrying amounts of property, plant and equipment as at 31 December 2022 contained right-of-use assets of EUR 33,943 thousand. In the previous year, the carrying amounts of the right-of-use assets recognised in accordance with IFRS 16 amounted to EUR 31,383 thousand. The net carrying amounts of the recognised right-of-use assets are composed as follows:

Right-of-use lease assets

EUR thousand	IFRS 16, 31 Dec. 2022	IFRS 16, 31 Dec. 2021
Land and buildings	22,599	19,762
Technical equipment and machinery	2,086	1,768
Operating and office equipment	9,258	9,853
Total	**33,943**	**31,383**

The right-of-use assets recognised as property, plant and equipment in the 2022 financial year in accordance with IFRS 16 developed as follows:

Development of right-of-use lease assets

EUR thousand	Land and buildings	Technical equipment and machinery	Operating and office equipment	Total
As at 1 January 2022	**19,762**	**1,768**	**9,853**	**31,383**
Currency translation	132	0	65	197
Additions to right-of-use assets	12,272	1,190	6,723	20,185
Reclassifications	-209	48	161	0
Disposals of right-of-use assets	-830	-20	-1,949	-2,799
Depreciation in the financial year	-8,528	-900	-5,595	-15,023
As at 31 December 2022	**22,599**	**2,086**	**9,258**	**33,943**

Wilo applies the exemptions provided by IFRS 16 for leases relating to low-value assets and for short-term leases. The following amounts for leases are reported in the income statement:

Amounts reported in the income statement

EUR thousand	2022	2021
Interest expenses for lease liabilities	942	842
Lease expenses for low-value assets	3,201	3,192
Expenses for short-term leases	6,854	6,407
Expenses for variable lease payments not included in the measurement of lease liabilities	295	368
Total	**11,292**	**10,809**

The consolidated statement of cash flows includes cash outflows of EUR 14,825 thousand (previous year: EUR 15,694 thousand) in cash flow from financing activities for leases for which a lease liability has been recognised in accordance with IFRS 16.

(9.3) Inventories

Inventories

EUR thousand	31.12.2022	31.12.2021
Raw materials and supplies	160,857	110,847
Work in progress	50,461	35,931
Finished goods and merchandise	222,592	172,992
Advance payments	2,343	2,233
Total	**436,253**	**322,003**

As at 31 December 2022, the write-down on inventories amounted to EUR 30,578 thousand (previous year: EUR 24,847 thousand) with a gross carrying amount of EUR 466,831 thousand (previous year: EUR 346,850 thousand). Inventories are not subject to any restrictions on title beyond the suppliers' customary retention of title.

(9.4) Trade receivables

The trade receivables result from normal goods and services transactions of the Wilo Group. Current trade receivables of EUR 335,092 thousand (previous year: EUR 284,133 thousand) are due in the 2023 financial year. Non-current trade receivables of EUR 4,968 thousand (previous year: EUR 8,536 thousand) are due after more than one year. There are no restrictions on title on trade receivables.

The Executive Board is of the opinion that the carrying amounts of trade receivables are approximately equal to their fair values. Adequate provision is made for default risk through write-downs in the form of specific and valuation allowances and the expected credit loss. Specific valuation allowances are recognised on the basis of information available in a specific case as at the end of the reporting period. Specific valuation allowances are recognised in an appropriate amount in relation to any legal, collection or insolvency proceedings against debtors, overdue payments, complaints, third-party collateral, changes in agreed terms of payment and all other transactions or information affecting the collectability of trade receivables.

If trade receivables are past due, assumptions are made regarding the expected settlement date. If a long-range settlement date is assumed, the receivables are discounted accordingly.

Specific valuation allowances and the expected credit loss on trade receivables changed as follows in the 2022 and 2021 financial years:

Specific valuation allowances

EUR thousand	2022	2021
As at 1 January	17,787	18,064
Currency translation	-352	774
Additions	10,926	4,998
Utilisation	-1,982	-935
Reversals	-3,546	-5,114
As at 31 December	**22,833**	**17,787**

IFRS 9 expected credit loss at 31 December 2022

EUR thousand	Expected loss rate	Gross carrying amount	Risk provision
Europe	0.2–2.0%	181,448	1,551
Asia-Pacific	0.5–11.1%	87,852	4,713
MEA	1.5–3.0%	27,657	609
Others	1.0–4.0%	24,624	316
As at 31 December 2022		**321,581**	**7,189**

IFRS 9 expected credit loss at 31 December 2021

EUR thousand	Expected loss rate	Gross carrying amount	Risk provision
Europe	0.2–1.5%	139,277	996
Asia-Pacific	0.5–10.4%	90,355	5,045
MEA	2.2–3.0%	16,762	471
Others	0.5–4.0%	23,856	248
As at 31 December 2021		**270,250**	**6,760**

The Europe, Asia-Pacific, MEA and Others regions consist of the following countries:
- **Europe:** All European nations except Russia and Belarus
- **Asia-Pacific:** India, China, South Korea, the Southeast Asian nations, Australia and Oceania
- **MEA:** The Middle East, Turkey and Africa
- **Others:** The Americas, Russia and Belarus, the Caucasian nations

Further information on the expected credit loss is provided in note (12.) "Risk management and derivative finance instruments".

Income and expenses from valuation allowances, recoveries and the derecognition of trade receivables are recognised in note (8.3) Selling and administrative expenses.

(9.5) Other financial assets

Other financial assets break down as follows as at 31 December 2022 and 2021:

Other financial assets

EUR thousand	31.12.2022 Total	of which with a remaining term Less than 1 year	More than 1 year	31.12.2021 Total	of which with a remaining term Less than 1 year	More than 1 year
Receivables from unconsolidated subsidiaries and jointly controlled entities	481	481	0	399	399	0
Receivables from derivative financial instruments	4,591	385	4,206	1,051	721	330
Loans	90	0	90	64	0	64
Equity instruments	1,994	0	1,994	4,159	0	4,159
Miscellaneous other financial receivables	20,156	13,005	7,151	11,661	7,198	4,463
Total	**27,312**	**13,871**	**13,441**	**17,334**	**8,318**	**9,016**

Equity instruments of EUR 1,994 thousand (previous year: EUR 4,159 thousand) are measured at fair value. As the fair value could not be derived from stock exchange or market prices, or from discounting reliably determined future cash flows, the fair value is estimated on a cost basis.

The carrying amounts of other financial assets are approximately equal to their fair values. There are no restrictions on other financial assets. The receivables reported in other financial receivables are non-interest-bearing.

(9.6) Tax receivables

The Wilo Group reported receivables from income taxes of EUR 414 thousand as at the end of the reporting period (previous year: EUR 304 thousand).

(9.7) Other receivables and assets

Other receivables and assets are composed as follows as at 31 December 2022 and 2021:

Other receivables and assets

EUR thousand	31.12.2022 Total	of which with a remaining term Less than 1 year	More than 1 year	31.12.2021 Total	of which with a remaining term Less than 1 year	More than 1 year
Tax assets	27,253	21,456	5,797	25,709	18,098	7,611
Advance payments	12,807	12,781	26	12,615	10,644	1,971
Employer pension liability assets	2,884	0	2,884	2,676	0	2,676
Deferred expenses	6,729	6,651	78	6,723	6,621	102
Assets in unconsolidated subsidiaries	51	0	51	51	0	51
Receivables from employees and claims for damages	489	385	104	506	434	72
Total	**50,213**	**41,273**	**8,940**	**48,280**	**35,797**	**12,483**

(9.8) Cash and cash equivalents

Cash and cash equivalents of EUR 264,519 thousand (previous year: EUR 189,880 thousand) mainly comprises cash and sight deposits at banks. There are restrictions on title amounting to EUR 3,943 thousand (previous year: EUR 3,822 thousand).

(9.9) Assets held for sale

Assets held for sale in the previous year of EUR 1,346 thousand related to a production and administrative building with land. The disposal process for the asset was completed in August of the year under review; the purchase price amounted to EUR 4,817 thousand.

(9.10) Equity

ISSUED CAPITAL As in the previous year, the issued capital of WILO SE amounted to EUR 26,980 thousand as at the end of the reporting period and is fully paid in. It is divided into 10,117,331 no-par-value ordinary registered shares and 259,418 no-par-value preferred registered shares without voting rights. There were 10,016,294 ordinary shares (previous year: 9,912,527) and, as in the previous year, no preferred shares in circulation as at 31 December 2022.

Treasury shares in the notional amount of EUR 937 thousand (previous year: EUR 1,207 thousand) are openly deducted from issued capital.

CAPITAL RESERVES The capital reserves of EUR 45,504 thousand (previous year: EUR 35,680 thousand) result from the capital increase implemented in the 2011 financial year of EUR 15,507 thousand, EUR 14,527 thousand of which was appropriated to the capital reserves of WILO SE.

In the 2022 financial year, the sale of ordinary shares generated EUR 15,281 thousand, EUR 9,824 thousand of which was transferred to capital reserves.

OTHER RESERVES In addition to retained earnings, other reserves include differences from the translation of the foreign-currency financial statements of the companies included in the consolidated financial statements, actuarial gains and losses from pension obligations and gains and losses from the revaluation of plan assets. Retained earnings also include the legal reserve in accordance with section 150 (2) of the Aktiengesetz (AktG – German Stock Corporation Act) of 10.0 percent of the issued capital of WILO SE.

Other reserves developed as follows in the 2022 and 2021 financial years:

Other reserves

EUR thousand	2022	2021
As at 1 January	**799,707**	**742,956**
Interest of the shareholders of WILO SE in:		
Consolidated net income	61,057	49,017
Other comprehensive income	20,832	16,446
Introduction of IAS 29	7,464	
Dividend payment	-11,796	-8,141
Other changes	-131	-571
As at 31 December	**877,133**	**799,707**

TREASURY SHARES In December 2022, WILO SE sold 103,767 ordinary shares, equivalent to 1.0 percent of the share capital, at a price of EUR 147.26 each. As a result, the company held 360,455 treasury shares or 3.5 percent of the share capital as at 31 December 2022. As at 31 December 2022, the company reported 101,037 ordinary shares (previous year: 204,804) and 259,418 preference shares (previous year: 259,418) as treasury shares. The treasury shares were sold to an existing shareholder. The purchase price was paid in full in the year under review.

DIVIDENDS The Annual General Meeting on 11 April 2022 resolved to distribute EUR 11,796 thousand from the unappropriated surplus as at 31 December 2021 (previous year: EUR 8,141 thousand). This corresponds to a dividend per ordinary share of EUR 1.19.

CAPITAL MANAGEMENT A business objective of the Wilo Group is to sustain the strongest possible equity base in order to foster confidence in all key stakeholders and promote the Group's onward development. A sound equity base is also a key factor in ensuring a stable risk rating with lenders, which is important for obtaining acceptable borrowing terms for the Wilo Group. The Executive Board, the Supervisory Board and the shareholders of WILO SE ensure a responsible dividend policy and an appropriate return on invested capital to promote value growth and safeguard the company's future.

The Executive Board of WILO SE is kept informed about the equity position of the Wilo Group as part of monthly reporting. The equity positions of consolidated subsidiaries are also reviewed at regular intervals and on an ad hoc basis. Measures are implemented as necessary, taking the tax and legal frameworks into account, to sustain an appropriate capital base that enables each subsidiary to attain its operating targets and the Wilo Group to meet its strategic goals.

The total equity of the Wilo Group as at 31 December 2022 was EUR 930,919 thousand (previous year: EUR 836,750 thousand). This is mostly accounted for by EUR 942,856 thousand (previous year: EUR 893,726 thousand) in freely disposable retained earnings.

The freely disposable retained earnings do not include the legal reserve of WILO SE of EUR 2,698 thousand (previous year: EUR 2,698 thousand). Taken together, the freely disposable retained earnings and the legal reserve make up the Group's retained earnings of EUR 945,554 thousand (previous year: EUR 896,424 thousand).

In the context of the borrowing of senior notes and promissory note loans, WILO SE is required to report a minimum equity ratio. The company satisfied this requirement in full in the 2022 and 2021 financial years. More detailed information on these senior notes and promissory note loans can be found in note (9.11).

(9.11) Financial liabilities

Financial liabilities break down as follows as at 31 December 2022 and 2021:

Financial liabilities

EUR thousand	31.12.2022	31.12.2021
Non-current financial liabilities		
with a remaining term		
of between one and five years	284,317	259,035
of more than five years	258,630	129,157
Total	**542,947**	**388,192**
Current financial liabilities		
with a remaining term		
of less than one year	73,368	25,840

WILO SE reported the following material financing agreements as at 31 December 2022:

- **USPP 2037** In September 2022, WILO SE issued a senior note of EUR 95.0 million as part of a US private placement ("USPP 2037"). The senior note is divided into three tranches with terms of ten years (EUR 30.0 million), twelve years (EUR 30.0 million) and 15 years (EUR 35.0 million). The individual tranches have bullet maturity and interest rates of 3.70 percent, 3.90 percent and 4.10 percent p.a. respectively. The senior note is not secured against real property or financial assets of the company.

- **USPP 2035** In April 2020, WILO SE issued a senior note of EUR 90.0 million with a term of 15 years as part of a US private placement ("USPP 2035"). The senior note has bullet maturity, an interest rate of 1.55 percent p.a. and is not secured against real property or financial assets of WILO SE.

- **USPP 2027** In May 2017, WILO SE issued a senior note of USD 30.0 million maturing in 2027 with an interest rate of 3.22 percent p.a. as part of a US private placement ("USPP 2027"). It is not secured against real property or financial assets of WILO SE. The senior note had a carrying amount of EUR 28.1 million as at 31 December 2022.

- **USPP 2023** In March 2013, WILO SE issued a senior note of EUR 37.0 million as part of a US private placement ("USPP 2023"). The senior note is not secured against real property or financial assets of the company. It matures in 2023 and bears interest at 3.1125 percent p.a.

- **PROMISSORY NOTE 2032** In August 2022, WILO SE placed a traditional promissory note with a volume of EUR 224.0 million on the international capital market ("promissory note 2032"). The four tranches have terms of three years (EUR 57.0 million), five years (EUR 99.0 million), seven years (EUR 58.0 million) and ten years (EUR 10.0 million). The individual tranches have bullet maturity and fixed (2.124 percent, 2.435 percent, 2.778 percent, 3.161 percent) as well as variable interest rates. The variable-interest portions of the individual tranches are mostly hedged using suitable derivatives. The promissory note also includes an ESG (environmental, social and governance) component that ties the margin to the Wilo Group's sustainability rating as issued by the EcoVadis rating agency. The promissory note is not secured against real property or financial assets of the company.

- **PROMISSORY NOTE LOAN 2030** In June 2020, WILO SE took out a promissory note loan ("promissory note loan 2030") of EUR 15.0 million, maturing in 2030, at an interest rate of 1.50 percent p.a. The promissory note loan is repayable semi-annually from December 2020 in the amount of EUR 750 thousand. It is not secured against real property or financial assets of the company. The promissory note loan had a carrying amount of EUR 11.25 million at the reporting date.

- **PROMISSORY NOTE LOAN 2027** In June 2017, WILO SE took out a promissory note loan ("promissory note loan 2027") of EUR 50.0 million, maturing in 2027, at an interest rate of 1.35 percent p.a. The promissory note loan was repayable semi-annually from December 2022 in the amount of EUR 5.0 million and had an outstanding volume of EUR 45.0 million as at 31 December 2022. It is not secured against real property or financial assets of the company.

- **KFW DEVELOPMENT LOAN 2027** To finance the construction project at the Dortmund location, a KfW development loan of EUR 19.5 million with a term of ten years and an interest rate of 1.15 percent was concluded in November 2017 for the administrative building ("KfW development loan 2027") and secured by a land charge. The loan amount has been fully drawn down in instalments since 2018 according to the progress of construction. After two redemption-free years, repayment has taken place in instalments since 2020. The KfW development loan had a carrying amount of EUR 12.2 million at the reporting date.

- **SYNDICATED LOAN 2024** In July 2013, WILO SE entered into an agreement on a syndicated loan with a revolving credit facility with a volume of EUR 120.0 million and an original term of five years ("syndicated loan 2024"). In July 2017, the syndicated loan was extended ahead of schedule until 2022 and increased to EUR 200.0 million in line with the anticipated financing requirements. The contractually agreed option to increase the credit facility to EUR 300.0 million and to extend the term by a maximum of two years was subsequently exercised, meaning that the loan now has a term until 2024. The interest rate is calculated quarterly on the basis of leverage. The syndicated loan is not secured against real property or financial assets of the company. The credit facility was not utilised at the reporting date.

The company is required to satisfy certain standard financial ratios (ratio of consolidated EBITDA to consolidated interest expenses (interest cover ratio), ratio of consolidated net debt to consolidated EBITDA (leverage) and the equity ratio) for the senior notes and promissory note loans it has issued. WILO SE fully complied with this obligation in the 2022 and 2021 financial years. The agreements also include a number of standard grounds for termination.

Incidental costs were incurred in connection with these financing arrangements that are deducted from the financial liabilities and reported in profit or loss over the term of the financing arrangements using the effective interest method. The incidental costs of acquisition outstanding as at the end of the reporting period amounted to EUR 958 thousand (previous year: EUR 198 thousand).

The fair value of the financial liabilities calculated using net present value models was EUR 572,447 thousand as at 31 December 2022 (previous year: EUR 430,273 thousand).

Current financial liabilities mainly consist of the tranches of non-current financial liabilities which are to be repaid in the 2023 financial year and the utilisation of credit facilities.

(9.12) Trade payables

Trade payables break down as follows as at 31 December 2022 and 2021:

Trade payables

EUR thousand	31.12.2022	31.12.2021
Trade payables		
with a remaining term of less than one year	247,265	233,463
Total	**247,265**	**233,463**

Trade payables consist of outstanding obligations to suppliers. The Executive Board assumes that the carrying amounts of non-current trade payables are approximately equal to their fair values.

(9.13) Other financial liabilities

Other financial liabilities

EUR thousand	31.12.2022	31.12.2021
Non-current other financial liabilities		
of which		
Lease liabilities		
with a remaining term of between one and five years	19,865	18,363
with a remaining term of more than five years	3,495	925
Liabilities from derivative financial instruments		
with a remaining term of between one and five years	2,803	899
Miscellaneous financial liabilities		
with a remaining term of between one and five years	4,064	4,429
Total	**30,227**	**24,616**

Other financial liabilities

EUR thousand	31.12.2022	31.12.2021
Current other financial liabilities		
of which		
Bills payable	12,677	10,571
Liabilities to unconsolidated subsidiaries and jointly controlled entities	2,694	2,729
Lease liabilities	11,115	12,385
Supplier finance	4,915	4,614
Liabilities from derivative financial instruments	1,552	750
Miscellaneous financial liabilities	17,723	18,764
Total	**50,676**	**49,813**

As permitted under IFRS 15, no disclosures are made with regard to the remaining performance obligations as at 31 December 2022 or 31 December 2021, that have an expected original maturity of one year or less. Current other financial liabilities have a remaining term of less than one year.

Miscellaneous financial liabilities include amounts for tax consulting, financial statement costs, commissions, del credere commissions and other financial obligations to external companies. The Executive Board assumes that the carrying amounts of other financial liabilities are approximately equal to their fair values.

(9.14) Other liabilities

Other liabilities break down as follows as at 31 December 2022 and 2021:

Other liabilities

EUR thousand	31.12.2022	31.12.2021
Non-current other liabilities		
Contract liabilities (IFRS 15)	2,738	2,350
Deferred income	2,346	1,321
Total	**5,084**	**3,671**
Current other liabilities		
Other tax liabilities	25,369	18,843
Staff liabilities	54,649	40,414
Advance payments received	50,025	42,500
Social security liabilities	6,275	5,076
Deferred income	677	192
Miscellaneous other liabilities	5,056	4,815
Total	**142,051**	**111,840**

Non-current other liabilities have a remaining term of between one and five years. Current other liabilities have a remaining term of less than one year.

Staff liabilities include accumulated holiday pay, management bonuses and gratuities, outstanding salaries, employer's liability insurance contributions and severance pay.

(9.15) Provisions for pensions and similar obligations

Pension obligations and other post-employment benefits are composed as follows as at 31 December 2022 and 2021:

Provisions for pensions and similar obligations

EUR thousand	31.12.2022	31.12.2021
Provisions for pensions	59,099	87,053
Similar obligations	4,045	3,745
Total	**63,144**	**90,798**

The net benefit plan liability developed as follows:

Net benefit plan liability

	Defined benefit obligation		Fair value of plan assets		Net defined benefit liability (asset)	
EUR thousand	**2022**	2021	**2022**	2021	**2022**	2021
As at 1 January	**101,197**	**101,556**	**–14,144**	**–12,629**	**87,053**	**88,927**
Current service cost	4,068	4,405	0	0	4,068	4,405
Past service cost	667	40	0	0	667	40
Interest expense/income	1,236	872	–281	–196	955	676
Settlements	–421	–223	0	0	–421	–223
Items recognised in profit or loss	**5,550**	**5,094**	**–281**	**–196**	**5,269**	**4,898**
Remeasurement						
Actuarial losses (gains) from the change in demographic assumptions	–393	–913	0	0	–393	–913
Actuarial losses (gains) from the change in financial assumptions	–27,956	–1,014	0	0	–27,956	–1,014
Actuarial losses (gains) from experience adjustments	339	–110	0	0	339	–110
Income from plan assets excluding interest income	0	0	144	–93	144	–93
Net translation differences	–23	797	–14	–273	–37	524
Items recognised in other comprehensive income	**–28,033**	**–1,240**	**130**	**–366**	**–27,903**	**–1,606**
Amounts paid by the employer	0	0	–3,001	–1,113	–3,001	–1,113
Payments made	–4,097	–3,257	484	545	–3,613	–2,712
Miscellaneous changes	–187	–956	–118	–385	–305	–1,341
Other changes	**–4,284**	**–4,213**	**–2,635**	**–953**	**–6,919**	**–5,166**
As at 31 December	**74,430**	**101,197**	**–16,930**	**–14,144**	**57,500**	**87,053**
of which reported as						
Plan assets					**1,599**	**0**
Provisions for pensions					**59,099**	**87,053**

The net liability of EUR 57,500 thousand (previous year: EUR 87,053 thousand) is composed of the provision for pensions of EUR 59,099 thousand (previous year: EUR 87,053 thousand) less the EUR 1,599 thousand reported as plan assets (previous year: EUR 0 thousand).

Pension obligations are recognised for accrued entitlements and current benefits under defined benefit plans for eligible active and former employees of the Wilo Group and their surviving dependants.

The benefit amount depends on country-specific circumstances and is generally based on years of service and pay level. The beneficiaries predominantly receive benefits in the form of lifetime old age, disability and surviving dependants' pensions. Benefits are granted to a smaller extent in the form of lump-sum payments on retirement.

The corresponding provisions are recognised on the basis of annual actuarial assessments of existing pension obligations.

Defined benefit obligations are recognised in accordance with the actuarial assessment over the service life of employees and consist of staff cost and interest cost. The staff costs are allocated to the relevant functional areas. The interest expense is reported in other net finance costs after netting against the interest income from plan assets. Actuarial gains and losses and the effects of the revaluation of plan assets are recognised in full in other comprehensive income.

In Germany in particular, the Wilo Group has decided to use the internal financing effect of provisions for pensions and to back pension obligations with plan assets only to a relatively limited extent.

Plan assets break down as follows:

Components of plan assets

EUR thousand	**2022**	2021
Cash	12,833	11,136
Qualifying insurance policies	3,668	2,574
Investment funds	429	434
As at 31 December	**16,930**	**14,144**

Furthermore, there are employee pension liability policies to cover provision-funded pension obligations in the amount of EUR 2,884 thousand (previous year: EUR 2,676 thousand) though these do not satisfy the requirements for classification as plan assets under IAS 19.

The Wilo Group is not currently assuming any material payments into plan assets in the coming years.

WILO SE's defined benefit plan was discontinued on 31 December 2005. A defined contribution plan was set up for WILO SE employees for whom a pension obligation has existed from 1 January 2006. An expense of EUR 3,739 thousand (previous year: EUR 3,697 thousand) was recognised in the year under review for defined contribution plans in the WILO Group. Of this figure, 48.7 percent related to Germany (previous year: 47.5 percent) and 23.5 percent to France (previous year: 25.5 percent).

The defined benefit obligations are broken down among the beneficiaries as follows:

- Active members: EUR 40,742 thousand (previous year: EUR 56,885 thousand)
- Deferred members: EUR 6,263 thousand (previous year: EUR 10,381 thousand)
- Pensioners: EUR 27,425 thousand (previous year: EUR 33,931 thousand)

The regional distribution of the obligations is as follows:

Regional distribution

EUR thousand	2022	%	2021	%
Germany	53,408	71.8	74,247	73.4
France	9,945	13.4	13,779	13.6
Other	11,077	14.9	13,171	13.0
Total	**74,430**	**100.0**	**101,197**	**100.0**

The measurement of pension obligations is based on actuarial assumptions. Accordingly, the Wilo Group is exposed to certain actuarial risks. In particular, these include interest risks, risks of rising pensions, salary risks and longevity risks.

Changes in the significant actuarial assumptions would have affected the present value of pension obligations as follows:

Sensitivity analysis

		Present value of the pension obligation Change in %	
		2022	2021
Discount rate	+0.5%	-9.5	-6.3
	-0.5%	6.0	7.2
Pension factor	+0.25%	-0.3	2.6
	-0.25%	-4.3	-2.5
Salary factor	+0.25%	-2.1	0.2
	-0.25%	-2.5	-0.2
Life expectancy	+10%	2.8	6.6

Sensitivities are calculated assuming a change in just one individual factor with the other actuarial assumptions remaining constant. The assumed deviations are realistic assumptions based on past experience and future market forecasts.

As at 31 December 2022, the weighted average duration of the defined benefit obligation was 12.8 years (previous year: 15.8 years).

SIMILAR OBLIGATIONS Similar obligations for post-employment benefits amount to EUR 4,045 thousand for 2022 (previous year: EUR 3,745 thousand). The gross obligation amounts to EUR 7,079 thousand (previous year: EUR 6,066 thousand) and includes gross partial retirement obligations for WILO SE of EUR 6,412 thousand (previous year: EUR 4,989 thousand). The EUR 4,316 thousand fair value of plan assets as at the end of the reporting period (previous year: EUR 3,441 thousand) is deducted insofar as it relates to obligations under the partial retirement scheme. Excess plan assets not attributable to obligations under the partial retirement scheme of EUR 1,282 thousand (previous year: EUR 1,120 thousand) are reported under employer pension liability assets in non-current other assets. The present value of the obligations under the partial retirement scheme at 31 December 2022 was determined using a discount rate of 3.31 percent (previous year: -0.15 percent). Furthermore, an annual wage and salary increase of 1.5 percent was assumed (previous year: 1.5 percent).

(9.16) Other provisions

Non-current and current provisions for guarantees are recognised for potential warranty claims on the basis of past experience and planned measures.

The provision for bonuses and rebates relates to customer reimbursement for the 2022 financial year. The Wilo Group expects that the corresponding repayments of EUR 26,119 thousand (previous year: EUR 23,114 thousand) will be almost fully paid to customers by the middle of 2023.

Other provisions

Current

EUR thousand	Bonuses and rebates	Guarantees	Restructuring	Other	Total
As at 1 January 2022	**23,114**	**15,219**	**10,480**	**13,959**	**62,772**
Currency translation	-218	9	0	274	65
Utilisation	-21,825	-1,045	-4,593	-7,530	-34,993
Reclassification	99	3	0	-149	-47
Reversal	-1,308	-2,973	-943	-1,373	-6,597
Additions from business combinations	0	0	0	25	25
Addition	26,257	3,203	2,956	8,898	41,314
As at 31 December 2022	**26,119**	**14,416**	**7,900**	**14,104**	**62,539**

As in the previous year, miscellaneous provisions do not contain any material employee-related provisions

Non-current

EUR thousand	Guarantees	Anniversary	Total
As at 1 January 2022	**4,504**	**1,931**	**6,435**
Currency translation	-42	0	-42
Utilisation	-711	0	-711
Reclassification	47	0	47
Reversal	-143	-308	-451
Additions from business combinations	419	0	419
Addition	767	1,669	2,436
As at 31 December 2022	**4,841**	**3,292**	**8,133**

In the previous year, the Wilo Group initiated growth-oriented restructuring measures aimed at safeguarding the company's future by further reducing its cost base and increasing its independence from regional value chains. These measures relate to all areas of the company and also include the relocation of functions and the consolidation of locations. The measures are an important structural condition for profitable growth and will sustainably strengthen the Wilo Group's future viability. In the year under review, the follow-up planned measures negatively impacted other operating income by EUR 3.0 million.

(9.17) Tax liabilities

The Wilo Group reported tax liabilities of EUR 5,631 thousand as at the end of the reporting period (previous year: EUR 7,832 thousand).

(10.) Notes to the consolidated statement of cash flows

The consolidated statement of cash flows is broken down according to cash flows from operating, investing and financing activities. Cash flows from operating activities are calculated using the indirect method and reported after adjustment for currencies. The effects of exchange rate changes and changes in the composition of the consolidated group on cash are shown separately. Cash as at 31 December 2022 consisted of EUR 264,519 thousand (previous year: EUR 189,880 thousand) in cash and sight deposits with banks, EUR 3,943 thousand (previous year: EUR 3,822 thousand) of which was subject to restrictions on title.

The changes in cash due to exchange rate changes of EUR –103 thousand (previous year: EUR 9,576 thousand) relate to the effect of translating foreign-currency items of cash into the reporting currency. Purchases of intangible assets include payments in connection with capitalised development costs of EUR 12,001 thousand (previous year: EUR 16,119 thousand).

The cash flow from financing activities shows the following changes in financial liabilities and lease liabilities:

Change in financial liabilities and lease liabilities

			Non-cash			
EUR thousand	**1.1.2022**	Cash flows	Additions from business combinations	Other non-cash changes	Currency translation	**31.12.2022**
Financial liabilities (non-current)	388,192	199,748	0	-44,993	0	542,947
Financial liabilities (current)	25,840	-12,442	1,506	58,464	0	73,368
Lease liabilities	31,674	-15,767	0	18,415	124	34,446
Total	**445,706**	**171,539**	**1,506**	**31,886**	**124**	**650,761**

Change in financial liabilities and lease liabilities

			Non-cash			
EUR thousand	**1.1.2021**	Cash flows	Additions from business combinations	Other non-cash changes	Currency translation	**31.12.2021**
Financial liabilities (non-current)	229,160	125,275	18,516	15,241	0	388,192
Financial liabilities (current)	117,095	-84,724	64	-6,595	0	25,840
Lease liabilities	32,905	-16,536	76	14,836	393	31,674
Total	**379,160**	**24,015**	**18,656**	**23,482**	**393**	**445,706**

Interest received for cash and interest paid is allocated to net cash flow from financing activities because the interest received includes mainly payments in connection with the short-term reinvestment of funds borrowed but not yet required.

(11.) Disclosures on financial instruments

(11.1) Derivative financial instruments

The following table shows the fair values of derivative financial instruments as at 31 December 2022 and the changes as against the previous year:

Derivative financial instruments

	Fair value				Nominal amount	
	Maturity from 31 December 2022					
EUR thousand	Less than 1 year	Between 1 and 5 years	More than 5 years	Previous year	**31.12.2022**	31.12.2021
Forward exchange contracts	-959	-2,726	0	-922	103,314	81,699
Commodity derivatives	0	0	0	324	0	452
Interest rate swaps	-208	3,014	1,115	0	66,250	0

Net finance costs include gains of EUR 13 thousand (previous year: EUR 414 thousand) and losses of EUR 977 thousand (previous year: EUR 2,641 thousand) (see note (8.7) and note (8.8)).

CASH FLOW HEDGE ACCOUNTING FOR LONG-TERM LOANS

WILO SE has extended various long-term loans to WILO USA LLC with a total volume of USD 100.6 million (previous year: USD 100.6 million). USD 48.8 million was recognised as at the end of the reporting period (previous year: USD 60.6 million). The loan agreements provide for interest and principal payments. Even though the loans (hedged items) are eliminated in the consolidation process, there remains a currency risk and net foreign-currency result in net financial income in the consolidated financial statements from the currency translation of the Group loans in the financial statements of WILO SE. The risk relates to the variable value of the USD cash flow for repayments at the respective repayment dates in the EUR required.

For this reason, WILO SE held a total of 29 (previous year: 33) external forward exchange contracts (hedging instruments) as at 31 December 2022; these hedge the repayment tranches of this loan to 2 August 2027 and are designated as cash flow hedges. As at the reporting date, the fair value of these derivatives was EUR –3,515 thousand (previous year: EUR –754 thousand) and was recognised in other current financial liabilities.

In future periods, the following amounts are to be reclassified from other comprehensive income to net foreign-currency income.

2022	Carrying amount	Expected reclassification		
EUR thousand		Less than 1 year	Between 1 and 5 years	More than 5 years
Other comprehensive income	-310	-132	-178	0
Nominal amount in USD million		11.1	37.6	0.0
Average exchange rate hedge USD/EUR		1.1794	1.2157	0.0000
Fair value	-3,515	-847	-2,668	0

2021	Carrying amount	Expected reclassification		
EUR thousand		Less than 1 year	Between 1 and 5 years	More than 5 years
Other comprehensive income	-453	-501	-78	126
Nominal amount in USD million		11.8	44.4	4.3
Average exchange rate hedge USD/EUR		1.1680	1.2011	1.2379
Fair value	-754	-227	-504	-23

In the financial year, a result for the market performance of the derivatives of EUR -2,989 thousand (previous year: EUR -2,246 thousand) was recognised in other comprehensive income. In the same period, part of the deferred result of EUR 2,664 thousand (previous year: EUR 5,669 thousand) for existing derivatives and EUR 581 thousand (previous year: EUR 816 thousand) for settled derivatives was reclassified to the net foreign-currency income. This resulted in the same amount of net foreign-currency income of the Group loan being compensated. There was no ineffectiveness in the financial year. Hedge effectiveness results from matching the value-critical parameters of hedged item and hedging instrument and a "dollar-offset measurement" for accounting recognition on the reporting date.

CASH FLOW HEDGE ACCOUNTING – PURCHASES AND SALES OF GOODS In addition, Wilo uses hedge accounting in accordance with IAS 39 to hedge currency risks relating to the purchase and sale of inventories. The hedging strategy gives rise to the quarterly rolling hedging of currency risks at the level of individual monthly tranches. The hedge ratio for a specific, future date increases over time and is continuously reviewed against current forecasts. This allows ineffectiveness and over-hedging to be fundamentally avoided to the greatest possible extent. Any ineffectiveness or over-hedging is reported in operating net foreign-currency income. The Group held the following forward exchange contracts for hedging changes resulting from operating currency risks:

Forward exchange contracts for hedging operating currency risks

31.12.2022	1–6 months	6–12 months	More than one year
Nominal amount CHF: EUR in EUR million	4.4	3.7	8.8
Average forward exchange rate CHF:EUR	0.9703	0.9925	1.0262
Nominal amount GBP: EUR in EUR million	6.8	1.9	0.0
Average forward exchange rate GBP:EUR	1.1474	1.1383	0
Nominal amount CNY: EUR in EUR million	5.9	3.5	1.6
Average forward exchange rate CNY:EUR	0.1383	0.1385	0.141
Nominal amount USD: EUR in EUR million	7.1	0.0	0.0
Average forward exchange rate USD:EUR	0.9337	0	0

31.12.2021	1–6 months	6–12 months	More than one year
Nominal amount CHF: EUR in EUR million	3.0	2.1	1.1
Average forward exchange rate CHF:EUR	0.9319	0.9301	0.9440
Nominal amount GBP: EUR in EUR million	4.0	3.2	0.8
Average forward exchange rate GBP:EUR	1.1620	1.1552	1.1465
Nominal amount PLN: EUR in EUR million	1.7	2.0	0.0
Average forward exchange rate PLN:EUR	0.1311	0.1355	0
Nominal amount RON: EUR in EUR million	9.2	0.0	0.0
Average forward exchange rate RON:EUR	0.0118	0	0

Rolling FX hedging of cash inflows/supplier payments

2022 exchange rate risk in EUR thousand	Forward exchange contracts for sales	Forward exchange contracts for purchases
Carrying amount of other comprehensive income as at 1 January	209	-7
Change in other comprehensive income[1]	-874	-85
Reclassification from other comprehensive income to profit and loss	689	160
Carrying amount of other comprehensive income as at 31 December	**24**	**68**
of which:		
Carrying amount of forward exchange contract asset[2]	450	0
Carrying amount of forward exchange contract liability[2]	-511	-37
Nominal amount at the reporting date	26,065	-7,124

2021 exchange rate risk in EUR thousand	Forward exchange contracts for sales	Forward exchange contracts for purchases
Carrying amount of other comprehensive income as at 1 January	152	-8
Change in other comprehensive income[1]	2,290	-174
Reclassification from other comprehensive income to profit and loss	-2,133	75
Carrying amount of other comprehensive income as at 31 December	**309**	**-107**
of which:		
Carrying amount of forward exchange contract asset[2]	277	49
Carrying amount of forward exchange contract liability[2]	-500	0
Nominal amount at the reporting date	22,359	-500

[1] The amount corresponds to the change in the value of the hedged items used to determine the ineffectiveness. With a reversed sign, the amount corresponds to the change in the value of the hedging instruments used to determine the ineffectiveness.

[2] The carrying amounts of the hedging instruments are reported in "Other financial assets" (9.5) or "Other financial liabilities" (9.13). The cash flow hedge reserve is reported in other comprehensive income (equity).

(11.2) Disclosures on the carrying amounts and fair values of financial instruments

The following tables show the financial assets and liabilities with their carrying amounts as at 31 December 2022 for each IFRS 9 measurement category and statement of financial position category.

Financial assets and liabilities as at 31 December 2022

EUR thousand	IFRS 9 measurement category	Carrying amount under IFRS 9: Amortised cost	Fair value	Derivatives used in hedge accounting
Current and non-current financial assets				
Trade receivables	Amortised cost	340,060		
Other financial assets				
Receivables from subsidiaries and jointly controlled entities	Amortised cost	481		
Receivables from derivative financial instruments not used in hedge accounting	FVTPL		12	
Receivables from derivative financial instruments used in hedge accounting	n/a			4,579
Loans	Amortised cost	90		
Equity instruments	FVOCI in equity		1,994	
Miscellaneous financial assets	Amortised cost	20,156		
Cash	Amortised cost	264,519		
Current and non-current financial liabilities				
Financial liabilities	Amortised cost	616,315		
Trade payables	Amortised cost	247,265		
Other financial liabilities				
Bills payable	Amortised cost	12,677		
Liabilities to subsidiaries and jointly controlled entities	Amortised cost	2,694		
Liabilities from derivative financial instruments not used in hedge accounting	FVTPL		16	
Liabilities from derivative financial instruments used in hedge accounting	n/a			4,339
Miscellaneous financial liabilities	Amortised cost	26,702		
of which aggregated by IFRS 9 measurement category				
Amortised cost		1,530,959		
FVOCI in equity			1,994	
FVTPL			-4	
Derivatives used in hedge accounting				240

Financial assets and liabilities as at 31 December 2021

EUR thousand	IFRS 9 measurement category	Carrying amount under IFRS 9: Amortised cost	Fair value	Derivatives used in hedge accounting
Current and non-current financial assets				
Trade receivables	Amortised cost	292,669		
Other financial assets				
Receivables from subsidiaries and jointly controlled entities	Amortised cost	399		
Receivables from derivative financial instruments not used in hedge accounting	FVTPL		329	
Receivables from derivative financial instruments used in hedge accounting	n/a			722
Loans	Amortised cost	64		
Equity instruments	FVOCI in equity		4,159	
Miscellaneous financial assets	Amortised cost	11,661		
Cash	Amortised cost	189,880		
Current and non-current financial liabilities				
Financial liabilities	Amortised cost	414,032		
Trade payables	Amortised cost	233,463		
Other financial liabilities				
Bills payable	Amortised cost	10,571		
Liabilities to subsidiaries and jointly controlled entities	Amortised cost	2,729		
Liabilities from derivative financial instruments not used in hedge accounting	FVTPL		0	
Liabilities from derivative financial instruments used in hedge accounting	n/a			1,649
Miscellaneous financial liabilities	Amortised cost	27,807		
of which aggregated by IFRS 9 measurement category				
Amortised cost		1,183,275		
FVOCI in equity			4,159	
FVTPL			329	
Derivatives used in hedge accounting				-927

The carrying amounts of the financial assets and liabilities in the scope of IFRS 7 are the same as their fair value per class. This only exception is financial liabilities, which have a carrying amount of EUR 616,315 thousand (previous year: EUR 414,032 thousand) and a fair value of EUR 572,447 thousand (previous year: EUR 430,273 thousand). The fair values of financial liabilities were calculated using net present value methods.

The Group has two investments measured at fair value in other comprehensive income and whose fair value of EUR 1,994 thousand (previous year: EUR 4,159 thousand) corresponds to hierarchy Level 3.

WILO SE holds an 8 percent stake in EUROCARBO S.P.A., Corropoli/Italy, in the context of a strategic investment. The value of the stake is measured in line with strategic considerations largely based on the value of the equity stake and the hidden reserves in property, plant and equipment. The indicative valuation is based on the continuation of the investment decision. On the basis of all available information, in our view cost and fair value have the same measurement as at 31 December 2022.

WILO SE also holds a 2.6 percent stake in HydroPoint Data Systems, Inc., Petaluma/USA. The company is a specialist on the US smart water management market. This highly innovative and new business area involves considerable planning uncertainties. As a result of this uncertainty, fair value is determined based on cost.

The stake in Guhong Environmental Engineering Equipment Co. Ltd., Shanghai/China, was increased from 25 percent to 75 percent at the end of the 2022 financial year, meaning that Guhong was fully consolidated in the year under review. LIKUTECH ENVIRONMENTAL SOLUTIONS INDIA PRIVATE LIMITED, Nolambur (Chennai)/India, was also fully consolidated. This meant that both companies were reclassified in the year under review. The fair value of the investments in the previous year was EUR 2,165 thousand.

However, neither remeasurement had an impact on earnings or other comprehensive income. Sensitivity can be determined only on the basis of the overall value. A 10 percent increase (reduction) in the respective value results in an increase (decrease) in other comprehensive income of EUR 199 thousand (previous year: EUR 416 thousand).

The calculation of the fair values of the receivables and liabilities from derivative financial instruments, which are assigned to the FVTPL category in the amount of EUR 16 thousand (previous year: EUR 329 thousand) and EUR 0 thousand (previous year: EUR 0 thousand) respectively, is shown under note (7).

(11.3) Net gains and losses by measurement category

The table below shows the net earnings reported under profit and loss for the 2022 financial year in line with IFRS 7, consisting of interest, dividends, changes in fair value, impairment, impairment reversals and the effects of currency translation on each measurement category of financial assets and liabilities. This does not include the earnings effects of leases, as leases do not belong to any IFRS 9 measurement category.

Net gains and losses by measurement category 2022 financial year

Measurement category	Carrying amount 31 Dec.	Interest and dividends	Impairments	Impairment reversals	Effects of currency translation	Net gains/losses
Financial assets						
Amortised cost	625,306	4,552	-11,913	4,188	4,940	1,767
FVOCI in equity	1,994	0	0	0	0	0
FVTPL	12	0	0	0	0	0
Total financial assets		**4,552**	**-11,913**	**4,188**	**4,940**	**1,767**
Financial liabilities						
Amortised cost	905,653	-13,471	0	0	-203	-13,674
Total financial liabilities		**-13,471**	**0**	**0**	**-203**	**-13,674**

Net gains and losses by measurement category 2021 financial year

Measurement category	Carrying amount 31 Dec.	Interest and dividends	Impairments	Impairment reversals	Effects of currency translation	Net gains/losses
Financial assets						
Amortised cost	494,673	3,069	-5,227	5,621	23,114	26,577
FVOCI in equity	4,159	0	0	0	0	0
FVTPL	329	0	0	0	0	0
Total financial assets		**3,069**	**-5,227**	**5,621**	**23,114**	**26,577**
Financial liabilities						
Amortised cost	688,602	-8,646	0	0	-24,310	-32,956
FVTPL	0	0	0	0	0	0
Total financial liabilities		**-8,646**	**0**	**0**	**-24,310**	**-32,956**

(11.4) Fair value hierarchy of financial assets and liabilities

Financial assets and liabilities accounted for at fair value are divided into the following three levels in accordance with IFRS 13 on the basis of the measurement of their fair value:

Level 1: The fair value for an asset or liability is calculated using quoted market prices on active markets for identical assets and liabilities.

Level 2: The fair value for an asset or liability is based on value factors for this asset or liability that are observed directly or indirectly on a market.

Level 3: The fair value for an asset or liability is based on value factors for this asset or liability that do not refer to observable market data.

The following table shows the allocation of financial assets and liabilities that existed within the Wilo Group as at 31 December 2022 and 2021 that were recognised at fair value or for which the fair value was disclosed.

Fair value hierarchy

	31.12.2022 Level 2	31.12.2021 Level 2
Receivables from derivative financial instruments used in hedge accounting	4,579	722
Receivables from derivative financial instruments not used in hedge accounting (FVTPL)	12	329
Liabilities from derivative financial instruments used in hedge accounting	4,339	1,649
Liabilities from derivative financial instruments not used in hedge accounting (FVTPL)	16	0
Financial liabilities (fair value)	572,447	430,273
	Level 3	**Level 3**
Equity instruments (FVOCI in equity)	1,994	4,159

The Wilo Group did not report any financial assets or liabilities classified as Level 1 based on the method by which their fair value was determined as at 31 December 2022 and 2021. More detailed information on equity instruments (FVOCI in equity) can be found in note (11.2).

If reclassifications to another level in the valuation hierarchy are required these are made as at the end of the financial year in which the event occurs that results in reclassification being required.

(12.) Risk management and derivative financial instruments

RISK MANAGEMENT PRINCIPLES Due to the international nature of its business activities, the assets, liabilities and planned transactions of the Wilo Group are subject to market risks from changes in exchange rates, interest rates and commodity prices in particular. The objective of financial risk management is to mitigate this risk from operating and financial activities. This is achieved using derivative and primary hedging instruments selected according to estimated risk. Derivative financial instruments are used solely to hedge risk. They are not used for trading or other speculative purposes. The general credit risk on these derivative financial instruments is low because they are only entered into with banks of excellent credit standing. The Group is also subject to credit and default risk and liquidity risk.

The basic principles of financial policy and strategy are determined by the Executive Board and monitored by the Supervisory Board. Responsibility for implementing financial policy and strategy lies with Group Finance. Further information on risks and risk management can be found in the report on risks and opportunities of the Group management report.

CURRENCY RISK The Wilo Group is exposed to currency risk primarily in its financing and operating activities. Currency risk in financing activities relates to foreign-currency borrowing from external lenders and foreign-currency lending to finance Group companies.

Currency risk in operating activities mainly relates to the supply of goods and provision of services to Group companies. Currency risk exposure on such transactions is countered by the use of same-currency offsetting transactions and derivative financial instruments. The currency risk on operating business between Group companies and external customers and suppliers is estimated to be low as most of such business is transacted in the functional currency of the Group companies.

The following table shows the foreign-currency risk position of the Wilo Group as at 31 December 2022 and 2021 in the respective foreign currency. This consists of foreign-currency transactions in operating activities and foreign-currency financing activities up to 31 December 2022 and 2021 as well as expected foreign-currency transactions in operating activities in 2023 and 2022. This analysis does not take into account the effects of the translation of the financial statements of subsidiaries into reporting currency (translation risk). The gross risk is before hedges.

Foreign-currency risk positions as at 31 December 2022

in millions of	EUR	USD	CNY	GBP	PLN	RON	RUB
Cash	7.6	9.8	56.3	1.0	0.0	0.0	0.0
Trade and other receivables	25.3	6.9	0.2	0.0	0.0	0.0	0.0
Receivables from affiliated companies	5.7	21.0	237.6	3.0	33.8	9.1	570.2
Trade and other payables	−10.4	−15.0	−20.1	0.0	0.0	0.0	0.0
Liabilities due to affiliated companies	−43.9	−11.8	−51.2	−0.3	0.0	0.0	−268.4
Financial liabilities	−8.4	−0.1	0.0	0.0	0.0	0.0	0.0
Currency risk from assets and liabilities – gross –	**−24.1**	**10.8**	**222.8**	**3.7**	**33.8**	**9.1**	**301.8**
Expected sales in 2023	94.2	69.3	373.0	11.8	143.5	47.1	163.5
Expected acquisitions in 2023	−152.1	−90.7	−507.5	−0.6	0.0	0.0	−335.7
Currency risk from expected transactions in operating activities in 2023 – gross –	**−57.9**	**−21.4**	**−134.5**	**11.2**	**143.5**	**47.1**	**−172.2**
Hedging	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency risk – net –	**−82.0**	**−10.6**	**88.3**	**14.9**	**177.3**	**56.2**	**129.6**

Foreign-currency risk positions as at 31 December 2021

in millions of	EUR	USD	CNY	GBP	PLN	RON	RUB
Cash	4.3	8.4	24.9	2.1	0.0	0.6	132.4
Trade and other receivables	15.3	5.6	2.2	0.0	0.0	0.0	0.2
Receivables from affiliated companies	3.5	16.6	136.4	1.1	9.9	7.2	96.3
Trade and other payables	−2.3	−9.4	−15.5	0.0	0.0	0.0	−0.1
Liabilities due to affiliated companies	−6.7	−0.1	0.0	0.0	0.0	0.0	0.0
Financial liabilities	−27.0	−3.3	−57.4	0.0	−0.3	0.0	−221.8
Currency risk from assets and liabilities – gross –	**−12.9**	**17.8**	**90.6**	**3.2**	**9.6**	**7.8**	**7.0**
Expected sales in 2022	87.3	40.1	296.9	7.6	133.0	31.3	4,031.0
Expected acquisitions in 2022	−107.9	−62.0	−366.9	−0.5	0.0	0.0	−1,104.0
Currency risk from expected transactions in operating activities in 2022 – gross –	**−20.6**	**−21.9**	**−70.0**	**7.1**	**133.0**	**31.3**	**2,927.0**
Hedging	0.0	0.2	0.0	0.0	0.0	0.0	0.0
Currency risk – net –	**−33.5**	**−3.9**	**20.6**	**10.3**	**142.6**	**39.1**	**2,934.0**

The foreign-currency receivables and liabilities, expected foreign-currency transactions and derivative financial instruments in the form of cross-currency interest rate swaps and forward exchange contracts have certain sensitivities to currency fluctuations. A 10.0 percent appreciation or depreciation in the respective currency compared with the other currencies as at 31 December would have the following hypothetical impact on earnings:

Sensitivity analysis

	2022		2021	
EUR million	**+10%**	**-10%**	+10%	-10%
EUR	-9.1	7.5	-3.7	3.0
USD	3.2	-2.6	5.4	-4.5
CNY	2.4	-1.9	0.7	-0.6
GBP	2.8	-2.3	2.3	-1.7
PLN	4.9	-4.0	3.5	-2.9
RON	1.5	-1.2	1.1	-0.9
RUB	0.2	-0.2	4.8	-4.0

In addition to a long-term Group loan in USD, exchange rate risks in connection with sales of products and purchases of inventories are hedged. These derivative financial instruments used in hedge accounting have sensitivities to currency fluctuations. A 10.0 percent appreciation or depreciation in the respective currency compared with the other currencies as at 31 December would have the following hypothetical impact on other comprehensive income:

Sensitivity analysis

	2022		2021	
EUR million	**+10%**	**-10%**	+10%	-10%
USD	-0.4	-7.1	4.0	-6.2
CHF	1.2	-2.1	0.7	-0.9
GBP	1.1	-0.7	0.7	-0.9
PLN	0.5	-0.7	0.1	-0.1
RUB	0.0	0.0	1.2	-0.7

The sensitivity analysis assumes that all other factors influencing value remain constant and that the figures at the reporting date are representative for the year as a whole.

INTEREST RATE RISK The Wilo Group faces interest rate risk mainly on floating rate financial liabilities and on invested cash. Both a rise and a fall in the yield curve result in interest rate exposure. The Wilo Group mitigates adverse changes in value from unexpected interest rate movements by using derivative financial instruments. The occurrence of interest rate risk is considered possible, but the impact on net finance costs is considered to be low as most financial liabilities have long-term fixed interest rates and most variable-interest tranches are hedged using suitable derivatives.

In the event of a change in interest rates of 100 basis points (bp) at the reporting date, which was considered possible, equity and profit or loss would have increased or decreased by the amounts listed below. This analysis assumed that all other parameters, especially exchange rates, remained constant.

Sensitivity analysis

	Profit or loss		Equity after taxes	
EUR thousand	100 bp increase	100 bp decrease	100 bp increase	100 bp decrease
31 December 2022				
Variable-rate instruments	-752.5	595.9	0.0	0.0
Interest rate swaps	0.0	0.0	1,403.0	-1,419.6
Cash flow sensitivity (net)	**-752.5**	**595.9**	**-1,403.0**	**1,419.6**

The market value of interest rate swaps is reported in derivative financial instruments (11.1).

COMMODITY PRICE RISK The Wilo Group is mainly exposed to commodity price risk as a result of price fluctuations on the global markets for copper, aluminium, stainless steel and their alloys. When it comes to minimising copper price risks, the Wilo Group enters into long-term purchase commitments rather than concluding commodity derivatives. The purchase volume and price are fixed up to a maximum of twelve months in advance.

From today's perspective, the Wilo Group's result of operations would be influenced by price fluctuations on the global markets for copper and aluminium in the 2022 financial year as follows:

Sensitivity analysis

EUR thousand	**2022**	2021
Fair value of risk position for commodity price changes – gross –	**32,003**	**39,921**
Fair value hedges	0	0
Fair value of risk position for commodity price changes – net –	**32,003**	**39,921**
Earnings impact of 10% price increase	-3,200	-3,992
Earnings impact of 10% price decrease	3,200	3,992

The calculation takes into account all copper and aluminium derivatives at the reporting date and the planned procurement volume for the next year in each case.

CREDIT AND DEFAULT RISK Customer credit risk is countered with a uniform and effective Group-wide system for systematic receivables management and the monitoring of payment behaviour. Dependency on individual customers is limited because Wilo does not generate more than 10.0 percent of its total net sales with any one customer.

The maximum credit risk is equal to the carrying amount of financial instruments.

Trade receivables are secured with retentions of title. The fair value of these retentions of title is equal to the carrying amount of trade receivables. The carrying amount of trade receivables before write-downs is EUR 370,081 thousand (previous year: EUR 317,217 thousand). As at 31 December 2022, EUR 22,833 thousand (previous year: EUR 17,787 thousand) in specific write-downs was recognised on past due trade receivables of EUR 44,791 thousand (previous year: EUR 33,982 thousand).

Wilo applies a central approach to the expected credit loss concept in accordance with IFRS 9. Four different risk groups were formed on the basis of regions. The probability of a future credit loss is determined on the basis of actual credit losses of the last three years for each region. For each region, time buckets are used to examine in which maturity period the receivable was when the credit loss occurred. In addition, indicators (e.g. gross domestic product, industry outlook) are used to assess the probability of a future credit loss. This data is used to determine a credit loss probability per region as a percentage. As at the reporting date, the Wilo Group recognised impairments of EUR 7,189 thousand using the expected credit loss model (previous year: EUR 6,760 thousand). Further information can be found in note (9.4) Trade receivables.

In addition, there is a maximum credit risk of EUR 1,994 thousand (previous year: EUR 4,159 thousand) for financial assets in the "fair value through OCI (FVOCI in equity)" measurement category and of EUR 12 thousand (previous year: EUR 329 thousand) for financial assets in the "fair value through profit or loss (FVTPL)" measurement category resulting exclusively from derivative financial instruments. With regard to other financial assets that are neither impaired nor past due, there are no indications as at the end of the reporting period that debtors will fail to make payment. As in the previous year, no impairment was recognised on other financial assets as at 31 December 2022.

Master agreements for financial futures have been concluded with various globally operating banks. Among other things, these agreements state that amounts in the same currency payable between parties on the same date are offset and therefore only the remaining net amount is paid by one party to the other. They also stipulate that, under certain circumstances, such as a party's default, all transactions still outstanding are cancelled. In the event of this happening, all transactions still outstanding will be offset.

These agreements do not satisfy the criteria for the netting of the corresponding assets and liabilities in the statement of financial position as they did not give rise to a legal right to offset the respective assets and liabilities at the current time. This right will only exist on the occurrence of future events, such as the default of one of the two parties.

The following financial assets and liabilities were reported in the statement of financial position without netting as the criteria of IAS 32.42 required to offset them were not met. However, they are subject to the agreements described above that allow offsetting given certain future events.

Offsetting financial assets and liabilities

EUR thousand	Carrying amount	Assets and liabilities before offsetting[1]	Net values
31 December 2022			
Receivables from derivative financial instruments	4,591	–2,643	1,948
Liabilities from derivative financial instruments	–4,355	2,643	–1,712
31 December 2021			
Receivables from derivative financial instruments	1,051	–646	405
Liabilities from derivative financial instruments	–1,649	646	–1,003

[1] Assets and liabilities with a right of set-off but that do not meet the criteria for offsetting in the statement of financial position.

LIQUIDITY RISK The Wilo Group strives to cover its financial requirements for the operating business of its Group companies at all times and at low cost. Various instruments available on the financial market are used for these purposes. These instruments include committed and non-committed cash credit, guarantee and margin facilities from various reputable national and international banks with a volume of around EUR 400 million. The cash credit facilities were utilised of EUR 2.5 million (previous year: EUR 175.6 million) and the guarantee and margin facilities were utilised of EUR 25.6 million (previous year: EUR 27.9 million). In addition, WILO SE has secured its long-term financial requirements by issuing promissory note loans, which were also placed with financially sound, reputable financial partners (see note (9.11)).

As a result of existing short- and medium-term credit facilities with various prominent banks, the long-term coverage of financial requirements with the promissory note loans and other refinancing options, the Wilo Group is not currently exposed to material credit, concentration or liquidity risk. There are also cash pooling and financing arrangements with Group companies where appropriate and permitted under local commercial and tax law.

The following overview shows the contractual maturities and corresponding cash outflows, including estimated interest payments, for financial liabilities as at 31 December 2022 and 2021:

Cash outflows for financial liabilities as at 31 December 2022

			Maturities		
31.12.2022	Carrying amount	Agreed payments	Less than 1 year	Between 1 and 5 year	More than 5 years
Financial liabilities					
Non-current	542,947	–579,567	–7,094	–301,718	–270,755
Current	73,368	–73,368	–73,368	0	0
Trade payables	247,265	–247,265	–247,265	0	0
Lease liabilities	34,475	–34,475	–11,115	–19,865	–3,495
Other financial liabilities	37,158	–42,073	–38,009	–4,064	0
Derivative financial instruments	4,355	–4,355	–1,552	–2,803	0
Total	**939,568**	**–981,103**	**–378,403**	**–328,450**	**–274,250**

Cash outflows for financial liabilities as at 31 December 2021

			Maturities		
31.12.2021	Carrying amount	Agreed payments	Less than 1 year	Between 1 and 5 years	More than 5 years
Financial liabilities					
Non-current	388,192	–424,812	–7,094	–276,436	–141,282
Current	25,840	–25,840	–25,840	0	0
Trade payables	233,963	–233,963	–233,963	0	0
Lease liabilities	31,673	–31,673	–12,385	–18,363	–925
Other financial liabilities	41,107	–41,107	–36,678	–4,429	0
Derivative financial instruments	1,649	–1,649	–750	–899	0
Total	**722,424**	**–759,044**	**–316,710**	**–300,127**	**–142,207**

(13.) Other disclosures

(13.1) Waiver of disclosure
Group companies that waive disclosure in accordance with section 264 (3) HGB are indicated in the list of shareholdings.

(13.2) Contingent liabilities and other financial obligations
The company reported contingent liabilities from warranties and sureties of EUR 11,252 thousand as at 31 December 2022 (previous year: EUR 9,658 thousand). No provisions have been recognised for contingent liabilities carried at nominal amount as the probability of the risk is estimated as low.

The contingent liabilities result from operating activities with customers and suppliers of the Wilo Group and from obligations in connection with the Wilopark construction project. Contingent liabilities with a nominal obligation of EUR 4,655 thousand (previous year: EUR 1,237 thousand) had an agreed remaining term of less than one year as at 31 December 2022, while nominal obligations of EUR 1,067 thousand (previous year: EUR 987 thousand) with an agreed remaining term of more than one year have been contractually stipulated. There are also contingent liabilities with a nominal obligation of EUR 5,530 thousand (previous year: EUR 7,434 thousand).

Purchase commitments for planned capital expenditure on property, plant and equipment amounted to EUR 31,471 thousand as at 31 December 2022 (previous year: EUR 35,100 thousand). It is not practicable to disclose estimates of the financial effect of contingent liabilities, the uncertainties relating to the amount or timing of any outflows or the possibility of any reimbursement.

(13.3) Average number of employees over the year
Average employee numbers for the year were as follows:

Employees	2022	2021
Production	4,901	4,540
Sales and administration	3,556	3,660
Total	**8,457**	**8,200**
Germany	2,908	2,910
Outside Germany	5,549	5,290
Total	**8,457**	**8,200**

The average number of employees increased by +3.1 percent year-on-year (previous year: +4.6 percent).

(13.4) Expenses using the nature of expense method
Staff costs according to section 315e in conjunction with section 314 (1) no. 4 HGB of the financial year break down as follows:

Staff costs EUR thousand	2022	2021
Wages and salaries	408,803	368,383
Social security contributions and expenses for retirement benefits	88,412	79,662
of which for retirement benefit expenses EUR 10,323 thousand (previous year: EUR 6,879 thousand)		
Total	**497,215**	**448,045**

Depreciation and amortisation for 2022, including leases in accordance with IFRS 16, is calculated as follows:

Depreciation and amortisation EUR thousand	2022	2021
Depreciation and amortisation	99,689	88,596

(13.5) Proposal for the appropriation of profits
At the proposal of the Executive Board, the Annual General Meeting of WILO SE on 19 April 2023 will resolve the payment of a dividend of EUR 1.45 per ordinary share, with the remaining unappropriated surplus of WILO SE being carried forward to new account.

(13.6) Events after the end of the reporting period
The Executive Board of WILO SE approved the consolidated financial statements for submission to the Supervisory Board on 7 March 2023. It is the responsibility of the Supervisory Board to examine the consolidated financial statements and to state whether it adopts them.

(13.7) Related party disclosures
The Wilo Group engages in business transactions with unconsolidated subsidiaries and jointly controlled entities for the provision of goods and services. The outstanding trade receivables from these companies amounted to EUR 481 thousand (previous year: EUR 399 thousand). Liabilities to these companies amounted to EUR 2,694 thousand at the reporting date (previous year: EUR 2,729 thousand), of which EUR 2,650 thousand related to joint ventures (previous year: EUR 2,650 thousand). Sales and services charged on to these companies, including oncharged interest, amounted to EUR 1,479 thousand (previous year: EUR 986 thousand).

The balances outstanding at the end of the financial year are unsecured, do not bear interest and will be settled via payment.

Members of the Supervisory Board control or influence companies that provide consultancy services for WILO SE. WILO SE generated net sales totalling EUR 1,350 thousand (previous year: EUR 1,535 thousand) from these companies in the 2022 financial year. All liabilities were settled in the year under review.

One of the shareholders owns a heating and air-conditioning installation company that purchases standard quantities of pumps from the reporting entity. The same company installs and maintains the heating and air-conditioning systems of the reporting entity. Revenues of EUR 65 thousand (previous year: EUR 33 thousand) were generated with the heating and air-conditioning installation company in the 2022 financial year. There were receivables from this company of EUR 1 thousand as at 31 December 2022 (previous year: EUR 4 thousand). At the same time, the Wilo Group procured goods and services of EUR 0 thousand (previous year: EUR 5 thousand) from this company. As in the previous year, there were no receivables from this company as at 31 December 2022.

There are also leases relating to land and buildings that are directly or indirectly owned by shareholders. Total lease payments of EUR 486 thousand were made to these shareholders in 2022 (previous year: EUR 354 thousand).

The Wilo-Foundation holds the majority of ordinary shares in WILO SE. There is a service agreement between WILO SE and the foundation for administrative work. WILO SE generated income of EUR 39 thousand from this service agreement in 2022 (previous year: EUR 39 thousand). As in the previous year, in this connection there were no receivables from the foundation as at 31 December 2022.

A member of the Executive Board utilised WILO SE services. The total amount in the year under review was EUR 9 thousand (previous year: EUR 4 thousand).

(13.8) Auditor's fees

The following fees were recognised as an expense in the 2022 financial year for services provided by the auditor of the consolidated financial statements, KPMG AG Wirtschaftsprüfungsgesellschaft:

Auditor's fees

EUR thousand	2022	2021
Audits of financial statements		
of which for the previous year: EUR 13 thousand (2021: EUR -46 thousand)	456	445
Other assurance services		
of which for the previous year: EUR 19 thousand (2021: EUR 11 thousand)	76	192
Other services		
of which for the previous year: EUR 0 thousand (2021: EUR 7 thousand)	36	52
Total	**568**	**689**

(13.9) Remuneration of the Executive Board and the Supervisory Board

The table below shows the remuneration of the Executive Board:

Remuneration of the Executive Board

EUR thousand	2022	2021
Total remuneration of the Executive Board	**14,182**	**7,953**
IAS 24.17 (a)	12,182	6,552
IAS 24.17 (b)	1,660	1,241
IAS 24.17 (c)	340	160

As at the end of the reporting period, EUR 8.8 million (previous year: EUR 3.3 million) was recognised as a liability that will not be paid out until the following financial year after approval of the consolidated financial statements.

The total remuneration paid to former members of the Executive Board amounted to EUR 1.1 million in the 2022 financial year (previous year: EUR 1.0 million). As at the end of the reporting period, a pension provision of EUR 6.6 million (previous year: EUR 8.2 million) was recognised for former members of executive bodies, some of whom are also related parties.

The remuneration of the Supervisory Board amounted to EUR 0.5 million in the 2022 financial year (previous year: EUR 0.5 million).

(13.10) Executive bodies of the company

SUPERVISORY BOARD

Lars Roßner
– Chairman –
(since 1 January 2022)
Partner at Buse, Rechtsanwälte
Steuerberater PartG mbH
Dusseldorf

Dr. Hinrich Mählmann
– Vice Chairman –
(since 1 January 2022)
Personally liable partner
and Managing Director of Otto Fuchs KG
Wiehl

Vincent Baudry
European Works Council
Laval, France

Martin Cremer (since 11 April 2022)
Member of management
Lensing Media GmbH & Co. KG
Dortmund

Prof. Dr. Dr. h.c. Michael ten Hompel
(until 30 September 2022)
Professor for Transportation and Warehouse Systems
at the Technical University of Dortmund
Managing Director of the Fraunhofer-Gesellschaft for
Material Flow and Logistics IML
Dortmund

Daniela Mohr
European Works Council
Dortmund

Dr.-Ing. E.h. Jochen Opländer
is the Honorary Chairman of the Supervisory Board.

EXECUTIVE BOARD

Oliver Hermes
– Chairman –
Essen

Dr. Patrick Niehr
Dortmund

Georg Weber
Dusseldorf

Mathias Weyers
Essen

Dortmund, 7 March 2023

The Executive Board

Oliver Hermes	Dr. Patrick Niehr	Georg Weber	Mathias Weyers

Shareholdings

Shareholdings of WILO SE as at 31 December 2022
(Disclosure pursuant to section 315e HGB)

	Ownership interest in %
ABIONIK Group GmbH, Berlin/Germany***	100.0
Circulating Pumps Ltd., King's Lynn, Norfolk/United Kingdom	100.0
EMU I.D.F. S.A.R.L., Ste. Geneviève-des-Bois/France*	50.0
Eurocarbo S.p.A., Corropoli/Italy*	8.0
FSM Frankenberger GmbH, Berlin/Germany***	100.0
FSM Frankenberger VerwaltungsGmbH, Berlin/Germany*	100.0
Guhong Environmental Engineering Equipment Co.Ltd., Shanghai/China	75.0
HydroPoint Data Systems, Inc., Petaluma/USA*	2.6
Hydroserve GmbH, Trumau/Austria	100.0
LIKU-TECH ENVIRONMENTAL SOLUTIONS INDIA PRIVATE LIMITED, Nolambur (Chennai)/India	51.0
LIKUSTA Umwelttechnik GmbH, Lich/Germany***	100.0
MARTIN Systems GmbH, Berlin/Germany***	100.0
Mating Membrance Technology Co. Ltd., Shanghai/China*	100.0
PT. WILO Pumps Indonesia, Jakarta/Indonesia	100.0
S.E.S.E.M. S.A.S., Saint-Denis/France	100.0
Steinhardt Gesellschaft mit beschränkter Haftung, Taunusstein/Germany***	100.0
STEMMA S.R.L., Trissino/Italy	100.0
TUMAR bvba, Merelbeke/Belgium	100.0
WILO (Singapore) Pte. Ltd, Singapore/Singapore	100.0
WILO (UK) Ltd., Burton-on-Trent/United Kingdom	100.0
WILO Adriatic d.o.o., Ljubljana/Slovenia	100.0
WILO Australia PTY Ltd, Brisbane City QLD/Australia	100.0
WILO Baltic SIA, Riga/Latvia	100.0
WILO Bel o.o.o., Minsk/Belarus	100.0
WILO Beograd d.o.o., Belgrade/Serbia	100.0
WILO Bulgaria EOOD, Sofia/Bulgaria	100.0
WILO Canada Inc., Calgary/Canada	100.0
WILO Caspian LLC, Baku/Azerbaijan	100.0
WILO Central Asia TOO, Almaty/Kazakhstan	100.0
WILO Chile SpA, Santiago de Chile/Chile	100.0
WILO China Ltd., Beijing/China	100.0
WILO CS s.r.o., Prague/Czech Republic	100.0
WILO Danmark A/S, Karlslunde/Denmark	100.0
WILO Eesti OÜ, Tallinn/Estonia*	100.0
WILO Egypt LLC, Cairo/Egypt	100.0
WILO Egypt for Import LLC, Cairo/Egypt	100.0
WILO ELEC China Ltd., Qinhuangdao/China	100.0
WILO EMU Anlagenbau GmbH, Roth/Germany	100.0
WILO Engineering Ltd t/a Wilo Ireland, Limerick/Ireland	100.0
WILO East Africa Ltd., Nairobi/Kenya	100.0
WILO Finland OY, Espoo/Finland	100.0
WILO France S.A.S., Chatou/France	100.0
WILO Hellas A.B.E.E., Athens/Greece	100.0
WILO Hrvatska d.o.o., Zagreb/Croatia	100.0
WILO Ibérica S.A., Alcalá de Henares/Spain	100.0

Shareholdings of WILO SE as at 31 December 2022
(Disclosure pursuant to section 315e HGB)

	Ownership interest in %
WILO Indústria, Comércio e Importação LTDA, City of Sao Paulo/Brazil	100.0
WILO Industriebeteiligungen GmbH, Dortmund/Germany	100.0
WILO IndustrieSysteme GmbH, Chemnitz/Germany***	100.0
WILO Intec S.A.S., Aubigny/France	100.0
WILO Italia s.r.l., Peschiera Borromeo (Milan)/Italy	100.0
WILO Lebanon S.A.R.L., Beirut/Lebanon	100.0
WILO Lietuva UAB, Vilnius/Lithuania	100.0
WILO Logistic Nordic AB, Växjö/Sweden	100.0
WILO Magyarország Kft., Törökbálint/Hungary	100.0
WILO Malaysia Sdn. Bhd., Petaling Jaya/Malaysia	100.0
WILO Maroc S.A.R.L., Casablanca/Morocco	100.0
WILO Mather and Platt Pumps Private Ltd., Pune/India	100.0
WILO Mexico Bombas Centrifugas, S.A. de C.V., Querétaro/Mexico	100.0
WILO Middle East FZE, Dubai/United Arab Emirates	100.0
WILO Middle East LLC i.L., Riyadh/Saudi Arabia**	50.0
WILO Mitarbeiter Invest GmbH, Dortmund/Germany***	100.0
WILO N.V./S.A., Ganshoren (Brussels)/Belgium	100.0
WILO Nasos Tizimlari LLC, Tashkent/Uzbekistan	100.0
WILO Nederland b.v., Westzaan/Netherlands	100.0
WILO Nord Amerika GmbH, Dortmund/Germany***	100.0
WILO Nordic AB, Växjö/Sweden	100.0
WILO Norge AS, Oslo/Norway	100.0
WILO Polska Sp. z o.o., Lesznowola/Poland	100.0
WILO Pompa Sistemleri San. Ve Tic. A.S., Istanbul/Turkey	100.0
WILO Portugal, Lda, Porto/Portugal	100.0
WILO Projects GmbH (formerly WILO GVA GmbH) , Wülfrath/Germany***	100.0
WILO Pumpen Österreich GmbH, Wiener Neudorf/Austria	100.0
WILO Pumps Ltd., Busan/Korea	100.0
WILO Pumps Nigeria Ltd., Gbagada/Nigeria	100.0
WILO Pumps Pakistan (Pvt.) Limited, Islamabad/Pakistan*	100.0
WILO PUMPS SA (PTY) LTD, Johannesburg/South Africa	100.0
WILO Romania s.r.l., Bucharest/Romania	100.0
WILO Rus o.o.o., Moscow/Russia	100.0
WILO Safe Water LLP, Pune/India*	100.0
WILO SALMSON Argentina S.A., Buenos Aires/Argentina	100.0
WILO Saudi Arabia Ltd., Riyadh/Saudi Arabia*	100.0
WILO Schweiz AG, Rheinfelden/Switzerland	100.0
WILO Taiwan Company Ltd., New Taipei/Taiwan	100.0
WILO Tunisia SUARL, Tunis/Tunisia*	49.0
WILO Ukrainia t.o.w., Kiev/Ukraine	100.0
WILO USA LLC, Rosemont, IL/USA	100.0
WILO Vietnam Co. Ltd., Ho Chi Minh City/Vietnam	100.0
WILO-Mitarbeiter-Beteiligungsgesellschaft mbH, Dortmund/Germany***	100.0
WILO (Changzhou) Pump Co., Ltd, Changzhou/China	100.0
WRI-TECH Industrial Serv. B.V., Uitgeest/Netherlands	100.0

* These companies were not included in the 2022 consolidated financial statements.
** This is a joint venture accounted for using the equity method.
*** These companies waive disclosure in accordance with section 264 (3) HGB.

INDEPENDENT AUDITOR'S REPORT

To WILO SE, Dortmund

Audit opinions

We have audited the consolidated financial statements of WILO SE, Dortmund, and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2022, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the financial year from 1 January to 31 December 2022 and the notes to the consolidated financial statements, including a summary of the significant accounting policies. In addition, we have audited the Group management report of WILO SE for the financial year from 1 January to 31 December 2022.

The Group management report contains references that are not required by law and that are marked as unaudited. In accordance with German statutory provisions, we have not audited the content of these references and the information to which they refer.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2022 and of its financial performance for the financial year from 1 January to 31 December 2022.
- the accompanying Group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. The Group management report contains references that are not required by law and that are marked as unaudited. Our audit opinion does not cover these references or the information to which they refer.

Pursuant to Section 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

Basis for the opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Section 317 HGB and the German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) [Institute of Public Auditors in Germany]. Our responsibilities under those requirements and principles are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements and of the Group management report" section of our independent auditor's report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Responsibilities of management and the Supervisory Board for the consolidated financial statements and the Group management report

Management is responsible for the preparation of consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. Furthermore, the legal representatives are responsible for the internal controls that they deemed necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (e.g. manipulation of accounts, misappropriation of assets) or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, management is responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, management is responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the Group management report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the Group management report.

Auditor's responsibilities for the audit of the consolidated financial statements and of the Group management report

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the Group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the Group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this Group management report.

We exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the consolidated financial statements and of the Group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinions. The risk of not detecting material misstatements resulting from fraud is higher than the risk of not detecting material misstatements resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.

- obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the Group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.

- evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.

- conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the Group management report or, if such disclosures are inadequate, to modify our respective opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- evaluate the presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the Group management report. We are responsible for the direction, supervision and performance of the Group audit. We bear sole responsibility for our opinions.

- evaluate the consistency of the Group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.

- perform audit procedures on the prospective information presented by management in the Group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal controls that we identify during our audit.

Essen, 16 March 2023
KPMG AG
Wirtschaftsprüfungsgesellschaft

Dr. Hain	Huperz
Wirtschaftsprüfer	Wirtschaftsprüfer
[German Public Auditor]	[German Public Auditor]

REPORT OF THE SUPERVISORY BOARD

The Supervisory Board monitored the work of the Executive Board on an ongoing basis while providing intensive support and advice throughout the 2022 financial year. At regular meetings, the Supervisory Board was kept fully informed about the development of the Wilo Group's business and all factors affecting it. Members of the Supervisory Board received regular written reports from the Executive Board on the current business situation and on current and planned Group activities. Measures requiring the approval of the Supervisory Board were discussed at length and submitted to the Supervisory Board for resolution. In addition, there was a direct exchange of information between the Chairman of the Supervisory Board and the CEO on important matters arising between the meetings.

The Supervisory Board held four regular meetings in person and passed one extraordinary resolution in 2022. Participation took the form of video and telephone conferences in some cases.

The Supervisory Board meeting on 11 April 2022 focused on the impact of the situation in Ukraine and Russia as well as the annual financial statements and the consolidated financial statements for the year ended 31 December 2021. The business performance of the Wilo Group was discussed in detail, particularly in light of the global economic situation. The Executive Board was authorised to raise additional funds of between EUR 150 million and EUR 200 million via a traditional promissory note in order to refinance a short-term credit facility. The conclusion of a profit transfer agreement between the tax group parent WILO SE and the tax group subsidiary ABIONIK Group GmbH was approved. The Supervisory Board also resolved to reappoint the current members of the Executive Board and to amend their employment contracts. Martin Cremer was appointed as a new member of the Audit Committee.

At its meeting on 7 June 2022, the Supervisory Board primarily discussed the Wilo Group's 150th anniversary, the current economic situation including M&A activities, and the current supply chain situation. The Supervisory Board also approved the acquisition of FSM Frankenberger GmbH & Co KG (including its operating premises) and WSM Walower Stahl- und Maschinenbau Gesellschaft mit beschränkter Haftung. In addition to the authorisation to raise additional funds that was granted on 11 April 2022, the Executive Board was authorised to issue senior notes with a maximum volume of EUR 50 million as part of a US private placement.

By way of an extraordinary resolution passed in writing in September 2022, the Supervisory Board approved the raising of additional funds of EUR 24 million and EUR 45 million respectively under the refinancing measures authorised on 11 April 2022 and 7 June 2022.

At its meeting on 26 October 2022, the Supervisory Board dealt with current economic developments, with the focus on the results of the annual international executive conference. Lars Roßner was appointed as an additional member of the Audit Committee and Martin Cremer was appointed as Deputy Chairman of the Audit Committee.

At its meeting on 14 December 2022, the Supervisory Board approved the integrated planning for 2023–2027 and discussed the current economic situation and the status of current construction projects.

Both the consolidated financial statements with the management report for the 2022 financial year presented with the annual report and the separate financial statements of WILO SE for the 2022 financial year, each comprising an income statement, statement of financial position and notes to the financial statements, have been audited and issued with an unqualified audit opinion by KPMG AG Wirtschaftsprüfungsgesellschaft, Essen, Germany. The auditor also ascertained that the internal control system (ICS) established by the Executive Board, the internal audit system and the compliance system are adequate and capable in their design and use of recognising developments that would jeopardise the company's continued existence in good time.

The above documents were submitted to the Supervisory Board for examination in good time and subjected to comprehensive scrutiny. The auditor took part in the discussion of the annual financial statements and the consolidated financial statements at the meeting of the Audit Committee on 27 March 2023 in order to report on key audit findings and provide comprehensive supplementary information. The Audit Committee performed preparatory work for the Supervisory Board and, in particular, also appraised the findings of the risk management system and the internal control system.

There are no other committees.

After thorough examination and discussion of the annual financial statements, the consolidated financial statements, the management report and the Group management report, the Supervisory Board endorsed the opinion of the auditor and approved the annual financial statements and the consolidated financial statements prepared by the Executive Board in its meeting on 19 April 2023, which was also attended by the auditor. The annual financial statements were thereby adopted. The Supervisory Board also approved the proposal for appropriation of the net profit of WILO SE.

There were no changes to the composition of the Executive Board in the year under review. There were the following changes to the composition of the Supervisory Board:

Prof. Dr. Michael ten Hompel stepped down as a member of the Supervisory Board effective 1 October 2022.

In the interests of good, responsible corporate governance, WILO SE and its executive bodies voluntarily comply with the current version of the Corporate Governance Code. There are departures from the Code relating to the specific nature of the company (primarily as to the preparation and holding of Annual General Meetings, the publication of reports, Supervisory Board committees) on the one hand and the individual disclosure of Executive Board and Supervisory Board remuneration on the other, in which connection the statutory provisions are complied with. Detailed information on the few departures from the Code was again compiled in full for banks and institutional partners in a declaration of compliance in line with section 161 of the German Stock Corporation Act.

Subject to the above qualification, WILO SE intends to continue to comply with the recommendations of the Government Commission on the German Corporate Governance Code in future.

The coronavirus pandemic and the situation in Ukraine and Russia had a pronounced impact on the Wilo Group's business and its activities in 2022. Despite these exceptionally challenging circumstances, Wilo can look back on a highly successful financial year in which it continued on its profitable growth path.

The Supervisory Board wishes to thank the members of the Executive Board, the employees and employee representatives of the Wilo Group for their work and the exemplary commitment and outstanding loyalty that has been a vital factor in this success.

Dortmund, April 2023

The Supervisory Board
Lars Roßner
Chairman

GLOSSARY

Cash flow
Net inflow of cash generated from business activities.

Cash pooling
Instrument for optimisation of liquidity management. Daily liquidity equalisation is performed within the Group by the parent company, whereby excess liquidity is siphoned from Group companies to cover liquidity shortages.

Corporate foresight process
In the corporate foresight process, both risks and opportunities are derived and analysed from forecast future developments with respect to the global megatrends, and hence systematically taken into account in the ongoing development of corporate strategy.

EBIT/EBIT margin
EBIT is earnings before net finance costs and income taxes. The EBIT margin describes the ratio of EBIT to net sales.

EBITDA/EBITDA margin
EBITDA is earnings before net finance costs, income taxes and depreciation and amortisation. The EBITDA margin describes the ratio of EBITDA to net sales.

IFRS (International Financial Reporting Standards)
Collective term for all rules and interpretations of international financial reporting standards relevant to the Wilo Group: IAS (International Accounting Standards), IFRS (International Financial Reporting Standards), SIC rulings (Standing Interpretations Committee) and the interpretations of the IFRS Interpretations Committee.

Industry 4.0
The Industry 4.0 future project is part of the German government's high-tech strategy. Industry 4.0 stands for the fourth industrial revolution, in which the intelligent networking of machinery, products and storage systems finds its way into industrial value added. They exchange information autonomously, trigger actions and control each other independently. This allows the fundamental improvement of industrial processes in production and logistics.

Megatrend
This term describes far-reaching, long-lasting trends that have a significant impact on society, the economy, the environment and technology. Megatrends are long-term, i.e. observable over a period of decades, and tend to have a global effect. As part of our strategic management process, megatrends enable us to take a systematic view of the future and also help us identify opportunities and risks which inform the overall strategy.

Netting
Offsetting of receivables and liabilities between two or more partners. Payment, foreign-currency, credit or liquidity risks between partners can be reduced by way of netting agreements.

Established markets
For the purpose of external reporting, the Wilo Group differentiates between established markets and growth markets. As at 31 December 2022, the established markets comprised the European nations, the USA and Canada.

Second-source suppliers
In the materials management and manufacturing sector, the term second-source supplier (secondary supplier) is used to describe one or more alternative suppliers of a product that is structurally identical and therefore interchangeable or compatible with another product.

Smart home
This umbrella term refers to the intelligent networking of housing technology (heating, lighting, air-conditioning, safety and security technology, etc.) and household appliances and the networking of consumer electronics components (audio/video). Intelligent management of these components using the internet and/or mobile devices can bring about significant efficiency gains in day-to-day life and increase comfort and safety.

Smart urban areas
Wilo defines smart urban areas as metropolitan areas where the organisation, infrastructure and aspects of life are digitally and intelligently connected. A smart urban area uses state-of-the-art information and communication technology to improve people's quality of life. Intelligent, innovative infrastructures help to make mobility in conurbations more efficient, conserve resources and reduce negative effects on the environment.

Growth markets
For the purpose of external reporting, the Wilo Group differentiates between established markets and growth markets. As at 31 December 2022, growth markets comprised China, India, Korea, the Southeast Asian nations, Australia and Oceania, Russia, Belarus, the Caucasian nations, Turkey, the Middle East, Africa and Latin America.

MEDIA

This Annual Report was published on 24 April 2023 in German and English. Both versions can be downloaded at www.wilo.com.

The annual report is also available online

desktop mobile

www.wilo.com/annualreport2022

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WILO SE
SV Veranstaltungen

Note to our readers
Openness, equal opportunity, integration and inclusion are a matter of principle for Wilo. We want everyone to see themselves reflected in our words. At the same time, readability and comprehension are just as important as diversity, including in language. Accordingly, we have decided to use the generic masculine form in our publications on the whole. This expressly includes all genders.

Wilo uses FSC®-certified paper to produce its print products, thereby supporting sustainable forest management. Printing of this report was climate-neutral.

www.bluegreenprint.de

WILO SE

Wilopark 1
44263 Dortmund
T +49 231 4102-0
F +49 231 4102-7363
www.wilo.com