NEW PERSPECTIVES

ANNUAL REPORT 2023

TIME FOR A TURNAROUND!

WHY WE NEED TO TAKE A NEW LOOK AT GLOBAL DEVELOPMENTS.

CONTENTS

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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 about **9,000 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

		2023	2022	2021	2020	2019
Net sales	EUR million	1,974.8	1,885.7	1,651.9	1,451.5	1,477.8
Net sales growth	%	4.7/10.4*	14.2	13.8/15.1*	-1.8/1.8*	1.0
EBITDA	EUR million	216.8	196.7	181.1	141.2	180.1
Cash flow from operating activities	EUR million	163.6	42.1	126.7	161.5	168.5
Cash	EUR million	392.6	264.5	189.9	189.0	166.1
Capital expenditure**	EUR million	198.6	155.3	172.3	120.9	155.7
R&D costs	EUR million	77.7	70.6	64.8	63.8	63.2
(as % of sales)	%	3.9	3.7	3.9	4.4	4.3
Equity	EUR million	962.6	930.9	836.8	764.9	792.4
Employees (annual average)	Number	8,974	8,457	8.200	7,836	7,749

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

NET SALES

EUR 1,974.8 million

Despite a geopolitical environment full of risks and challenges and a significant global economic slowdown, the Wilo Group continued on its profitable growth path with net sales growth of 4.7 percent. Net sales increased to EUR 1,974.8 million. Adjusted for currency effects, growth even amounted to 10.4 percent.

EBITDA

EUR 216.8 million

Wilo generated record EBITDA of EUR 216.8 million. Profitability – as measured by the EBITDA margin – improved year-on-year to 11.0 percent. Consolidated net income also rose significantly, improving by EUR 14.1 million to EUR 75.2 million. This corresponds to an increase of more than 20 percent.

EMPLOYEES

8,974

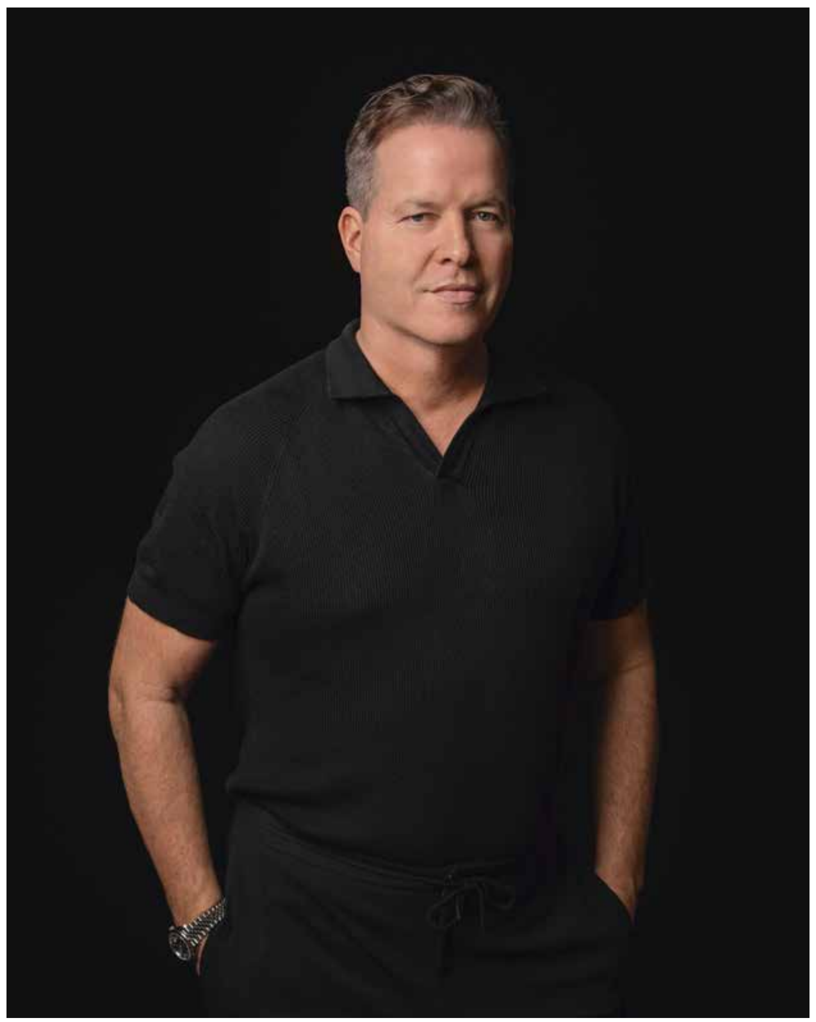
The versatile skills and personal commitment of all employees are the foundation and driving force behind the Wilo Group's economic success. An annual average of 8,974 employees around the world contributed to the new net sales record and the successful conclusion of the financial year.

CASH FLOW

EUR 163.6 million

The cash flow from operating activities increased by more than EUR 120 million year-on-year. At EUR 163.6 million, it exceeded the previous year's figure by a significant margin. Targeted measures to optimise the working capital worldwide contributed to this substantial improvement.

TIME FOR A TURNAROUND! A CALL FOR A NEW PERSPECTIVE ON GLOBAL DEVELOPMENTS



Oliver Hermes, President & CEO of the Wilo Group

LADIES AND GENTLEMEN,

Our world has changed radically in recent years. From the COVID-19 pandemic to Russia's invasion of Ukraine to the escalating Middle East conflict and the increasingly tangible effects of climate change: What these manifold highly complex crises have in common are their far-reaching consequences beyond the directly affected societies or economic systems and the lack of quick and easy solutions.

Nevertheless, the Wilo Group continued on its sustainable, profitable growth path in 2023. Although general economic conditions worsened over the course of the year, we generated net sales of around EUR 2 billion and operating earnings before interest, taxes, depreciation and amortisation (EBITDA) of EUR 217 million in the past financial year.

We thus achieved another record for net sales and earnings in 2023. This excellent development is due firstly to the tireless efforts of our approximately 9,000 employees, who work every day to make our multinational technology group Wilo successful.

Secondly, this success is based on our long-term, progressive corporate strategy and its consistent implementation. This strong strategic framework is part of what makes the Wilo Group an extraordinarily resilient and crisis-proof company today. While our strategy has long been based on five global megatrends, we are now going a decisive step further: In future, we will prioritise our sustainability strategy, and all other functional corporate strategies will be subordinate to it. The Wilo Group is thus once again leading the way as a sustainability pioneer.

The year 2023 was once again characterised globally by the geoeconomic turnaround that we are currently experiencing as a direct consequence of the omnipresent geopolitical turnaround. Old alliances are crumbling and multinational collaborations are having to readjust. "Decoupling" and "diversification" are the order of the day: Protectionist instruments – such as trade barriers, sanctions and technology embargoes – are the result of politically driven decoupling and diversification of supply chains, with the extremely challenging goal of restructuring them.

Who is the loser of the geoeconomic turnaround?

In a phase of hyper-globalisation, the industrialised countries of the Global North intertwined themselves economically with the countries of the Global South. What followed this intertwining, which lasted around 30 years, was nothing less than a political paradigm shift: Ideas like nearshoring and friendshoring are intended to bring value creation back to the domestic realms of the Global North.

If the Global North reduces its involvement in the Global South, the consequences would be obvious. The North secures its critical infrastructure, while the South is thrown back into a pre-globalised economic order. The North benefits from the geoeconomic turnaround, the South bears the consequences. In short: The North wins, the South loses.

Really? Of course, geoeconomic correlations are not that easy to explain. The hyper-globalisation of the past decades cannot be easily reversed. And in the political sphere, it is often forgotten that there can never be an “end-to-end” independence of national economies with complex systems. So it is no surprise that the politically motivated readjustment of supply chains is not having the desired effect. On closer inspection, there are huge gaps between aspiration and reality.

One example is the supply bottlenecks in the sourcing of medical and pharmaceutical products in Europe. The aim was to eliminate shortages of critical goods and fill gaps in procurement or our own production. To this day, availability is still not guaranteed for some important products. Instead, there are still considerable dependencies: Around 70 percent of all medicines produced in Europe contain active ingredients from China – a country which, incidentally, is by definition part of the Global South, although it certainly occupies a special position within it.

The discrepancy between political desire and reality is particularly noticeable in the procurement of raw materials. Here too, China – as the world’s largest producer of rare earths – is in a strong position. It is estimated that around a third of the world’s reserves are found in China. These metals are needed for almost every high-tech product. This makes the whole world dependent on the People’s Republic to an almost insurmountable extent – especially the high-tech Global North, which is facing challenges such as the mobility transition.

Instead of the secure supply of critical infrastructure and greater independence, the Global North is experiencing a new, long-term crisis: It is emerging from various sources, for instance the World Investment Report 2023 published by the United Nations, that foreign direct investment in North America, and Europe especially, is in decline and shifting to the Global South. A textbook example of this can be seen in the deterioration in Germany, where the spectre of de-industrialisation has long been looming.

These example show clearly that the Global North is already the loser of the geoeconomic turnaround. The security of critical infrastructure is just as elusive as the independence of supply chains. The Global North should devote much more attention to its attractiveness as a location for investors. After all, its goal of securing critical infrastructure and being resilient and independent can only be achieved if it has its own key industries.

So is the Global South the winner of the geoeconomic turnaround? In fact, there are several reasons to believe that the countries of the southern hemisphere will not be thrown back into a pre-globalised, as insinuated earlier, but will experience a genuine revival. This is exemplified by the BRICS and BRICS plus alliance in which several countries of the Global South and Russia have organised themselves to jointly represent their interests.

Why is the Global South the long-term winner of the geoeconomic turnaround?

It is clear that the rise of the Global South cannot be slowed by the spread of protectionism. This assumption is based on the global megatrends. The Wilo Group has defined five of these as particularly relevant as part of its strategic long-term planning: urbanisation, water shortage, globalisation 2.0, climate change and energy shortage. Digital transformation is a key factor in dealing with the challenges posed by the megatrends.

Three examples illustrate particularly well that the megatrends have a different impact in the Global South than in the Global North.

CLIMATE CHANGE is probably one of the greatest challenges of our time and is a global task. However, the industrialised countries of the Global North bear the main responsibility for global warming. A study by the University of Leeds even came to the conclusion that the North would have to pay the South USD 170 trillion if it wanted to compensate financially for its excessive emissions. The Global South is bearing the brunt of the fight against climate change. Take Jakarta, for example: The capital of Indonesia is already partially below sea level, which will continue to rise in the coming years. In view of this development, the government of the island state has decided to build a new capital: Nusantara. A megaproject in which the planners have consistently focussed on sustainability and smart infrastructure right from the outset. I am therefore delighted that Wilo will also be contributing to the development of Nusantara. In a letter of intent, we have agreed on strategic cooperation with the Indonesian government.

URBANISATION is on the advance. When you consider that around 80 percent of the world’s population lives in the Global South, the extent of urbanisation in the countries of the southern hemisphere

THE **GLOBAL SOUTH** IS THE WINNER OF THE GEO-ECONOMIC TURNING POINT.

quickly becomes clear. To date, the United Nations counts 33 cities worldwide with more than 10 million inhabitants. By 2050, another 14 cities will have broken past this mark – and only two of them are in the Global North. To meet the demand for urban space, at least eleven large-scale planned cities will be built worldwide in the coming years and decades, including the aforementioned Nusantara in Indonesia as well as Neom in Saudi Arabia, Tashkent New City in Uzbekistan and Alatau in Kazakhstan. Almost all of these "future cities" can be found in the Global South and stand for visionary, courageous concepts that are sorely lacking in the Global North. Wilo will make a significant contribution here, too: It is already clear that we will be supplying many of these projects with products, systems and solutions. Our expertise is in great demand.

The **WATER SHORTAGE** is also worsening. According to UNICEF, 450 million children are already living in areas with a high or extremely high level of water insecurity. This is equivalent to one in five children worldwide. In ten African countries, 190 million children are particularly at risk because they have an inadequate supply of water, sanitation and hygiene (WASH), a high burden of diseases caused by dirty water, and high risks due to climate change. Water shortage also has consequences for food security, as a functioning agricultural sector depends on water. Egypt proves that the Global South is capable of tackling these problems with innovative large-scale projects: The Toshka project aims to make a total of one million hectares of desert usable for agriculture. In this way, the North African country is significantly improving its water and food supply and making itself more independent. Almost 400 high-efficiency Wilo split case pumps are being used in this unprecedented project.

So is the Global South the winner of the geoeconomic turnaround – despite the huge challenges associated with the megatrends? In fact, it is probably precisely because of the megatrends that it is on course for historic success.

Of course, the megatrends will not only bring increased prosperity to the inhabitants of the countries in the Global South. As a result of the water shortage in Africa, for example, millions of people are suffering. But for the countries concerned, the megatrends as a whole bring unprecedented dynamics. They are increasingly turning the countries of the southern hemisphere into active players on the economic and political stage of a multipolar world.

Large-scale projects such as Toshka and Nusantara not only revitalise regional economies, but also provide modern living, working and social spaces. In addition, there are locational advantages over the Global North, such as better availability of skilled labour, a higher abundance of natural resources and fewer regulations.

In the context of the geoeconomic turnaround, old alliances are crumbling and new multinational cooperations are emerging. The Global South has the unique opportunity to help shape the transformation in its favour and to secure its independence and influence in the long term. We can be sure that it will seize this opportunity.

What does this development mean for the Global North?

It is obvious that this process of change will prompt decision-makers in the Global North to rethink their approach. A different view of the Global South is urgently needed.

Instead of a policy that divides the world into "good" and "evil", the Global North, and above all Europe, must now put its own house in order and ensure that its economic and industrial base is not destroyed, which could lead to a dramatic loss of prosperity.

In the long term, however, we must see the countries of Africa, Asia and South America as independent players in the global economy. They have their own interests, which they will assert confidently. Partnerships on an equal footing are needed between the countries of the North and South in which the interests of the other side are taken seriously.

The Wilo Group strengthened its global network in 2023

The Wilo Group has long been strongly represented in the countries of the Global South. We used the year 2023 to significantly expand our commitment once again and to network market partners from the North and South more tightly.

In May, for example, we organised a business conference entitled "Building Bridges – Africa". Together with around 100 guests, we focused on the potential of the emerging continent of Africa as part of this event.

We invested heavily in the implementation of our "region-for-region" strategy again in 2023. In July, we broke ground for the expansion of our plant in Dubai (UAE) and opened our expanded regional hub in Nairobi (Kenya). In August and September, we celebrated the opening of two state-of-the-art, high-tech production sites in Kesurdi (India) and Changzhou (China).

The Wilo Industry Conference 2023 took place in one of the smartest and most sustainable cities in the world. In Singapore, together with our high-ranking guests from business, politics, science and society, we explored the role smart urban areas will play in the world of tomorrow.

For the first time ever, Wilo and the German Sustainability Award Foundation awarded the International German Sustainability Award (Internationaler Deutscher Nachhaltigkeitspreis – IDNP) in November. The award recognises partnerships between German companies and those based in the Global South.

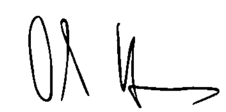
We took part in the 28th United Nations Climate Change Conference, COP28, in December. At the COP28 in Dubai, we drew particular attention to the need for sustainable water management.

On 15 December, we celebrated a real milestone in Wilo's commitment to sustainability. A groundbreaking ceremony marked the start of the construction of an innovative health centre at the Wilopark. The Health Cube will be the new focal point of our global health management.

The year 2023 was once again characterised by multiple crises and complex geopolitical and geoeconomic developments. The Wilo Group's business development this year shows once again that the consistent implementation of a strong strategy and – now more than ever – multilateral actions are required.

Those who build bridges, change perspectives and drive long-term and sustainable innovation will also be able to navigate safety through challenging times in the future. At the Wilo Group, we are very well prepared for this.

Yours,



Oliver Hermes
President & CEO of the Wilo Group

READ MORE CEO STANDPOINTS
ON WILO.COM

NEW PERSPECTIVES

URBANISATION is on the advance around the world. The proportion of the population living in cities will increase to 70 percent by 2050. This development will be driven primarily by the Global South and will impose enormous requirements on countries and societies to build the necessary critical infrastructure to ensure that the population is supplied with sufficient resources. Wilo delivers products, systems and solutions to handle these tasks.

THE WORLD'S POPULATION is growing rapidly and will increase to around 10 billion people by 2050. Cities are growing even more quickly – especially in Asia and Africa. These regions in the Global South are seeing new megacities emerge, while this development in Europe and North America is progressing more slowly and is more likely to result in the densification of existing urban regions.

Wilo's long-term strategy is based on five megatrends: urbanisation, water shortage, globalisation 2.0, climate change and energy shortage. These are supplemented by the digital transformation, which is a key factor in dealing with the challenges that the megatrends entail.

The development of cities plays a central role in relation to the other megatrends. Cities are often the driving force behind economic development. The concentration of companies, services and jobs in one place stimulates progress and economic growth. Highly qualified talents are increasingly drawn to urban centres. This promotes the knowledge society and creates an environment that fosters innovation and creativity. Today, the engines of this development can be found in the Global South. But increasing urbanisation is also accompanied by significant challenges.

Around 10 billion

people are expected to be living on Earth in 2050

Climate change is without doubt one of the greatest challenges of our time, and combating it will require a global effort. While the Global North bears the major responsibility for global warming, it is primarily the Global South that has to deal with its effects. A striking example of this is Jakarta, the capital of Indonesia, where parts of the city already lie below sea level today and which faces a massive threat from the impact of climate change. In response to this, the Indonesian government is planning to build a new capital city, Nusantara, which will lie high enough to be protected from rising water levels.
The government of Indonesia and Wilo have signed a memorandum of understanding on defining the strategic cooperation for developing the visionary planned city.

Cities are a major contributor to climate change, which is precisely why they also play a key role in combating it. Urban regions are responsible for a good 70 percent of global carbon emissions. However, this means they also offer by far the largest potential savings. The need for intelligent energy supply systems and improved energy efficiency in cities are therefore crucial in the fight against climate change.

70 %

of people will live in cities in 2050

WATER is another critical resource. Water shortages are increasingly posing a global problem. Around one quarter of the world's population has no access to clean fresh water. This number is expected to total 2.4 billion by 2050. According to UNICEF, 1.4 billion people are already living in areas with a high or extremely high level of water insecurity even today. Here, too, it is the Global South that is particularly hard hit. This is why Wilo has set itself the goal of providing better access to clean water for 200 million people by 2030.

Of the 33 current megacities, 12 are located in regions facing extremely high water uncertainty. This number is likely to rise to 19 by 2050. The massive urbanisation taking place in the Global South will require significant investment in critical infrastructure. One of the greatest challenges for growing cities is the water supply. Ensuring a sustainable and equitable water supply is key for the quality of life and

Singapore has established itself as one of the world's leading smart cities.

health of urban populations. Access to clean water remains a fundamental challenge, especially in the rapidly expanding cities of the Global South. To guarantee an appropriate supply for the people living there, it is estimated that USD 11.7 billion will have to be invested in the coming decades in projects to improve the water infrastructure – projects in which Wilo will also play a part.

AROUND THE GLOBE, there are numerous examples of how cities have been able to achieve great success using innovative approaches. For example, Dubai has reduced its water loss due to leaks from 42 percent in 1988 to around 5 percent today thanks to massively improved water management. This puts the emirate in a significantly better position than cities in North America, for example, where losses average 15 percent.

Singapore is striving to be completely self-sufficient in terms of water by 2061, with 85 percent of its freshwater to be provided through desalination and recycled "NEWater". The Southeast Asian city state has generally established itself as one of the leading smart cities in the world by using technology and innovation to improve life in the city and organise it more efficiently. From intelligent traffic systems, through sustainable urban development to e-government services, the city has positioned itself at the leading edge of developments in many areas.

Singapore is thus an outstanding example of what can be achieved by using smart solutions in the areas of energy, water and infrastructure. The Wilo Group held its annual industry conference in Singapore in 2023. The event brought together Wilo's expertise in the field of smart and sustainable water solutions and Singapore's role as a real-world urban laboratory under the motto "Smart Urban Areas – Connecting Minds for a Multilateral World". It is only with the help of innovative technology and through digital transformation that it will be possible to turn urban regions into smart urban areas and thus create the necessary conditions for successfully combating climate change and ensure that the cities of the future are liveable, healthy places.

The challenges associated with the megatrends will also place cities in particular under strong pressure to adapt. Only the development into smart cities and smart urban areas offers the opportunity to design sustainable urban areas, use resources efficiently and improve the quality of life. The key to success lies in integrating technology, people-centred design and sustainable urban planning.

Wilo offers products and systems that can make a significant contribution to this sustainable urban development and develops made-to-measure, energy-efficient and intelligent solutions for meeting the great variety of challenges in these areas.

2.4

billion people in cities will suffer from a shortage of water in 2050

THE ANNUAL REPORT
ONLINE AT WILO.COM

Water is precious, especially in the desert – Dubai has been able to minimise its water losses significantly through massively improved water management.

WITH THE HELP OF THE **DIGITAL TRANSFORMATION,** CITIES WILL BECOME SMART CITIES THAT ARE FIT FOR THE FUTURE.

MEGACITIES

Cairo is already a megacity today – and the metropolis on the Nile will be the largest city in Africa in 2050.

AROUND 2.5 BILLION more people will live in cities by 2050 than today, many of them in large and very large cities. The majority of these urban areas are located in the Global South.

New Delhi, the capital city of India, will in all likelihood be the largest city in the world in 2050.

BASED ON CURRENT PROJECTIONS, the number of megacities with more than 10 million inhabitants is set to increase from 33 today to 47 in 2050. Over the same period, the number of metropolises with a population of between 4 and 10 million will rise from 78 to 125. This development is taking place primarily in the developing and emerging countries. Cities such as Dar es Salaam, Nairobi, Kinshasa, Lagos and Khartoum are seeing enormous population growth. On the 14 new megacities, 12 will be in the Global South. In the Global North, only London and Chicago will break the 10-million threshold for the first time in the next few decades. The Indian capital New Delhi will already replace Tokyo as the largest city in the world towards the end of this decade. The most populous cities in the world in 2050 are expected to be New Delhi, Dhaka, Tokyo, Cairo and Mumbai. Wilo enjoys a strong presence in all of these regions and is thus well prepared for the growth of the megacities.

47

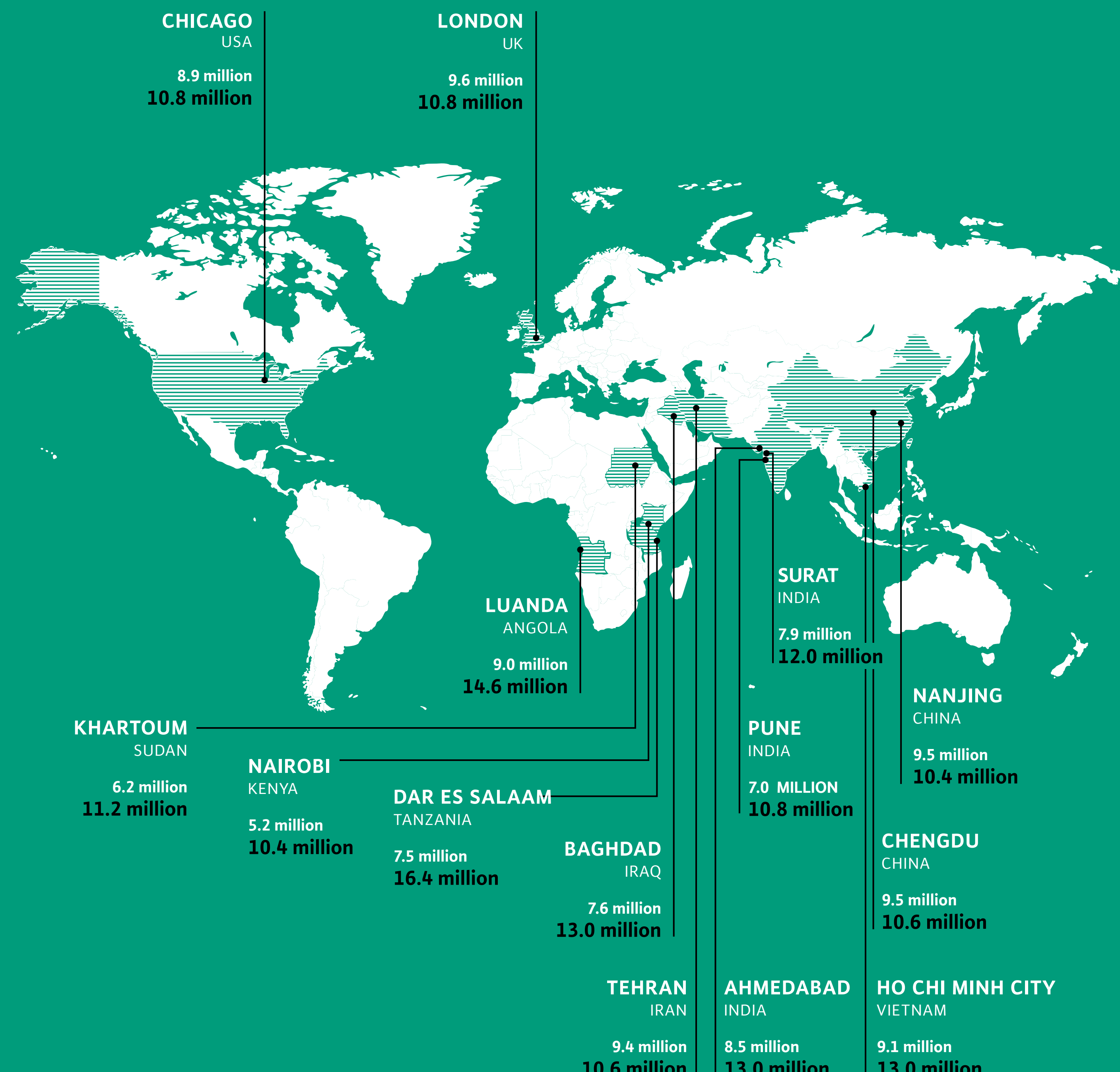
Number of megacities with more than 10 million inhabitants in 2050

READ MORE ABOUT MEGA-CITIES ON WILO.COM

Where new megacities are emerging

INHABITANTS
2022
2050

It is expected that 14 cities will have passed the 10-million inhabitant mark for the first time by 2050. Twelve of them are in the Global South.



CASE STUDY

LONDON
UNITED KINGDOM

To be able to continue providing London, the constantly growing metropolis with millions of residents, and its surrounding areas with a reliable water supply in the future, the water utility company Thames Water is upgrading a large number of its pumping stations. Wilo has been selected as the preferred partner for this project.

WATCH A VIDEO ABOUT THIS CASE STUDY ON WILO.COM

London is one of the most dynamic metropolises in the Global North and is set to be the only city in Europe to break through the 10-million population mark in the coming years.

THAMES WATER is Europe's largest water utility company and supplies water to more than 18 million people in London and South East England. It is facing significant challenges on account of its growing population and increasingly extreme weather conditions. Faced with growing demand, the existing sewage infrastructure is reaching its limits. This is why Thames Water is planning to modernise more than 4,000 of its roughly 9,000 sewage pumping stations in the next few years. Wilo has been selected as the preferred supply and installation partner for this ambitious project. Among other things, Wilo will deliver and install the Wilo-Rexa PRO – a solution that is robust, reliable and energy-efficient. Wilo will undertake the planning, delivery, installation and commissioning. The full delivery of the project will thus be provided from a single source, with Wilo acting as a total solution provider. What's more, Wilo is set to implement a second major project in the United Kingdom: As part of the Strategic Pipeline Alliance (SPA), it will install around 200 pumps a year in order to pump water from areas with abundant water and a small population to districts where the situation is the exact reverse.

8,382 km²

– the total area of the London metropolitan region

CASE STUDY

NAIROBI
KENYA

Kenya is the strongest economy in East Africa and, on a global scale, a pioneer in the use of renewable energy. The capital city of Nairobi is a rapidly growing metropolis that is also called the "Silicon Savannah" on account of the large number of IT companies it is home to.

READ MORE ABOUT WILO'S ACTIVITIES IN AFRICA ON WILO.COM

With its distinctive curves, CBK Pension Towers is a new landmark in Nairobi – and it is fitted with state-of-the-art pressure boosting and fire extinguishing systems from Wilo, as well as sustainable Wilo sewage disposal solutions.

Standing 27 storeys tall, **CBK PENSION TOWERS** is one of the most modern buildings in Nairobi and serves as a symbol of progress and economic strength. Since they were officially opened in 2022, the twin towers have combined offices and retail premises under one roof, thus providing space for business and commercial activities. In addition to the office areas, the skyscraper houses conference rooms and a currency museum. Modern pressure boosting and fire extinguishing systems from Wilo ensure a reliable water supply for the building, which also serves as the headquarters of the Central Bank of Kenya, while innovative Wilo solutions in the area of sewage disposal underscore the towers' sustainability. With its comprehensive and diverse usage concept, CBK Pension Towers sets new architectural standards in Kenya's capital city and thus symbolises the East African state's progress as it steps into the future. Kenya will generate all of its energy from renewable sources by 2030, and so many high-tech companies are already establishing a base in Nairobi today that the city is known as the "Silicon Savannah" – Africa's equivalent to Silicon Valley,

100 %

green energy in Kenya by 2030

PLANNED CITIES

Alatau, Kazakhstan

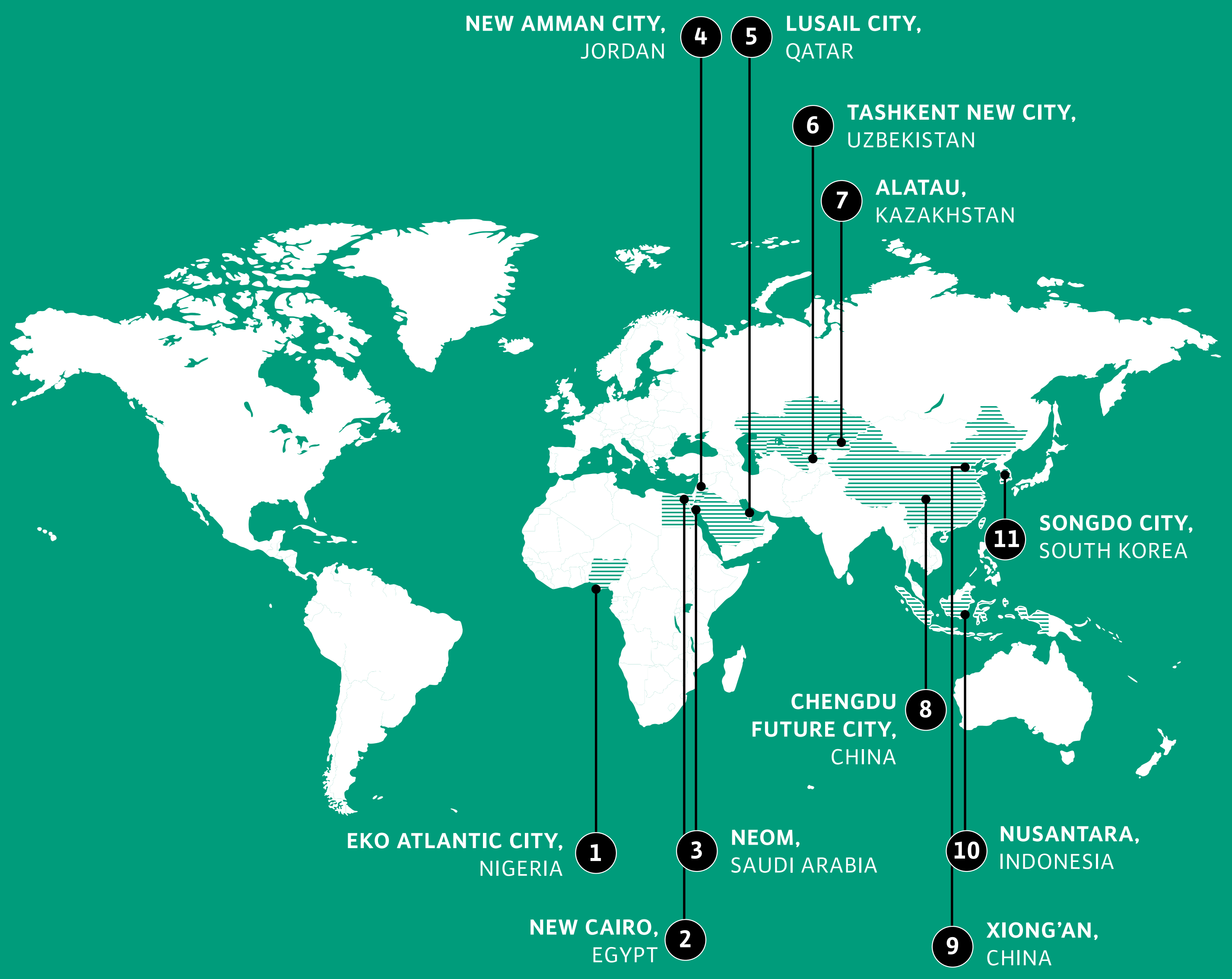
AROUND THE WORLD, new cities are being planned and built, especially in the Global South. Each one of them represents an important change in urban planning, combining the pursuit of modernisation, sustainability and economic progress with the ability to successfully tackle a wide range of urban challenges.

The presidential palace, which has been designed in the form of a Garuda – the mythological creature that is Indonesia's national symbol – will stand on an area covering 55 hectares in the heart of Nusantara.

PLANNED CITIES are not a modern invention. People have been building completely new cities on "green fields" for millennia. The goal has always been not only to create space, but to build the ideal city. Many cities that we now think of as having developed organically over time actually started out as planned cities, including New Delhi, Canberra, Berne, Islamabad and Washington D.C. Even today, new cities are being built all around the world. They are located in Africa or in Asia, in the desert or in the jungle, and are emerging from different cultures. They are underpinned by visionary concepts that, despite all their differences, share the same goal: smart, sustainable and high-quality environments for living and working. Wilo offers innovative products, solutions and systems that are being used in many of these metropolises of the future that are being created right now.

READ MORE ABOUT PLANNED CITIES ON WILO.COM

Planned cities – Blueprints for the future



With their smart and sustainable concepts, the planned cities that are emerging around the world are pointing the way to the future of urban planning.

CASE STUDY

NUSANTARA INDONESIA

With around 30 million inhabitants, Indonesia's current capital city Jakarta is one of the largest metropolises in the world. But climate change and overcrowding are choking the megacity. This is why the national government has decided to build a new capital: Nusantara.

Construction work for Nusantara has begun on Borneo, Indonesia's largest island. The city is already set to be inaugurated in 2024, with final completion scheduled for 2045.

NUSANTARA is an ancient Javanese word meaning "archipelago". The name of the new capital is fitting for a country that stretches across more than 17,000 islands. The plans for Nusantara comprise a green metropolis that will rely on renewable energy, where the traffic infrastructure will not get clogged up and people will be able to stroll and cycle along grassy paths. Nusantara is set to be a model of urban planning for a sustainable city, as well as boosting the economic growth and transformation of the island nation. Construction work has already begun. Wilo and the Nusantara National Capital Authority have signed a memorandum of understanding that will pave the way for a collaboration. Wilo is also participating in numerous tenders forming part of the overall project. Once the construction work is complete, Indonesia's new capital city, with the presidential palace modelled after the national symbol at its centre, will cover a good 2,500 square metres and be home to 2 million people.

29 billion
euros to be invested

2 million
residents (planned)

CASE STUDY

NEOM
SAUDI ARABIA

One of the largest and most ambitious urban planning projects of all time is being developed in north-west Saudi Arabia: NEOM. A city of the future and a centre for technology and free trade is set to emerge on an area covering more than 26,000 square kilometres.

The biggest single part of the NEOM project is the 170-kilometre-long "vertical skyscraper" called The Line. Construction work started in 2021.

NEOM is designed as a megacity that will combine start-of-the-art technology, sustainable energy and water supply systems, innovative methods of food production, advanced manufacturing processes and digital services. The planned city is part of the Saudi "Vision 2030", which aims to diversify the country's economy and reduce its dependence on oil exports. The city is intended to provide an attractive location for international investments and act as a magnet for skilled employees and scientists from around the world. Comprising investments estimated to be worth USD 500 billion, NEOM is one of the biggest projects of its kind in the whole world. Moreover, the planners and designers are placing the focus on sustainability with the goal of running the city completely using renewable energy and developing a new model for urban living space in the 21st century. Wilo has already won numerous tenders in the overall project and will supply products, systems and solutions, from pressure boosting and irrigation to sewage disposal.

100%

– the proportion of automated services planned

500 billion

– the value of the planned investments in US dollars

CASE STUDY

TASHKENT NEW CITY UZBEKISTAN

The idea behind the Tashkent New City urban planning initiative is to add around 230 square kilometres of smart and sustainable districts to the capital city of Uzbekistan. A special focus will be placed on green corridors, energy efficiency and future-proof traffic concepts.

Tashkent has become a living lab for modern architecture. Today, more than 2.5 million people live here.

IN MARCH 2023, the president of Uzbekistan, Shavkat Mirziyoyev, laid the foundation stone for the construction of Tashkent New City. It will cover around 6,000 hectares and serve as an addition to the existing capital. It is planned that a million people will live and work in the new city in the future. The project is intended to give the Uzbek economy a powerful and long-term boost to growth while also providing a blueprint for sustainable and green urban planning. A "trigeneration station" will generate especially efficient electricity along with heating in the winter and cooling in the summer. And the new city is also forging innovative paths in water management. The plan is to halve the city's water consumption by using water-saving technologies. Wastewater will be thoroughly treated and reused for irrigation and other purposes. Wilo will manufacture made-to-measure products and systems for these applications that satisfy the highest demands for sustainability and efficiency. The Uzbek government and Wilo signed a memorandum of understanding on strategic cooperation in 2023.

1 million

new inhabitants are set to live in the city

CASE STUDY

ALATAU
KAZAKHSTAN

To the north of the Kazakh metropolis Almaty and along the route to Konaev is Alatau, an emerging special economic zone. Around 2 million people are set to live and work here by 2048.

Alatau is planned as a special economic zone along the New Silk Road and is intended to attract international investments and strengthen economic cooperation with China.

ALATAU was called “G4 City” in the planning stage. The four Gs stood for Gate, Golden, Growing and Green City – four structurally integrated, unique smart cities that are being developed north of Almaty. As a business and finance centre, the “Gate District” will be the gateway to the capital. The “Golden District” will include sports, health and education facilities. The “Growing District” is planned as a modern industrial zone. And the “Green District” will be a tourism and entertainment centre. Together, these new intelligent cities will offer the best possible conditions for strong economic growth and a high quality of life. The plans of the Kazakh government envisage that the four cities will be completed by 2048, by which time they will accommodate a population of around 2 million people. In addition, there are plans to upgrade the banks of Kapchagay Reservoir accompanied by the implementation of modern wastewater treatment projects. Wilo is involved in the Alatau projects, offering a variety of applications from drainage stations to building services.

1 million

new jobs are expected to be created by Alatau

WATER – THE BASIS FOR LIFE

CLEAN WATER and adequate nutrition are the foundations on which every human society is built. Guaranteeing security of supply already presents many places with major challenges today, not least in the rapidly growing metropolises that are home to millions of people. Wilo offers solutions for tack-ling them.

CASE STUDY

THE IMPORTANCE of a secure supply of food and water for the inhabitants of cities cannot be overestimated. This is all the more relevant in light of the fact that, according to the United Nations World Water Development Report, around 2.4 billion people in cities are expected to have inadequate access to clean water in 2050. Half of the global population living in cities could be affected by a shortage of water by 2050. This problem will be exacerbated by the increase in water consumption in cities and, at the same time, the enormous loss of water due to outdated infrastructure. Many cities suffer from a total lack of access to clean drinking water as well as inadequate sewage disposal and treatment.

In the Egyptian Toshka project, Wilo products and systems are helping to turn desert into land for agricultural purposes.

New technologies, intelligent water management systems and innovative engineering solutions can help to minimise water losses and improve the efficiency of water usage. In Morocco, for example, the Sebou dam is being connected to the Sidi Mohamed Ben Abdellah dam as part of the national water plan. Wilo is supplying 12 vertical turbine pumps, each with an output of 4.5 megawatts, for the machinery for the two pumping stations that are required. The primary aim of the project is to secure the supply of drinking water for the metropolises of Rabat and Casablanca as well as the surrounding areas and to reduce the structural water deficit.

In addition to water supply, food security is of crucial importance in urban areas. Access to adequate, safe and nutritious food is essential for the health and well-being of city dwellers. Urbanisation and population growth are increasing the pressure on the food supply, thereby underlining the need for sustainable and efficient food production and distribution.

Wilo employees are implementing the projects on site with great responsibility and professionalism.

READ MORE ABOUT THE TOSHKA CASE STUDY ON WILO.COM

READ MORE ABOUT THE SEBOU CASE STUDY ON WILO.COM

Twelve vertical turbine pumps connect the Sebou dam to the Sidi Mohamed Ben Abdellah dam to secure the drinking water supply for the major cities of Rabat and Casablanca.

Egypt depends on food imports to supply its rapidly growing population. The country on the Nile is the world's largest importer of grain. The risks associated with this also grow in times of increasing crises and conflicts. To free itself from this dependency and secure the food supply of its own population, the country is pursuing a long-term strategy. This includes the Toshka project, which aims to make a total of around one million hectares of desert available for agricultural use through irrigation. Around 400 high-efficiency Wilo split case pumps are being used in the first phase of construction. They will pump roughly 5.5 billion cubic metres of water a year from Lake Nasser to supply 56,700 hectares of new arable land.

Developing resilient and sustainable solutions for supplying urban areas with food and water is a global challenge. It requires an approach that takes both technological innovations and social and economic aspects into account. The cooperation between governments, international organisations, the private sector and the respective population is critical in order to sustainably improve the life of people living in cities around the world.

SETTING COURSE FOR THE FUTURE – BUSAN'S EVOLUTION INTO A SMART CITY

The major South Korean port city of Busan is undergoing a comprehensive transformation into an advanced and sustainable smart city. The core element of this radical change is the ambitious Eco-Delta City project, which combines technology and ecology in an urban space. Author Jiyeon Suh explained the challenges and opportunities accompanying this project at the 2023 Wilo industry conference in Singapore.

BUSAN, the second-largest city in South Korea, is strategically positioning itself for a significant leap forward in various domains. This includes population policies, urban development initiatives, and fostering economic growth. The city's commitment to this transformation involves leveraging cutting-edge technologies and fostering partnerships between the public and private sectors.

Busan's history is symbolic. Busan laid the foundation for leaping from the ashes of war to becoming a surprising economic powerhouse in the world. Initially serving as the temporary capital during the Korean War as a recipient country from the world, Busan played a crucial role in laying the foundation for the national economy through traditional manufacturing industries.

Over the course of 70 years, South Korea has turned into a donor country and has ranked as high as 7th in the global economy. Busan has since become a major port city, boasting the seventh-largest port in the world called Busan Harbor. The city seamlessly combines a modern yet traditional city centre and a sophisticated urban environment. In addition to its symbolic role as a tourist city, Busan recently also started positioning itself as a "worcation" city targeting digital nomads. Busan is notably aiming for an industrial structure transformation through the adoption of Fourth Industrial Revolution technologies. Its development is pivotal for achieving regionally balanced growth alongside Seoul, serving as a counterforce to capital-centric development and providing an opportunity to enhance global competitiveness.

JIYEON SUH is a member of the Busan Metropolitan Council and Honorary Chairwoman of the NGO SWIMPYO.

In pursuit of these goals, Busan is focusing on three major development projects. Firstly, it anticipates the completion of the construction of the Gadeokdo New Airport by 2029, aiming to become a hub for Northeast Asia's quadruple combined logistics. Secondly, the redevelopment of the North Port area is crucial for the revitalisation of the city centre area, enhancing productivity, and contributing to urban regeneration effects. Thirdly, Busan is preparing itself as an Eco-Delta City (EDC), a smart city area that confidently applies cutting-edge technology to improve citizens' quality of life, manage energy efficiency, and focus on the aesthetic development of a waterfront city.

BUSAN METROPOLITAN CITY is building the Eco-Delta City (EDC) from scratch as the national pilot project for smart cities and a model example of future smart cities with the aim of addressing various urban challenges and promoting sustainable everyday lives of its citizens. The city government seeks to adopt state-of-the-art smart technologies in the Eco-Delta City and make it a model example of future smart city projects. At the heart of Busan's strategic vision is the implementation of a smart city framework. This involves integrating advanced technologies to address various societal issues. The city envisions improving living conditions, particularly for the elderly, through enhanced healthcare management and an overall boost in the quality of life. Real-time disaster management, such as flood and fire responses, is integral to the smart city initiative, ensuring the safety of citizens. The EDC is located

The port of Busan is the seventh largest in the world and an important economic engine for the whole country.

in Gangseo-gu, Busan, on the outskirts of the city. The purpose is to establish a national pilot city with integrated smart services in an area that was previously undeveloped. The goal is to create a leading model for future smart cities by transforming this blank canvas region into a demonstration city for advanced smart technologies.

Busan EDC will be built on approximately 2.8 square kilometres in the Sae-mulmeori area of Gangseo-gu. The planned population for this area is around 8,500 people. This project is a national pilot project, with the Ministry of Land, Infrastructure, and Transport overseeing the overall management and budget, as well as providing administrative support. The implementation of this project will be carried out by a Special Purpose Company (SPC) involving joint investments by the Busan Metropolitan City (KRW 20 billion), Busan Development Corporation (KRW 10 billion), K-Water (KRW 170 billion), and a private consortium (KRW 800 billion).

Busan EDC aims to operate the city based on data while concurrently establishing and operating innovative services in 25 sectors, including Mobility as a Service (MaaS), zero energy, healthcare, crime prevention, and robotics. Smart home systems are currently adopted in the Smart Village. The Smart Village (56 houses, residents started moving in in January 2022) has been receiving feedback from users to constantly improve the services. The project also aims to develop a leading district (177,739 square metres).

A smart village aims to pursue energy efficiency and zero energy consumption. It achieved an energy independence rate of 107 percent by using solar panels on rooftops and walls, and hydrothermal energy from streams. In addition, multiple smart city services are provided, including water purifiers on buildings, smart wristbands, smart mirrors, customised health services using AI robots, intelligent farms utilising rainwater and ICT technologies, automated recycling systems, autonomous driving-based road cleaning, and address-based robot parcel delivery systems. Such smart housing services are expected to be provided to all citizens in phases going forward.

The smart city plan extends to environmental concerns, including water quality management in waterfront areas and parks. This multifaceted approach reflects Busan's commitment to creating a sustainable and ecologically friendly urban environment.

THE SMART CITY INITIATIVE is not just about improving living conditions; it also presents economic opportunities. Busan aims to create a new industrial ecosystem by leveraging the success of the smart city model. The Smart Village and EDC are expected to serve as a nationally integrated platform to demonstrate new technologies and test beds developed by small and medium-sized businesses including start-ups, to test infrastructure from public institutions, and to develop new markets with a regulatory sandbox in order to build the ecosystem and establish the prerequisites for business transformation. The EDC is also expected to establish an AI-based, intelligent, and innovative smart city platform and infrastructure by identifying individual citizens' demands in real-time and providing optimal services through a data-based approach that fosters the ecosystem and creates new services by linking data, promoting convergence, and offering smart distribution of goods. By accumulating data and opening the test bed to the private sector, projects demonstrating smart city-related technologies used by small and mid-sized businesses could be put out to tender to encourage start-ups.

Busan has been proactive in utilising technology to address various social issues. However, South Korea as a whole still leads in technology application through central-government-led calls for tender and pilot projects. Busan actively participates in central government projects, submitting proposals and being selected to enhance the smart device and city smart index. This effort has been ongoing since 2015 and has achieved notable successes.

Through the Smart City Demonstration Site Creation Project, Busan has implemented initiatives such as Smart School Zone Pedestrian Safety Detection, Smart Parking Services centered around public car parks, and Safe Notification Services for students commuting to and from primary schools. The city continues to develop and operate technologies related to smart cities. While a comprehensive evaluation is challenging, these initiatives demonstrate Busan's commitment to improving its smart index.

Due to Busan's geographical characteristics, with many mountainous areas, there is a focus on addressing transportation challenges for vulnerable groups, particularly the elderly residing in high-altitude regions. Busan has implemented Smart Bus Stops with facilities for individuals with impaired mobility, Smart Navigation Kiosks with braille pads and sign language videos inside the city's underground railway system, and Smart Poles for pedestrian safety using LiDAR sensors at pedestrian crossings. This is part of the Smart City Challenge project, a national initiative spearheaded by the Ministry of Land, Infrastructure, and Transport from 2020 to 2023.

Despite these efforts, challenges persist, including the slower adaptation of the elderly to smart devices and digital literacy, and a noticeable gap with regard to the younger generation. To address these issues, a focus on administrative management, bridging the digital divide, and developing user-friendly services is essential.

In addition, Busan is actively exploring IoT-based big data-driven care services for single-person households to prevent issues related to ageing and the increasing number of single-person households. This project, part of the Ministry of Science and ICT's 2023 pilot project, demonstrates a potential application in the EDC.

Furthermore, Busan has a Smart City Integrated Platform through CCTV control centres in the 16 districts, sharing real-time disaster and crime scene videos with institutions such as the police, fire department, and Ministry of Justice. The city is also running IoT-based floating rubbish collection facilities on waterways. These services are part of the Smart City Innovation Technology Discovery Project spearheaded by the Ministry of Land, Infrastructure, and Transport in 2022 and 2023.

Lastly, the establishment of the "Busan Metropolitan City Smart City Plan" (2023–2027) outlines Busan's future vision as a green smart city. It presents a guide for various smart city services, integrating new technologies to create an ecosystem for public–private collaboration. This local government-led direction aims to provide a future vision and long-term development strategy for Busan.

The total project cost of the EDC is envisioned at KRW 5.6 trillion. To facilitate the smart city project, which requires significant amounts of investments, the Busan City Metropolitan City intends to create an SPC (special purpose company) jointly operated by the public and private sector to fully utilise creative ideas and innovative technologies from the private sector.

HOWEVER, THE JOURNEY towards becoming a smart city is not without obstacles. Budget constraints, collaboration challenges with private sector Special Purpose Corporations (SPCs), and the technological adaptation of citizens are acknowledged as ongoing issues. As a representative in Busan City Council, I can confirm there is a commitment to addressing these challenges. The focus is on overseeing the stable introduction of new technologies, even in the face of initial costs, with a dedicated effort to ensure the sustainability and resilience of the infrastructure.

In conclusion, Busan is striving for its second leap forward. The city's advancement in various aspects – including population policies, urban development, and economic growth – requires a collaborative effort between technology and public–private partnerships. The urgent need for Busan's transformation to play a pivotal role in resolving the concentration of the population in the Seoul metropolitan area and promoting balanced regional development is evident. The implementation of a smart city serves as a model for Busan's leap forward, addressing various societal issues faced by the city and the region.

Through improved living environments that support the health of and quality of life for the elderly, real-time disaster management addressing safety issues such as flooding and fires, water quality management in waterfront parks, and the enhancement of convenience in daily life to attract the younger population and encourage rising birth rates, Busan's smart city initiative is poised to create new opportunities for building a sustainable industrial ecosystem. Once the successful model of a smart city is established, it can be utilised as a revitalisation strategy for city centres in various urban areas, serving as exemplary models for different local governments.

However, challenges such as budget constraints, collaboration issues with private sector SPCs, and the technological adaptation of citizens persist and need to be addressed. As a member of Busan City Council, I am committed to overseeing and managing the stable introduction of new technologies, even if it involves initial costs. The focus will be on ensuring the sustainability and durability of infrastructure, along with development that reflects current trends, despite the challenges that still need resolution.

Busan is not the only smart urban project in South Korea. Innovative urban concepts are also being trialled and implemented in Songdo City near the capital Seoul.

HIGHLIGHTS 2023

JANUARY

Wilo sponsors the Borussia Dortmund women's handball team

The Wilo Group has expanded its sponsorship to include the BVB women's handball team. Wilo has provided support for Borussia Dortmund as a champion partner for more than a decade and also as a sustainability partner since 2023. Thanks to the additional commitment, the two long-established Dortmund companies are now strengthening their partnership beyond football.

MARCH

ISH: industry meeting in tune with the times

More than 2,000 exhibitors from 54 countries registered for the ISH 2023. And Wilo was there. International water, heating and ventilation experts met from 13 to 17 March at the world's leading trade fair for HVAC and water in Frankfurt am Main. At its approximately 800-square-metre booth, Wilo demonstrated its solutions for meeting the industry's increased environmental requirements and for easy commissioning, operation and maintenance. Among those attending the fair were Klara Geywitz, Federal Minister for Housing, Urban Development and Building, and Tarek Al-Wazir, Hesse's Minister for Economic Affairs, Energy, Transport and Housing. Wilo was one of only four manufacturers that the politicians visited at the ISH.

FEBRUARY

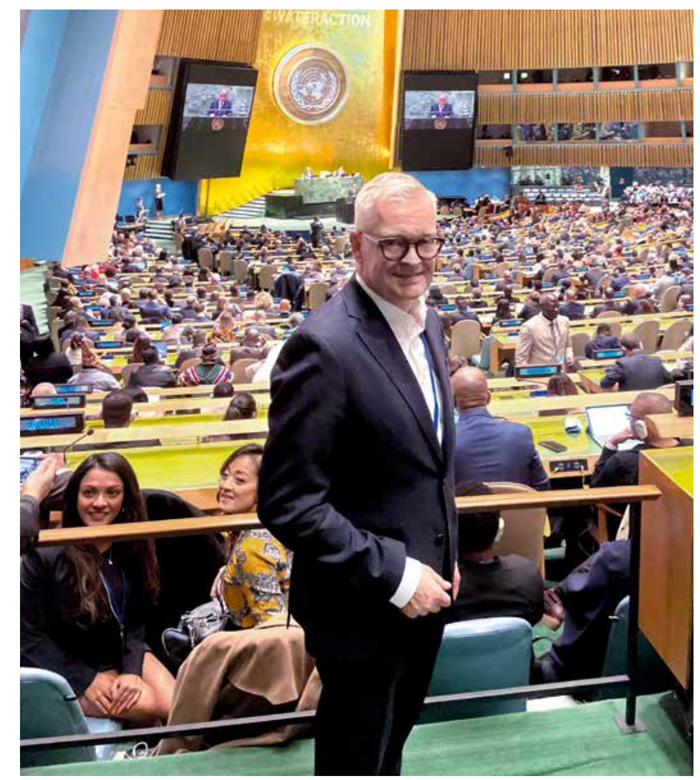
Oliver Hermes joins TU Dortmund University Council

Technical University Dortmund has appointed new members to its University Council. Deputy Minister Katrin Linssen presented the appointment certificates to the new members of the University Council on behalf of the Minister for Culture and Science of the State of North Rhine-Westphalia, Ina Brandes. Oliver Hermes also received this honour due to his special entrepreneurial commitment to Dortmund as a science location.

MARCH

Wilo is part of the UN 2023 Water Conference

Under the patronage of the Netherlands and Tajikistan, the United Nations hosted the 2023 Water Conference in New York from 22 to 24 March. The internationally acclaimed conference that attracts pre-eminent participants was dedicated to the sustainable use of water. A German delegation led by the Federal Ministry for the Environment and Consumer Protection attended the conference. Wilo was represented by Dr Dirk Wittenberg, Senior Vice President of the Strategic Business Unit for Water Treatment. Alongside participants from politics and civil society (NGOs), Wilo is the only industrial company that was invited to participate.



APRIL

Global e-commerce platform now also in China

The Wilo Group launched its e-commerce platform in China. Following initial tests in Europe, the company's own global solution was rolled out in the People's Republic within a very short time. Sales in the double-digit million range were already transacted through the platform in the first six months following the launch.

MAY

Wilo business conference takes a look at Africa, the continent of the future

In cooperation with the German-African Business Association, the Wilo Group welcomed around one hundred high-ranking guests from business, politics and society to the Wilo business conference "Building Bridges – Africa" at the Wilopark on 16 May. The aim of the event was to increase the visibility of and intensify German business activities on the African continent.

JUNE

Wilopark tour concept sets standards in Germany

The Wilo Group has been awarded the German Brand Award. The award ceremony in Berlin saw the technology group receive the prestigious prize in the category of "Brand Communication – Fairs & Exhibitions" for its factory tours at the Wilopark in Dortmund. Wilo additionally won the prize in the "Brand Communication – Storytelling & Content Marketing" category for its 2021 Annual Report.

JULY

New hub for sustainable business development in East Africa

With the ceremonial reopening of a hub in Nairobi that has been expanded to include state-of-the-art assembly, testing and training capacities, Wilo strengthened its presence in East Africa in July, reaffirming its ambition to help shape the sustainable development of the African continent.

JULY

Wilo expands Dubai plant

The Wilo Group celebrated breaking the ground for the expansion of its plant in Dubai in July. The construction measures will double the production area and capacity and triple the warehouse capacity. Wilo is looking to meet the increase demand in the MENA region with this investment. Wilo already signed a memorandum of understanding with the Ministry of Investment of Saudi Arabia in March to expand its presence in the kingdom.

JULY

First ground broken: construction of the local heating network in Hof begins

An investment in climate protection: a ground-breaking ceremony marked the start of the construction of an in-house local heating network at the Wilo site in Hof. The network will soon be supplied by a biogas plant and a wood chip heating system on neighbouring farms. In future, the Wilo plant in Hof will be supplied exclusively with heat generated from biomass.

AUGUST

New site for premium pump systems "Made in India"

The Wilo Group has opened a new plant in India. A sustainable and ultra-modern high-tech production complex has been built on a 94,000 square metre site on Kesurdi in the west of the country. The technology group uses the plant to manufacture premium pump systems for water management in India, the Middle East, Africa and Southeast Asia.

SEPTEMBER

DOSB recognises Wilo's friendship with elite sports

"Elite sports-friendly Company 2023": the German Olympic Sports Confederation (DOSB) awarded this honour to Wilo for its long-standing commitment to professional development opportunities for elite athletes, and in particular its partnership with the German Men's Eight rowing team.

SEPTEMBER

Industry conference inspires cooperation for sustainable smart cities in Asia

The Wilo Group organised its annual industry conference in Singapore for the first time. Supported by Enterprise Singapore and the German Asia-Pacific Business Association and organised under the motto "Smart Urban Areas – Connecting Minds for a Multilateral World", the conference brought together Wilo's expertise in the area of smart and sustainable water solutions and Singapore's role as a real-world urban laboratory.

OCTOBER

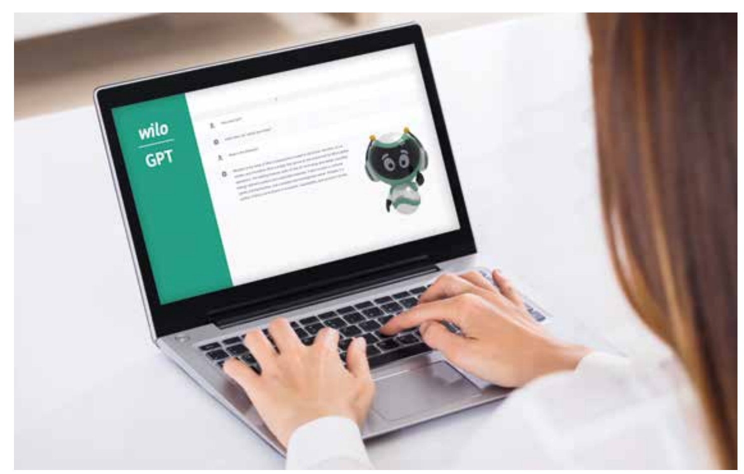
Wilo again receives EcoVadis platinum rating for sustainability

EcoVadis has once again awarded the Wilo Group a platinum medal for its commitment to sustainability. Wilo has thus received the rating agency's highest award for the second year running. Only 1 percent of the more than 100,000 companies assessed by EcoVadis each year are awarded the platinum medal. EcoVadis is one of the most renowned sustainability ratings agencies worldwide.

SEPTEMBER

Wilo opens state-of-the-art, climate-neutral plant in China

Following on from the new plant in India, Wilo also opened high-tech production premises in the Chinese city of Changzhou. The Wilo Changzhou Park includes a factory and office building as well as research and development facilities over an area totalling 56,000 square metres. The Wilo Group will manufacture around 3 million highly efficient pumps and 3.5 million electric motors here every year.



OCTOBER

AI application WiloGPT goes live

Pioneering digital spirit meets artificial intelligence: Wilo has launched WiloGPT, an in-house AI chatbot for its employees. The tool offers similar functionality to ChatGPT and, as part of the Wilo IT infrastructure, is particularly secure when it comes to protecting data.

NOVEMBER

WINGS Champions Summit celebrates its anniversary

Wilo organised the WINGS Champions Summit for the 10th time in November. The event brings Wilo's top innovators and experts from around the world together to discuss the latest trends in industry, science and technology. The event in 2023 also featured the presentation of the Wilo Innovation Award, which consistently honours the year's best innovations in four categories.

NOVEMBER

Award for sustainable partnerships

As part of the German Sustainability Award (DNP), Europe's biggest award for environmental and social commitments, Wilo and the German Sustainability Award Foundation awarded the first ever International German Sustainability Award (INDP). Two partnerships between German companies and companies based in the Global South were recognised with the International German Sustainability Award in this category: textile company Jeckybeng and its Taiwanese cooperation partner HerMin Textile, and coffee cooperative Kaffeekoop and its Rwandan partner Rwashoscco.

DECEMBER

Wilo products, systems and solutions for Nusantara and Tashkent New City

The Wilo Group signed memorandums of understanding with the governments of Indonesia and Uzbekistan in December in order to define the strategic cooperation in the development of the planned visionary cities of Nusantara and Tashkent New City. Wilo had already strengthened its connections with Southeast Asia in May when Oliver Hermes engaged in a dialogue at the Hannover Messe trade fair with Dr Bambang Susantono, Chair of the Nusantara National Capital Authority, who is responsible in this capacity for the planning and construction of the new Indonesian capital in the east of the island of Borneo.

DECEMBER

COP28: Tackling climate change together

Wilo took part in the COP28 in Dubai, the 28th United Nations Climate Change Conference. The main aim of the conference was to find ways and reach agreements to realise the Paris climate goals of limiting global warming to 1.5 degrees. Georg Weber, member of the Executive Board and CTO of the Wilo Group, spoke about sustainable water management during the COP28 Leadership Interviews. Because the climate crisis is also a water crisis.

DECEMBER

Health Cube: Ground-breaking ceremony for the new, innovative Wilo health centre

Green light for an extraordinary project: Together with the honorary chair of the Supervisory Board of the Wilo Group, Dr Jochen Opländer, the Wilo Executive Board broke ground for the construction of the new Health Cube at the Wilopark on 15 December. Wilo employees worldwide and throughout the entire Dortmund region will benefit from the innovative health centre.

GROUP MANAGEMENT REPORT 2023

In a challenging market environment, the Wilo Group successfully pursued its continous, profitable growth course. Net sales increased once again, while operating earnings before interest, taxes, depreciation and amortisation (EBITDA) also reached a new record high. Moreover, the Wilo Group again invested heavily in modern and efficient company infrastructure, thereby strengthening the basis for accelerated and profitable growth in the future. Thanks to successful acquisitions in the US and Canada as well as targeted investments in China and India, the company intensified its international market presence and further enhanced its regional diversification.

CONTENTS

THE 2023 FINANCIAL YEAR AT A GLANCE

NET SALES

EUR 1,974.8 million

↗ 4.7%

Despite a geopolitical environment full of risks and challenges and a significant global economic slowdown, the Wilo Group continued on its profitable growth path with net sales growth of 4.7 percent. Net sales increased to EUR 1,974.8 million. Adjusted for currency effects, growth even amounted to 10.4 percent.

CASH FLOW

EUR 163.6 million

The cash flow from operating activities increased by more than EUR 120 million year-on-year. At EUR 163.6 million, it exceeded the previous year's figure by a significant margin. Targeted measures to optimise the working capital worldwide contributed to this substantial improvement.

EBITDA

EUR 216.8 million

Wilo generated record EBITDA of EUR 216.8 million. Profitability – as measured by the EBITDA margin – improved year-on-year to 11.0 percent. Consolidated net income also rose significantly, improving by EUR 14.1 million to EUR 75.2 million. This corresponds to an increase of more than 20 percent.

RESEARCH AND DEVELOPMENT

EUR 77.7 million

As a leader in innovation and technology, Wilo aspires to set standards that extend beyond the pump industry. This is why research and development traditionally play an important role at the Wilo Group. Research and development costs amounted to EUR 77.7 million in 2023, corresponding to 3.9 percent of net sales.

INVESTMENTS

EUR 198.6 million

2023 also saw the Wilo Group make strategically important investments intended to safeguard its future. Among other things, EUR 198.6 million were invested in the construction and expansion of new and existing sales and production locations, the modernisation and capacity expansion of production facilities and company acquisitions. A new sustainable, state-of-the-art high-tech production facility was inaugurated in Kesurdi, India, in August. In September, a new modern factory as well as administrative buildings and research and development facilities were officially opened in the Chinese city of Changzhou.

HEALTH CUBE

The Wilo Executive Board broke ground on the construction of the new Health Cube at the Wilopark in December 2023. Wilo employees worldwide as well as the entire Dortmund region will benefit from this innovative health centre in the future.

MERGERS & ACQUISITIONS

The Wilo Group continued its targeted strengthening of its strategic market position in North America when it took over the operating business of the US trading and service companies Gustavo Preston Company and Boyer & Seeley Inc. as well as the Canadian pump manufacturer Plad Equipment Ltd.

SOLID FINANCIAL PROFILE

WILO SE successfully completed the largest financing package in its more than 150-year history. A promissory note of EUR 270 million was placed on the international capital market, while a syndicated loan with a revolving credit facility of EUR 300 million was refinanced among the core banks.

SUSTAINABILITY

The Wilo Group's commitment to sustainability was again awarded "Platinum" status, the highest rating by EcoVadis, one of the world's leading providers of sustainability assessments for companies. Only 1 percent of the more than 100,000 companies assessed by EcoVadis each year are awarded the platinum medal.

EMPLOYEES

8,974

The versatile skills and personal commitment of all employees are the foundation and driving force behind the Wilo Group's economic success. An annual average of 8,974 employees around the world contributed to the new net sales record and the successful conclusion of the financial year.

BASIC INFORMATION ON THE WILO GROUP

- → **Premium provider of products, system solutions and services for building services, water management and industry**
- → **Worldwide presence in all important markets with a global production and sales network and around 9,000 employees**
- → **Targeted acquisitions in the US and Canada strengthen the strategic market position in North America**
- → **Research and development activities remain at a high level**

Customers and products

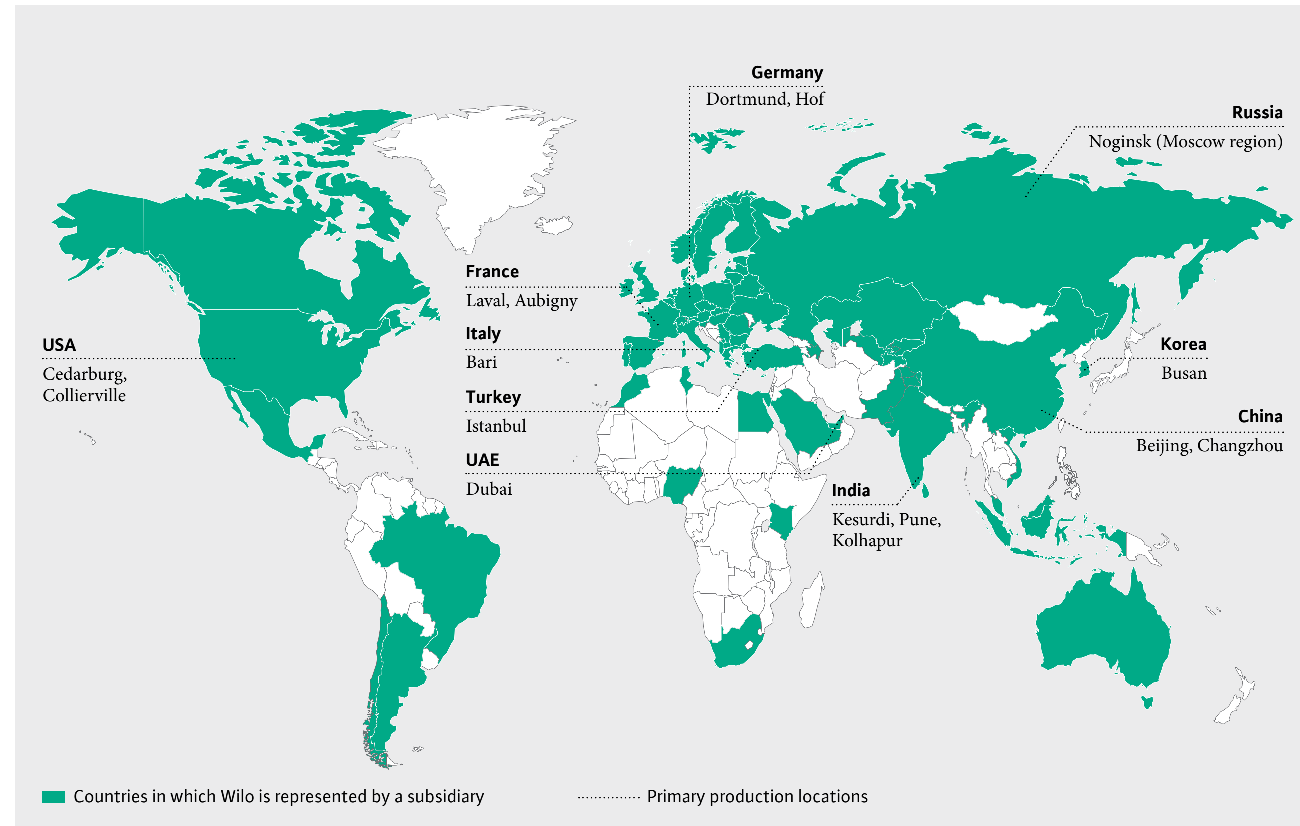
Wilo is a premium supplier of pumps and pump systems with operations around the world. The most important areas of application are heating, cooling and air conditioning, water supplies and sewage disposal. With its portfolio of products, system solutions and services, the Wilo Group meets the entire range of its customers' needs as a full-service provider. 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 and flood control.

The Wilo Group has thus geared its corporate strategy and the operating focus of its roughly 9,000-strong workforce consistently on its customers and their specific needs and requirements for the products, applications and services. 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 form the foundation for the many years of 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 produces its pumps and pump systems at 16 main production sites in Europe, Asia and North America. 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 new production facilities in Kesurdi, India, and Changzhou, China, came on stream in the 2023 financial year. The factory in the Chinese city of Qinhuangdao was closed and sold after all production processes were transferred to the new plant in Changzhou.

The Wilo Group also operates at other smaller sites, including Sonneberg, Pohlheim and Chemnitz in Germany, Sanford (Florida) in the US and Shanghai in China. Highly specialised products, such as water supply, wastewater treatment and flood control systems, are developed and manufactured at these sites. In addition, products for local markets are assembled at a wide variety of locations, including in Brazil, Malaysia, Kazakhstan and Saudi Arabia.

Wilo Group locations



With this decentralised structure, the Wilo Group has an efficient, customer-oriented network of more than 90 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.

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

In the light of the rapid advance of climate change, the increasing importance of energy and resource efficiency can be clearly seen around the world, reinforced and accelerated not least by the war in Ukraine and the ensuing upheaval in the global energy industry. Higher, technically optimal efficiency is required both for environmental and economic reasons. Which is why the aspects of economic efficiency and sustainability are playing a more pronounced role when it comes to both commercial and domestic building use. This requires the use of innovative systems incorporating optimally coordinated components to an ever greater extent – not only for new builds, but also to achieve the more ambitious climate targets especially when converting and modernising buildings. Wilo offers the necessary energy-efficient concepts for the Building Services Residential and Building Services Commercial market segments. These involve heating technology and air conditioning as well as water supply and waste water disposal. The main areas of use for the Wilo Group's product and system solutions are, on the one hand, single and multi-family houses and, on the other, public buildings, industrial and office buildings, hospitals and hotels.

OEM

The Wilo Group's pumps and hydraulic systems are characterised by a high degree of reliability, flexibility and efficiency. The Wilo Group is also a development partner, innovative forward thinker and trendsetter for the leading original equipment manufacturers and producers of boilers, heat pumps and air conditioning systems. The OEM customers benefit here in particular from Wilo's many years of experience, detailed knowledge of the market and distinct application expertise. Taking into account current and future regulatory requirements, Wilo is quick to anticipate new developments and constantly evolving requirements on the global market. This enables Wilo to develop and provide made-to-measure, forward-looking solutions that are perfectly tailored to the precise requirements of the relevant customer 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 global population growth and urbanisation and also the massive consequences of climate change and worsening environmental pollution, water as a raw material is becoming a scarce – and thus very precious – commodity around the world. Providing the rapidly growing global population with sufficient clean drinking water and sewage treatment 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 safe and sufficient purification and supply of water for the continuously growing world population therefore involves extensive global challenges, not least because this problem is constantly 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 and the transportation and processing of sewage. Flood control is also becoming increasingly important. Wilo offers the right powerful pumps and pump systems for these requirements.

Industry

As a premium provider, Wilo develops and manufactures pumps that are characterised by a high 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. Because every industrial environment places its own, often extremely specific requirements on pumps and peripherals, Wilo develops individual concepts and solutions to suit every need. This approach is designed to ensure easy installation, safe operation and efficient maintenance. The Wilo Group's pumps and system solutions are used around the world – for example, to pump cooling water in power plants or to treat waste water 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 successful company history that has endured for over 150 years. 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 while also conducting its own operations. Owning 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 2023, the Wilo Group comprised around 90 production and sales companies, most of which are directly majority owned by WILO SE.

Through its newly established subsidiary Hydroserve LLC, WILO USA LLC completed asset deals to take over the operating activities of the US companies Gustavo Preston Company in Boston, Massachusetts, and Boyer & Seeley Inc. in Denver, Colorado, in April and May 2023. These two specialised trading and service companies distribute a broad portfolio of pumps and pump systems and also offer high-quality service, repair and maintenance services. The two acquisitions have enabled the Wilo Group to expand its market access in the US and in particular to develop its service business over the long term.

Moreover, WILO Canada Inc. also acquired the business activities of the Canadian pump manufacturer Plad Equipment Ltd., based in Montreal and Quebec City, by means of an asset deal. Plad Equipment specialises in pumps and pump systems for HVAC – heating, ventilation and air conditioning – and in related products and solutions for pressure boosting, firefighting and irrigation applications. By taking over Plad Equipment the Wilo Group has enhanced its strategic market position in Canada, especially in the rapidly growing business fields involving prefabricated system solutions and irrigation.

The Wilo Group had already successfully acquired and integrated the pump manufacturers Weil Pump, Scot Pump, American-Marsh Pumps and QuantumFlo over the last six years. The takeover of three more companies in 2023 represents another important milestone in the implementation of Wilo's growth strategy on the attractive North American market.

The Wilo Group has established a matrix organisation with two control levels that enable it to gear its sales activities closely and flexibly towards the different requirements of the markets and regions while simultaneously harnessing cost and efficiency benefits by bundling expertise around the world.

The three sales regions – Mature Markets, North America and Emerging Markets – 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 five units in the primary control level are each headed by an experienced manager who reports directly to the Executive Board.

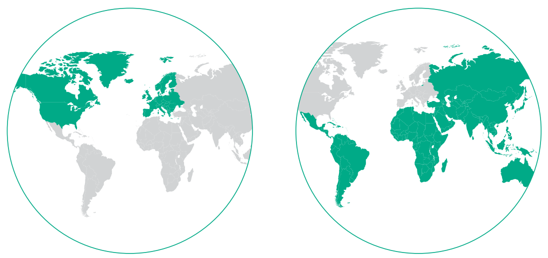
The Wilo Group also manages its business through a secondary control level that is divided into five market segments. The management and controlling of the Building Services Residential, Building Services Commercial, Water Management and Industry market segments are covered by the managers of the Group Market Segment Management function. In contrast, the management and controlling of the OEM market segment is organised directly in the OEM Strategic Business Unit because of the specific nature of the business with original equipment manufacturers.

The Wilo Group differentiates between established markets and growth markets in its external reporting. In the 2023 financial year, 59.7 percent of consolidated net sales were generated in the established markets, while the growth markets accounted for 40.3 percent.

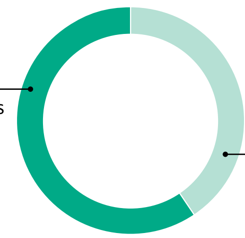
The organisational structure has an entirely functional alignment. The management and controlling of the Wilo Group are the responsibility of the Executive Board of WILO SE, which

Organisation and management structure of the Wilo Group

Composition of established markets and growth markets
as at 31 December 2023



Net sales
by region 2023



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, supervises and monitors the Executive Board. It consists of a total of six ordinary members, who are appointed by the Annual General Meeting. Two members of the Supervisory Board are employee representatives appointed on 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 in this Annual Report.[1)]

In managing the Wilo Group, the Executive Board focuses on the development of net sales and earnings power. The primary performance indicators for measuring earnings are EBITDA (operating earnings before interest, taxes, depreciation and amortisation) and the EBITDA margin as a percentage of net sales. The accelerated growth in net sales that is being pursued through organic and external growth as well as the high level of investments require substantial financial resources. For this reason, leverage is used as an additional key 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 and other extraordinary items such as acquisitions. The key financial performance indicators of the Wilo Group are thus net sales, EBITDA and the EBITDA margin and leverage. These parameters are therefore also a component of the analysis of the business performance, the evaluation of the company's situation and the outlook for the purposes of external financial reporting in accordance with DRS 20.

Another key financial 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 activities. 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. Increasing net sales and EBITDA works as a key lever for improving the cash flow from operating activities. Moreover, the systematic management of the net working capital provides active support for the development of the operating cash flow.

The Wilo Group is required to maintain specific standard financial ratios (financial covenants) under the terms of some of its long-term financing agreements. In addition to leverage, these involve in particular the equity ratio and the interest cover ratio, which is defined as the ratio of consolidated EBITDA to consolidated interest expenses. These key figures are regularly reviewed and reported to the Executive Board in order to guarantee adherence to the required minimum values. The Wilo Group continued to comply with the agreed financial ratios in 2023.

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

[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 & Product Information Management
- Group Digital Business & Marketing
- Group Legal & Insurance
- Group People & Culture
- Group Internal Audit & Compliance
- Strategic Business Unit Water Treatment

Chief Technology Officer (CTO)
Georg Weber

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

Chief Financial Officer (CFO)
Mathias Weyers

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

In addition to the financial 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 the Wilo Group's sustainability report, which is available at wilo.com/sustainability-report.*[2)]

Corporate strategy

In the course of its regular strategy review, the Wilo Group examined and refined its corporate strategy in the year under review, gradually adjusting it to new challenges that are emerging from changes in the social, economic and technological environment. No fundamental change in the Wilo Group's long-term objectives or its corporate strategy is necessary, and the core objectives remain the same. Rather, the successful Ambition 2025 corporate strategy has been expanded and developed into Ambition 2030. One element that has to be especially highlighted in this connection is the now much closer linking and harmonisation with the sustainability strategy. The sustainability strategy will in the future form the overall framework for the corporate strategy and the functional strategies derived from it. Climate protection is a core element of the Wilo Group's business model and thus an integral part of its corporate culture. On the one hand, highly efficient pumps and system solutions enable Wilo customers from all areas of application in building services, water management and industry to save energy and thus achieve their own climate goals. On the other, the Wilo Group organises its entire value chain to keep its impacts on the environment as low as possible now and even to totally eliminate them in the long term. The Wilo Group is fully aware of its social responsibility and endeavours always to ensure that its ambitions for

[2)] The content that can be accessed via the link does not form part of the 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 2030

Ultimate Customer Satisfaction | Engaged & Empowered People | Innovation Leadership | Digital Pioneer | Business Excellence | Independent & Responsible Company

BUILDING SERVICES RESIDENTIAL	BUILDING SERVICES COMMERCIAL	OEM	WATER MANAGEMENT	INDUSTRY
We are a full-range supplier and customers' first choice.	We are a market, innovation and smart solutions leader.	We are the preferred partner for smart integrated solutions.	We are a global market player and digital solutions provider.	We specialise in selected sectors and applications.

growth are consistent with environmentally and socially responsible action. In this respect, sustainability and social responsibility play an important role in all decision-making and business processes at the Wilo Group. This has been reinforced by the overarching position given to the sustainability strategy and the explicit inclusion of sustainability goals in the strategy development process.

The Wilo Group's sustainability strategy, which was also further developed in the year under review, is now consistently geared towards the three key impact areas of "Creating", "Caring" and "Connecting", for which Wilo has set long-term goals for the period up to 2030. "Creating" covers the sustainable contribution made by Wilo products and solutions among other things to improving water supplies and decarbonisation. Wilo technology moves water – highly efficiently, reliably and sustainably. Wilo has set itself the goal of improving the quality of life of people around the world with innovative system solutions and services. "Caring" describes Wilo's responsible action with regard to the environment, employees and society and includes goals such as reducing emissions in the production processes and creating a healthy working environment. This is why integrity, fairness, respect, passion and responsibility are the inviolable values by and with which Wilo works and lives. "Connecting" stands for increasing sustainable impacts through the commitment to strong international partnerships. The global challenges of our times can only be tackled by working together. Wilo maintains a strong network of partners around the whole world and takes responsibility for a more sustainable future. A total of 14 strategic goals have been formulated within these three fields of action. These goals are integrated into the functional strategies of the individual departments and thus form an integral part of the regular reporting. ➔ *More information can be found in the Wilo Group's 2023 Sustainability Report, which is expected to be available at wilo.com/sustainability-report from the end of April 2024.*[3)]

In conjunction with the sustainability strategy, Ambition 2030 sets out Wilo's overarching corporate objectives, development and the strategic growth path up to 2030 and beyond. "Together we accelerate our profitable growth as a worldwide solution provider" defines the main strategic goals of Ambition 2030. To accelerate its profitable growth, the Wilo Group is powerfully and vigorously pressing ahead with its globalisation strategy and intensifying cooperation and networking among all stakeholders along the entire value chain in a targeted manner. The particular importance of the international cross-industry and cross-sector cooperation with various stakeholders is emphasised here. Another clear focus is the 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 targeting and driving the development of smart products, systems, services and solutions and forging energetically ahead with the digital transformation of the group of companies.

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

The Wilo Group is aiming for above-average growth in net sales to over EUR 3 billion with profitability of more than 14.0 percent (measured by the EBITDA margin) by 2030. It is planned to support the organic growth proactively through targeted M&A activities.

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

- **ULTIMATE CUSTOMER SATISFACTION** Wilo strives to ensure maximum customer satisfaction – this is the principle behind the claim "Pioneering for You".
- **ENGAGED AND EMPOWERED PEOPLE** Wilo enables and develops its employees – they are the backbone of the company.
- **INNOVATION LEADERSHIP** Wilo is setting new standards as an innovation leader – innovations include new technologies and materials, products and services, processes and (digital) business models.
- **DIGITAL PIONEER** Wilo aspires to establish itself as the digital pioneer of the pump industry – by seizing the opportunities presented by digital transformation.
- **BUSINESS EXCELLENCE** Wilo stands for business excellence in all processes – along the entire value chain.
- **INDEPENDENT AND RESPONSIBLE COMPANY** Wilo will remain an independent, responsible company – based on a stable organisation and shareholder structure.

To achieve the strategic objectives, specific fundamental strategic directions are set out 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 for sustainable solutions. The Building Services Commercial market segment drives the expansion of market and innovation leadership as a solutions provider with best-in-class services. In the OEM market segment, Wilo is reinforcing its position as a preferred partner with smart and integrated solutions. The aim in the Water Management segment is to further strengthen our global market profile with sustainable solutions for water management. The Industry market segment will continue to focus on selected sectors and applications in the future.

Ambition 2030 is being implemented consistently in the business operations through the primary control level, i.e. through 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 the operating business is specifically aligned with the Ambition 2030 corporate strategy, overarching strategic initiatives – the Key Strategic Initiatives – have been defined and the existing ten-point plans for the sales regions and the five-point plans for the Strategic Business Units have been integrated. Within these strategic initiatives, specific goals are set and clearly defined and action-based, project-driven measures are stipulated that will be implemented over the coming years. The steering committee meets regularly to review the current implementation status of the respective measures.

Five megatrends that are relevant for the company have been identified and defined as the basis for the long-term strategic planning. Both individually and in increasing interaction with each other, globalisation, urbanisation, energy shortage, climate change and water shortage will all exert a significant influence on the Wilo Group's business in the future. These influences are not theoretical scenarios, but are already having a visible impact on in the current development of the company today. An important megatrend in its own right, digital transformation, is also playing a key role. 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 providing essential support for the targeted and efficient implementation of solutions.

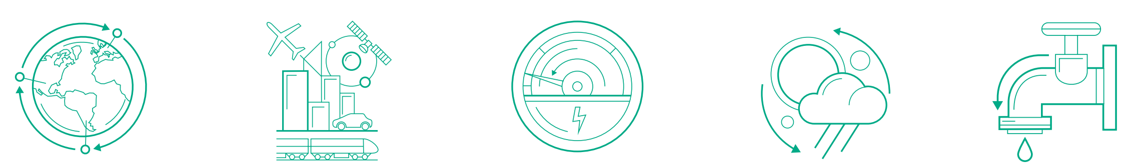
With the help of an established, targeted corporate foresight process, risks and opportunities are derived and analysed on the basis of forecast future developments regarding the global megatrends. This enables the results to be systematically taken into account in the ongoing development of the corporate strategy. Moreover, this process serves to further develop existing business and growth fields as well as to identify and tap 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 laid bare the risks to the current economic world order with all its tightly interlinked value chains. Disruptions to supply chains, bottlenecks and unpredictable cost fluctuations further fuelled the trend towards the regionalisation and localisation of production networks. In addition, geopolitical crises, such as Russia's war of aggression against Ukraine, are rapidly driving political and economic division in the world. Protectionist tendencies and the efforts of individual countries and regions to isolate themselves and become self-reliant have again intensified recently and are leading to an ongoing unravelling of international economic relations (decoupling). Established alliances are fracturing and multinational partnerships need to be realigned. Trade barriers, extraterritorial sanctions and technology embargoes are the consequences of the decoupling of the supply chain that has been initiated and accelerated for political reasons. In connection with the trade conflict between the US and China, the conflict hot spots in the Middle East and the political escalation around Taiwan, reducing dependencies on a trading partner by diversifying economic relations as a way to mitigate risk (de-risking) is increasingly gaining in importance. 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, which reduces dependency on individual suppliers, and redefining the necessary stock buffers in the warehouses.

In addition to the sustainability strategy, the overarching vision and mission and the corporate values provide the framework for Ambition 2030. The vision is the guiding objective that the Wilo Group wants to achieve and a confident statement of the clear position that Wilo has adopted in a constantly changing world.

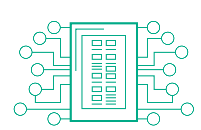
On the basis of this vision, the mission defines the main purpose or undertaking that Wilo is pursuing. It also serves as a set of instructions for meeting current and future challenges. The Wilo Group wants to use its products and the accompanying system solutions and services to make people's lives easier all around the world. This is why 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 and every individual in the company commits – regardless of their position, duties

Megatrends



Globalisation 2.0 | Urbanisation | Energy shortage | Climate change | Water shortage

These are supplemented by digital transformation, which is a key factor in all five megatrends.



Digital transformation

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.

and responsibilities. Traditionally, the sustainable success of the Wilo Group has been based to a large extent on these shared values.

Research and development

Strategy and direction

The Wilo Group's research and development activities are firmly embedded as core building blocks in Ambition 2030 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 in innovation technology, sustainability and quality. Derived from the megatrends that are relevant for Wilo, the key strategic action areas for research and development remain unchanged: energy and resource efficiency, systems technology, solutions expertise and digital technologies. The Wilo sustainability strategy here also forms the foundation for all R&D efforts to promote and implement sustainability in all corporate divisions. A special focus is placed on the sustainable design of the product portfolio in this process. Through continuous development and innovations, the Wilo Group endeavours to offer products that save resources and are energy-efficient and environmentally friendly. To this end, the primary goal is make a positive contribution to reducing carbon emissions and to conserving natural resources through sustainable solutions.

In the course of processing the strategic action areas, Wilo often works in close cooperation with external partners and other industrial companies. Moreover, the Wilo Group also works together with higher education institutions and innovative start-ups. The focus of this work 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 wide range of research projects. Wilo also makes use of government grants for basic application-related issues. As part of the digitalisation process, Wilo will also shift its development focus to new business models and complementary services in the future.

Guided by the principle of "Join the ecolution", Wilo has formulated the clear aspiration of generating sustainable value added for the environment and economic efficiency through the continuous development and optimisation of innovative and energy-efficient products, systems and solutions. This neologism is derived from a combination of economic, ecologic, evolution, innovation and solution. Guided by this principle, customers are called on to join Wilo in tackling the major challenges of our times together. Based on its holistic sustainability strategy, Wilo continued to make successful progress with its work in the areas of climate, energy savings and sustainability in product development in the year under review. The focus here was the selection of materials, modular product design and the recycling of materials from components and packaging. It also proved possible in the area of electricity savings to make significant reductions in CO_2 emissions and to achieve substantial energy savings of 2.0 TWh in 2023 through the use of Wilo high-efficiency pumps. 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 savings that are made compared with corresponding uncontrolled predecessor models.

The global research and development organisation is responsible for the management of all R&D activities. Traditional areas of technological development, such as hydraulics, engines, microelectronics and software, as well as overarching issues, such as sustainable product design, 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 can be tackled collectively and efficiently. The series development of products is carried out locally at the Wilo Group's various locations, but is also coordinated globally. 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. The continuous progress being made in digitalisation and process optimisation supports this common approach and makes it more efficient. Product development continues to focus on the growth markets in Asia.

Results

Artificial intelligence (AI) is one of the most important digital issues of the future and is attracting ever greater interest in science, the economy and the media. The importance of AI is also steadily increasing at Wilo. A large and growing number of fields where artificial intelligence can be used were identified in 2023 in the course of the AI Initiative, which was launched back in 2020. In order to take this development into account, further expertise has been built up and the original AI Initiative has been converted to an AI competence centre. This centre has been given the task of proactively tracking the rapidly advancing developments in the field of artificial intelligence and thus of safeguarding Wilo's business success in this groundbreaking area. In cooperation with the Lamarr Institute for Machine Learning and Artificial Intelligence, the company's in-house expertise in this area will be further enhanced in order to identify AI's potential and to create added value for the Wilo Group and its customers.

With the market launch of the Wilo-SiBoost2.0 Smart Helix VE in 2023, Wilo introduced a highly efficient, ready-to-connect water supply system. Integrated protection functions, such as overload protection, dry-running protection and low-water cut-out switchgear with automatic deactivation, are designed to ensure a reliable water supply in large buildings. The optional smart interface and connection to SCADA (Supervisory Control and Data Acquisition) enables monitoring and leakage detection using a software program.

Through circulation, continuous temperature monitoring and water exchange within 72 hours, the Wilo-SiFresh cold drinking water system introduced in 2023 achieves a high level of drinking water hygiene as set out in the DIN EN 806-2 standard, which defines the technical rules for drinking water installations. Depending on the structural conditions and utilisation behaviour, up to 90 percent of the required flushing volume can be saved and used to maintain the temperature and exchange water.

With a stainless steel pump housing and the ability to detect and support thermal disinfection automatically, the Wilo-Stratos PICO-Z, launched on the market in 2023, fulfils high hygienic safety standards for the entire system. The high-efficiency pump equipped with an EC motor can be operated in manual or temperature-controlled operating mode and offers extensive options for reducing individual power consumption.

In the field of application involving waste water systems, the DrainLift SANI CUT series was introduced in 2023 as an extension to the existing series in order to complete the range of products offered by Wilo for lifting units in accordance with the EN 12050-1 standard for waste water lifting plants for buildings and sites. It offers high operational reliability afforded by its large switching volume and the macerator with double-shear effect.

Employees

With a slight increase in headcount, the employee structure in research and development remained almost unchanged in 2023 compared with the previous year. The recruitment of qualified, international young candidates in the technology and natural science disciplines to meet the Group's needs represents a growing challenge. Which is why the Wilo Group continues to implement extensive and targeted measures with the aim of strengthening its brand as an employer of choice among potential applicants. This includes special talent promotion programmes and a number of internal and external training, exchange and mentoring programmes at national and international level. 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

With the help of its systematic patent strategy, the Wilo Group pursues the goal of protecting innovative, unique selling propositions through patents and other intellectual property rights against counterfeiting and imitation and thus of securing its competitive edge. The products, techniques and solutions that are protected in this way can be used exclusively by Wilo and thus support the company's profitable growth. The inventory of active intellectual property rights was again expanded when compared with the previous year. Success was also achieved in enforcing intellectual property rights in the reporting year. The various legal victories and the successful activities to combat the misuse of Wilo brands on international online marketplaces can be highlighted here in particular.

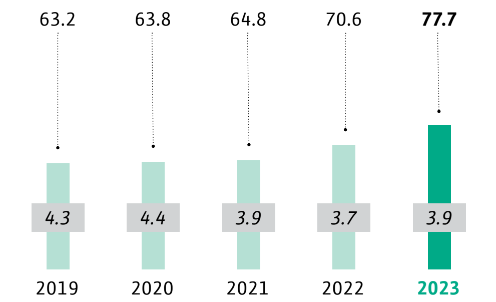
Investment and expenditure

The capital expenditure on research and development again focused essentially in the 2023 reporting year on the completion of the new research and development centre at the Dortmund site.

Total research and development costs* amounted to EUR 77.7 million in the 2023 financial year (previous year: EUR 70.6 million). The ratio of research and development costs to net sales remained high at 3.9 percent (previous year: 3.7 percent).

Development costs were capitalised in the amount of EUR 13.3 million (previous year: EUR 11.5 million). Research costs and non-capitalised development costs were recognised in the income statement in the amount of EUR 73.8 million (previous year: EUR 67.3 million). This includes amortisation of capitalised development costs in the amount of EUR 9.4 million (previous year: EUR 8.2 million).

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)

BUSINESS REPORT

- → **Global economy weak in 2023, construction industry under increased pressure due to interest rate hikes**
- → **Profitable growth course continued with strong currency-adjusted net sales growth of 10.4 percent**
- → **Substantial improvement in EBITDA and consolidated net income**
- → **Comprehensive financing package worth EUR 570 million concluded**

General economic and industry-specific conditions

Global economy: crises and high interest rates again had a tangible impact on the economy in 2023

After a strong start to the year, the global economy ran out of steam again in the summer of 2023 and so recovered only weakly from the pandemic. From a regional perspective, developments were mixed. According to the International Monetary Fund (IMF), the causes included on the one hand long-term effects resulting from geopolitical crises and decoupling, meaning the increasing political, social and economic fragmentation of the world. This decoupling and diversification of previously well-established supply chains are making global trade increasingly difficult. On the other, generally cyclical effects, such as more restrictive monetary policies, the phase-out of the fiscal packages that previously provided stimulus during the pandemic, higher levels of debt and various extreme weather events, had a negative impact. In contrast, positive stimulus for the global economy was triggered mainly by strong domestic demand in the US. Private consumption came under severe strain from high inflation rates in the majority of other countries and regions, especially in the euro area and the United Kingdom. As a result of the high interest rates and construction costs, construction investments additionally came under appreciable pressure, while very weak industrial production put a brake on the European economy. Overall, however, the global economy held up better than expected in the face of the shock of inflation and the massive tightening of monetary policy. The IfW in Kiel assumes, for example, that despite the adverse effects, the global economy grew by 3.1 percent in 2023. The IMF reports that global economic growth was +3.1 percent, after reaching +3.5 percent in the previous year. The industrialised nations grew by 1.6 percent here (previous year: +2.6 percent) and the emerging and developing economies by 4.1 percent (previous year: +4.1 percent).

The following section presents the 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: disparate construction industry, worsening downturn in residential construction

EUROPE. Accompanied by high levels of uncertainty, the economy performed with only little dynamism in 2023. After an initially mildly positive start, performance largely stagnated in the course of 2023 – both in the European Union (EU) and in the United Kingdom. To curb inflation, the ECB raised its base rate in six stages by a total of 2.0 percentage points to 4.50 percent. The reins on interest rates were also tightened in the United Kingdom and Switzerland. The catch-up effects after the pandemic that continued to drive the economy in the previous year were absent in the euro area. Despite a robust labour market, domestic demand stalled noticeably primarily as a result of the persistently very high cost of living. The worse financing conditions that were a consequence of the clear and rapid tightening of monetary policy had an especially negative impact. According to the IfW in Kiel, no stimulus for growth worth mentioning was provided either by private consumption, down at +0.5 percent from +4.2 percent in the previous year, or from capital investments at +0.7 percent (previous year: +2.8 percent). External demand also declined. The economy of the euro area was in the doldrums at the turn of the year as 2023 ended and 2024 began. For the whole of 2023, the increase in gross domestic product in the euro area, according to the statistics agency Eurostat, was just +0.5 percent (previous year: +3.5 percent). Within Europe, the individual countries were affected differently, from badly to not at all, by the general weakness of the economy. For example, most of the southern European nations even experienced robust growth, especially Spain and Portugal but also Italy and France. Belgium and Denmark also performed better than the average for the euro countries in 2023. In contrast, the economy performed weakly in the Netherlands, Austria, Sweden and Finland as well in the major eastern European states. Switzerland also clearly lost momentum in the course of the year, while, like the euro area, the United Kingdom barely grew at all.

According to the ifo Institute, the German economy had already been treading water since the beginning of 2023. Despite the appreciable easing in consumer prices at the end of the year and the significant pay rises that have now been awarded, purchasing power remained under pressure the whole year and, accompanied by a greater propensity to save, private consumption contracted by 0.8 percent in 2023. Under pressure from the weak international industrial sector and the fall in exports, capacity utilisation in broad areas of industry also decreased, while new business remained weak all the way to the end of the year. Nevertheless, investments in equipment increased, although predominantly as a consequence of government investments. Energy-intensive sectors, such as the chemical industry, reduced production. They are having to undergo a far-reaching structural change as a result of the energy shock, according to the ifo Institute, and are already increasingly shifting their production to other locations. Overall, GDP in Germany contracted slightly by 0.3 percent in 2023 according to the Federal Statistical Office (previous year: +1.8 percent).

Under the negative economic influences, Europe's construction industry found itself increasingly dragged down in 2023, with the trend even accelerating from the middle of the year. The residential construction sector was very badly hit. The massive rise in interest costs and high construction prices had a direct impact on demand and the willingness to invest here, especially as the purchasing power of private households suffered under the pressure of general inflation. In the wake of this, the renovation of existing buildings also declined in 2023 according to the Euroconstruct industry network (which includes the ifo Institute). In contrast, other building construction (industry, logistics, business and public buildings) stagnated, while civil engineering actually grew thanks to a high level of public investments. Based on the preliminary estimate from Euroconstruct, construction output in 2023 in the 19 most important European countries for the industry contracted by 1.7 percent in real terms (previous year: +2.7 percent). The downturns in Scandinavia were especially substantial, sometimes in the two-digit range. Construction output also fell in France (-2.2 percent) and Austria (-2.7 percent). The trends were also negative in Switzerland (-1.1 percent), the United Kingdom (-1.6 percent) and Italy (-0.7 percent), while Spain (+2.8 percent) and Portugal (+1.3 percent) continued to grow.

In Germany, the construction sector continued its slump especially in residential construction. Although a high number of existing orders still provided some support for output, new business in residential construction was very weak, with the result that orders on hand dwindled quickly as the year progressed. Furthermore, cancellations in the residential construction sector climbed steeply to a new record level, which was caused by the higher interest rates and construction prices. Just under half of the businesses in the house-building sector suffered from a lack of orders in the autumn and one in ten reported financing difficulties. Insolvencies increased massively in the German construction and real estate industry, by 20 percent up to August alone. After years of a boom, residential construction has now slid into a deep-seated crisis. Commercial construction suffered only a slight drop in performance, on the other hand, while public-sector construction provided support with further growth. According to calculations of the German Institute for Economic Research (DIW), the broadly defined nominal construction volume even grew by 6.1 percent in 2023. Adjusted for external price inflation of 7.1 percent, however, the construction volume contracted again in 2023, this time by 1.1 percent (previous year: -2.2 percent). New home construction slumped by 5.8 percent in real terms (previous year: -5.2 percent). The market is dominated, however, by extensions, conversions and the maintenance and modernisation of existing buildings, which accounts for around 70 percent of the total construction volume. The construction measures declined only slightly by 0.7 percent in real terms (previous year: -1.4 percent).

The sanitary industry performed well in 2023 despite the slump in the construction sector. The VdZ and the VDS, the professional association for buildings and energy and for the sanitary industry respectively, raised their joint sales forecast for the heating, cooling, air conditioning and ventilation sector to EUR 51.1 billion for 2023 halfway through the year. This would correspond to year-on-year growth of 9 percent (previous year: +11 percent). The market was boosted by the desire to break the dependence on fossil fuels and to reduce energy costs in the area of heating as well as increased interest in smart and efficient housing technology Nevertheless, the economic barometer for the HVAC sector showed the mood turning bleaker as the year progressed as a result of the slump in housebuilding. Moreover, the discussions on the Gebäudeenergiegesetz (GEG – Buildings Energy Act) and the municipal heating design plan had a negative impact. This can ultimately be expected to be reflected in weaker growth than is projected in the VdZ/VDS forecast for 2023. The heating segment remained the main driver in the sector here. According to the BDH, the professional association of the German heating industry, the implementation of modernisation projects earlier than planned provided a strong stimulus both for the sales of gas-based heat generators, which continued to dominate the market with a share of around 60 percent, and for the installation of heat pumps (share: 28 percent). Unit sales increased by 34 percent. However, growth weakened significantly over the course of 2023 and the performance was marked by anticipatory and extraordinary effects. While manufacturers continued to record a sustained boom in demand in the first halt of the year, the second half of the year saw the debate around the amendments to the Buildings Energy Act trigger increased demand for the modernisation of oil and gas heating systems, but sales of heat pumps experienced a decline.

USA. In 2023, the Federal Reserve continued its resolutely restrictive path to combat inflation to begin with, hiking its key interest rates to 5.25–5.50 percent in four stages up to July. The US economy nevertheless enjoyed a soft landing, i.e. the slide into a recession that was feared in 2023 failed to materialise. On the contrary, the US economy even grew surprisingly robustly, recording growth of 2.5 percent (previous year: +1.9 percent). And the performance even improved consistently throughout the year. The primary reasons for this were brisk private consumption and the expansive fiscal policy. However, industry was barely able to provide any stimulus on account of the deterioration in financing conditions and the weak global economy.

Despite the high interest rates, the US home construction industry largely experienced an upswing in 2023. In nominal terms, construction output measured by the value of expenditure grew by 7.0 percent, driven by high government infrastructure investments (including in water supply systems) and by brisk investments in commercial construction. The massive subsidies for investments in the construction of semiconductor factories and in renewable energy generation made a significant difference here. Multi-family house construction also increased again. In contrast, private single-family house construction suffered a sharp decline, slumping by 13.5 percent according the US Department of Commerce. Inflation and the high interest rates had a direct impact here. Investments in extensions and conversions as well as for home renovations are likely have increased by 3 percent, however. Investments in the development of the water supply system, undertaken predominantly by the public sector, grew by a further 17 percent in 2023.

Growth markets: construction industry largely receiving structural stimulus from housing demand and infrastructure development

CHINA. Despite the radical change in direction at the start of 2023 from the strict zero-Covid policy to complete reopening, China's economy initially recovered only very sluggishly. The persistent crisis in the construction and real estate sector, high rates of youth unemployment and subdued consumer sentiment as well as weak export demand had an appreciable impact on the Chinese economy in the year under review. Investment activities lost steam on a broad scale. To provide stimulus, the central bank relaxed interest rates and the government implemented measures on debt restructuring, easier lending and support for the construction industry. According to the National Bureau of Statistics (NBS), the economy ultimately grew by 5.2 percent in 2023, following +3.0 percent in the previous year.

It proved impossible to resolve or mitigate the crisis in the Chinese construction industry in 2023. On the contrary, it triggered a fall in investments and financial turbulence. The downturn in residential construction continued to accelerate from month to month here. Construction investment contracted by 9.6 percent in nominal terms over the whole of 2023, residential construction by 9.3 percent. By value, the collapse in offices and other commercial buildings reached double digits in some areas.

SOUTH KOREA. Following, for now, its last increase in January, the Bank of Korea (BoK) left the base rate at 3.50 percent for the rest of the year and thus took into account both the weak economy, where inflationary pressures were on a downward trend, and the external risks and the growing debt among private households. The economy showed some mild signs of a revival in the second half of the year, supported by a recovery in the important IT/semiconductor industry for South Korea and thanks to an increase in exports. According to the central bank, the South Korean economy grew more slowly, at 1.4 percent, in 2023 than in the previous two years (2022: + 2.66 percent, 2021: +4.3 percent).

On the other hand, the construction industry picked up speed in 2023 following two years of weakness. The second half of the year was buoyant in particular. For the year as a whole, construction investments are expected to have risen by 2.7 percent in real terms in 2023 (previous year: -2.8 percent).

INDIA. Driven the population growth and urbanisation, the country that is now the most populous in the world continued its dynamic economic growth in 2023. Dampened only slightly by the weaker global economy, GDP rose by a vigorous 6.7 percent according to the data from the IMF (previous year: +7.2 percent). Private consumption and a lively services sector were important drivers of the economy. Where private investment was more muted, high levels of government expenditure on infrastructure development provided structural support for investing activities. Construction, an important sector for the Indian economy, was one of the industries to benefit.

Under the strain of high debts and the coronavirus pandemic, India's construction industry has had to navigate choppy waters for several years. But following the positive turnaround in the previous year, Indian construction continued its impressive upswing in 2023. The problems now seem to have been overcome, driven by higher incomes, the housing shortage and government subsidies. Residential construction experienced a surprisingly strong boom in particular. Market analysts raised their forecasts during the year from +5 percent to real-term growth of 6 percent for the construction industry in 2023. Moreover, India has pressed ahead with the development of its water management by making substantial investments as part of long-standing programmes.

SOUTHEAST ASIA. This structurally highly dynamic region with a young population continued to recover from the pandemic in 2023. But the performance was capped by more tepid exports to the US and Europe. it was additionally impacted by the weakness in the Chinese economy. To stabilise their currencies and combat the generally high inflation, the majority of the region's central banks tightened the reins on interest rates. Thanks to lower inflation, Vietnam, in contrast, loosened interest rates, as it attempted to provide monetary policy stimulus in response to the relatively pronounced economic slowdown. According to the IMF, the most significant countries in the region (ASEAN-5) grew by 4.2 percent (previous year: +5.5 percent).

In an environment of geopolitical crises, the global economic slowdown, high inflation and generally high interest rates, the construction industry in Southeast Asia experienced a mixed performance in 2023. Indonesia's construction remained in crisis mode, for example. The performance in residential construction as well as the office and hotel segments in particular was weak due to overcapacity. In Vietnam, house construction initially suffered from high costs and financing problems, but over the whole year is likely to have reached the previous year's level. In contrast, the real estate market in Singapore enjoyed a strong upwards trend, while in Malaysia the construction sector is likely to have grown by around 6 percent, driven by residential construction. In the Philippines, the construction industry found its feet again, primarily in the areas of housebuilding and offices.

TURKEY. After the presidential election in May, Turkey implemented a drastic about-turn in its previously extremely loose monetary policy and tightened interest rates sharply to curb its hyperinflation. From the low point of 8.5 percent in February, the basic rate was increased in seven huge steps to 42.5 percent in 2023. Although this enabled the runaway inflation of before to be slowed somewhat, at the level of consumer prices it remained at an extremely high level at over 60 percent at the end of the year. The external value of the Turkish lira eroded significantly again, with the depreciation against the euro coming to more than 60 percent. In this difficult economic environment and a geopolitical framework marked by uncertainties, the dynamism of the Turkish economy cooled by a further considerable degree. The World Bank reports GDP growth for 2023 to be just +4.2 percent, following an already relatively sluggish +5.5 percent the year before.

The Turkish construction industry nevertheless performed well in 2023. Despite high construction costs and a deterioration in financing conditions, the industry's order book was surprisingly good thanks to the high demand for new housing, social housing projects and the reconstruction work in the earthquake zone. The number of building permits issued recovered strongly after a weak start to the year. Adjusted for price effects, construction investments even grew during the year at an accelerated pace from the weak prior-year base.

MIDDLE EAST & AFRICA. Following the region's brisk recovery the previous year, the performance in 2023 weakened again on a broad scale under the strains of military and social conflicts. Key factors that weighed on the oil-producing countries additionally included falling oil prices and low levels of crude oil production. Although the oil producers Qatar and the United Arab Emirates (UAE) grew more weakly than in the previous year, they still managed to achieve comparatively robust rates of roughly 3 percent. Kuwait (+0.8 percent) hardly grew, on the other hand, while the economies of Saudi Arabia (-0.5 percent) and Iraq (-2.9 percent) even contracted. Factors that impacted the region's oil-importing countries were high inflation, low foreign exchange inflows and restrictive monetary and fiscal policies. The performance overall (+3.0 percent) was more robust in these countries than in the oil exporters (+1.6 percent), however. Egypt stood out here with growth of 3.8 percent. Morocco, Tunisia and Algeria recorded moderate growth of around 1 to 3 percent. The World Bank estimates overall economic growth in the countries of the Middle East and North Africa to be +1.9 percent (previous year: +5.8 percent). Sub-Saharan Africa also suffered from inflationary pressures and increased interest rates, with several countries additionally facing political crises and military conflicts. Despite an upsurge in oil production, Nigeria's growth rate slowed to 2.9 percent on the back of a weak services sector. South Africa's economy (+0.7 percent) suffered massively from frequent power outages, the consequence of dilapidated and inefficient national energy infrastructure.

In this disparate macroeconomic framework, the construction industry is also subject to different conditions in the different countries. For example, the upturn in the construction industry, among others, in the UAE continued, primarily in the building of hotels and hospitals, but also in the oil and gas industry and in house construction. Projects to modernise the water management systems were also driven forward. Furthermore, the recovery in construction in Algeria continued with estimated growth of 5 percent in 2023. Drivers included residential construction, social infrastructure and now also tourism. In contrast, the construction sector in Egypt was slowed by a shortage of foreign exchange and increased costs for building materials. This resulted in project delays and undesirable developments. For example, investments in high-price offices and apartments remained buoyant, even though there is an enormous demand for affordable housing given the rapid growth of the population by around 2 million people a year. Nevertheless, the structural growth trend in the Egyptian construction sector remained intact as a result of urbanisation and growing industrialisation. Despite high demand, important incentives are missing in construction in South Africa. Construction output in 2023 was still below pre-pandemic levels, and residential construction even contracted.

LATIN AMERICA. The economy in this region weakened appreciably once again as a consequence of the cyclically depressed export demand, high interest rates and falling commodity prices combined with social unrest and political uncertainty. The central banks of Brazil, Chile and Peru therefore cut their base rates several times in the course of 2023, while Mexico put its interest rates on hold following the last hike in March. According to the IMF, the region's growth rate ultimately slowed from +4.2 percent in the previous year to +2.5 percent in 2023. At +3.4 percent and +3.1 percent respectively, the performance in Mexico and Brazil was surprisingly good. In contrast, Argentina slid ever deeper into crisis in 2023. Weighed down by hyperinflation and the fall in the peso, the economy contracted by 2.5 percent according to the World Bank.

The Argentinian construction industry also slumped in the wake of this. In contrast, and despite high interest rates, the construction industry in Brazil looks likely to have grown by 2 percent in real terms, supported by vigorous demand for modern, efficient air conditioning systems. The picture in the industry in Mexico was mixed in 2023. For example, residential construction was squeezed by high interest rates, but commercial and industrial construction grew and investments in infrastructure surged.

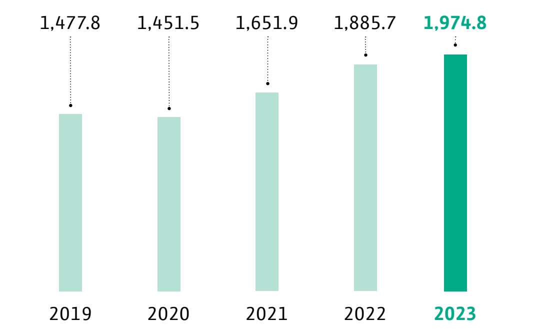
Results of operations

Development of net sales

The Wilo Group increased its net sales by 4.7 percent or EUR 89.1 million to EUR 1,974.8 million in the 2023 financial year. The development of net sales in the Group currency was significantly impacted by the depreciation of various foreign currencies that are important for the Wilo Group. Adjusted for exchange rate effects, net sales increased by 10.4 percent. Organic sales growth, i.e. after adjustment for exchange rate and acquisition effects, amounted to 8.6 percent.

Net sales development in the individual sales regions can be presented as follows in the 2023 and 2022 financial years:

Development of net sales
in EUR million



Net sales development by region

EUR million	2023	2022	Change in %	Change after adjustment for exchange rate effects in %
Established markets	1,178.3	1,113.8	5.8%	6.5%
Growth markets	796.5	771.9	3.2%	15.9%
Total	**1,974.8**	**1,885.7**	**4.7%**	**10.4%**

The established markets and growth markets consisted of the following countries as at 31 December 2023:
– 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 5.8 percent or EUR 64.5 million to EUR 1,178.3 million in 2023. After adjustments for exchange rate effects, growth amounted to 6.5 percent. Development was largely consistent across the established markets. The growth drivers were essentially the price increases that were necessary in response to the sharp rise in wage costs caused by inflation as well as costs for materials, components and energy. In addition, the demand for energy-efficient products basically remains high on account of the more stringent environmental standards relating to CO_2 reductions and the increases in energy prices. For example, there was much greater demand for new heating systems and highly efficient pumps and pump systems throughout Europe in 2023 as a consequence of the energy price shock triggered by the war in Ukraine as well as the planned tightening of laws governing CO_2 savings and increases in energy efficiency. This effect was especially pronounced in Germany. The high level of orders on hand, which had previously built up as a result of the disruptions to global supply chains, also had a positive effect. With improved availability of primary products, these could be successively processed in the first half of 2023. In addition, the expectations of an imminent and sustained boom from the replacement of unregulated pumps by high-efficiency pumps and the switch to carbon-free heating systems also played a role in the first half of the year. Some customers are likely to have built up stock buffers as a precautionary measure in order to prevent possible bottlenecks. Following the effects described above, however, this trend flattened out significantly as the year progressed. The reasons for this were the high inflation rates and the accompanying reduction in purchasing power and, in particular, the legal specifications for energy requirements, marked for so long by a lack of clarity, and the related structure of government subsidies. This triggered some degree of uncertainty and increasing hesitation on the market, which in turn resulted in demand returning to normal and, especially in the OEM segment, to lower incoming orders from the second half of the year onwards.

Germany, the Wilo Group's largest individual market, saw substantial year-on-year net sales growth of 14.3 percent in 2023. The main growth driver was the Building Services segment, which benefited from the strong demand for modern, energy-saving and non-fossil fuel heating systems as well as a highly efficient pumps and pump systems.

In France, net sales remained at around the same level as the previous year. The growth in the Building Services segment and in Water Management were virtually offset by the downturn in net sales in the OEM market segment.

A brisk project business and renovation measures in public buildings supported the business in particular in the Building Services Commercial market segment in Italy. There were declines in the OEM business, however, which meant that the net sales on the Italian market fell by a total of 8.8 percent from the previous year.

In eastern Europe, the weak economy was felt in the construction industry, but projects to implement energy-saving measures and also the replacement business nevertheless provided some positive stimulus. Hungary, the Czech Republic and Poland all generated double-digit growth rates, for example. Even in Ukraine, where sharp falls in net sales had been recorded in the previous year because of the war, encouraging growth of 7.8 percent was achieved. 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 5.4 percent year-on-year overall. It was the Building Services Commercial market segment that drove growth in Belgium. In addition, the Industry segment benefited from a successful project business. The Building Services Residential and Water Management market segments as well as the OEM business provided a positive stimulus in the Netherlands.

The Nordic countries saw a 6.3 percent drop in net sales, a decline that can essentially be attributed to the depreciation of the Swedish krona against the euro. Adjusted for exchange rate effects, a slight rise in net sales of 1.0 percent was recorded despite the cooling in the general construction industry.

Net sales in the United Kingdom and Ireland increased by a strong 16.6 percent. With the exception of Industry, all market segments made a contribution to this very positive performance.

Net sales on the North American market grew very strongly by 24.7 percent. The business was expanded substantially here both in the US and in Canada. The acquisitions of Gustavo Preston Company, Boyer & Seeley Inc. and Plad Equipment Ltd. that were completed in the year under review all played their part in this exceptionally strong growth. Negative foreign exchange effects acted to dampen the development of net sales, however. At 13.7 percent in total, organic growth was very healthy and clearly stronger than the Group-wide average. The plant in Cedarburg that was opened in 2002 allows the local market to be served efficiently and in line with requirements, while the acquisitions in the year under review further strengthened the strategic market position in North America for the long term.

GROWTH MARKETS. An increase in net sales of 3.2 percent was generated in the growth markets. Net sales grew by EUR 24.6 million to EUR 796.5 million. Converted into euros, the nominal net sales performance in the growth markets was dampened massively by the depreciation of various local currencies. After adjustment for exchange rate effects, net sales rose by 15.9 percent. Overall, a somewhat more diversified picture emerged in the growth markets than in the established markets, where the declines in net sales in individual regions that were essentially caused by exchange rate effects were offset by the very good business performance in Turkey, the Middle East and Southeast Asia.

China saw a drop in net sales of 7.3 percent. This decline was essentially the result of the depreciation of the Chinese renminbi against the euro. Adjusted for this, net sales were up slightly by 0.7 percent over the previous year's level. While the Water Management and Industry market segments performed very well, a decline in the Building Services segment had to be recorded overall. The current weakness of the real estate sector had a clear impact here.

Net sales on the Korean market increased by 1.2 percent and, after adjustment for exchange rate effects, even recorded growth of 6.1 percent. The Building Services segment enjoyed a positive performance, supported by the upturn that developed in the construction sector following a long period of weakness. Increases in net sales were also achieved in the Industry market segment as a result of the conclusion of several large projects. Equipping data centres as well as factories for the semiconductor industry is a growing line of business.

Net sales in India remained at the previous year's level. The performance was subdued as a result of the depreciation of the Indian rupee against the euro. When adjusted for this exchange rate effect, however, net sales grew strongly by 8.2 percent. While the Building Services and Industry segments enjoyed a positive development, the Water Management market segment recorded a base-related decline after a strong performance in the previous year.

Strong net sales growth of 35.6 percent was achieved in Southeast Asia. Net sales increased in all countries in the region. The business in Indonesia enjoyed a significant expansion in particular. Wilo is supplying a smart and powerful pump system for a drainage installation in the mining industry as part of a large-scale project.

Net sales in the Eurasian region declined by 6.2 percent. Although Uzbekistan and Kazakhstan recorded high growth rates, these were not sufficient to offset the downturn in net sales in Russia, where business continued to contract significantly compared with the previous year due to the sanctions and accompanying restrictions that have been imposed on the movement of goods. Net sales fell by over 20 percent.

Very strong growth of 35.4 percent was achieved in Turkey in spite of the extremely challenging external business conditions resulting from the pronounced weakness of the local currency. The business in Turkey benefited from the large number of public projects (hospitals, infrastructure). The Building Services Commercial segment drove growth here, but all the other market segments also generated strong growth rates and played their part in this exceptionally positive performance.

Net sales in the MENA sales region (Middle East and North Africa) experienced very substantial growth of 56.5 percent. The main driver behind this was once again Egypt, where work continued on a major project in the Water Management market segment. Wilo is delivering pumps for the Toshka project, which involves the construction of a system of canals to irrigate the Western Desert of Egypt. In Morocco, Wilo is supplying vertical turbine pumps for a large-scale infrastructure project that will connect the Sebou and Bouregreg basins with the aim of improving the drinking water supply for the cities of Casablanca and Rabat and irrigation in the surrounding areas.

Net sales in central and southern Africa also enjoyed exceptionally strong growth of 17.2 percent. The Wilo Group's operations in this region are also characterised primarily by the project business and are thus subject to more pronounced fluctuations. While South Africa, Côte d'Ivoire and Cameroon generated substantial growth in 2023, a downturn was recorded in Nigeria and Kenya.

The development of net sales in Latin America suffered a marked downturn in particular because of the exacerbation of the crisis and the massive currency devaluation in Argentina. The growth rates that were achieved in Brazil primarily in the Water Management market segment and in Chile in the Building Services segment were unable to offset the losses in Argentina and Mexico. Overall, net sales slumped by 21.5 percent.

Earnings development

EUR million		2023	2022	Change in %
Net sales	in EUR million	1,974.8	1,885.7	4.7
Gross profit *Gross margin*	in EUR million *in %*	679.9 *34.4*	615.0 *32.6*	10.6 *1.8 pp*
Earnings before interest, taxes, depreciation and amortisation (EBITDA) *EBITDA as a percentage of net sales (EBITDA margin)*	in EUR million *in %*	216.8 *11.0*	196.7 *10.4*	10.2 *+0.6 pp*
Earnings before interest and taxes (EBIT) *EBIT as a percentage of net sales (EBIT margin)*	in EUR million *in %*	116.3 *5.9*	97.0 *5.1*	19.9 *+0.8 pp*
Net finance costs & net income from investments carried at equity	in EUR million	–12.7	–8.2	–54.9
Consolidated net income before taxes	in EUR million	103.6	88.8	16.7
Consolidated net income	in EUR million	**75.2**	61.1	23.1

Gross profit increased by 10.6 percent or EUR 64.9 million year-on-year to EUR 679.9 million. The gross profit margin improved by 1.8 percentage points to 34.4 percent. On the one hand, the positive effects produced by the higher sales volume and the price increases were able to offset the higher costs for staff, raw materials, components and energy. On the other hand, positive mix effects resulted from the slightly above-average growth in the higher-margin established markets and the comparatively moderate performance in the lower-margin OEM business.

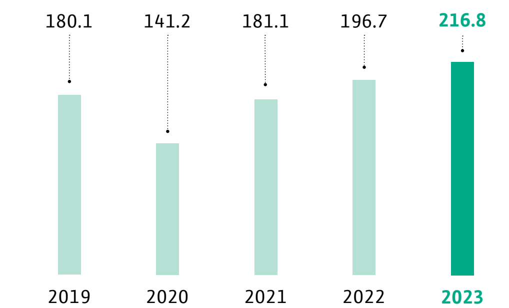
Selling and administrative expenses increased by 7.6 percent or EUR 34.4 million year-on-year to EUR 485.6 million. The reason for the increase was essentially the higher staff costs. The workforce was significantly expanded with the particular aim of strengthening the global sales and service structures. Wilo has thus created structures with a view to enhancing its ability to participate in the expected growth in the respective regions to an even greater extent in the future. Moreover, as in previous years, vacant positions in administrative and support functions around the world were gradually filled at the same time. 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. In addition, the headcount increased as a result of the company acquisitions that were completed. Likewise, staff costs increased on account of the pay rises that were awarded in response to inflation.

As a customer-oriented premium provider, the Wilo Group relies on pioneering, innovative products and technologies. Accordingly, research and development play an important role. The Wilo Group therefore continued its activities in this area unabated and with a high level of intensity in the year under review. Research costs recognised in profit or loss and non-capitalised development costs amounted to EUR 73.8 million (previous year: EUR 67.3 million). This equates to an increase of 9.6 percent. One of the factors that this significant increase can be attributed to is higher staff costs.

Other operating income declined from EUR 0.6 million to minus EUR 4.3 million. This was mainly due to a EUR 3.6 million decrease in the foreign exchange result from operating activities.

Earnings before interest, taxes, depreciation and amortisation (EBITDA) therefore increased substantially by EUR 20.1 million or 10.2 percent to EUR 216.8 million. The EBITDA margin (ratio of EBITDA to net sales) improved by 0.6 percentage points to 11.0 percent. Earnings before interest and taxes (EBIT) increased by EUR 19.3 million, or almost 20 percent to EUR 116.3 million.

EBITDA
in EUR million

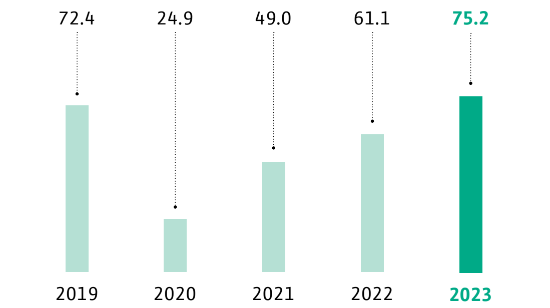


The net finance costs of the Wilo Group fell by EUR 5.7 million, from minus EUR 8.2 million in the previous year to minus EUR 13.9 million in the year under review. Net interest cost amounted to minus EUR 16.7 million, following on from minus EUR 9.7 million in 2022. Reasons for this included the increase in financial liabilities in absolute terms and the higher average interest rate for the credit portfolio. The net foreign currency income from financing activities also fell by EUR 2.6 million. In contrast, the net income from the utilisation and measurement of derivative financial instruments increased by EUR 1.5 million.

Income taxes amounted to EUR 28.3 million (previous year: EUR 27.7 million). The substantial improvement in pre-tax earnings meant that the current tax expense also increased from EUR 30.7 million to EUR 33.3 million. Income of EUR 4.9 million was recorded in deferred taxes (previous year: EUR 3.0 million).

Consolidated net income thus improved very significantly overall by EUR 14.1 million, or 23.1 percent to EUR 75.2 million. The return on sales, which describes the Wilo Group's ratio of consolidated net income to net sales, increased from 3.2 percent in the previous year to 3.8 percent in the year under review.

Consolidated net income
in EUR million

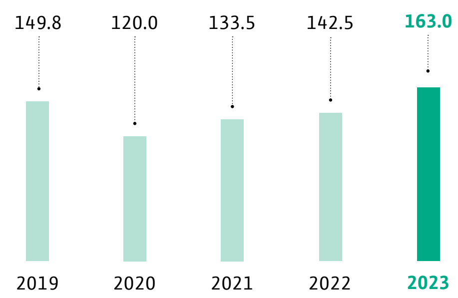


Cash flows

Capital expenditure

Capital expenditure on intangible assets and property, plant and equipment (not including company acquisitions and leases) increased by EUR 20.5 million year-on-year to EUR 163.0 million in 2023. To secure the Group's profitable growth over the long term, activities around the world again focused on the further development of capacities and structures for production and sales as well as the implementation of new technologies, where the strategically defined Wilo sustainability goals were also taken into account in this process.

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 expenditures again primarily related to the strategic location development project in Dortmund and the modernisation and adjustment of the production capacities located there. Investments were also made in the expansion of the IT infrastructure. A total of around EUR 80 million was spent here alone in 2023. Wilo's headquarters in Dortmund, known as the Wilopark, will be completely redesigned and comprehensively geared towards the requirements of the future in the course of a large-scale, multiyear project. The centrepiece is the smart factory, a state-of-the-art, intelligent production facility that integrates key elements of the Industry 4.0 vision. This was completed in 2019, with production subsequently commencing as planned. 2020 saw the Group move into the Pioneer Cube, a modern office building that is home to around 500 staff in the head office.

Construction work at the Wilopark continued as planned in the year under review. For example, the Innovation Cube was ready to move into in November. This highly advanced building complex is now home to the research and development division, including a test laboratory. The new working environment offers modern workstations that are designed to encourage exchange and collaboration and thus to create the ideal conditions for innovation.

The construction work on the Networking Cube, a new centre for regular exchanges with national and international market partners, events and seminars, has also progressed, with the building shell and the façade work essentially completed and construction on the interior started in the year under review. Completion is planned for the second quarter of 2024.

December 2023 saw the Wilo Executive Board break ground on the construction of a modern, holistic health centre at the Wilopark. The Health Cube will be home to specialists and a psychotherapy practice in addition to a general and occupational health service. The range of services offered will be supplemented by physiotherapy consultations, preventive healthcare services, a fitness centre and an outside sports facility. The official opening of the Health Cube is planned for the start of 2026.

In view of the current and future changes to the product portfolio, the growing market demand and with the aim of further increasing cost-efficiency, the Wilo Group has additionally invested in appropriate production capacity. To this end, the Smart Factory in Dortmund was equipped with an additional automated THT line for electronics production, among other things, in the year under review. This "through-hole technology" is used to place components on a printed circuit board. Additional systems for the semi and fully automated manufacturing of parts for engine production, were also brought online in the course of the increased vertical integration of the production processes. Moreover, a capacity-expanding, fully automated welding and production line with 12 robots for the series production of high-efficiency pumps in the HELIX series was purchased in Laval in France.

Considerable investments were also made in new and existing sales and production locations around the world in the year under review. A new plant was inaugurated in India in August. A sustainable and ultra-modern high-tech production complex has been built on a 94,000 square metre site in Kesurdi in the west of the country. It will in particular manufacture pumps and pump systems for water management in India, the Middle East, Africa and Southeast Asia. A new high-tech production facility was also opened in the Chinese city of Changzhou. The Wilo Changzhou Park includes production and office buildings as well as research and development facilities and covers an area totalling 56,000 square metres. The engine production facility previously based in Qinhuangdao has also been integrated here, among other things. After the production systems were successfully relocated, the plant in Qinhuangdao was closed and sold. The new, smart production facilities in India and China meet the high requirements for modern, digital factories and have additionally been designed with sustainability as a guiding principle in order to make an important contribution to climate protection in future.

The Wilo Group has set itself ambitious climate targets. Hence it is increasingly relying on self-generated electricity and climate-friendly energy supply concepts to reduce its carbon emissions. The main production centres in Dortmund and Hof in Germany, in Cedarburg in the US and in Kolhapur in India have already been equipped with modern photovoltaic systems over the past few years. The plants that were opened in the Indian city of Kesurdi and the Chinese city of Changzhou in 2023 also have systems for generating solar power. Furthermore, solar modules were installed in Aubigny in France and the existing system in Dortmund was expanded in the year under review. Moreover, a system was commissioned at the subsidiary in Romania that will supply around 240,000 kWh of climate-friendly solar power every year. Ground was broken in July 2023 for a sustainable energy concept at the site in Hof. The Wilo facility in Hof will in future be supplied exclusively with heat generated from biomass by means of a local heating network that will be fed by a biogas plant and a wood-chip heating system installed on neighbouring farms.

A large part of the investments in the year under review were additionally spent on upgrading the IT infrastructure and ensuring the security of digital processes as part of the ongoing digital transformation of the Wilo Group.

Development costs including borrowing costs were capitalised in the amount of EUR 13.7 million in the year under review (previous year: EUR 12.0 million).

Further information on purchase commitments for planned capital expenditures 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 expenditures on intangible assets and property, plant and equipment (not including company acquisitions and leases) can be broken down as follows in the 2023 and 2022 financial years:

Capital expenditure on intangible assets and property, plant and equipment

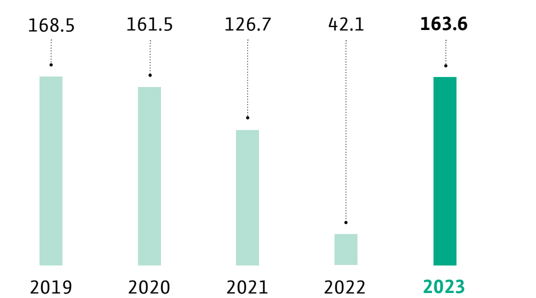
EUR million	2023	2022	Change
Capital expenditure on intangible assets	**27.6**	**21.3**	**6.3**
Land and buildings	24.2	4.5	19.7
Technical equipment and machinery	11.7	15.4	-3.8
Operating and office equipment	24.3	17.4	6.9
Advance payments and assets under construction	75.2	83.9	-8.7
Capital expenditure on property, plant and equipment	**135.4**	**121.2**	**14.2**
Total	**163.0**	**142.5**	**20.5**

In the context of its 2023 M&A activities, the Wilo Group took over the business activities of the US trading and service companies Gustavo Preston Company in Massachusetts and Boyer & Seeley Inc. in Colorado as well as the Canadian pump manufacturer Plad Equipment Ltd. based in Quebec by means of asset deals. Including company acquisitions, investments amounted to EUR 198.6 million in the past financial year.

Cash flow and liquidity

The positive cash flow from operating activities increased significantly by EUR 121.5 million to EUR 163.6 million in the 2023 reporting year. The reasons for this were, on the one hand, the strong improvement in the earnings before interest, taxes, depreciation and amortisation (EBITDA), while on the other hand, the increase in the working capital, adjusted for exchange rate effects, remained low at EUR 11.0 million. Inventories grew at a significantly lower rate in 2023 than in the previous year, while trade receivables fell year-on-year. This was offset by the substantial reduction in trade payables, however. Working capital management was positively impacted in 2023 by the fact that the previously deliberately increased inventories were reduced after the international supply chain disruptions in the market were gradually resolved.

Cash flow from operating activities
in EUR million



Net cash used in investing activities rose by EUR 37.3 million to EUR 182.7 million in the year under review. At EUR 135.4 million, payments for capital expenditure on property, plant and equipment were EUR 14.2 million higher than in the previous year. Construction work on the Wilopark in Dortmund made further progress in the reporting year. The Innovation Cube, a state-of-the-art building complex that is now home to the research and development department, including a test laboratory, was ready to move into at the end of 2023. Similarly, the new production and administration buildings in China and India were inaugurated and production commenced. Investments were also made in the expansion and modernisation of production capacity. Payments for company acquisitions amounted to EUR 35.6 million in the year under review, up EUR 22.8 million on the previous year.

Cash flow from financing activities totalled EUR 166.7 million and thus remained EUR 11.1 million lower than the previous year's figure. Wilo took several measures in 2023 to further develop and strengthen the financing structure with an eye on the future and with a view to securing the goal of long-term profitable growth. To this end, a traditional promissory note with a volume of EUR 270.0 million was issued in the 2023 financial year, while cash totalling EUR 3.0 million was received from the sale of treasury shares. This was offset to a minor extent by the repayments totalling EUR 52.0 million of a senior note and another loan. A cash outflow of EUR 14.5 million resulted from the dividend payment to the shareholders of WILO SE (previous year: EUR 11.8 million). The cash flow from financing activities additionally includes the repayments of lease liabilities and the corresponding interest payments totalling EUR 15.4 million (previous year: EUR 15.8 million).

The individual cash flows for the 2023 and 2022 financial years can be presented as follows:

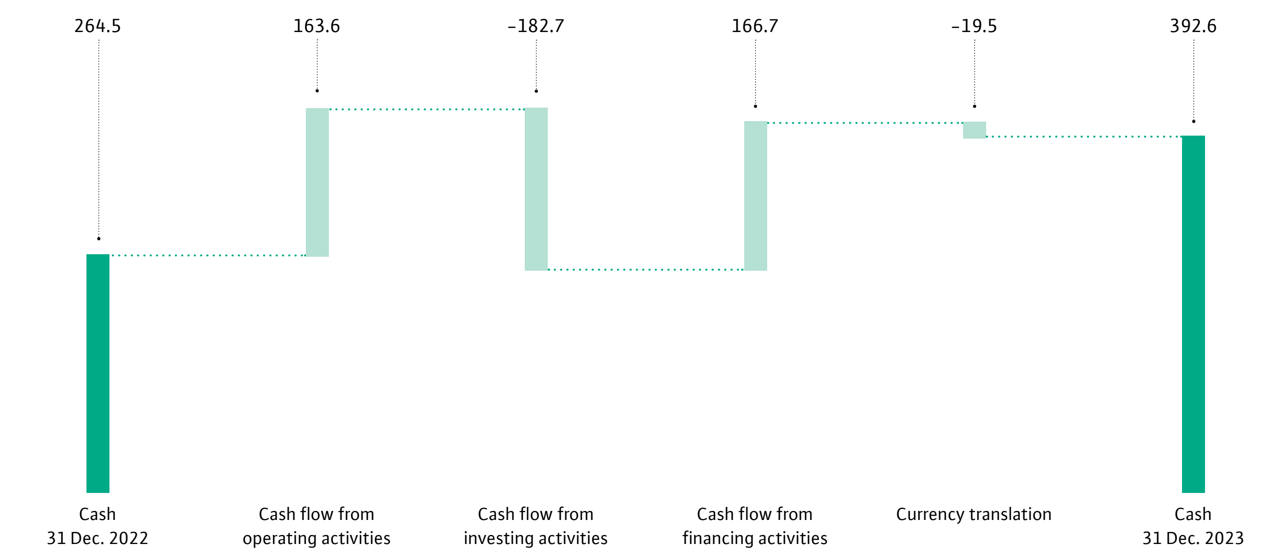
Cash flows

EUR million	**2023**	2022	Change
Cash flow from operating activities	163.6	42.1	121.5
Cash flow from investing activities	-182.7	-145.4	-37.3
Cash flow from financing activities	166.7	177.8	-11.1
Change in cash	**147.6**	**74.5**	**73.1**
Cash at the end of the financial year	392.6	264.5	128.1
Free cash flow	-37.5	-114.7	77.2

The free cash flow showed a substantial improvement from minus EUR 114.7 million to minus EUR 37.5 million primarily as a result of the sharp increase in the cash flow from operating activities. The free cash flow is calculated as the difference between the cash flows from operating and investing activities and takes interest income and expenses and dividends received into account.

Including the negative net effects of currency translation in the amount of EUR 19.5 million, cash increased by EUR 128.1 million to EUR 392.6 million as at 31 December 2023.

Change in cash
in EUR million



Financial management

The Wilo Group's financial management pursues the goal of maintaining the company's financial independence, ensuring liquidity at all times and supporting the operating business. In addition to its operating cash flow, Wilo has sufficient financing facilities from international banks available to it for this purpose, which consist of short and medium-term cash credit facilities as well as guarantee and margin facilities with a total volume of around EUR 470 million. A key element of these is a new syndicated loan with a revolving credit facility of EUR 300.0 million and an option to increase it by EUR 100.0 million. The syndicated loan has a term of five years and an option to extend it by two years in total. It was entered into in December 2023 to replace the old syndicated loan, the term of which was due to end in 2024 and which was also furnished with a line of credit of EUR 300.0 million. EUR 3.5 million of the cash credit facilities were utilised as at 31 December 2023 (previous year: EUR 2.5 million). Guarantee and margin facilities were utilised in the amount of EUR 59.9 million (previous year: EUR 25.6 million).

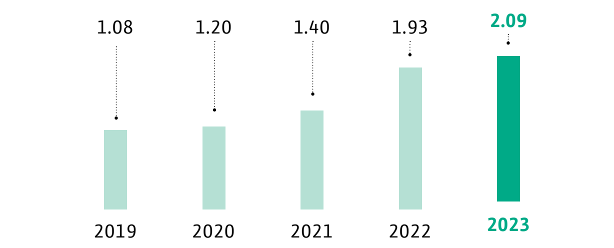
The Wilo Group's financial liabilities increased by EUR 211.2 million to EUR 827.5 million as at 31 December 2023. WILO SE placed another traditional promissory note with a volume of EUR 270.0 million on the international capital market in November 2023. The terms of the various tranches range from three to seven years. Despite the difficult market environment in the current interest rate cycle, the transaction met with a very high level of interest among national and international investors, and more than 40 investors received an allotment. The promissory note includes an ESG (environmental, social, governance) component to reflect Wilo's leading, holistic approach to sustainability 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. Given the currently high levels of uncertainty in view of the geopolitical conflicts and tensions and also the trends in interest rates, the volatility on the capital markets could very well increase. Against this background, the Wilo Group has taken suitable measures, optimising its financing structure and diversifying its investor base, to secure its financial stability and independence over the long term.

Financial liabilities also include senior notes that were issued as part of US private placements in 2017, 2020 and 2022. The volume of these senior notes totals USD 30.0 million (bullet maturity 2027), USD 90.0 million (bullet maturity 2035) and USD 95.0 million (bullet maturity 2032 and 2037). 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, the Pioneer Cube, that is part of the construction project at the Wilopark in Dortmund. The loan amount has been drawn down since 2018 in line with the progress of the construction work. Repayment is made in instalments following the expiry of two redemption-free years. The KfW development loan had a carrying amount of EUR 9.8 million as at 31 December 2023 (previous year: EUR 12.2 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 operating activities, as well as through refinancing measures as required. It is not aware of any indication that the current weakness of the global economy, which is expected to persist for the foreseeable future, or a possible increase in the volatility in the financial market environment might have a material negative impact on the Wilo Group's financing activities. Cash amounted to EUR 392.6 million (previous year: EUR 264.5 million) as at 31 December 2023. 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 and other effects such as acquisitions), increased from 1.93 at the end of the previous year to 2.09 as at 31 December 2023. 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 148 et seq.***

Financial position

The Wilo Group's total assets increased by 9.2 percent or EUR 201.2 million to EUR 2,379.8 million as at 31 December 2023 compared with the end of the previous year. Non-current assets rose by 8.3 percent or EUR 90.1 million to EUR 1,177.3 million. This was attributable in particular to capital expenditures on intangible assets and property, plant and equipment in the amount of EUR 163.0 million. Capital expenditure on property, plant and equipment amounted to EUR 135.4 million and mainly related to the location development projects in Dortmund, China and India as well as new manufacturing technologies. The Wilo Group also invested EUR 27.6 million in intangible assets, of which EUR 13.3 million was attributed to capitalised development costs plus capitalised borrowing costs of EUR 0.4 million. The acquisition of the business activities of Gustavo Preston Company, Boyer & Seeley Inc. and Plad Equipment Ltd. by means of asset deals generated goodwill of EUR 17.7 million in the year under review. Amortisation of intangible assets and depreciation of property, plant and equipment amounted to EUR 100.5 million in the year under review. Negative exchange rate effects of EUR 17.4 million resulted from the remeasurement of intangible assets and property, plant and equipment originally held in foreign currency. Intangible assets and property, plant and equipment thus grew by EUR 85.8 million in total.

The carrying amount of current assets rose by 10.2 percent or EUR 111.1 million to EUR 1,202.5 million in 2023. Inventories increased only slightly by 2.5 percent or EUR 10.8 million to EUR 447.1 million. The development returned to normal again in 2023 after previous years had seen a targeted build-up of stock buffers in response to the massive distortions on the procurement markets and disruptions in the global supply chains.

Current trade receivables fell by 13.1 percent or EUR 44.0 million to EUR 291.1 million. Working capital, defined as current and non-current trade receivables plus inventories less current and non-current trade payables, increased slightly by 3.5 percent overall to EUR 547.8 million, particularly as a result of the significant reduction in current trade payables. Cash amounted to EUR 392.6 million as at 31 December 2023 and was thus EUR 128.1 million higher than at the end of the previous year.

The Wilo Group's equity increased by 3.4 percent or EUR 31.7 million year-on-year to EUR 962.6 million as at 31 December 2023. This can essentially be attributed to the consolidated net income of EUR 75.2 million. Furthermore, WILO SE sold treasury shares worth EUR 3.0 million in December 2023. This was offset on the one hand by the actuarial losses from pension obligations after deferred taxes totalling EUR 4.3 million. On the other hand, the negative effects from the translation of the foreign currency financial statements of subsidiaries into the Group currency in the amount of EUR 17.8 million also reduced equity. In addition, the dividend distributed to shareholders reduced equity by EUR 14.5 million. As net equity did not increase to the same extent as liabilities, the equity ratio declined slightly from 42.7 percent at the end of the previous year to 40.4 percent as at 31 December 2023.

As at 31 December 2023, the non-current liabilities of EUR 884.5 million primarily consisted of financial liabilities totalling EUR 751.2 million and provisions for pensions and similar obligations of EUR 69.9 million. Non-current financial liabilities were EUR 208.3 million higher as at the end of the year under review than they were a year before. This was due primarily to the placement of a traditional promissory note in the amount of EUR 270.0 million with terms of between three and seven years. Provisions for pensions and similar obligations increased by EUR 6.7 million to EUR 69.9 million.

The carrying amount of current liabilities fell by EUR 48.8 million year-on-year to EUR 532.7 million as at 31 December 2023. This was largely due to the reduction in the trade payables of EUR 52.6 million.

The net assets of the Wilo Group can be presented as follows as at 31 December 2023 and 2022:

Financial position

EUR million	2023	%	2022	%
Non-current assets	1,177.3	49.5	1,087.2	49.9
Inventories	447.1	18.8	436.3	20.1
Current trade receivables	291.1	12.2	335.1	15.4
Cash	392.6	16.5	264.5	12.1
Other current assets	71.7	3.0	55.5	2.5
Total assets	**2,379.8**	**100.0**	**2,178.6**	**100.0**
Equity	962.6	40.4	930.9	42.7
Non-current liabilities	884.5	37.2	666.1	30.6
Current trade payables	194.6	8.2	247.3	11.4
Other current liabilities	338.1	14.2	334.3	15.3
Total equity and liabilities	**2,379.8**	**100.0**	**2,178.6**	**100.0**

Statement by the Executive Board on the economic situation

Geopolitical crises and increasing uncertainties once again cast a shadow over the year under review. Russia's war of aggression in Ukraine and the related impacts on the economic performance in the affected regions and on global supply chains are continuing and it is impossible to foresee how the situation will develop. The terrorist attack by Hamas in October 2023 reignited the Middle East hotspots, and the risk of this escalating further and developing into a full-scale conflagration consuming the entire region is ever-present. High interest rates, inflation rates that are levelling off only slowly and a murky economic outlook confronted market participants around the world with major challenges in 2023 and increasingly reinforced the sense of uncertainty.

In this challenging market environment, the Wilo Group managed to bring the 2023 financial year to a very successful conclusion. New records were set both in net sales and in income, measured by EBITDA. Net sales increased by 4.7 percent to around EUR 2.0 billion, which meant that the target of mid-single-digit sales growth that had been set at the start of the year was achieved. The development of net sales was significantly impacted by the depreciation of various foreign currencies that are important for the Wilo Group. Excluding exchange rate effects, growth even exceeded 10 percent. The Wilo Group grew organically, i.e. after elimination of foreign exchange and acquisition effects, by over 8 percent.

Supported by the positive net sales development, earnings before interest, taxes, depreciation and amortisation (EBITDA) rose to EUR 216.8 million and thus improved to a significantly greater extent than expected. All in all, profitability at an EBITDA margin of 11.0 percent did not experience a slight fall as originally forecast, but in fact increased. Consolidated net income also improved strongly by more than 20 percent, increasing by EUR 14.1 million to EUR 75.2 million.

The cash flow from operating activities increased by more than EUR 120 million to around EUR 165 million. Targeted measures to optimise the working capital contributed to this substantial improvement. High operating cash flow allows the Wilo Group to successfully implement its ambitious growth projects and to maintain a high degree of independence as a company.

Despite heightened uncertainty, Wilo again maintained a high level of investments in the year under review. Around EUR 200 million was spent on the forward-looking construction and expansion of new and existing sales and production locations, the modernisation of production capacities, the development of the sales infrastructure and the acquisition of companies in various countries. In August 2023, for example, a new state-of-the-art production complex was opened in Kesurdi in India. Wilo is manufacturing pumps, pump systems and other products here for use in water management in India, the Middle East, Africa and Southeast Asia. September in the year under review saw the inauguration of the Wilo Changzhou Park, a new high-tech production facility in China. Around 3 million pumps and pump systems as well as 3.5 million electric motors primarily for the Asian market will be manufactured here annually in the future. As well as meeting the requirements of modern digital factories, the new smart production sites have been designed as green buildings based on the guiding principle of sustainability. Complex energy management and water treatment systems significantly minimise the environmental footprint of the plant in Kesurdi, for example. The Wilo Changzhou Park has already been certified as carbon neutral by TÜV Rheinland. The Wilo Group further strengthened its market position in North America through targeted strategic acquisitions of companies in the US and Canada. In particular, the service business and the expertise in the rapidly growing business areas for packaged systems and irrigation have been strengthened on a long-term basis.

A project that is an especially high priority for the Executive Board is the Health Cube. The ground was broken on the construction of this modern, holistic health centre at the Wilopark in Dortmund in December 2023. The centre will in future be home to specialists and a psychotherapy practice in addition to a general and occupational health service. The range of services offered will be supplemented by physiotherapy consultations, preventive healthcare services, a fitness centre and an outside sports facility. It is not only Wilo employees worldwide, but also the entire Dortmund region that will benefit from this modern innovative health centre from 2026 onwards. The innovative concept meets the current and future challenges in health care. Wilo is once again taking bold steps forward.

The Wilo Group has defined a clear direction that will enable it to succeed in a competitive market characterised by radical technological breakthroughs. The successful Ambition 2025 corporate strategy was harmonised with the revised sustainability strategy, adjusted to account for the changes in the general social, economic and technological conditions and developed into the Ambition 2030 strategy in the year under review. The sustainability strategy will thus in the future form the overall framework for the corporate strategy and the functional strategies derived from it. Wilo regards itself as a climate protection company, was and is a pioneer in energy efficiency and wants to remain so. Integrity, fairness, respect, passion and responsibility are the inviolable values by and with which the entire company works. To fulfil its social responsibility, the Wilo Group endeavours always to ensure that its ambitions for growth are consistent with environmentally and socially responsible action. Sustainability and social responsibility therefore play an important role in all decision-making and business processes. This has been reinforced by the overarching position given to the sustainability strategy and the explicit inclusion of sustainability goals in the strategy development process. The Wilo Group is aiming for growth in net sales to over EUR 3 billion with profitability of more than 14.0 percent (measured by the EBITDA margin) by 2030, all the while taking into account the sustainability goals it has formulated. It is planned to support the organic growth proactively here through targeted M&A activities.

The Wilo Group's extensive sustainability initiatives were again awarded “Platinum” status – the highest rating – by EcoVadis, one of the world's leading providers of sustainability assessments for companies, in the year under review. This means Wilo is ranked among the top one percent of companies that are 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 very 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 solutions that are open to different technologies make an essential contribution to climate protection and sustainability.

A solid balance sheet and financing structure are essential for any company looking to ensure resilience in times of crisis and successful economic performance in a volatile macroeconomic environment characterised by considerable uncertainty. Looking to the future and also considering the aspect of security, the Wilo Group optimised its financing structure and further broadened its investor base in order to reinforce its financial flexibility and stability. To this end, WILO SE concluded a comprehensive financing package with a volume of EUR 570 million in December 2023. A promissory note of

EUR 270 million was placed on the international capital market and a syndicated loan of EUR 300 million was refinanced from among the core banks. The promissory note includes an ESG (environmental, social, governance) component to reflect Wilo's leading, holistic approach to sustainability in its financing strategy. The Wilo Group is thus reinforcing its commitment in the area of climate protection and sustainability and underlining its commitment to think and act sustainably. The syndicated loan constitutes a fundamental and significant building block in WILO SE's financing strategy and strengthens the financial flexibility for the Group's future growth. 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.

Leverage rose slightly as planned to 2.09 and, in light of the Wilo Group's stable and profitable growth, remains at an acceptable level that is well within the limits set out in the respective financing agreements.

In light of the exceptionally challenging macroeconomic and geopolitical environment and the specific factors for the Wilo Group's business, the Executive Board has reached an very positive assessment of the company's business performance and economic situation in terms of the substantial growth generated as adjusted for exchange rate effects, the significant improvement in EBITDA and consolidated net income, the high cash flow from operating activities, the successful implementation of numerous sustainability initiatives, the strong market presence and innovative capacity, and the 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 2023 and takes into account business performance up until the preparation of the 2023 Group management report. Business performance in early 2024 is in line with the Executive Board's expectations at the time this Group management report was prepared.

REPORT ON RISKS AND OPPORTUNITIES

- → **Integrated risk management system ensures transparency and security**
- → **Identification and realisation of operational and strategic opportunities through systematic opportunities management**
- → **Largely unchanged overall risk situation in comparison with the previous year**
- → **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 opens up numerous opportunities. In this respect, business activity requires all relevant risks and opportunities to be carefully monitored. 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 in relation to the financial position, financial performance and liquidity situation of the Wilo Group and in relation to future development. Risks that could jeopardise the future of the company as a going concern or that are inappropriately high or unclear are not entered into in principle.

The comprehensive and systematic risk management system that is installed throughout the entire Wilo Group and the forward-looking procedure for managing opportunities are therefore fixed and integral 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 while taking into account the sustainability goals. The opportunities management is not directly integrated in the risk management system, and in this respect opportunities are not assessed in line with the methodology prescribed by risk management.

The 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 then evaluated in detail in the course of the planning process. The opportunities and the related measures are incorporated directly into the medium-term planning using scenario calculations. Resources are coordinated and allocated at Group level.

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

Risk management system

The Wilo Group has a global, state-of-the-art, integrated risk management system that is established throughout the Group. It ensures that business risks are identified at an early stage and effective countermeasures are initiated quickly and without avoidable delays. A key component of this system involves monitoring the measures that are initiated and whether they are consistently implemented. Once they have been identified, risks are assessed, managed as far as possible and monitored at all times.

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

The Executive Board bears the overall responsibility for the risk management. It also defines the risk strategy for the Wilo Group, which 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, the duties and authorisations of all persons involved in the risk management process are defined in the directive.

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

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 for the individual sales regions and central functions are identified and reported. The Group risk manager coordinates this decentralised risk management process and reports to the WILO SE Executive Board on a regular quarterly basis and on an ad hoc basis as necessary.

In order to identify risks, 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. Suitable measures to prevent or mitigate risk are already taken into account in the net risks. 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 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 when 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 %

In the event that a risk is assumed to have occurred, the possible financial impact on EBITDA that can be derived is classified into one of three categories – low, medium or high – based on the forecast percentage deterioration in 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.

Overview of business risks

	Probability of occurrence	Potential negative impacts 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 finance costs and is classed as low. More detailed information can be found in the "Financial risks and opportunities" section of the Group management report.

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 at the industry level. 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 in view of developments in its customers' industries. This allows appropriate countermeasures to be taken at an early stage when necessary in order to secure the current or future economic situation of the Wilo Group to the best possible extent. Special attention is paid in this connection to specific country risks, which are minimised by way of targeted countermeasures. As a result of the decoupling underway in the world, the Global South is gaining in importance both politically and economically and will play an increasingly evident and active part in shaping the global economy. Although the general conditions on the global markets remain extremely uncertain in some cases, meaning that future expectations are subject to risk, the growth opportunities specifically in selected markets in Asia, Latin America and Africa remain very good. However, these high-population, high-growth markets also involve higher risks. 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.

Against the background of the geopolitical environment and the high risks it harbours as well as the high financing costs, leading economic analysts are forecasting only very subdued growth for the global economy in 2024. The negative economic impacts of Russia's war of aggression against Ukraine, high inflation rates and the related tightening of monetary policy by the central banks are also expected to make themselves felt in 2024. However, should inflation further weaken over the course of the year, as is generally expected, a possible turnaround in interest rates could provide a positive stimulus. However, the current forecasts are subject to high risks. There are currently no signs of any de-escalation in the war in Ukraine or in the Israel-Gaza war. It cannot be ruled out that the conflicts will expand geographically to other regions. Other geopolitical crises, especially those between China and Taiwan, could escalate further, and this is also true of the existing trade conflicts between the US and China.

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 group of companies that operates around the world, 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.

Targeted measures have been taken to proactively minimise the potential impact of the war in Ukraine, the Israel-Gaza war and other geopolitical crises in individual countries and regions and the relevant forecast risks for the Wilo Group's business. In the event of any 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 the procurement of commodities 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 observed 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, produce particular risks on account of the Wilo Group's global orientation. These restrictions could adversely affect the Wilo Group's business activities in the regional markets affected. With this in mind, Wilo seeks to continuously evaluate and manage the effects on logistics, finance and the company's reputation. Violations of regulatory provisions can result in penalties, sanctions and reputational damage that may be substantial 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 year under review.

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 continues unabated, with population explosions being seen in Asia and Africa in particular. According to United Nations (UN) estimates, the global 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. More than half of all people live in cities today, 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 big cities are being built in a short space of time in the emerging economies of Asia in particular.

Massive urbanisation in the emerging economies and unstoppably high population growth are reinforcing a number of ecological, economic and social challenges. Sustainable and intelligent urban development in these regions is therefore essential. The same is also true for the established conurbations in industrialised nations, which are increasingly modernising and redesigning their urban structures and public networks from environmental and climate protection perspectives. Smart cities and smart urban areas are being planned virtually everywhere in the world. They are designed to be more efficient and social and to save more resources than traditional 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 by the WHO (World Health Organisation) and UNICEF, around 700 million people currently have no access to a rudimentary supply of drinking water. Around 1.6 billion people live without proper basic sanitation, that is roughly a quarter of the world's population. Water supply and sewage disposal present substantial problems 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. It will therefore be all the more important in the future to use the available resources efficiently. This requires the use of intelligent technologies to extract and treat water. 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 and energy shortage

Man-made climate change is becoming increasingly visible and tangible as a result of global warming and the growing incidence of severe and extreme weather conditions. The continued melting of the polar ice caps and mountain glaciers, rising sea levels and the clustering of droughts and storms – now 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 every country has now initiated new and extensive packages of measures aimed at reducing greenhouse gases and totally eliminating them within a specified time frame. In addition to the transport, traffic and energy sectors, they are increasingly focusing on the agricultural, construction and housing sectors. In addition to the increased use of renewable energies, the development and use of more energy-efficient processes and technologies are being accelerated – also in the markets for heating and cooling in buildings that Wilo addresses. At the same time, global demand for energy is continuing to rise on the back of long-term trends such as 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, in parallel, sustainable energy savings have to be made for ecological, social and economic reasons.

The megatrends of climate change and energy shortage therefore 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. Numerous opportunities are emerging in particular 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 springing up all around the world. Demand for forward-looking, resource-saving 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 the power consumption of heating and air conditioning systems and in water management 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 develop into the leading system provider with tailored, intelligent, and resource-efficient solutions in line with the company's vision. Wilo is making an important contribution to reducing energy consumption and thus to lessening the impact of CO_2 on the environment in this way.

Digitalisation

The digital transformation of society, trade, logistics, transport and industry is all-pervasive and is continuing to gather momentum thanks to the immense possibilities offered by artificial intelligence (AI). 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. There is no alternative to new digital technologies that are replacing traditional production and business processes at considerable speed. Companies' entire 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. On the one hand, its own existing business processes are being optimised with the aim of generating significant efficiency and productivity improvements and even closer partnerships and interconnections with our customers – while on the other hand, possibilities for of new and innovative business models for the pump industry are emerging. The Wilo Group leverages this potential with its smart products and system solutions, for example. In addition, powerful digital systems are enabling greater transparency and closer monitoring of all stages in the value chain and thus an even more consistent alignment and management of the company based on sustainability aspects and goals. 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 there are many uncertainties associated with the growing price competition, 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 the topic of 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 in the home and remotely from any location. Internet that is available virtually everywhere, quicker wireless and mobile communication options, for example through the 5G standard, and more powerful end devices as well as new, network-enabled sensors are providing possibilities for more, fundamentally new applications for private residential and living environments. Smart homes and modern office and commercial buildings with appropriate smart technology thus 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, regardless of the economic cycle, in order to strengthen its own market position and secure its profitable future growth. In 2023, research and development costs including capitalised development costs amounted to 3.9 percent of consolidated net sales. So that the opportunities arising from new technologies can be identified at an early stage, Wilo conducts regular technology screening processes and maintains a continuous dialogue with universities and research institutions. The Wilo Group conducts customer surveys, trend analyses and targeted market tests to limit the risk that insufficient attention is being paid to customer requirements in the development process.

All development activities are examined continuously to ensure they are effective and in conformity with the goals. Quality, timing and financial risks in the development projects can be minimised in this way. 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. Moreover, 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 constraints or other reasons. Wilo minimises procurement risks by using an integrated procurement and supplier management system. Supply bottlenecks are primarily prevented by ensuring the availability of second-source suppliers.

In light of the experience gained during the coronavirus pandemic and the further exacerbation of the crisis on the procurement and logistics markets as a result of the Ukraine war – which involved sometimes dramatic price rises – the Wilo Group considers the risk that supply chain may break in the future in the event of regional or global disruptive events and thus trigger production restrictions or production downtime to be fundamentally possible.

The Executive Board already decided back in 2020 to subject the existing make-or-buy strategies to a critical review and to redefine the appropriate degree of vertical integration for Wilo in individual regions and countries. Critical components will increasingly be produced in-house from now on. The expansion of multiple sourcing will also further reduce dependency on individual suppliers. Both approaches will also be systematically continued in the future.

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 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 as a result of the war in Ukraine. The European supplier base was subject to a targeted examination and optimised 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.

Finally, suitable insurance policies are also taken out to reduce the financial consequences of the business risks mentioned here. The company estimates that, should relevant risks nevertheless occur, they 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 and also result 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 is additionally a risk that information that is confidential or is relevant in terms of data protection could be stolen – for example, as a result of cyber attacks on Wilo Group servers, social engineering or data manipulation. This would result in financial losses as well as violations of data protection legislation. The growing threat from cyber crime along the entire value chain is particularly relevant for the Wilo Group's security of supply and requires that internal company data is constantly protected.

Wilo mitigates these IT risks on the one hand by backing up critical business data every day and, on the other hand, by implementing extensive preventive measures. In particular, the business database, which supports production, materials management, order processing, financial accounting and cost accounting, fulfils the highest 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 in the event of disasters. System downtime is further minimised by targeted utilisation of an in-house support team and outside service providers. When it comes to cyber crime, the Wilo Group employs technical and organisational measures that are designed to identify security vulnerabilities and block attacks. Training and internal reporting on current threats aim to increase employee awareness of the need to handle sensitive user data with care.

The Wilo Group further professionalised its information security management back in 2022 by establishing a Corporate Information Security Office and the position of a Corporate Information Security Officer (CISO) within the Group Internal Audit & Compliance function and thus created a new unit to bundle and coordinate the protection of all information assets.

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 range 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 to open up access to new sales channels and markets. Company acquisitions are in principle considered only if they are deemed to be strategically and commercially advantageous. The company enters into strategic partnerships predominantly in the area of research and development with the aim of advancing joint technology projects. The Wilo Group cooperates with prominent 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. Each investment decision is therefore preceded by a careful business valuation and an analysis of the commercial, technical, legal, tax and financial conditions (due diligence). The aim is to identify, quantify and appropriately limit the risks associated with the planned acquisition. In addition, an individual strategy for integration in the Wilo Group is developed and the measures necessary are planned and implemented for each acquisition.

Even with extremely careful examination, however, risks may emerge after an acquisition that were not identified during the due diligence process, not considered to be material or not accurately quantified. Similarly, the identified benefits and synergies may not occur to the expected extent, within the expected time frame, or at all. Moreover, an unexpectedly difficult and cost-intensive integration process could 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

Due to the Wilo Group's global presence, the management of exchange rates fluctuations is of great importance. 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 offsetting transactions in the same currency 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 these 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. This translation risk is not associated with any effects on the cash flows in local currency, however.

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 166 et seqq.** 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 168** 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. To minimise 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 2024 financial year have already been determined in order to minimise the impact on earnings from the change in copper prices for the Wilo Group. 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 168 et seq.** of the notes to the consolidated financial statements.*

Defaults

Customer credit risk is countered using 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 2024. The Wilo Group keeps a close and constant eye on developments. Appropriate countermeasures will be taken if necessary.

There is furthermore a risk of default at 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. The occurrence of this risk is considered to be unlikely, however, as Wilo enters into these kinds of transactions only with 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 470 million with international banks of good to very good credit standing. EUR 3.5 million of the cash credit facilities and EUR 59.9 million of the guarantee and margin facilities were utilised as at 31 December 2023. Furthermore, two traditional promissory notes of EUR 494.0 million in total, additional promissory note loans of EUR 44.8 million and senior notes of EUR 212.1 million, issued as part of US private placements, were in place as at 31 December 2023. Additionally, there was a KfW development loan with a carrying amount of EUR 9.8 million as at 31 December 2023.

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 and other extraordinary items such as acquisitions), increased from 1.93 at the end of the previous year to 2.09 as at 31 December 2023.

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 the 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 Wilo Group has a sufficient liquidity reserve in the form of cash credit facilities and cash to guarantee financial and operating flexibility and solvency over the long term.

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.

WILO SE 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 156 et seqq.** of the notes to the consolidated financial statements.*

Overall assessment

The current risk situation of the Wilo Group is largely unchanged in comparison with the previous year. 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 act responsibly and to grow profitably in line with its corporate strategy and taking account of the sustainability goals.

OUTLOOK

- → Global economy is likely to remain weak in 2024
- → Major geopolitical risks, but if inflation continues to fall a turnaround in interest rates might provide new impetus
- → Mid-single-digit net sales growth and corresponding increase in EBITDA expected for 2024
- → Networking Cube at the Wilopark will be completed, construction work on the Health Cube to be commenced

General economic and industry-specific conditions

Global economy will remain subdued in 2023, waiting for a turnaround in interest rates

Against the background of the extremely risky geopolitical environment and high financing costs, only a continuation of the very subdued growth looms for the global economy in 2024. For example, despite support measures, China's economic momentum is expected to remain sluggish as a result of the weakness in the real estate and construction sector, and so little stimulus for the global economy is anticipated from that quarter. It is also likely in the industrialised countries that interest rates will remain at their current high levels for some time to begin with and act as a brake. Further cooling of the recent upsurge in prices and the increases in real income that are now emerging might stimulate private consumption demand and thus support the economy. The trend in interest rates is likely to be critical for how the economy develops and the impetus it can gain in 2024. If inflationary pressures continue to weaken, as is generally expected, the leeway for central banks to loosen monetary policy will grow. Alongside private consumption, it is primarily investment activity, also in residential construction, that is likely to benefit from falling interest rates. Industrial production should then also pick up momentum again. From a global perspective, no stimulus can be expected from fiscal policy in 2024, however. This has followed a very expansive path in recent years, initially to mitigate economic repercussions from the corona pandemic and then to curb energy costs, which shot up steeply and massively at the outset of Russia's invasion of Ukraine. Leading economic research institutes expect these effects to disappear and fiscal policy to have a predominantly dampening effect in 2024.

In the current strained situation, the IfW in Kiel is forecasting that the global economy will expand by just 2.9 percent in 2024, thus somewhat more slowly than in the year under review. In its updated outlook from January 2024, the International Monetary Fund (IMF) announced projected growth of 3.1 percent for the global economy and 1.5 percent for the advanced economies. Growth of 4.1 percent is projected for the emerging market and developing economies, with trends differing in the important countries.

The following section presents the expected macroeconomic and industry-specific developments in 2024 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: still no turnaround in the construction sector discernible for 2024, residential construction remains in crisis mode

EUROPE. The current phase of economic weakness in the euro area is likely to pass in the course of the 2024. As real wages increase thanks to the recent higher pay rises and as price pressures continue gradually to abate, moderate growth of +1.3 percent is on the horizon for private consumption. Moreover, financing conditions are likely to improve as interest rates gradually fall, and the ECB and the Fed have already signalled the prospect of a turnaround in interest rates. The IMF expects cuts to interest rates in the second half of 2024, the ifo Institute expects them in the early summer. Nevertheless, the momentum in the euro area is likely to remain weak in 2024, primarily because investment activity is expected to make only a slow recovery. This is particularly true for the construction sector. For example, the IfW in Kiel does not expect capital investments to revive until 2025. All of the 2024 forecasts for GDP in the euro area are very muted. The IfW expects +0.8 percent, the ifo Institute +1.0 percent. The IMF has again revised its growth projection for the euro area in 2024 downward to +0.9 percent. Economic momentum is also expected to be very low in the United Kingdom in 2024 with only weak growth of significantly less than 1 percent, among other things because fiscal policy is pivoting to a restrictive path. Moderate growth is expected in Switzerland at a slightly higher level than that in the euro area.

According to the forecasts of the economic analysts, the German economy will find it very difficult to escape stagnation in 2024. Momentum will remain decidedly sluggish. The gradual fall in prices that is expected following the recent upsurge, high employment rates and improved purchasing power should have a positive impact. Moreover, interest rates have now peaked according to the ifo Institute, as the capital market and lending rates have already fallen since the start of November 2023. The construction sector remains under pressure, however, and the industry continues to lack important stimulus from the global economy. Moreover, the fiscal policy for 2024 and the years after will have to be readjusted following the judgement of the Federal Constitutional Court of the debt brake and the 2021 supplementary budget. This narrows the government's room for manoeuvre and reduces the power of the German economy to expand. The IfW in Kiel has calculated in an initial approach that the savings are likely to curb German GDP growth in 2024 by a good 0.3 percentage points, while four scenarios in an analysis conducted by the Institut der Deutschen Wirtschaft in Cologne (IW – German Economic Institute) show that the spending cuts will lead to impacts of 0.2 to 1.0 percentage points on GDP. This highlights how the federal government's budget problems are exacerbating the current weakness of the German economy. The growth forecasts for 2024 are appropriately sceptical and uncertain. They range from moderate growth of +0.9 percent (ifo, IfW), through mini-growth of 0.3 percent (Deutsche Bundesbank), to a further decline in economic output of 0.5% (IW). The IMF revised its forecast for Germany down to +0.5% in January.

In light of the strained economic and financing environment in Europe and the Ukraine war, the Euroconstruct industry network (which includes the ifo Institute) takes a sceptical view of the construction industry in 2024 and is also cautious about the years to follow. Production in the European residential construction sector is expected to fall back to the levels seen in 2016 until 2025. Both new home construction and investments in renovations of existing buildings will accordingly suffer a significant contraction in 2024 again, which means that, despite stable construction output in commercial construction, the entire construction industry will slump further overall. Civil engineering is likely to produce a positive performance, however, thanks to public-sector investments in long-term projects to reorganise and expand transport and energy infrastructure. Nevertheless, an even sharper collapse than in 2023 results for all construction output in 2024, with real-term falls of 2.1 percent (west: -2.3 percent; east: +1.0 percent) Scandinavia continues to decline. The downward trend is accelerating in Austria, Italy, the Netherlands and the United Kingdom. Moderate growth in construction output is expected in 2024 only in Spain, Portugal and Switzerland. Euroconstruct forecasts a slight recovery in construction output on a broader regional basis in Europe only from 2025 onwards.

For Germany, Euroconstruct projects a decline in real construction output of 2.2 percent. The outlook also assumes a continued, but more moderate downward trend for the following years even though interest rates will have fallen and the general economy will have recovered at least modestly by that time. According to the ZDB and HDB professional associations, constraints affecting construction materials may no longer play a role, but the sector will suffer from a shortage of skilled labour despite a fall in orders and short-time work. Capacity was underutilised in residential construction at the end of 2023 and the start of 2024. The economic situation of many companies is therefore precarious, as is attested to by the sharp jump in the number of insolvencies in the sector, The construction industry is likely to remain in crisis mode in this respect in 2024. Key early indicators reinforce this negative outlook. For example, incoming orders in the main construction sector fell by a further 4.7 percent in real terms in the first 11 months of 2023. 25.9 percent fewer permits for residential construction were issued in the same period. The

ZDB expects only 235,000 houses will be completed in Germany in 2024. That would again be a good 13 percent fewer than in 2023, which was already characterised by a decline of around 8 percent. The German Economic Institute (DIW) expects the decline in residential construction to accelerate further to -3.4 percent in 2024. Stagnation is looming for commercial construction (+0.3 percent), and only public-sector construction will grow in 2024.

After anticipatory effects relating to the modernisation of heating systems triggered a massive boost in demand, the German heating market is likely to return to calmer waters in 2024 despite continuing high demand. Lastly, the momentum in heat pumps has already weakened. Accelerated by the politically driven transformation of the economy in the coming years and the decarbonisation of the construction sector, it is likely that substantial investments will be made in the medium term with the goal of increasing energy efficiency both in new builds and especially in the existing building stock. This may well stimulate the retrofitting of heating systems.

USA. The growth in the US economy is gradually cooling, the high interest rates are also having an increasing impact on the business sector. Although the measures arising from the Inflation Reduction Act in the US that have been adopted are supporting the economy, it is likely that no further stimulus will be provided by fiscal policy in 2024. Private consumption is expected to run out of steam as tax incentives expire, savings accumulated during the pandemic are used up and the tailwinds on the labour market subside. At the end of 2023, the Federal Reserve signalled the prospect of a turnaround in monetary policy and – provide the inflation rate continues to decline as hope – gave notice of reductions in interest payments in 2024. This should stimulate investments from the summer onwards. The IMF expects the US economy, still ultimately benefiting from extraordinary effects, to fall back in 2024 to GDP growth of +2.1 percent.

In the wake of this general levelling off of growth in the US and interest rates that will remain high for the time being, the prospects for the US construction industry are gloomy. Key economic data from private residential construction from the end of the year under review signals a reduction in construction activity. Compared with the end of the previous year, building permits in the housing sector fell by 11.7 percent, starts in residential construction by 9.0 percent for example. The specialists in the North American construction sector at FMI expect the weakness also to expand to other segments of the industry. For example, investments in office construction are expected to shrink by 2 percent in nominal terms, those in commercial construction by 4 percent. Moreover, residential construction will clearly remain in a slump even on a broader basis. The construction of industrial buildings (+18 percent) and infrastructure investments will enjoy some tailwinds, however. Investment growth of 8 percent is on the horizon for the Water Supply segment here.

Growth markets: China construction still in a trough in 2024, other countries offer opportunities in construction and water management

CHINA. The outlook for the economic performance in China remains tepid. On the one hand, the weakness in the real estate and construction industry is spreading to personal income and thus to consumer demand. Moreover, the employment situation is strained and debt is very high. Although a gradual recovery in demand in the industrialised countries and the Asia Pacific region might stimulate Chinese exports, renewed trade tensions and strains between the economic blocs cannot be ruled out. Overall, sluggish economic growth is on the horizon for China. The IMF now assumes that China's rate of expansion will be +4.6 percent for 2024 and thus turn out to be weaker than recently and especially than before the pandemic.

The construction boom, driven on a massive scale by policy over many years, has led in some cases in China's mega urban centres to unprofitable investments that will put a brake on growth in the long term according to DIW analyses. The real estate crisis continues to smoulder and has pushed other market leaders in the real estate sector into financial difficulties in the last few months. Although the government initiated measures at the end of 2023 to support the construction sector, it remains to be seen whether and to what degree these will produce any stabilisation. In view of the recent very low propensity of the private sector in China to invest and the weak new construction activity at the turn of the year as 2023 ended and 2024 began, another difficult year looms for the construction industry in China. Starts in new construction in terms of area slumped by a good 20 percent again, with residential construction and office construction accounting for broadly the same proportion. On the other hand, China continues to invest in infrastructure, including in the modernisation of water and sewage management, which will also create attractive opportunities for the business in modern pumps here in the future.

SOUTH KOREA. The Bank of Korea forecasts that the country's economy will continue its revival at a slightly accelerated rate in 2024. This will be prompted by increases in exports in connection with the recovery of the semiconductor industry. Despite brisker capital investments again, the development on the labour market is expected to cool and private consumption will grow only moderately. All in all, the central bank expects economic growth of 2.1 percent in 2024.

In an environment marked by weak domestic demand and a sluggish global economy accompanied by high risks, the most recent revival in the construction industry is already petering out again according the BoK forecast. Low growth of just 0.5 percent is expected for the first half of 2024, while a decline even looms in the second half of the year. Real construction investments are therefore expected to fall by 1.8 percent over the year as a whole and fall by 0.7 percent again in 2025.

INDIA. 2024 is an election year and important government projects with high levels of investment in infrastructure and urbanisation are expected to continue. The focus will also fall on reforms to the labour market and a substantial strengthening of industry. The IMF expects that the Indian economy will also expand dynamically at an estimated +6.5 percent in 2024. In the country with the biggest population in the world, the expansion and modernisation of its dilapidated and inefficient infrastructure as well as water management and urbanisation will remain key drivers of economic development.

The construction industry will have a key role to play here, which is likely to continue on an upward trajectory in 2024 and beyond. Housing has to be built and infrastructure expanded, especially in the cities. The order situation among construction companies is good, based on vigorous demand in residential construction and on the growing need for office space and industrial buildings. Moreover, India recently increased the budget for infrastructure investments again. More than USD 240 billion is set to be provided for the investments in water management that are planned in the next few years According to the data of India Invest, the national investment promotion agency, construction volume will grow by 6–7 percent a year up to 2025.

SOUTHEAST ASIA. Economic performance in Southeast Asia remains strong according to the IMF, but 2024 will still not reach the same levels of dynamism that were evident before the pandemic. On the one hand, the majority of the region's central banks recently raised their interest rates. On the other hand, the most important countries in the region from an economic perspective (ASEAN-5, Vietnam) are very closely integrated in the value chains around the world and especially those in China. The sluggish economic momentum in China as well as in the US and Europe will put a brake on growth in this respect. The IMF assumes that the economy will grow by 4.7 percent in the ASEAN-5 region and by 5.8 percent in Vietnam. In view of the economic and political fragmentation of the world, the countries of this region play an important role in the efforts of Western companies to diversify their value chains with the aim of making them less risky and more independent of China. More investments might flow to these countries in the future as a result.

A young, growing population, urbanisation and high structural investments in infrastructure are key growth factors for the construction industry in Southeast Asia. Projects to combat the consequences of climate change, such as rising seal levels, are gaining in importance here. The multifaceted applications for pumps and pump systems in the various areas of both residential and commercial construction as well as in water and sewage management are benefiting from these trends. Specifically, Indonesia is forging ahead with the megaproject that will see the construction of a completely new capital city, Nusantara. The city is being planned as a smart city where the focus is on green technologies. On the other hand, surplus housing and office capacity in today's cities is dampening construction demand there. In contrast, construction in the Philippines and in Malaysia is likely to continue its upturn in 2024, driven by a reinvigorated residential construction sector and investments in infrastructure.

TURKEY. The Turkish central bank is now pursuing a very resolute path to combat price rises. Inflation is likely to ease only very slowly, however, and the currency had not stabilised by the turn of the year as 2023 ended and 2024 began. In this respect the leeway to cut interest rates will remain low to begin with and budgets for the government's ambitious infrastructure projects could be at risk. Moreover, the active role Turkey plays between the individual parties to the conflicts in the hot spots of acute crises (Ukraine, Gaza, Syria) might trigger uncertainties about the country's future geopolitical positioning. The economy therefore looks set to continue cooling to start with, and the World Bank expects relatively weak growth of 3.1 percent in 2024.

The signals for the Turkish construction industry in 2024 are uncertain in this respect. For example, low construction activity is expected in infrastructure construction as a consequence of government saving measures. Projects are on trial and could be postponed or cancelled, including individual investment projects in water management. The situation is better in social housing construction, where public funding is expected to remain in place. New projects might even be initiated in connection with the local government elections, while the support programmes for first-time home buyers look likely to be continued. An important driver for residential construction is the national megaproject launched in 2023, in which government-backed loans are to be used to help build 500,000 public housing units, 250,000 building plots for houses and 50,000 simple commercial units (shops, workshops) by 2028 at the latest. The investment volume for this has been estimated at USD 50 billion.

MIDDLE EAST AND AFRICA. Moderate acceleration of the recently sluggish economic growth is on the horizon for the region in 2024. According to the World Bank, stimulus will come from slightly higher than expected oil production and, specifically in Saudi Arabia and the United Arab Emirates (UAE), from reforms and high levels of investment. The whole region will additionally benefit from an easing of inflationary pressure. Risks remain political crises, especially the Israel-Gaza war, and social unrest. The countries in this region are extremely varied both politically and economically, however, and the opportunities and risks must therefore be considered separately. The World Bank expects growth of 3.5 percent in the countries of the Middle East and North Africa and of 3.8 percent in the Sub-Saharan region. Of the oil-producing countries, Saudi Arabia and the UAE are in particular likely to experience dynamic growth. For Egypt, a sustained high rate of expansion of 3.5 percent is expected, while the economic recovery is also likely to continue in the oil-importing countries of Tunisia, Morocco and Algeria. Nigeria will also grow in 2024, according to the World Bank, as a result of reforms and a fall in inflation (+3.3 percent). The recovery in South Africa will remain very sluggish at +1.3 percent, however, because of the country's specific structural problems.

The prospects for the construction industry in the region as a whole are generally uncertain and subject to risk, but individual markets may nevertheless be structurally very highly attractive when it comes to selected projects. Government investments have provided infrastructure with important stimulus, for example. Drinking water extraction and wastewater treatment are gaining in importance here. Moreover, climate protection and energy efficiency are also playing an increasing role in the construction industry. Structural, long-term drivers for residential and commercial construction in the region are its strong population growth and urbanisation. For example, Egypt alone is currently investing in the construction of 20 new cities in the desert that will house 30 million inhabitants. Overall, the proportion of populated area is set to increase from its current level of around 6 percent to 14 percent by 2050. Egypt is making significant investments in seawater desalination plants in order to counter the foreseeable deterioration in water shortages. The short and medium-term prospects for the construction industry are also good in the United Arab Emirates. New building construction is increasingly relying on efficiency and sustainable building solutions. The United Arab Emirates has additionally initiated new projects in the areas of water extraction and sewage treatment.

LATIN AMERICA. Inflation is likely to continue easing slightly in 2024 from a very high starting level in the majority of the countries in this region. In conjunction with cuts to interest rates, this should support the economy. Nevertheless, the World Bank reports that new inflationary pressures could emerge from fiscal policy and weak currencies. Moreover, social tensions and political uncertainties will continue to have an impact. For example, the specific measures of the new, radical government in Argentina to combat the crisis and their economic effects remain unclear even after the election. In contrast, Mexico and Brazil are likely to remain on a somewhat weaker growth path in 2024. In its updated January outlook, the IMF assumes that Latin America's economy will expand only moderately overall at a rate of +1.9 percent in 2024.

The prospects for the construction sector will improve if financing costs continue to ease. In the short term, the recent positive development in Brazil's construction industry and in Mexico's commercial and industrial construction sector is likely to continue. In the medium term, the whole region will also offer good opportunities in the course of infrastructure investments in water management.

Outlook for the Wilo Group

Future orientation

The economic prospects for 2024 are challenging and accompanied by a lot of risks. On the one hand, the geopolitical environment is marked by wars and the uncertain outcomes of upcoming elections. On the other hand, energy costs, interest rates and inflation remain high, which means there is a lack of stimulus in the economy. A gradual recovery might be triggered only in the course of 2024 if the inflationary pressures continue to flatten out. The more quickly inflation rates converge with the targets set by the central banks, the greater the leeway will be for loosening monetary policy. The Fed and the European Central Bank have signalled rate cuts in the course of 2024 should this happen. It is also likely to stimulate investment activity in particular. In addition, industrial production might then also pick up momentum. Nevertheless, the picture emerges in 2024 of a globally weak economy that will be susceptible to disruption.

The short-term outlook for 2024 on the Wilo Group's key markets is therefore mixed, depending on the region and market segment. For example, the construction industry in the established markets will be impacted by high financing costs and a fall in building permits in residential construction, especially in Germany. On the other hand, investments in new, environmentally friendly heating systems will drive demand for efficient, powerful pumps. In many growth markets, demand will expand as a result of structurally high investments in the area of home construction and increasingly in water and sewage management.

The Executive Board of WILO SE 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.

In light of the very high risks for the global economy, 2024 will pose significant challenges for both the political world and society as well as companies with international operations. On the one hand, there are no signs of any de-escalation or peaceful end to Russia's war in Ukraine or the violent conflict in Gaza. It cannot be ruled out that the conflicts will spread to other countries and regions or that new crisis hot spots will break out (China/Taiwan, coups in Africa, Korean Peninsula). On the other hand, the IMF highlights the immense challenges caused by the ever more powerful effects of climate change as a risk factor. The global restructuring of energy and raw material supplies as well as political fragmentation could lead to market distortions and new disruptions to the established global supply chains as well as to other trade barriers such a sanctions or technology embargoes. Established partnerships are being called into question, new alliances are being formed. These factors will exert a much stronger influence on the structural framework of the global economy in the future than ever before. The Global South, i.e. the countries of Africa, Asia and South America, is gaining in importance both politically and economically in this process of change and will play an increasingly evident role as a self-sufficient partner in shaping the global economy. Wilo has enjoyed a strong representative presence in these countries for a long time now. The established partnership network will be used to capitalise on the highly attractive business potential.

In sum, the risk and opportunity profile for the world economy and the Wilo Group's specific markets in 2024 is extremely challenging but still positive from a current perspective.

The key point here is that the clear and sustainable implementation of the future-oriented business policy combined with a well-balanced internal risk position is of the utmost importance for the Wilo Group. This is an established strength and will remain so in future. The Group's risk balancing measures thus includes its successful customer orientation and its distinct innovative strength enabling 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 disruptions to a certain extent.

In its region-for-region approach, Wilo seeks to achieve an optimal balance between local and decentralised activities for the company with the aim of limiting the unavoidable costs and inefficiencies that result from decoupling and derisking. It seeks to manufacture locally for domestic and regional markets with a focus on the customer and the greatest possible efficiency. The Wilo Group commissioned new production sites in China and India as part of this strategic approach in 2023. The Wilo Group has already improved the security and resilience of the production processes for the relevant markets in the last few years in order to limit the risk of supply constraints. Measures to this end have included the in-sourcing of important components and multiple sourcing in order to reduce the dependence on individual suppliers. In addition, new specifications were introduced for the required levels of stock buffers in the warehouses.

The energy crisis triggered by the war in Ukraine is obviously keeping costs at a high level. In addition, the policy guided by the steering instrument of the carbon price is increasing the costs for fossil fuels in a targeted and ever more powerful way so that emissions of environmentally damaging gases are reduced as quickly as possible to a net-zero level and so that climate change can be contained. Both are structural drivers encouraging companies and consumers to optimise and reduce as far as possible their operating costs for heating and cooling in buildings. This is stimulating investments in heating and air conditioning systems as well as water management and driving 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 2024 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 own digital transformation. Artificial intelligence (AI) is rapidly becoming established. It is enlarging technical possibilities and expanding the scope of application for digital solutions. Wilo has great experience and core skills in heating, air conditioning and cooling, water supply and wastewater disposal as well as water treatment. The product portfolio and the service will be systematically expanded with a clear focus here.

Irrespective of short-term crises and fluctuations in demand, the megatrends that have been identified and that are relevant for the Wilo Group remain of fundamental importance for the company's long-term strategic direction. They therefore form the foundation of the corporate strategy, which was further developed into Ambition 2030 in the year under review.

The political world has recognised that the transformation process needs to be significantly accelerated in the economy and society if the zero emission target is to be achieved. Legal requirements have been and continue to be tightened, but new funding options are also being established for this purpose. Climate protection is a core element of the Wilo Group's business model and thus an integral part of its corporate culture, as is digitalisation. For example, both 2024 and the years that follow will be marked significantly by climate change and climate protection as well as by digitalisation. With its modern high-efficiency pumps, the Wilo Group is making an important contribution to slowing climate change and to the ability to achieve the more stringent climate protection targets. Additional potential for significant energy savings can be realised through the digital networking of pumps and pump systems. With its portfolio of smart, energy-efficient products, systems and solutions, the Wilo Group is well positioned to take part in this trend and to continue its profitable growth. In parallel with that, Wilo is continuing to systematically pursue its own path of digital transformation. Wilo is prepared to implement high levels of investment to fundamentally and sustainably realign its own value chain and the existing business processes. At the centre of this process is the IT-based, smart networking of production methods, logistics and products. With the help of this extensive internal digital transformation, the Wilo Group is strengthening its 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, network-enabled solutions.

In addition to accelerated organic growth, acquisitions are an important element of the company's future development. Wilo acquired a pump manufacturer in Canada and two service companies in the US in 2023. These strategic acquisitions have enabled the company to strengthen and expand its market access to and competitive position in North America for the long term.

Outlook for the regions

ESTABLISHED MARKETS. The specific European markets for pumps and pump systems together with related services are in principle very important for Wilo from a strategic perspective. Although they are regionally very disparate and marked by intensive competition, they are also high-volume and high-tech markets and thus especially attractive for the Wilo Group as a premium provider. 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 the future, the company is focusing on the following cornerstones of its business in particular: the clearly defined digitalisation strategy, the future-oriented alignment of the organisation, a consistent growth and sustainability strategy and clearly defined measures to reduce costs and increase efficiency. Irrespective of short-term economic and market influences, Wilo additionally relies emphatically on its own innovative strength and 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 systems that are currently installed are outdated and need to be replaced in the next few years in order to meet today's more stringent environmental protection requirements. Political initiatives such as 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. Germany has already defined the goal of greenhouse gas neutrality by 2045 in the Federal Climate Protection Act, whereby emissions have to be reduced by 65 percent from 1990 levels by 2030. Furthermore, Germany amended the Buildings Energy Act in 2023. This act sets the framework for saving energy and for using renewable energy to generate heating and cooling in buildings. The amendment, which came into force on 1 January 2024, lays down the binding specification that renewable energy has to be used when new heating systems are installed. In the future, new heating systems may be installed only if they generate at least 65 percent of the heat using renewable energy. All heating systems must be operated using only renewable energy from 2045 onwards at the latest.

As a result of the energy price shock triggered by the war in Ukraine and this tightening of the legislation, the demand for new heating systems leapt dramatically throughout Europe in 2023 and was especially pronounced in Germany. Efficient natural gas heating systems and systems based on heat pumps benefited from this. And occasionally the demand also caused supply bottlenecks. But, following these substantial anticipatory effects, demand had already levelled off at the turn of the year as 2023 ended and 2024 began. The OEM business in Germany and Europe has therefore got off to a subdued start, but Wilo expects demand to normalise and pick up as 2024 progresses. The heat pump is regarded here as a key product for carbon-free heating systems. The renovation of buildings as well as modernisation and digitalisation are increasing in structural importance throughout Europe. This requires smart, connected and digitally controllable devices and systems. Moreover, climate protection requires major investments in the modernisation of water and wastewater plants. The Wilo Group therefore expects innovation-driven demand for high-quality, energy-efficient pumps and integrated solutions to continue to grow throughout Europe over the coming years.

The Wilo Group has strengthened its market position and customer access in the US and Canada through organic growth and a number of targeted acquisitions in the past few years. Although a broader weakening in the construction industry is on the horizon in 2024 as a consequence of the continuing high interest rates, the specific conditions remain positive for Wilo. Opened in 2022, the production site in Cedarburg, Wisconsin/USA, is the central building block for this. Localisation and optimisation in the production network and higher availability of components have set major markers for further growth. Additional drivers for the business in the US and Canada are innovative products and system solutions that can be used to win market share. In addition to the increases in prices and volumes that are being pursued, net sales will also grow in 2024, favoured by the initial consolidation effects from the most recent acquisitions. Moreover, by strengthening its presence in the US, the Wilo Group has good opportunities to take part in projects that will be awarded in the next few years under the Inflation Reduction Act (IRA), as these projects are subject to strict requirements for local content. Worth USD 370 billion, the enormous climate and energy packet that the IRA represents is the cornerstone of the US's decarbonisation strategy. It stipulates that a very high percentage of the equipment and systems that will be required has to come from domestic production. Wilo can now demonstrate this in the US. One key to achieving the goal of climate neutrality by 2050 is to reduce energy consumption in buildings. A large number of other initiatives set out to improve energy efficiency. Wilo is therefore very well positioned to take part in these attractive growth opportunities.

GROWTH MARKETS. The Wilo Group's growth markets are highly disparate and, depending on the individual country, subject to different, sometimes very specific risks and opportunities. That is why they have to be considered separately from one another and assessed on their own when looking at individual projects. Generally, high population growth, urbanisation and climate change, an immense need for clean drinking water and properly functioning treatment of sewage drive the markets for the Wilo Group's pumps and pump systems. Looking at 2024, there are good opportunities in these markets for growth driven primarily by volume. Drivers of growth for the company are major individual projects in the area of drinking water extraction and irrigation. The Wilo Group is currently benefiting strongly from relevant investments in China, Turkey, the Middle East, North Africa and India.

Despite the ongoing real estate crisis in China, the structural drivers of expansion for the construction industry remain strong. On the one hand, the industrial sector of this major national economy is growing. This is leading to investments, particularly in technology sectors. On the other hand, the growth of the mega metropolises, together with the construction of new homes, commercial and public buildings, also requires massive infrastructure development and expansion. This also includes substantial investments in climate protection and the modernisation of water and sewage management systems. The business prospects for Wilo are thus positive when looking at 2024, but also beyond.

Good opportunities also exist in India. The country is economically dynamic and the construction industry, which is assigned a key role for the further development of the country that currently as 1.4 billion inhabitants, is enjoying a powerful upswing. Experts believe that these tailwinds will also continue in the next few years. The construction of homes for the rapidly growing population is a key factor that will be driven by the state. In addition, India is forging ahead with high levels of investment in infrastructure, including the expansion and modernisation of water management systems. Wilo is participating in some of these major projects, and further net sales growth is thus on the horizon in 2024. The growth opportunities in India also look attractive for the next few years to come.

Moreover, Turkey and individual Arab countries such as Egypt, the Gulf states and also countries in North Africa currently offer great potential for the Wilo Group especially in the field of water management. Here, too, ambitious projects involving drinking water extraction and irrigation are being implemented. The economic risks of these mega investments, which are generally secured by the government, are comparatively limited and the projects can be very attractive as a result of their large volume. The Wilo Group has successfully won orders in this area, which means that net sales in these markets will grow on a project-driven basis in 2024.

The Wilo Group additionally enjoys very good structural growth prospects in the countries of Southeast Asia. Here, too, dynamic population growth, urbanisation and the development and expansion of powerful infrastructure, which include the systems for safe water and sewage management, require high levels of investment in the medium to long term. Moreover, construction projects are increasingly being started as a result of the pressures caused by climate change. Rising sea levels and the increase in extreme weather events are putting whole cities at risk, and totally new urban centres in other locations are being built also for this reason. For example, Indonesia is building a completely new capital city, Nusantara. Driven in any case by the growth of the population, a large number of new big cities are being built in Southeast Asia, most of them with an eye on the future and so as smart cities. These trends offer structurally good opportunites to use intelligent and energy-saving pump systems. In contrast, the demand from South America will remain subdued to start with because of the weak economy and the poor financing conditions, although individual projects will also be attractive for Wilo.

Statement by the Executive Board on forecast development

Founded as Kupfer- und Messingwaren-Fabrik by Caspar Ludwig Opländer in Dortmund in 1872, the company has successfully developed into a technology group – one that is on a profitable growth path – with about 9,000 employees, a global presence, strong structures and a portfolio that is fit for the future. 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 the moment and a persistently challenging market environment, these two qualities will be especially important when it comes to ensuring the company's continued successful economic development in the future.

In high-risk, challenging markets, a high degree of business flexibility and pronounced adaptability are further key factors for success. These parameters are firmly embedded in the Wilo Group's corporate culture, strategy and controlling and will continue to characterise its corporate management in 2024. These currently very high levels of uncertainty relating to the geopolitical situation, general economic development and thus also the Wilo Group's business performance, require particularly forward-looking, risk-conscious and flexible company management. The Executive Board continuously and closely monitors current developments. It is thus able to anticipate, analyse and assess trends promptly and to act swiftly and flexibly when needed. This is and will remain a fundamental corporate governance principle at Wilo. Wilo is able to devise and implement alternative scenarios very quickly and initiate countermeasures at short notice. This also applies in particular in the event of any 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.

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 2024 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. Moreover, the planning assumes that geopolitical tensions will not escalate any further. Further potential acquisitions are not taken into consideration here.

The Executive Board sets strict profitability targets with a view to ensuring the Wilo Group's business agility, flexibility and independence at all times. 2024 is expected to see continuing adverse effects, especially as a result of wage increases. This will be at least partially offset by increased productivity and modest price adjustments. In light of the uncertain economic outlook and the general geopolitical conditions, the Executive Board has also adopted a policy of strict cost management and pays particularly close attention to price developments during the year so that it can take countermeasures at short notice. An increase in absolute EBITDA that is proportional to the growth in net sales is forecast for 2024, while profitability – measured by the EBITDA margin – should thus remain stable set against 2023. Leverage also looks likely to remain at roughly the same level as in 2023.

The risk of misjudgements concerning the development of the sales and procurement markets as well as the financial and currency markets in the 2024 financial year are again classified as extraordinarily high overall for the 2024 financial year. There is a high uncertainty about how the wars in Ukraine and the Middle East will develop. Furthermore, it is possible that the other heightened geopolitical tensions will escalate, and their consequences for the economy around the world cannot be predicted at the moment. Accordingly, the Wilo Group's net sales and EBITDA expectations are subject to a high degree of uncertainty. Although regional economic fluctuations can be partially offset by the Wilo Group's global orientation and diversification, its growth and profitability targets could nevertheless still be substantially affected by further military escalations, continued or more pronounced disruption to value chains and accompanying, significant impacts on the world economy.

Research and development is consistently geared at the Wilo Group towards the medium and long-term corporate strategy. Important objectives of Ambition 2030 are to remain independent and to generate profitable growth. A prerequisite for this is a consistently high ability to innovate. The Wilo Group stands for future-oriented and innovative products and system solutions and is developing into a solutions provider through targeted actions. The topic of research and development has traditionally played an important role at Wilo and will continue to do so in the future. Accordingly, the expenditures for research and development will remain at a high level in 2024 irrespective of temporary factors affecting the economy or the Group's markets.

In recent years, the Wilo Group has invested strongly in the future and has made substantial investments in a modern, efficient, future-oriented corporate infrastructure that promotes growth. Localisation efforts have been further intensified and the appropriate degree of vertical integration for Wilo in the individual regions and countries has been redefined. Accordingly, Wilo has strengthened the degree of vertical integration along its value chains. It is planned to spend a large proportion of the investment volume in the continued site expansion in Dortmund again in 2024. The Networking Cube is expected to be completed in the second quarter, while the construction work for the Health Cube will commence. Wilo also continuously examines the existing infrastructures and capacities at all of its other locations to ensure that they are fit for the future. Projects to modernise and expand various locations are planned from 2024 onwards, most of which will take a few years to complete. In Laval in France, new, modern and energy-efficient administration and staff buildings will be built to replace the current outdated properties. The plant of American-Marsh Pumps in Collierville in the US will also be modernised. In Germany, the logistics capacity will be expanded in Hof on account of the constantly increasing output volumes. Furthermore, to leverage synergies in Pohlheim in Hesse, the stainless steel processing expertise will be bundled within the Strategic Business Unit Water Treatment and a new production and administration building will be built for this purpose. A further focus of investments is the harmonisation and modernisation of the IT infrastructure. In addition to the global implementation of the SAP S/4HANA ERP software, it is planned to harmonise the CRM software in the coming years. In addition, the focus will continue to be placed on further corporate acquisitions in line with Ambition 2030. The key location development projects to expand capacity were completed with the commissioning of the plants in Kesurdi in India and in the city of Changzhou in China. In this respect, capital expenditure in 2024 is expected to decline compared with the year under review. In light of the high-risk economic outlook and uncertain forecasts, the Executive Board closely monitors the ongoing developments at all times. Appropriate adjustments to the investment plans are made if necessary. Planned and ongoing projects are continuously reviewed in light of changes in circumstances and only those investments that are of particular strategic importance are realised.

The long-term financing structure, the high equity ratio of over 40 percent and cash of almost EUR 400 million constitute a solid basis for the long-term profitable growth of the Wilo Group. Under the terms of some of its long-term financing instruments in place as at 31 December 2023, WILO SE is required to comply with certain standard financial ratios (covenants). WILO SE fully complied with these covenants at all times in the 2023 and 2022 financial years and there are currently no indications that it will be unable to comply with them in future.

The Wilo Group has always proved itself to be highly resilient and crisis resistant. 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. The business targets for 2024 presented in this report are based on a professional and detailed planning process and are embedded in the Ambition 2030 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 2024 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 2023

EUR thousand	Note	2023	2022
Net sales	(8.1)	1,974,778	1,885,731
Cost of sales	(8.2)	-1,294,836	-1,270,770
Gross profit		**679,942**	**614,961**
Selling expenses	(8.3)	-329,247	-325,374
Administrative expenses	(8.3)	-156,373	-125,837
Research and non-capitalised development costs	(8.4)	-73,761	-67,299
Other operating income	(8.5)	31,968	38,257
Other operating expenses	(8.6)	-36,227	-37,666
Earnings before interest and taxes (EBIT)		**116,302**	**97,042**
Net income from investments carried at equity	(8.7)	1,178	0
Financial income	(8.8)	12,610	6,217
Financial expenses	(8.8)	-26,531	-14,473
Consolidated net income before taxes		**103,559**	**88,786**
Income taxes	(8.9)	-28,345	-27,653
Consolidated net income		**75,214**	**61,133**
of which attributable to non-controlling interests		-642	76
of which attributable to the shareholders of WILO SE		75,856	61,057
Basic and diluted EPS: EUR 7.57 (previous year: EUR 6.16) per ordinary share	(8.10)		

Consolidated statement of comprehensive income

for the period 1 January to 31 December 2023

EUR thousand	Note	2023	2022
Consolidated net income after tax		**75,214**	**61,133**
Items not reclassified to profit or loss in the future			
Remeasurement of pension obligation and plan assets		-5,865	27,866
On which current income taxes	(8.9)	1,600	-8,363
		-4,265	**19,503**
Items that may be reclassified to profit or loss in the future			
Currency translation differences		-18,015	-1,702
Cash flow hedges – reclassified to consolidated income statement	(11.1)	-5,466	4,180
On which current income taxes		1,772	-1,154
		-21,709	**1,324**
Other comprehensive income		**-25,974**	**20,827**
Total comprehensive income		**49,240**	**81,960**
of which attributable to non-controlling interests		-808	71
of which attributable to the shareholders of WILO SE		50,048	81,889

Consolidated statement of financial position

as at 31 December 2023

Assets EUR thousand	Note	2023	2022
Non-current assets			
Intangible assets	(9.1)	355,494	327,280
Property, plant and equipment	(9.2)	760,969	703,401
Investments carried at equity	(7.)	3,864	2,640
Trade receivables	(9.4)	4,183	4,968
Other financial assets	(9.5)	12,818	13,441
Other receivables and assets	(9.7)	8,230	8,940
Deferred tax assets	(8.9)	31,769	26,480
		1,177,327	**1,087,150**
Current assets			
Inventories	(9.3)	447,078	436,253
Trade receivables	(9.4)	291,144	335,092
Other financial assets	(9.5)	13,520	13,871
Tax receivables	(9.6)	605	414
Other receivables and assets	(9.7)	57,564	41,273
Cash	(9.8)	392,572	264,519
		1,202,483	**1,091,422**
Total assets		**2,379,810**	**2,178,572**

Equity and liabilities EUR thousand	Note	2023	2022
Equity	(9.10)		
Issued capital		26,980	26,980
./. Nominal amount of treasury shares		-886	-937
Subscribed capital		26,094	26,043
Capital reserves		47,440	45,504
Other reserves		903,979	877,133
Treasury share reserve		-18,201	-19,224
Equity attributable to the shareholders of WILO SE		**959,312**	**929,456**
Non-controlling interests		3,242	1,463
		962,554	**930,919**
Non-current liabilities			
Financial liabilities	(9.11)	751,214	542,947
Other financial liabilities	(9.13)	34,789	30,227
Other liabilities	(9.14)	6,507	5,084
Provisions for pensions and similar obligations	(9.15)	69,858	63,144
Other provisions	(9.16)	8,595	8,133
Deferred tax liabilities	(8.9)	13,553	16,588
		884,516	**666,123**
Current liabilities			
Financial liabilities	(9.11)	76,309	73,368
Trade payables	(9.12)	194,627	247,265
Other financial liabilities	(9.13)	74,722	76,795[1]
Other liabilities	(9.14)	141,908	142,051
Other provisions	(9.16)	39,273	36,420[1]
Tax liabilities	(9.17)	5,901	5,631
		532,740	**581,530**
Total equity and liabilities		**2,379,810**	**2,178,572**

[1] Prior-year figures are adjusted: for current other financial liabilities and other provisions, see notes (9.13) and (9.16)

Consolidated statement of cash flows

for the period 1 January to 31 December 2023

EUR thousand	2023	2022	Change
Earnings before interest and taxes (EBIT)	**116,302**	**97,042**	**19,260**
Depreciation and amortisation of intangible assets and property, plant and equipment	100,497	99,689	808
Increase/decrease in provisions	–23,933	190	–24,123
Gains on disposals of intangible assets and property, plant and equipment	–1,814	–1,109	–705
Increase in inventories	–7,079	–103,374	96,295
Increase in trade receivables	50,636	–45,003	95,639
Increase in trade payables	–54,512	14,034	–68,546
Increase/decrease in other assets and liabilities not related to investing or financing activities	4,265	9,733	–5,468
Other non-cash expenses and income	12,395	4,011	8,384
Operating cash flow before income taxes	**196,756**	**75,213**	**121,543**
Income taxes paid	–33,206	–33,108	–98
Cash flow from operating activities	**163,552**	**42,105**	**121,447**
Purchases of intangible assets	–27,609	–19,231	–8,378
Disposals of property, plant and equipment	10,049	7,864	2,185
Disposals of intangible assets	369	0	369
Purchases of property, plant and equipment	–133,858	–121,217	–12,641
Purchases of consolidated companies	–35,557	–12,780	–22,777
Proceeds from the sale of consolidated companies	3,572	0	3,572
Dividends received	300	250	50
Other purchases attributable to investing activities	0	–253	253
Cash flow from investing activities	**–182,734**	**–145,367**	**–37,367**
Dividend payment	–14,524	–11,796	–2,728
Proceeds from assuming financial liabilities	284,362	368,131	–83,769
Repayment of financial liabilities	–73,155	–167,353	94,198
Proceeds from the sale of treasury shares	3,010	15,281	–12,271
Repayment of lease liabilities	–14,307	–14,825	518
Interest payments received	5,037	2,742	2,295
Interest payments made	–23,674	–14,413	–9,261
Cash flow from financing activities	**166,750**	**177,767**	**–11,017**
Change in cash	147,567	74,505	73,062
Effects of exchange rate changes on cash	–19,514	–103	–19,411
Changes on cash resulting from the basis of consolidation	0	237	–237
Cash at beginning of period	264,519	189,880	74,639
Cash at end of period	**392,572**	**264,519**	**128,053**

Detailed information can be found in note (10.).

Consolidated statement of changes in equity

for the period 1 January to 31 December 2023

	Subscribed capital			Other reserves							
EUR thousand	Issued capital	Nominal amount of treasury shares	Capital reserves	Revenue reserves	Currency translation reserve	Hedging reserve	Reserve for the remeasure-ment of pensions	Treasury share reserve	Equity attributable to the share-holders of WILO SE	Non-controlling interests	**Equity**
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
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**
1 January 2023	**26,980**	**–937**	**45,504**	**945,554**	**–63,304**	**2,371**	**–7,488**	**–19,224**	**929,456**	**1,463**	**930,919**
Consolidated net income 2023	0	0	0	75,856	0	0	0	0	75,856	–642	75,214
Other comprehensive income	0	0	0	0	–17,849	–3,694	–4,265	0	–25,808	–166	–25,974
Dividend payments	0	0	0	–14,524	0	0	0	0	–14,524	0	–14,524
Sale of treasury shares	0	51	1,936	0	0	0	0	1,023	3,010	0	3,010
Reclassification of currency translation difference upon loss of control	0	0	0	0	–10,011	0	0	0	–10,011	0	–10,011
Other changes	0	0	0	1,333	0	0	0	0	1,333	2,587	3,920
31 December 2023	**26,980**	**–886**	**47,440**	**1,008,219**	**–91,164**	**–1,323**	**–11,753**	**–18,201**	**959,312**	**3,242**	**962,554**

Detailed information can be found in notes (7.) and (9.10) of the notes to the consolidated financial statements.

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 2023 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 2023 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).

As in the 2022 financial year, the continuing war in Ukraine did not significantly impact the Wilo Group in the year under review. There are no uncertainties that may cast doubt on the ability of WILO SE and its subsidiaries to continue as a going concern.

(3.) Adoption of new or amended standards and interpretations

The following standards, interpretations and amendments to existing standards were adopted for the first time in the 2023 financial year, but had no or no material effect on the consolidated financial statements of WILO SE:

- Insurance Contracts (IFRS 17)
- Disclosure of Accounting Policies (IAS 1 and IFRS Practice Statement 2)
- Definition of Accounting Estimates (IAS 8)
- Deferred Tax related to Assets and Liabilities arising from a Single Transaction (IAS 12)
- International Tax Reform (IAS 12, from 23 May 2023)

The following standards, amendments to existing standards and interpretations issued by the IASB and the IFRS Interpretations Committee are not yet effective in the 2023 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 implementing early adoption of these standards, interpretations or amendments to existing standards or interpretations:

First-time adoption 1 January 2024:
- Non-current Liabilities with Covenants (Amendments to IAS 1)
- Classification of Liabilities as Current or Non-current (Amendments to IAS 1)
- Lease Liability in a Sale and Leaseback (IFRS 16)
- Supplier Finance Arrangements (IAS 7 and IFRS 7)

First-time adoption 1 January 2025:
- Lack of Exchangeability – Amendment to IAS 21

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 2023 include 12 (previous year: 12) German entities and 67 (previous year: 67) foreign subsidiaries. In addition, two joint ventures (previous year: one) are 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 classification of Turkey as a hyperinflationary economy also remained unchanged in 2023.

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 index of consumer prices stood at 1,128.42 on 1 January 2023 (1 January 2022: 686.95) and increased to 1,859.38 as at 31 December 2023 (31 December 2022: 1,128.42).

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 2023 was TRY 32.5739 to EUR 1 (previous year: 19.9649).

All in all, the application of IAS 29 had a negative effect on consolidated net income of EUR -1,561 thousand (previous year: EUR -3,921 thousand). This effect is recognised in earnings before interest, taxes, depreciation and amortisation and in net finance costs. Equity is indexed in the revenue reserves.

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

Exchange rates

		Annual average rates		Rate as at 31 Dec.	
	EUR 1 =	**2023**	2022	**2023**	2022
Pound sterling	GBP	0.8688	0.8548	0.8691	0.88693
Chinese yuan	CNY	7.6839	7.0744	7.8509	7.3582
Indian rupee	INR	89.4344	82.7154	91.9042	88.1710
Polish zloty	PLN	4.5234	4.6868	4.3395	4.6808
Russian rouble	RUB	92.6060	73.4518	98.3014	78.11341
Swedish krona	SEK	11.4842	10.6571	11.0960	11.1218
Swiss franc	CHF	0.9717	1.0017	0.9260	0.9847
South Korean won	KRW	1,420.1227	1,354.1607	1,433.6609	1,344.0900
Turkish lira	TRY	26.1549	17.5096	32.5739	19.9649
US dollar	USD	1.0828	1.0500	1.1050	1.0666

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

ASSUMPTIONS AND ESTIMATES 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 Executive Board of WILO SE 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 performance 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 171,489 thousand as at the end of the reporting period (previous year: EUR 156,830 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 355,494 thousand (previous year: EUR 327,280 thousand) and property, plant and equipment of EUR 760,969 thousand (previous year: EUR 703,401 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 27,270 thousand (previous year: EUR 30,022 thousand) as at the end of the reporting period. Further information can be found under “Financial assets” (note (7.)) and in note (9.4).

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 69,858 thousand (previous year: EUR 63,144 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. The provisions for bonuses and rebates were reclassified to the other financial liabilities. In total, other provisions of EUR 47,868 thousand (previous year: EUR 44,553 thousand) were reported as at the end of the reporting period (note (9.16) of the notes to the consolidated financial statements). 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 when applying the 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.

EXPENSES AND REVENUE RECOGNITION In accordance with IFRS 15, the Wilo Group recognises net sales when control of distinct goods or services is transferred to the customer, i.e. when the customer has the ability to direct the use of the transferred goods or services and obtain substantially all of the remaining benefits from them. 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 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 13,316 thousand (previous year: EUR 11,542 thousand). Furthermore, the addition to capitalised development costs also includes borrowing costs of EUR 389 thousand (previous year: EUR 459 thousand), meaning that the addition totals EUR 13,705 thousand (previous year: EUR 12,001 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 2023 financial year, borrowing costs were capitalised in the amount of EUR 1,952 thousand (previous year: EUR 1,948 thousand). The borrowing cost rate, which forms the basis for determining the capitalisable borrowing costs, was 2.83 percent in the year under review (previous year: 2.13 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.

LEASING 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

2023 financial year Product area	Goodwill in EUR thousand	Long-term growth factor in %	Discount rate before income taxes in %
Heating, Ventilation, Air-conditioning	13,461	1.1	11.30
Clean and Waste Water	158,028	1.1	11.16

The sustained growth factor is based on economic targets for the business regions in which Wilo operates.

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 increased disruptions to value chains, Russia's invasion of Ukraine and the conflict in the Middle East mean that the uncertainties relating to the forecast cash flow remain high, as they were in the previous year. Sensitivity analyses were additionally carried out in which the key assumptions of EBIT and growth rate were subjected to a 10 percent reduction and the key assumption of the discount rate was increased, also by 10 percent. The conclusion after the recovery amounts of the cash-generating units were calculated was that deviations from the significant assumptions in the Heating, Ventilation and Air-conditioning product area that are classed as possible would not result in the carrying amounts of the units exceeding their recoverable amounts. The recoverable amount of the Clean and Waste Water product area exceeded the carrying amount by EUR 133 thousand in 2023. If the growth rate, EBIT or the discount rate were adjusted, a need for impairment would arise for the Clean and Waste Water product area. A weighted cost of capital cost after tax of 8.39 percent (previous year: 8.10 percent) and a growth rate of 1.10 percent (previous year: 1.10 percent) were used for the impairment testing. The recoverable amount would correspond to the carrying amount of the product area if the weighted cost of capital were to increase by 0.014 percent or the growth rate were to decrease by 0.118 percent or the annually planned EBIT were to decrease by 0.016 percent.

Moreover, and as in the previous year, the impairment testing in the 2023 financial year for the capitalised development costs and intangible assets that are not yet available for use did not produce any impairment losses.

INVESTMENTS CARRIED AT EQUITY Shares in joint ventures are recognised in the investments carried at equity.

Joint ventures are based on mutual agreements in which the Wilo Group shares joint control of the arrangement together with a third party and also has rights in the net assets of the arrangement.

These companies are measured using the equity method. They are capitalised at cost at the time they are acquired. The cost contains the transaction costs directly attributable to the acquisition of shares. The carrying amount is subsequently increased or reduced by the changes in equity corresponding to the Wilo Group's share in the capital. Interim profits or losses from transactions between Group companies and investments carried at equity were of minor importance in the past financial year.

FINANCIAL ASSETS The Wilo Group's financial assets comprise loans and receivables, acquired equity and debt securities, cash and derivative financial instruments with a positive fair value. 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 by 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 of 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 credit loss 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 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 40,279 thousand (previous year: EUR 40,578 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 Executive Board of WILO SE also recognises deferred tax liabilities for the tax expenses that will 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 2023 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 that any conditions attached to the grant will be complied with and the grant will be received. Research and investment grants received by WILO SE and its subsidiaries 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.

EQUITY Treasury shares in the notional amount of EUR 886 thousand (previous year: EUR 937 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.

The Wilo Group has set up supply chain financing (SCF) for a small group of suppliers to a limited extent. 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. The transaction volume in 2023 totalled EUR 9,275 thousand (previous year: EUR 11,288 thousand). Other financial liabilities from the SCF of EUR 3,474 thousand were recognised as at 31 December 2023 (previous year: EUR 4,915 thousand).

To gain a better insight into the net assets, the financial obligations for bonuses and rebates were reclassified as at 1 January 2023 from other provisions to other financial liabilities, as part of the miscellaneous financial liabilities. The previous year’s figures were adjusted accordingly to ensure they can be compared.

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 2023	31 December 2022
Discount rate	4.06	3.87
Pension adjustment	2.43	2.43
Salary increase	3.67	3.13

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	2023	%	2022	%
Established markets	1,178,277	59.7	1,113,852	59.1
Growth markets	796,501	40.3	771,879	40.9
Total	**1,974,778**	**100.0**	**1,885,731**	**100.0**

The established markets and growth markets consisted of the following countries as at 31 December 2023:
– 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 1,825,606 thousand (previous year: EUR 1,751,678 thousand) and service income of EUR 149,172 thousand (previous year: EUR 134,053 thousand).

(8.2) Cost of sales

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

Cost of sales		
EUR thousand	2023	2022
Cost of materials	-907,932	-902,167
Miscellaneous costs	-386,904	-368,603
Total	**-1,294,836**	**-1,270,770**

(8.3) Selling and administrative expenses

Selling and administrative expenses		
EUR thousand	2023	2022
Selling expenses	-329,247	-325,374
Administrative expenses	-156,373	-125,837
Total	**-485,620**	**-451,211**

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	2023	2022
Research and development costs	-87,077	-78,841
of which capitalised development costs	13,316	11,542
Total	**-73,761**	**-67,299**

(8.5) Other operating income

Other operating income		
EUR thousand	2023	2022
Foreign-currency gains from operating activities	14,781	23,682
Government grants	2,317	2,851
Income from disposals of intangible assets and property, plant and equipment	4,332	1,899
Insurance compensation	410	1,872
Other	10,128	7,953
Total	**31,968**	**38,257**

The foreign-currency gains from operating activities of EUR 14,781 thousand (previous year: EUR 23,682 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 25,411 thousand (previous year: EUR 30,675 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	2023	2022
Foreign-currency losses from operating activities	-25,411	-30,675
Additions to reserves from reclassification	-2,500	-2,956
Losses on disposals of intangible assets and property, plant and equipment	-2,519	-789
Other	-5,797	-3,246
Total	**-36,227**	**-37,666**

(8.7) Net income from investments carried at equity

Earnings from investments carried at equity result from the catch-up effects arising from the first-time adoption of the equity method at EMU I.D.F. S.A.R.L. and amount to EUR 1,178 thousand in the financial year (previous year: EUR 0 thousand). The consolidated pro rata net income from the last available financial statements of the company at at 31 December 2022 total EUR 420 thousand.

(8.8) Net finance costs

Financial income is composed as follows:

Financial income		
EUR thousand	2023	2022
Foreign-currency gains from financing activities	2,099	2,604
Interest income from cash and cash equivalents	5,037	2,742
Gains on derivative financial instruments	830	13
Other	4,644	858
Total	**12,610**	**6,217**

Financial expenses are composed as follows:

Financial expenses

EUR thousand	2023	2022
Interest expenses on financial liabilities	-22,608	-13,471
Losses on derivative financial instruments	-305	-977
Foreign-currency losses from financing activities	-2,461	-347
Interest rate effects from pensions, non-current liabilities and receivables	-2,043	-684
Interest expenses for leases	-1,066	-942
Capitalised borrowing costs	1,952	1,948
Total	**-26,531**	**-14,473**

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	2023	2022
Current tax expense/income		
– Year under review	-32,800	-30,690
– Adjustments for prior periods	-485	-49
Current income taxes	**-33,285**	**-30,739**
Deferred tax expense/income		
– from DTAs on loss carryforwards	-299	-232
– from changes in tax rates	-22	-137
– from the creation and reversal of temporary differences	5,361	3,534
– from write-downs on and reversals of deferred tax assets	-100	-79
Deferred tax expense	**4,940**	**3,086**
Income taxes	**-28,345**	**-27,653**

Deferred taxes are determined according to local income tax rates. For Germany, this is a combined tax rate of 31.8 percent (previous year: 31.8 percent) consisting of corporation tax, solidarity surcharge and trade tax. 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 TAX ASSETS AND LIABILITIES In relation to measurement differences on individual items of the statement of financial position and tax loss carryforwards, deferred tax assets and liabilities are recognised as follows:

Deferred taxes by item in the statement of financial position

	Deferred tax assets		Deferred tax liabilities	
EUR thousand	2023	2022	2023	2022
Intangible assets	11,497	8,307	48,438	44,034
Property, plant and equipment	5,502	4,109	20,251	20,953
Inventories	12,039	9,677	1,063	1,897
Receivables and other assets	5,677	5,844	5,386	3,132
Cash flow hedges	618	0	0	1,154
	35,333	**27,937**	**75,138**	**71,170**
Financial liabilities	246	189	635	365
Trade payables	1,663	1,465	27	29
Pensions and similar obligations	9,638	8,095	237	226
Other provisions and liabilities	17,866	12,850	10,772	9,432
Tax loss carryforwards	40,279	40,578	0	0
	69,692	**63,177**	**11,671**	**10,052**
Offset	**-73,256**	**– 64,634**	**-73,256**	**– 64,634**
Carrying amount	**31,769**	**26,480**	**13,553**	**16,588**

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. 2022	Recognised in profit or loss	Recognised in other comprehensive income	**Net amount of deferred tax assets/liabilities as at 31 Dec. 2023**
Intangible assets	-35,727	-1,213	0	-36,940
Property, plant and equipment	-16,843	2,094	0	-14,749
Inventories	7,779	3,197	0	10,976
Receivables and other assets	2,690	-2,399	0	291
Cash flow hedges	-1,154	0	1,772	618
Financial liabilities	-176	-213	0	-389
Trade payables	1,436	188	12	1,636
Pensions and similar obligations	7,869	-67	1,600	9,402
Other provisions and liabilities	3,020	4,072	0	7,092
Initial application of IFRS 9 and IFRS 15	420	-420	0	0
Tax loss carryforwards	40,578	-299	0	40,279
Total	**9,892**	**4,940**	**3,384**	**18,216**

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. 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 taxes was recognised in other comprehensive income in the amount of EUR 3,384 thousand. Of this figure, deferred tax income of EUR 1,600 thousand relates to actuarial changes in the present value of pension obligations and the remeasurement of the related plan assets, while deferred tax income of EUR 1,772 thousand relates to hedge accounting. A further EUR 12 thousand relates to currency translation effects in deferred taxes.

Unutilised tax loss carryforwards amounted to EUR 270,648 thousand (previous year: EUR 280,742 thousand) as at the end of the reporting period, EUR 248,151 thousand of which (previous year: EUR 253,452 thousand) can be carried forward indefinitely. The limited tax loss carryforwards amount to EUR 22,497 thousand (previous year: EUR 27,290 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 40,279 thousand (previous year: EUR 40,578 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 130,363 thousand (previous year: EUR 147,465 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 3,500 thousand (previous year: EUR 2,194 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 2023, there were retained profits of EUR 206,177 thousand at subsidiaries (previous year: EUR 217,123 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 2023 financial year. This corresponds to a total tax rate of 31.8 percent (previous year: 31.8 percent). The Wilo Group reported tax expenses of EUR 28,345 thousand (previous year: EUR 27,653 thousand) in its consolidated income statement for 2023. This is EUR 4,794 thousand lower (previous year: EUR 581 thousand lower) than the expected tax expense of EUR 33,139 thousand (previous year: EUR 28,234 thousand) that results from applying the domestic rate of 31.8 percent (previous year: 31.8 percent) at Group level.

The difference is attributable to the following causes:

Tax reconciliation

EUR thousand	**2023**	2022
Consolidated net income before taxes	103,559	88,786
Expected tax expense	**–33,139**	**–28,234**
Tax rate changes	–22	–137
Difference from current tax rates	13,285	9,741
Temporary differences arising on consolidation	–67	–309
Other permanent differences	–3,244	–3,274
Tax-free income	363	3,808
Change in unrecognised deferred taxes on loss carryforwards	–523	–4,292
Withholding tax	–6,151	–3,726
Prior-period taxes	–485	–49
Other	1,638	–1,181
Current tax expense	**–28,345**	**–27,653**

The Wilo Group falls within the scope of the Pillar Two minimum taxation, which entered into force in the German legislation on 28 December 2023 and applies to financial years that commence on or after 30 December 2023 ("MinStG" – minimum tax law).

In accordance with the legislation, the Group is required to pay additional tax for each jurisdiction with an effective tax rate under 15 percent. The calculation of the effective tax rate is very complex and contains a large number of specific adjustments. The law provides exceptions in the form of a temporary safe harbour regulation, which means that under specific conditions no additional tax will be payable for the year.

As WILO SE is based in Germany, the framework applies to the Wilo Group with effect from 1 January 2024 regardless of which other legal systems also implement the law. No tax effects result for the financial year of the Wilo Group ending on 31 December 2023, as the Pillar Two legislation was not yet in force at the time of reporting.

Based on the latest analysis, the Wilo Group assumes that no additional tax will be incurred in 56 of 59 jurisdictions as a result of the application of the CbPR safe harbour rule. Three of 59 jurisdictions (Brazil, China and Hungary) therefore do not meet the requirements of the CbPR safe harbour rule, which means it cannot be ruled out that additional tax will be incurred in the 2024 financial year.

The Wilo Group makes use of the temporary exception that results from the implementation of the Pillar Two regulations and according to which no deferred taxes have to be recognised. This exception was included in the amendment to IAS 12 published in May 2023 and adopted by the European Union on 8 November 2023.

(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 7.57 (previous year: EUR 6.16).

Earnings per share

	2023	2022
Earnings attributable to the shareholders of WILO SE in EUR thousand	75,856	61,057
Number of ordinary shares as at 31 Dec.	10,036,094	10,016,294
Weighted average number of ordinary shares outstanding	10,017,284	9,914,833
Earnings per ordinary share (EUR)	**7.57**	**6.16**

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

(9.1) Intangible assets

Intangible assets developed as follows in the 2023 and 2022 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 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
Reclassifications	1,412	0	–3	–1,139	0
Disposals	–324	0	0	–45	–369
As at 31 December 2022	**126,467**	**162,383**	**143,616**	**12,541**	**445,007**
As at 1 January 2023	126,467	162,383	143,616	12,541	445,007
Currency translation	–1,203	–3,264	–404	–9	–4,880
Additions	4,641	77	13,705	9,272	27,695
Additions from business combinations	5,626	17,702	0	0	23,328
Reclassifications	9,170	0	–1,500	–7,670	0
Disposals	–2,597	0	0	0	–2,597
As at 31 December 2023	**142,104**	**176,898**	**155,417**	**14,134**	**488,553**
Cumulative depreciation					
As at 1 January 2022	77,449	5,549	17,827	0	100,825
Currency translation	519	4	–6	0	517
Depreciation 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**
As at 1 January 2023	86,191	5,553	25,983	0	117,727
Currency translation	–779	–144	–5	0	–928
Depreciation in the financial year	9,398	0	9,412	0	18,810
Disposals	–2,550	0	0	0	–2,550
As at 31 December 2023	**92,260**	**5,409**	**35,390**	**0**	**133,059**
Residual carrying amounts					
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**
As at 1 January 2023	40,276	156,830	117,633	12,541	327,280
As at 31 December 2023	**49,844**	**171,489**	**120,027**	**14,134**	**355,494**

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 2023 financial year:

Development of goodwill by product division EUR thousand	1.1.2023	Additions	Currency translation	31.12.2023
Product area				
Heating, Ventilation, Air-Conditioning	7,571	6,063	–173	13,461
Clean and Waste Water	149,259	11,716	–2,947	158,028
Total	**156,830**	**17,779**	**–3,120**	**171,489**

(9.2) Property, plant and equipment

Property, plant and equipment developed as follows in the 2023 and 2022 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 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**
As at 1 January 2023	520,042	305,669	436,365	101,869	1,363,945
Currency translation	–11,992	–4,376	–8,429	–1,889	–26,686
Additions	31,679	13,420	35,192	75,192	155,483
Additions from business combinations	9,465	25	630	96	10,216
Reclassifications	62,103	28,148	11,472	–101,723	0
Disposals	–1,398	–25,458	–26,698	–78	–53,632
Disposals Scope of consolidation	–3,861	–762	–369	0	–4,993
As at 31 December 2023	**606,038**	**316,665**	**448,163**	**73,468**	**1,444,334**
Cumulative depreciation					
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**
As at 1 January 2023	118,787	204,833	336,699	225	660,544
Currency translation	–3,296	–3,033	–5,955	0	–12,284
Depreciation in the financial year	21,351	20,271	35,083	0	76,705
Impairment in accordance with IAS 36	3,627	759	614	0	5,000
Reclassifications	800	34	–668	–166	0
Disposals	–1,177	–20,859	–21,526	0	–43,562
Disposals Scope of consolidation	–1,966	–726	–346	0	–3,038
As at 31 December 2023	**138,126**	**201,279**	**343,901**	**59**	**683,365**
Residual carrying amounts					
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**
As at 1 January 2023	401,255	100,836	99,666	101,644	703,401
As at 31 December 2023	**467,912**	**115,386**	**104,262**	**73,409**	**760,969**

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 2028 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 2028 planning period is applied as the basis of calculation for the perpetual annuity from 2029 onwards. For the purposes of impairment testing, an average cost of capital after income tax of 12.08 percent (previous year: 9.88 percent) was determined for the affected regions. An impairment loss of EUR 5.0 million (previous year: EUR 10.0 million) was recognised at the reporting date, which corresponds to around 40 percent (previous year: 30 percent) of the value of the items of property, plant and equipment in question. The impairment loss relates to our two product areas of Heating, Ventilation, Air-conditioning (HVAC) and Clean and Waste Water (CWW) and is recognised in the cost of sales.

LEASES Leases for low-value assets are in effect 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 2023 contained right-of-use assets of EUR 37,492 thousand. In the previous year, the carrying amounts of the right-of-use assets recognised in accordance with IFRS 16 amounted to EUR 33,943 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 December 2023	IFRS 16 31 December 2022
Land and buildings	21,588	22,599
Technical equipment and machinery	2,753	2,086
Operating and office equipment	13,151	9,258
Total	**37,492**	**33,943**

The right-of-use assets recognised as property, plant and equipment in the 2023 financial year in accordance with IFRS 16 developed as follows:

Development of the right-of-use lease assets EUR thousand	Land and buildings	Technical equipment and machinery	Operating and office equipment	Total
As at 1 January 2023	**22,599**	**2,086**	**9,258**	**33,943**
Currency translation	–496	0	72	–424
Additions to right-of-use assets	7,460	1,744	10,858	20,062
Reclassifications	–5	0	5	0
Disposals of right-of-use assets	–203	–15	–1,617	–1,835
Depreciation in the financial year	–7,767	–1,062	–5,425	–14,254
As at 31 December 2023	**21,588**	**2,753**	**13,151**	**37,492**

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	**2023**	2022
Interest expenses for lease liabilities	1,066	942
Lease expenses for low-value assets	4,779	3,201
Expenses for short-term leases	8,758	6,854
Expenses for variable lease payments not included in the measurement of lease liabilities	243	295
Total	**14,846**	**11,292**

The consolidated statement of cash flows includes cash outflows of EUR 14,307 thousand (previous year: EUR 14,825 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	**31.12.2023**	31.12.2022
Raw materials and supplies	166,111	160,857
Work in progress	44,829	50,461
Finished goods and merchandise	228,831	222,592
Advance payments	7,307	2,343
Total	**447,078**	**436,253**

At a gross carrying amount of EUR 478,648 thousand (previous year: EUR 466,831 thousand), the write-down on inventories amounted to EUR 31,570 thousand (previous year: EUR 30,578 thousand) as at 31 December 2023, of which EUR 6,632 thousand (previous year: EUR 6,070 thousand) is recognised in profit or loss. Inventories are not subject to any restrictions on title beyond the suppliers' customary retention of title. A reversal of write-downs of inventories in the previous year totalling more than EUR 1,000 thousand was carried out in the year under review. Alternative sales opportunities were found for these inventories in the year under review.

(9.4) Trade receivables

The trade receivables result from normal goods and services transactions of the Wilo Group. Current trade receivables of EUR 291,144 thousand (previous year: EUR 335,092 thousand) are due in the 2024 financial year. Non-current trade receivables of EUR 4,183 thousand (previous year: EUR 4,968 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 2023 and 2022 financial years:

Specific valuation allowances		
EUR thousand	**2023**	2022
As at 1 January	**22,833**	**17,787**
Currency translation	-785	-352
Additions	5,462	10,926
Utilisation	-4,179	-1,982
Reversals	-2,919	-3,546
As at 31 December	**20,412**	**22,833**

IFRS 9 expected credit loss at 31 December 2023			
EUR thousand	Expected loss rate	Gross carrying amount	Risk provision
Europe	0.2–2.0%	137,512	1,401
Asia-Pacific	0.5–11.2%	88,470	4,643
MEA	0.8–3.0%	27,258	536
Others	0.6–4.0%	25,218	278
As at 31 December 2023		**278,458**	**6,858**

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**

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 2023 and 2022:

Other financial assets

EUR thousand	31 December 2023 of which with a remaining term			31 December 2022 of which with a remaining term		
	Total	**Less than 1 year**	**More than 1 year**	Total	Less than 1 year	More than 1 year
Receivables from unconsolidated subsidiaries and jointly controlled entities	425	425	0	481	481	0
Research allowance	1,930	1,930	0	1,930	1,930	0
Rent deposits	4,682	289	4,393	4,156	316	3,840
Receivables from derivative financial instruments	3,784	335	3,449	4,591	385	4,206
Loans	100	0	100	90	0	90
Equity instruments	1,994	0	1,994	1,994	0	1,994
Miscellaneous other financial receivables	13,423	10,541	2,882	14,070	10,759	3,311
Total	**26,338**	**13,520**	**12,818**	**27,312**	**13,871**	**13,441**

Equity instruments of EUR 1,994 thousand (previous year: EUR 1,994 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 605 thousand as at the end of the reporting period (previous year: EUR 414 thousand).

(9.7) Other receivables and assets

Other receivables and assets are composed as follows as at 31 December 2023 and 2022:

Other receivables and assets

EUR thousand	31 December 2023 of which with a remaining term			31 December 2022 of which with a remaining term		
	Total	**Less than 1 year**	**More than 1 year**	Total	Less than 1 year	More than 1 year
Tax assets	36,261	31,956	4,305	27,253	21,456	5,797
Advance payments	18,107	18,070	37	12,807	12,781	26
Employer pension liability assets	3,237	0	3,237	2,884	0	2,884
Deferred expenses	7,750	7,135	615	6,729	6,651	78
Assets in unconsolidated subsidiaries	5	0	5	51	0	51
Receivables from employees and claims for damages	434	403	31	489	385	104
Total	**65,794**	**57,564**	**8,230**	**50,213**	**41,273**	**8,940**

(9.8) Cash

Cash and cash equivalents of EUR 392,572 thousand (previous year: EUR 264,519 thousand) mainly comprises cash and sight deposits at banks. There are restrictions on title amounting to EUR 3,570 thousand (previous year: EUR 3,943 thousand).

(9.9) Assets held for sale

Wilo did not have any assets held for sale in the year under review (previous year: EUR 0 thousand). In the previous year, the disposal process for the asset from 2021 of EUR 1,346 thousand was completed in August 2022 at a sales price totalling 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 10,036,094 ordinary shares (previous year: 10,016,294) and, as in the previous year, no preferred shares in circulation as at 31 December 2023.

Treasury shares in the notional amount of EUR 886 thousand (previous year: EUR 937 thousand) are openly deducted from issued capital.

CAPITAL RESERVES The capital reserves of EUR 47,440 thousand (previous year: EUR 45,504 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, and from the increase in the previous year generated by the sale of ordinary shares for EUR 15,281 thousand, of which EUR 9,824 thousand was transferred to the capital reserves. Following the sale of ordinary shares totalling EUR 3,010 thousand in the 2023 financial year, a further EUR 1,936 thousand was transferred to the 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.

TREASURY SHARES WILO SE sold 19,800 ordinary shares, equivalent to 0.2 percent of the share capital, at a price of EUR 151.99 each in December 2023. As a result, the company held 340,655 treasury shares or 3.3 percent of the share capital as at 31 December 2023. As at 31 December 2023, the company reported 81,237 ordinary shares (previous year: 101,037) 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 resolved on 19 April 2023 to distribute EUR 14,524 thousand from the unappropriated surplus as at 31 December 2022 (previous year: EUR 11,796 thousand). This corresponds to a dividend per ordinary share of EUR 1.45.

CAPITAL MANAGEMENT One of the business objectives of the Wilo Group is to maintain the strongest possible equity base in order to foster the confidence of all key stakeholders and promote the Group's further 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 the consolidated subsidiaries are also reviewed at regular intervals and on an ad hoc basis and measures are implemented as necessary, in due consideration of the tax and legal frameworks, in order to maintain 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 2023 was EUR 962,554 thousand (previous year: EUR 930,919 thousand). This is mostly accounted for by EUR 1,005,521 thousand (previous year: EUR 942,856 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 1,008,219 thousand (previous year: EUR 945,554 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 2023 and 2022 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 2023 and 2022:

Financial liabilities		
EUR thousand	**31.12.2023**	31.12.2022
Non-current financial liabilities		
with a remaining term		
of between one and five years	457,058	284,317
of more than five years	294,156	258,630
Total	**751,214**	**542,947**
Current financial liabilities		
with a remaining term		
of less than one year	76,309	73,368

WILO SE reported the following material financing agreements as at 31 December 2023:

- **USPP 2022** WILO SE issued a senior note worth EUR 95.0 million in September 2022 as part of a US private placement ("USPP 2022"). 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 2020** WILO SE issued a senior note worth EUR 90.0 million with a term of 15 years in April 2020 as part of a US private placement ("USPP 2020"). 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 2017** In May 2017, WILO SE issued a senior note worth 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 27.1 million as at 31 December 2023.

- **PROMISSORY NOTE 2023** WILO SE placed another traditional promissory note with a volume of EUR 270.0 million on the international capital market in November 2023 ("Promissory note 2023"). The three different tranches have terms of three years (EUR 74.0 million), five years (EUR 157.0 million) and seven years (EUR 39.0 million). The individual tranches each have bullet maturity and fixed (4.467 percent, 4.484 percent, 4.642 percent) as well as variable interest rates. The variable-interest portions of the individual tranches are mostly hedged using suitable derivatives. The promissory note includes an ESG (environmental, social and governance) component that ties the margin to the Wilo Group's sustainability rating as assessed by the EcoVadis rating agency. The promissory note is not secured against real property or financial assets of the company.

- **PROMISSORY NOTE 2022** WILO SE placed a traditional promissory note with a volume of EUR 224.0 million in August 2022 ("Promissory note 2022"). 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 2020** WILO SE took out a promissory note loan ("Promissory note 2020") for EUR 15.0 million in June 2020, which matures in 2030 and has 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 9.8 million at the reporting date.

- **PROMISSORY NOTE 2017** WILO SE took out a promissory note loan ("Promissory note 2017") for EUR 50.0 million in June 2017, which matures in 2027 and has 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 35.0 million as at 31 December 2023. It is not secured against real property or financial assets of the company.

- **KFW DEVELOPMENT LOAN 2017** To finance the construction project at the Dortmund location, a KfW development loan for EUR 19.5 million with a term of ten years and an interest rate of 1.15 percent was entered into in November 2017 for the administrative building ("KfW development loan 2017"), which is 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 9.8 million at the reporting date.

- **SYNDICATED LOAN 2023** In December 2023, WILO SE refinanced the syndicated loan that was originally entered into in July 2013 and that expires in 2024 for an unchanged amount of EUR 300.0 million. An option to increase the loan to EUR 100.0 million was additionally agreed. The term is five years with an option to extend it by two years in total. The interest rate comprises a base reference rate with matching maturity plus a loan margin that is adjusted every quarter on the basis of the leverage. The syndicated loan is not secured against real property or financial assets of the company. The credit facility had not been utilised as at 31 December 2023.

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, the promissory notes 2017 and 2020 and the syndicated loan. WILO SE has always satisfied these requirements in full and currently assumes it will also do so in the future. The agreements also include a number of standard grounds for termination.

Incidental costs were incurred in connection with these financing arrangements, which 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 2,576 thousand (previous year: EUR 958 thousand). The fair value of the financial liabilities calculated using net present value models was EUR 758,998 thousand as at 31 December 2023 (previous year: EUR 572,447 thousand).

Current financial liabilities mainly consist of the tranches of non-current financial liabilities that are to be repaid in the 2024 financial year and the utilisation of bilateral credit facilities.

(9.12) Trade payables

Trade payables break down as follows as at 31 December 2023 and 2022:

Trade payables		
EUR thousand	**31.12.2023**	31.12.2022
Trade payables		
with a remaining term of less than one year	194,627	247,265
Total	**194,627**	**247,265**

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	**31.12.2023**	31.12.2022
Non-current other financial liabilities		
of which		
Lease liabilities		
with a remaining term of between one and five years	22,794	19,865
with a remaining term of more than five years	3,093	3,495
Liabilities from derivative financial instruments		
with a remaining term of between one and five years	4,068	2,803
Miscellaneous financial liabilities		
with a remaining term of between one and five years	4,834	4,064
Total	**34,789**	**30,227**

Other financial liabilities		
EUR thousand	**31.12.2023**	31.12.2022
Current other financial liabilities		
of which		
Bills payable	10,021	12,677
Liabilities to unconsolidated subsidiaries and jointly controlled entities	2,648	2,694
Lease liabilities	12,083	11,115
Supply chain financing	3,474	4,915
Liabilities from derivative financial instruments	2,026	1,552
Miscellaneous financial liabilities	44,470	43,842
of which for bonuses and rebates	26,792	26,119
Total	**74,722**	**76,795**

The financial obligations for bonuses and rebates were reclassified as at 1 January 2023 from other provisions to other financial liabilities, as part of the miscellaneous financial liabilities. The previous year's figures were adjusted accordingly to ensure they can be compared.

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 2023 and 2022:

Other liabilities		
EUR thousand	**31.12.2023**	31.12.2022
Non-current other liabilities		
Contract liabilities (IFRS 15)	3,185	2,738
Deferred income	3,322	2,346
Total	**6,507**	**5,084**
Current other liabilities		
Other tax liabilities	21,135	25,369
Staff liabilities	63,747	54,649
Advance payments received	43,709	50,025
Social security liabilities	6,698	6,275
Deferred income	243	677
Miscellaneous other liabilities	6,376	5,056
Total	**141,908**	**142,051**

As permitted under IFRS 15, no disclosures are made with regard to the remaining performance obligations as at 31 December 2023 or 31 December 2022, that have an expected original maturity of one year or less.

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 2023 and 2022:

Provisions for pensions and similar obligations		
EUR thousand	**31.12.2023**	31.12.2022
Provisions for pensions	64,836	59,099
Similar obligations	5,022	4,045
Total provisions for pensions	**69,858**	**63,144**
Plan assets	-979	-1,599
Total pensions obligations	**68,879**	**61,545**

The net benefit plan liability developed as follows:

Net benefit plan liability

EUR thousand	Defined benefit obligation 2023	Defined benefit obligation 2022	Fair value of plan assets 2023	Fair value of plan assets 2022	Net defined benefit liability (asset) 2023	Net defined benefit liability (asset) 2022
As at 1 January	**74,430**	**101,197**	**-16,930**	**-14,144**	**57,500**	**87,053**
Current service cost	3,159	4,068	0	0	3,159	4,068
Past service cost	-384	667	0	0	-384	667
Interest expense/income	2,780	1,236	-734	-281	2,046	955
Settlements	-294	-421			-294	-421
Items recognised in profit or loss	**5,261**	**5,550**	**-734**	**-281**	**4,527**	**5,269**
Remeasurement						
Actuarial losses (gains) from the change in demographic assumptions	-193	-393	0	0	-193	-393
Actuarial losses (gains) from the change in financial assumptions	4,622	-27,956	0	0	4,622	-27,956
Actuarial losses (gains) from experience adjustments	1,275	339	0	0	1,275	339
Income from plan assets excluding interest income	0	0	161	144	161	144
Net translation differences	-687	-23	510	-14	-178	-37
Items recognised in other comprehensive income	**5,017**	**-28,033**	**671**	**130**	**5,687**	**-27,903**
Amounts paid by the employer	0	0	-520	-3,001	-520	-3,001
Payments made	-3,751	-4,097	437	484	-3,314	-3,613
Miscellaneous changes	4,018	-187	-4,040	-118	-23	-305
Other changes	**267**	**-4,284**	**-4,123**	**-2,635**	**-3,857**	**-6,919**
As at 31 December	**84,974**	**74,430**	**-21,117**	**-16,930**	**63,857**	**57,500**
of which reported as						
Plan assets					**979**	**1,599**
Provisions for pensions					**64,836**	**59,099**

The net liability of EUR 63,857 thousand (previous year: EUR 57,500 thousand) is composed of the provision for pensions of EUR 64,836 thousand (previous year: EUR 59,099 thousand) less the EUR 979 thousand reported as plan assets (previous year: EUR 1,599 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 the employee's 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	2023	2022
Cash	16,509	12,833
Qualifying insurance policies	4,162	3,668
Investment funds	446	429
As at 31 December	**21,117**	**16,930**

Furthermore, employee pension liability policies are in place to cover provision-funded pension obligations in the amount of EUR 3,237 thousand (previous year: EUR 2,884 thousand), although 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 3,074 thousand (previous year: EUR 3,739 thousand) was recognised in the year under review for defined contribution plans in the Wilo Group. Of this figure, 61.3 percent was attributed to Germany (previous year: 48.7 percent) and 10.9 percent to France (previous year: 23.5 percent).

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

- Active members: EUR 45,121 thousand (previous year: EUR 40,742 thousand)
- Deferred members: EUR 6,782 thousand (previous year: EUR 6,263 thousand)
- Pensioners: EUR 28,966 thousand (previous year: EUR 27,425 thousand)

The regional distribution of the obligations is as follows:

Regional distribution

EUR thousand	2023	%	2022	%
Germany	57,926	71.6	53,408	71.8
France	11,538	14.3	9,945	13.4
Other	11,405	14.1	11,077	14.9
Total	**80,869**	**100.0**	**74,430**	**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 % 2023	2022
Discount rate	+0.5 %	7.2	-9.5
	-0.5 %	8.3	6.0
Pension factor	+0.25 %	2.1	-0.3
	-0.25 %	-1.9	-4.3
Salary factor	+0.25 %	0.3	-2.1
	-0.25 %	-0.1	-2.5
Life expectancy	+10 %	5.3	2.8

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 2023, the weighted average duration of the defined benefit obligation was 12.5 years (previous year: 12.8 years).

SIMILAR OBLIGATIONS Similar obligations for post-employment benefits amount to EUR 5,022 thousand for 2023 (previous year: EUR 4,045 thousand). The gross obligation amounts to EUR 7,979 thousand (previous year: EUR 7,079 thousand) and includes gross partial retirement obligations for WILO SE of EUR 7,055 thousand (previous year: EUR 6,412 thousand). The EUR 4,688 thousand fair value of plan assets as at the end of the reporting period (previous year: EUR 4,316 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 1,731 thousand (previous year: EUR 1,282 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 2023 was determined using a discount rate of 3.20 percent (previous year: 3.31 percent). Furthermore, an annual wage and salary increase of 1.1 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 was reclassified to the other financial liabilities in 2023.

Other provisions

Current

EUR thousand	Guarantees	Restructuring	Other	Total
As at 1 January 2023	**14,416**	**7,900**	**14,104**	**36,420**
Currency translation	-186	0	-2,459	**-2,645**
Utilisation	-1,419	-4,777	-1,897	**-8,093**
Reclassification	67	0	0	**67**
Reversal	-2,979	-2,664	-1,278	**-6,921**
Additions from business combinations	0	0	1,219	**1,219**
Addition	6,135	5,000	8,091	**19,226**
As at 31 December 2023	**16,034**	**5,459**	**17,780**	**39,273**

The other provisions include an addition of EUR 3,500 thousand on account of a legal dispute. As in the previous year, miscellaneous provisions do not contain any material employee-related provisions.

As a result of the measures carried out in the financial year, the actual costs for restructuring turned out to be significantly lower than the amounts that were originally estimated, which led to a corresponding reversal in the financial year.

Non-current

EUR thousand	Guarantees	Anniversary	Total
As at 1 January 2023	**4,841**	**3,292**	**8,133**
Currency translation	-33	-105	**-138**
Utilisation	-634	-1	**-635**
Reclassification	-67	0	**-67**
Reversal	-214	0	**-214**
Addition	1,336	180	**1,516**
As at 31 December 2023	**5,229**	**3,366**	**8,595**

(9.17) Tax liabilities

The Wilo Group reported tax liabilities of EUR 5,901 thousand as at the end of the reporting period (previous year: EUR 5,631 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 2023 consisted of EUR 392,572 thousand (previous year: EUR 264,519 thousand) in cash and sight deposits with banks, EUR 3,570 thousand (previous year: EUR 3,943 thousand) of which was subject to restrictions on title.

The changes in cash due to exchange rate changes of EUR -19,514 thousand (previous year: EUR -103 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 13,705 thousand (previous year: EUR 12,001 thousand).

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

Change in financial and lease liabilities

			Non-cash			
EUR thousand	**1.1.2023**	Cash flows	Additions from business combinations	Other non-cash changes	Currency translation	**31.12.2023**
Financial liabilities (non-current)	542,947	255,276	0	-47,009	0	751,214
Financial liabilities (current)	73,368	-44,068	0	47,009	0	76,309
Lease liabilities	34,446	-14,307	0	18,269	-438	37,970
Total	**650,761**	**196,901**	**0**	**18,269**	**-438**	**865,493**

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		542,947
Financial liabilities (current)	25,840	-12,442	1,506	58,464		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**

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 2023 and the changes as against the previous year:

Derivative financial instruments						
	Fair value				Nominal amount	
	Maturity from 31 December 2023					
EUR thousand	Less than 1 year	Between 1 and 5 year	More than 5 years	Previous year	31.12.2023	31.12.2022
Forward exchange contracts	-1,488	-1,580	274	-3,685	145,016	103,314
Commodity derivatives	0	0	0	0	0	0
Interest rate swaps	774	-850	560	3,921	225,750	66,250

Net finance costs include gains of EUR 830 thousand (previous year: EUR 13 thousand) and losses of EUR 305 thousand (previous year: EUR 977 thousand) (see note (8.8) of the notes to the consolidated financial statements).

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 125.6 million (previous year: USD 100.6 million). USD 62.6 million was recognised as at the end of the reporting period (previous year: USD 48.8 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 44 (previous year: 29) external forward exchange contracts (hedging instruments) as at 31 December 2023, which hedge the repayment tranches of this loan up to 30 April 2031 and are designated as cash flow hedges.

The change in forward exchange contracts for currency swaps can be presented as follows:

2023 exchange rate risk in EUR	Forward exchange contracts for currency swaps	Less than 1 year	Between 1 and 5 year	More than 5 years
Carrying amount of other comprehensive income as at 1 January	304,552	-1,539,344	1,843,896	0
Change in other comprehensive income	-1,984,382	-920,825	-789,909	-273,648
Reclassification from other comprehensive income to profit and loss	2,277,852	2,493,988	-216,136	0
Carrying amount of other comprehensive income as at 31 December	598,022	33,819	837,851	-273,648
of which:				
Carrying amount as at 1 January Fair value	3,539,034	1,615,978	1,923,056	0
Carrying amount as at 1 January Reclassification of foreign currency measurement to OCI	-3,155,322	-3,155,322	0	0
Carrying amount as at 1 January Reclassification of hedging costs to OCI	-79,159	0	-79,159	0
	304,552	**-1,539,344**	**1,843,896**	**0**
of which:				
Change in fair value	-1,984,382	-920,825	-789,909	-273,648
Change Reclassification of foreign currency measurement to OCI	2,493,988	2,493,988	0	0
Change Reclassification of hedging costs to OCI	-216,136	0	-216,136	0
	293,470	**1,573,163**	**-1,006,045**	**-273,648**
of which:				
Carrying amount as at 31 December Fair value	1,554,652	695,154	1,133,147	-273,648
Carrying amount as at 31 December Reclassification of foreign currency measurement to OCI	-661,335	-661,335	0	0
Carrying amount as at 31 December Reclassification of hedging costs to OCI	-295,295	0	-295,295	0
	598,022	**33,819**	**837,851**	**-273,648**
2022 exchange rate risk in EUR				
Carrying amount of other comprehensive income as at 1 January	452,765	-73,716	503,918	0
Change in other comprehensive income	2,785,832	620,469	2,187,926	-22,563
Reclassification from other comprehensive income to profit and loss	-2,934,045	-2,854,885	-79,159	0
Carrying amount of other comprehensive income as at 31 December	304,552	-2,308,132	2,612,685	-22,563
of which:				
Carrying amount as at 1 January Fair value	753,202	226,721	503,918	22,563
Carrying amount as at 1 January Reclassification of foreign currency measurement to OCI	1,795,768	1,795,768	0	0
Carrying amount as at 1 January Reclassification of hedging costs to OCI	-2,096,205	-2,096,205	0	0
	452,765	**-73,716**	**503,918**	**22,563**
of which:				
Change in fair value	2,785,832	620,469	2,187,926	-22,563
Change Reclassification of foreign currency measurement to OCI	-4,951,090	-4,951,090	0	0
Change Reclassification of hedging costs to OCI	2,017,045	2,096,205	-79,159	0
	-148,213	**-2,234,416**	**2,108,766**	**-22,563**
of which:				
Carrying amount as at 31 December Fair value	3,539,034	847,190	2,691,844	0
Carrying amount as at 31 December Reclassification of foreign currency measurement to OCI	-3,155,322	-3,155,322	0	0
Carrying amount as at 31 December Reclassification of hedging costs to OCI	-79,159	0	-79,159	0
	304,552	**-2,308,132**	**2,612,685**	**0**

For the key USD loan, the following amounts are to be reclassified from other comprehensive income to net foreign currency income in future periods.

2023	Carrying amount	Expected reclassification		
EUR thousand		Less than 1 year	Between 1 and 5 year	More than 5 years
Other comprehensive income	-402	-314	-304	216
Nominal amount in USD million		12.6	41.7	8.3
Average exchange rate hedge USD/EUR		1.1808	1.1782	1.1565
Fair value	-1,509	-657	-1,126	274

2022	Carrying amount	Expected reclassification		
EUR thousand		Less than 1 year	Between 1 and 5 year	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

Income from the market performance of the derivatives of EUR 1,984 thousand (previous year: EUR -2,989 thousand) was initially recognised in other comprehensive income in total in the financial year. In the same period, part of the deferred result of EUR 2,494 thousand (previous year: EUR 2,664 thousand) for existing derivatives and EUR 216 thousand (previous year: EUR 581 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 when purchasing and selling 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

31.12.2023	1–6 months	6–12 months	More than one year
Nominal amount CHF: EUR in EUR million	4.4	4.7	13.4
Average forward exchange rate CHF:EUR	1.0244	1.03	1.0800
Nominal amount GBP: EUR in EUR million	7.5	3.6	3.4
Average forward exchange rate GBP:EUR	1.1424	1.1344	1.1389
Nominal amount CNY: EUR in EUR million	2.4	0.7	0.0
Average forward exchange rate CNY:EUR	0.1393	0.1351	0.0000
Nominal amount PLN: EUR in EUR million	10.3	11.4	5.3
Average forward exchange rate PLN:EUR	0.2211	0.2254	0.2245

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	0.0000
Nominal amount PLN: EUR in EUR million	5.9	3.5	1.6
Average forward exchange rate PLN:EUR	0.1383	0.1385	0.141
Nominal amount RON: EUR in EUR million	7.1	0.0	0.0
Average forward exchange rate RON:EUR	0.9337	0.0000	0.0000

Rolling FX hedging of cash inflows/supplier payments

2023 exchange rate risk in TEUR	Forward exchange contracts for sales	Forward exchange contracts for purchases
Carrying amount of other comprehensive income as at 1 January	24	68
Change in other comprehensive income[1]	1,427	124
Reclassification from other comprehensive income to profit and loss	-435	-155
Carrying amount of other comprehensive income as at 31 December	**1,016**	**37**
of which:		
Carrying amount of forward exchange contract asset[2]	364	0
Carrying amount of forward exchange contract liability[2]	-1,417	0
Nominal amount at the reporting date	31,485	0

2022 exchange rate risk in TEUR	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

[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).

CASH FLOW HEDGE ACCOUNTING FOR LONG-TERM LOANS
Wilo SE placed two promissory notes on the international capital market in 2022 and 2023. Interest rate swaps were agreed with other banks for the variable interest part of the loans. These are intended to minimise the interest rate risk. The promissory notes and the interest rate swaps were designated as one hedging relationship.

At the time of the placement, the terms of the four different tranches from the promissory note loan issued in the 2022 financial year were three years in the amount of EUR 57,000 thousand, five years in the amount of EUR 99,000 thousand, seven years in the amount of EUR 58,000 thousand and ten years in the amount of EUR 10,000 thousand. The individual tranches have bullet maturity and both fixed and variable interest rates. Some interest rate swaps were agreed with other banks for the variable interest part of the loan in the amount of EUR 111,500 thousand. The hedging volume from the interest rate swaps totals EUR 66,250 thousand.

The terms of the four different tranches of the promissory note loan placed in the current 2023 financial year for EUR 270,000 thousand are three years for an amount of EUR 74,000 thousand, five years for an amount of EUR 157,000 thousand and seven years for an amount of EUR 39,000 thousand. The individual tranches have bullet maturity and both fixed and variable interest rates. Interest rate swaps were agreed with other banks for the variable interest part of the loan in the amount of EUR 159,500 thousand. The hedging volume from the interest rate swaps totals EUR 159,500 thousand. The promissory note includes an ESG (environmental, social and governance) component that ties the margin to the Wilo Group's sustainability rating as assessed by the EcoVadis rating agency. The promissory note is not secured against real property or financial assets of the company.

The change in forward exchange contracts for interest rate swaps can be presented as follows:

2023 interest rate risk in EUR	Interest rate swaps	Less than 1 year	Between 1 and 5 year	More than 5 years
Carrying amount of other comprehensive income as at 1 January	-3,921,300	0	0	0
Change in other comprehensive income	3,645,396	0	3,210,811	434,585
Reclassification from other comprehensive income to profit and loss	565,946	565,946	0	0
Carrying amount of other comprehensive income as at 31 December	**290,042**	**565,946**	**3,210,811**	**434,585**
of which:				
Carrying amount as at 1 January Fair value	-4,129,531	0	-3,013,848	-1,115,683
Carrying amount as at 1 January Reclassification of accrued interest to OCI	208,231	208,231	0	0
	-3,921,300	**208,231**	**-3,013,848**	**-1,115,683**
of which:				
Change in fair value	3,645,396	0	3,210,811	434,585
Change Reclassification of accrued interest to OCI	565,946	565,946	0	0
	4,211,341	**565,946**	**3,210,811**	**434,585**
of which:				
Carrying amount as at 31 December Fair value	-484,135	0	196,962	-681,098
Carrying amount as at 31 December Reclassification of accrued interest to OCI	774,177	774,177	0	0
	290,042	**774,177**	**196,962**	**-681,098**

2022 interest rate risk in EUR	Interest rate swaps	Less than 1 year	Between 1 and 5 year	More than 5 years
Carrying amount of other comprehensive income as at 1 January	0	0	0	0
Change in other comprehensive income	-4,129,531	0	-3,013,848	-1,115,683
Reclassification from other comprehensive income to profit and loss	208,231	208,231	0	0
Carrying amount of other comprehensive income as at 31 December	**-3,921,300**	**208,231**	**-3,013,848**	**-1,115,683**
of which:				
Carrying amount as at 1 January Fair value	0	0	0	0
Carrying amount as at 1 January Reclassification of accrued interest to OCI	0	0	0	0
	0	**0**	**0**	**0**
of which:				
Change in fair value	-4,129,531	0	-3,013,848	-1,115,683
Change Reclassification of accrued interest to OCI	208,231	208,231	0	0
	-3,921,300	**208,231**	**-3,013,848**	**-1,115,683**
of which:				
Carrying amount as at 31 December Fair value	-4,129,531	0	-3,013,848	-1,115,683
Carrying amount as at 31 December Reclassification of accrued interest to OCI	208,231	208,231	0	0
	-3,921,300	**208,231**	**-3,013,848**	**-1,115,683**

(11.2) Disclosures on the carrying amounts and fair values of the financial instruments

The tables below show the financial assets and liabilities with their carrying amounts as at 31 December 2023 for each measurement category in accordance with IFRS 9 and based on the categories of the statement of financial position.

Financial assets and liabilities as at 31 December 2023

EUR thousand	Measurement category in accordance with IFRS 9	Carrying amount under IFRS 9 Amortised cost	Fair value	Derivatives used in hedge accounting
Current and non-current financial assets				
Trade receivables	Amortised cost	295,327		
Other financial assets				
Receivables from subsidiaries, jointly controlled entities and associates	Amortised cost	425		
Receivables from derivative financial instruments not used in hedge accounting	FVTPL		33	
Receivables from derivative financial instruments used in hedge accounting	n/a			3,751
Loans	Amortised cost	100		
Equity instruments	FVOCI in equity		1,994	
Miscellaneous financial assets	Amortised cost	13,423		
Cash	Amortised cost	392,572		
Current and non-current financial liabilities				
Financial liabilities	Amortised cost	827,523		
Trade payables	Amortised cost	194,627		
Other financial liabilities				
Bills payable	Amortised cost	10,021		
Liabilities to subsidiaries, jointly controlled entities and associates	Amortised cost	2,648		
Liabilities from derivative financial instruments not used in hedge accounting	FVTPL		220	
Liabilities from derivative financial instruments used in hedge accounting	n/a			5,874
Miscellaneous financial liabilities	Amortised cost	52,778*		
of which aggregated by IFRS 9 measurement category				
Amortised cost		1,789,444		
FVOCI in equity			1,994	
FVTPL			–187	
Derivatives used in hedge accounting				–2,123

* Recognised excluding lease liabilities

Financial assets and liabilities as at 31 December 2022

EUR thousand	Measurement category in accordance with IFRS 9	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, jointly controlled entities and associates	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	14,070		
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, jointly controlled entities and associates	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	52,821*		
of which aggregated by IFRS 9 measurement category				
Amortised cost		1,550,992		
FVOCI in equity			1,994	
FVTPL			–4	
Derivatives used in hedge accounting				240

* Recognised excluding lease liabilities

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 827,523 thousand (previous year: EUR 616,315 thousand) and a fair value of EUR 758,998 thousand (previous year: EUR 572,447 thousand). The fair values of financial liabilities were calculated using net present value methods.

The Group has two investments that are measured at fair value in other comprehensive income and where their fair value of EUR 1,994 thousand (previous year: EUR 1,994 thousand) corresponds to hierarchy level 3.

WILO SE holds an 8 percent stake in EUROCARBO S.P.A., Corropoli/Italy, as part 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 2023.

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.

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 119 thousand (previous year: EUR 199 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 33 thousand (previous year: EUR 12 thousand) and EUR 220 thousand (previous year: EUR 16 thousand) respectively, is shown in note (7.).

(11.3) Net gains and losses by measurement category

The table below shows the net earnings recognised in profit and loss for the 2023 financial year in accordance with IFRS 7, consisting of interest, dividends, changes in fair value, impairments, reversals of impairment losses and the effects of currency translation for each measurement category of the 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
2023 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	701,847	4,051	-6,137	3,511	37,226	38,651
FVOCI in equity	1,994	0	0	0	0	0
FVTPL	33	0	0	0	0	0
Total financial assets		**4,051**	**-6,137**	**3,511**	**37,226**	**38,651**
Financial liabilities						
Amortised cost	1,087,597	-22,608	0	0	-25,889	-48,479
FVTPL	220	0	0	0	0	0
Total financial liabilities		**-22,608**	**0**	**0**	**-25,889**	**-48,479**

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	619,220	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	931,772	-13,471	0	0	-203	-13,674
FVTPL	0	0	0	0	0	0
Total financial liabilities		**-13,471**	**0**	**0**	**-203**	**-13,674**

(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 2023 and 2022 that were recognised at fair value or for which the fair value was disclosed.

Fair value hierarchy

	31 Dec. 2023 Level 2	31 Dec. 2022 Level 2
Receivables from derivative financial instruments used in hedge accounting	3,751	4,579
Receivables from derivative financial instruments not used in hedge accounting (FVTPL)	33	12
Liabilities from derivative financial instruments used in hedge accounting	5,874	4,339
Liabilities from derivative financial instruments not used in hedge accounting (FVTPL)	220	16
Financial liabilities (fair value)	758,998	572,447
	Level 3	Level 3
Equity instruments (FVOCI in equity)	1,994	1,994

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 2023 and 2022. 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, in particular from changes in exchange rates, interest rates and commodity prices. The objective of financial risk management is to mitigate this risk from operating and financial activities. This is achieved by 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 2023 and 2022 in the respective foreign currency. This consists of foreign-currency transactions in operating activities and foreign-currency financing activities up to 31 December 2023 and 2022 as well as expected foreign-currency transactions in operating activities in 2024 and 2023. 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 2023

in millions of	EUR	USD	CNY	GBP	PLN	RON	RUB
Cash	2.5	9.6	41.9	2.1	1.8	0.2	134.5
Trade and other receivables	18.5	6.9	4.8	0.0	0.0	0.0	0.0
Receivables from affiliated companies	14.3	27.8	205.0	4.5	22.3	2.4	537.3
Trade and other payables	–6.7	–13.9	–14.5	–0.1	0.0	0.0	–17.4
Liabilities due to affiliated companies	–6.2	–0.3	0.0	0.0	0.0	0.0	0.0
Financial liabilities	–47.3	–19.3	–38.6	–0.1	0.0	0.0	–43.6
Currency risk from assets and liabilities – gross –	**–24.9**	**10.8**	**198.6**	**6.4**	**24.1**	**2.6**	**610.8**
Expected sales in 2024	102.3	94.2	248.4	9.4	49.5	43.3	0.0
Expected acquisitions in 2024	–165.3	–156.8	–276.9	–0.7	–0.6	0.0	–281.3
Currency risk from expected transactions in operating activities in 2024 – gross –	**–63.0**	**–62.6**	**–28.5**	**8.7**	**49.0**	**43.3**	**–281.3**
Currency risk – net –	**–87.8**	**–51.8**	**170.0**	**15.2**	**73.1**	**45.9**	**329.5**

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	–8.4	–0.1	0.0	0.0	0.0	0.0	0.0
Financial liabilities	–43.9	–11.8	–51.2	–0.3	0.0	0.0	–268.4
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 2022 – gross –	**–57.9**	**–21.4**	**–134.5**	**11.2**	**143.5**	**47.1**	**–172.2**
Currency risk – net –	**–82.0**	**–10.6**	**88.3**	**14.9**	**177.3**	**56.2**	**129.6**

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 exhibit 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

	2023		2022	
EUR million	**+10 %**	**-10 %**	+10 %	-10 %
EUR	-9.5	7.6	-9.1	7.5
USD	1.0	-0.8	3.2	-2.6
CNY	2.6	-2.1	2.4	-1.9
GBP	3.2	-2.6	2.8	-2.3
PLN	4.3	-3.6	4.9	-4.0
RON	1.3	-1.1	1.5	-1.2
RUB	0.4	-0.3	0.2	-0.2

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

	2023		2022	
EUR million	**+10 %**	**-10 %**	+10 %	-10 %
USD	2.9	-6.7	-0.4	-7.1
CHF	1.4	-3.5	1.2	-2.1
GBP	1.4	-1.4	1.1	-0.7
PLN	3.2	-2.2	0.5	-0.7
RUB	0.0	0.0	0.0	0.0

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 2023				
Variable-rate instruments	-552.5	552.5	0.0	0.0
Interest rate swaps	0.0	0.0	3,004.6	-3,049.9
Cash flow sensitivity (net)	**-552.5**	**552.5**	**-3,004.6**	**3,049.9**

The fair values of the interest rate swaps are 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 2023 financial year as follows:

Sensitivity analysis

EUR thousand	2023	2022
Fair value of risk position for commodity price changes – gross –	**26,726**	**32,003**
Fair value hedges	0	0
Fair value of risk position for commodity price changes – net –	**26,726**	**32,003**
Earnings impact of a 10% price increase	-2,673	-3,200
Earnings impact of a 10% price decrease	2,673	3,200

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 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 322,597 thousand (previous year: EUR 370,081 thousand). As at 31 December 2023, EUR 20,412 thousand (previous year: EUR 22,833 thousand) in specific valuation allowances was recognised on past due trade receivables of EUR 39,978 thousand (previous year: EUR 44,791 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 6,858 thousand in total using the expected credit loss model (previous year: EUR 7,189 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 1,994 thousand) for financial assets in the "fair value through OCI (FVOCI in equity)" measurement category and of EUR 33 thousand (previous year: EUR 12 thousand) for financial assets in the "fair value through profit or loss (FVTPL)" measurement category, which result 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 2023.

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
31.12.2023			
Receivables from derivative financial instruments	3,784	–2,715	1,069
Liabilities from derivative financial instruments	–6,094	2,715	–3,379
31.12.2022			
Receivables from derivative financial instruments	4,591	–2,643	1,948
Liabilities from derivative financial instruments	–4,355	2,643	–1,712

[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 470 million. EUR 3.5 million (previous year: EUR 2.5 million) of the cash credit facilities were utilised and EUR 59.9 million (previous year: EUR 25.6 million) of the guarantee and margin facilities were utilised. In addition, WILO SE has secured its long-term financial requirements by issuing promissory note loans, which were also entered into with financially sound and reputable financial partners (see note (9.11) of the notes to the consolidated financial statements).

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 2023 and 2022:

Cash outflows for financial liabilities as at 31 December 2023

EUR thousand			Maturities		
31.12.2023	Carrying amount	Agreed payments	Less than 1 year	Between 1 and 5 year	More than 5 years
Financial liabilities					
Non-current	751,214	–907,094	–28,854	–543,894	–334,346
Current	76,309	–76,309	–76,309	0	0
Trade payables	194,627	–194,627	–194,627	0	0
Lease liabilities	37,970	–37,970	–12,083	–22,794	–3,093
Other financial liabilities	65,447	–65,447	–60,613	–4,834	0
Derivative financial instruments	6,094	–6,094	–2,026	–4,068	0
Total	**1,131,661**	**–1,287,541**	**–374,512**	**–575,590**	**–337,439**

Cash outflows for financial liabilities as at 31 December 2022

EUR thousand			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	68,192	–42,073	–38,009	–4,064	0
Derivative financial instruments	4,355	–4,355	–1,552	–2,803	0
Total	**970,602**	**–981,103**	**–378,403**	**–328,450**	**–274,250**

(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 11,375 thousand as at 31 December 2023 (previous year: EUR 11,252 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 3,894 thousand (previous year: EUR 4,655 thousand) had an agreed remaining term of less than one year as at 31 December 2023, while nominal obligations of EUR 3,377 thousand (previous year: EUR 1,067 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 4,104 thousand (previous year: EUR 5,530 thousand).

Purchase commitments for planned capital expenditure on property, plant and equipment amounted to EUR 18,594 thousand as at 31 December 2023 (previous year: EUR 31,471 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.

The nominal value of WILO SE's future payment obligations as at 31 December 2023 arising from lease and other contracts amounts to around EUR 75,847 thousand (previous year: EUR 49,976 thousand). Of this, EUR 21,189 thousand (previous year: EUR 17,521 thousand) has a term of up to one year and EUR 11,458 thousand (previous year: EUR 5,264 thousand) has a term of more than five years.

(13.3) Average number of employees over the year

Average employee numbers for the year were as follows:

Employees	2023	2022
Production	5,273	4,901
Sales and administration	3,701	3,556
Total	**8,974**	**8,457**
Germany	3,048	2,908
Outside Germany	5,926	5,549
Total	**8,974**	**8,457**

The average number of employees increased by 6.1 percent year-on-year (previous year: 3.1 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	2023	2022
Wages and salaries	444,525	408,803
Social security contributions and expenses for retirement benefits	93,984	88,412
of which for retirement benefit expenses EUR 9,164 thousand (previous year: EUR 10,323 thousand)		
Total	**538,509**	**497,215**

Depreciation and amortisation for 2023, including leases in accordance with IFRS 16, is calculated as follows:

Depreciation and amortisation EUR thousand	2023	2022
Depreciation and amortisation	100,515	99,689

(13.5) Proposal for the appropriation of the profit

On the proposal of the Executive Board, the Annual General Meeting of WILO SE on 21 March 2024 will adopt a resolution to distribute a dividend of EUR 1.73 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 6 March 2024. 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 427 thousand (previous year: EUR 481 thousand). Liabilities to these companies amounted to EUR 2,650 thousand at the reporting date (previous year: EUR 2,694 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 on-charged interest, amounted to EUR 2,628 thousand (previous year: EUR 1,479 thousand).

The balances outstanding at the end of the financial year are unsecured, do not bear interest and will be settled via payment.

One member of the Supervisory Board has an influence on a company that provides consultancy services for WILO SE. WILO SE generated net sales totalling EUR 1,422 thousand (previous year: EUR 1,350 thousand) with this company in the 2023 financial year. All liabilities were settled in the year under review. In addition, pumps were replaced for one member of the Supervisory Board in the 2023 financial year. This resulted in net sales of EUR 3 thousand (previous year: EUR 0 thousand). Net sales of EUR 1.3 thousand (previous year: EUR 0 thousand) were realised with another member of the Supervisory Board.

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 18 thousand (previous year: EUR 65 thousand) were generated with the heating and air-conditioning installation company in the 2023 financial year. There were receivables from this company of EUR 1 thousand as at 31 December 2023 (previous year: EUR 1 thousand). At the same time, the Wilo Group procured goods and services of EUR 4 thousand (previous year: EUR 0 thousand) from this company. As in the previous year, there were no receivables from this company as at 31 December 2023.

There are also leases relating to land and buildings that are directly or indirectly owned by shareholders. Total lease payments of EUR 421 thousand were made to these shareholders in 2023 (previous year: EUR 486 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 2023 (previous year: EUR 39 thousand). As in the previous year, in this connection there were no receivables from the foundation as at 31 December 2023.

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 9 thousand).

(13.8) Auditor's fees

The following fees were recognised as an expense in the 2023 financial year for services provided by the auditor of the consolidated financial statements, KPMG AG Wirtschaftsprüfungsgesellschaft:

Auditor's fees

EUR thousand	2023	2022
Audits of financial statements		
of which for the previous year: EUR 1 thousand (2022: EUR 13 thousand)	594	456
Other assurance services		
of which for the previous year: EUR 56 thousand (2022: EUR 19 thousand)	183	76
Other services		
of which for the previous year: EUR 0 thousand (2022: EUR 0 thousand)	72	36
Total	**849**	**568**

(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	2023	2022
Total remuneration of the Executive Board	**15,536**	**14,182**
IAS 24.17 (a)	13,869	12,182
IAS 24.17 (b)	967	1,660
IAS 24.17 (c)	700	340

As at the end of the reporting period, EUR 10,000 thousand (previous year: EUR 8,800 thousand) was recognised as a liability that will not be paid out until the following financial year after the consolidated financial statements have been approved.

The total remuneration paid to former members of the Executive Board amounted to EUR 1,079 thousand in the 2023 financial year (previous year: EUR 1,074 thousand). As at the end of the reporting period, a pension provision of EUR 6,671 thousand (previous year: EUR 6,582 thousand) was recognised for former members of executive bodies, some of whom are also related parties.

The remuneration of the Supervisory Board amounted to EUR 621 thousand in the 2023 financial year (previous year: EUR 516 thousand).

A virtual management participation model has been set up by the Supervisory Board for the members of the Executive Board of WILO SE. The participating members of the Executive Board receive virtual shares on a contractual basis that allow them to participate in any positive performance of the company. A position as a shareholder of the company with corresponding shareholder rights (e.g. information rights, voting rights at the Annual General Meeting or dividend entitlement) is not associated with this. A total of 466,956 virtual shares have been issued to the Executive Board as at the reporting date of 31 December 2023. The value of the virtual shares is determined at the end of each financial year using a simplified business valuation method.

The term of the individual virtual equity interest is indefinite in principle. The virtual equity interest ends automatically when the participant resigns from the Executive Board. Early ordinary termination of the virtual equity interest is excluded. Partial realisation of positive differences is possible before the participant leaves the Executive Board. After a holding period of no less than five years – and from 1 January 2027 at the earliest – 25 percent of a tranche of virtual shares can be realised early by the participant, i.e. before they leave the Executive Board, on a one-time basis. The amount of the payment to the participant in the management participation programme is calculated as the difference between the cost value and the retransfer value of the virtual equity interest.

A provision of EUR 1,200 thousand (previous year: EUR 500 thousand) was recognised in other provisions as at 31 December 2023 for obligations arising from the virtual management participation programme for the Executive Board.

(13.10) Executive bodies of the company

SUPERVISORY BOARD

Lars Roßner
– Chairman –
Partner at BUSE Rechtsanwälte
Steuerberater PartG mbH
Düsseldorf

Dr Hinrich Mählmann
– Vice Chairman –
Member of the advisory boards of the companies
Ortwin Goldbeck Holding SE,
Hülskens Holding GmbH & Co. KG
and Gebr. Kemper GmbH & Co. KG
Chairman of the Supervisory Board of Gebr. Pfeiffer SE
Managing director of Konrad Krieger GmbH
Cologne

Vincent Baudry
European Works Council
Laval, France

Martin Cremer
Managing director of JMC Immobilien GmbH & Co. KG
Dortmund

Prof. Kurt Mehnert (since April 2023)
Folkwang Universität der Künste (University of the Arts),
Department Strategy and Vision
Owner of Mehnert Corporate Design GmbH & Co. KG,
Bochum

Daniela Mohr
European Works Council
Dortmund

Dr-Ing. E.h. Jochen Opländer
Honorary Chairman of the Supervisory Board
Dortmund

EXECUTIVE BOARD

Oliver Hermes
– Chairman –
Herdecke

Dr Patrick Niehr
Dortmund

Georg Weber
Düsseldorf

Mathias Weyers
Essen

Dortmund, 6 March 2024

The Executive Board

Oliver Hermes | Dr Patrick Niehr | Georg Weber | Mathias Weyers

Shareholdings

Shareholdings of WILO SE as at 31 December 2023 (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
HydroServe LLC., Cedarburg/USA	100.0
LIKUSTA Umwelttechnik GmbH, Lich/Germany***	100.0
LIKU-TECH ENVIRONMENTAL SOLUTIONS INDIA PRIVATE LIMITED, Nolambur (Chennai)/India	51.0
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 (Changzhou) Pump Co., Ltd, Changzhou/China	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 East Africa Ltd., Nairobi/Kenya	100.0
WILO Eesti OÜ, Tallinn/Estonia*	100.0
WILO Egypt for Import LLC, Cairo/Egypt	100.0
WILO Egypt LLC, Cairo/Egypt	100.0
WILO EMU Anlagenbau GmbH, Roth/Germany	100.0
WILO Engineering Ltd t/a Wilo Ireland, Limerick/Ireland	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
WILO Indústria, Comércio e Importação LTDA, City of São Paulo/Brazil	100.0

Shareholdings of WILO SE as at 31 December 2023 (Disclosure pursuant to section 315e HGB)	Ownership interest in %
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
WRI-TECH Industrial Serv. B.V., Uitgeest/Netherlands	100.0

* These companies were not included in the consolidated financial statements in 2023.
** 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 2023, 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 2023 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 2023.

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 IFRS 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 2023 and of its financial performance for the financial year from 1 January to 31 December 2023.
- 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 IFRS 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 IFRS 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 audit of the consolidated financial statements. 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, 6 March 2024
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 2023 financial year. The Supervisory Board was kept fully informed about the development of the Wilo Group's business and all factors affecting it at regular meetings. 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 a total of four regular meetings in person in 2023.

The Supervisory Board meeting on 19 April 2023 focused on the impacts of the war of aggression in Ukraine as well as the annual financial statements and the consolidated financial statements for the year ended 31 December 2022. The business performance of the Wilo Group was discussed in detail, particularly in light of the global economic situation. In addition, the acquisitions of Gustavo Preston Company, Inc. (USA) and also of Boyer & Seeley, Inc. (USA) were approved. The conclusion of a control agreement between ABIONIK Group GmbH (parent company of the tax group) and FSM Frankenberger GmbH (subsidiary in the tax group) was approved.

At its meeting on 14 June 2023, the Supervisory Board primarily discussed the current economic situation including M&A activities and the restructuring of the Water Treatment Strategic Business Unit. The Supervisory Board was furthermore informed of the status of current construction projects.

At its meeting on 23 October 2023, the Supervisory Board dealt with current economic developments, with the focus on the results of the annual international executive conference. The Supervisory Board approved the acquisition of Plad Equipment Ltd. (Canada), the acquisition of Arfon Rewinds Limited Company (UK) and the acquisition of the wastewater business division of Rudolf Bischof GmbH, which had already been completed and had been approved in advance by the chairman of the Supervisory Board.

At its meeting on 13 December 2023, the Supervisory Board approved the strategic planning for 2024–2030 and also discussed the current economic situation and the status of current construction projects. The Supervisory Board additionally approved the acquisition of up to 2.2 percent of the shares in Eurocarbo S.p.A. (Italy). The conclusion of a control and profit transfer agreement between ABIONIK Group GmbH (parent company of the tax group) and FSM Frankenberger Verwaltungs-GmbH (subsidiary in the tax group) was approved.

Both the consolidated financial statements with the management report for the 2023 financial year presented with the annual report and the separate financial statements of WILO SE for the 2023 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 appropriate and furthermore that, in their design and use, they are suitable for recognising at an early stage any developments that would jeopardise the company's continued existence as a going concern.

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 20 March 2024 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 thoroughly examining and discussing 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 adopted the annual financial statements and the consolidated financial statements prepared by the Executive Board in its meeting on 21 March 2024, 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. The following changes to the composition of the Supervisory Board have been made:

Professor Kurt Mehnert was appointed as a member of the Supervisory Board during the Annual General Meeting on 19 April 2023 up to the end of the regular term of office of the Supervisory Board member Professor Michael ten Hompel, who had resigned.

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 Wilo Group has continued its profitable growth course in a challenging market environment and can look back on a successful financial year.

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, March 2024

The Supervisory Board
Lars Roßner
Chairman

GLOSSARY

Asset deal
Form of company acquisition in which the assets of a company (e.g. land, buildings or machinery) are acquired individually and transferred to the purchaser.

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 and liquidity shortages are covered.

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.

Established markets
For the purpose of external reporting, the Wilo Group differentiates between established markets and growth markets. As at 31 December 2023, the established markets comprised the European nations, the USA and Canada.

Growth markets
For the purpose of external reporting, the Wilo Group differentiates between established markets and growth markets. As at 31 December 2023, 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.

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.

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.

MEDIA

This annual report was published on 28 March 2024 and is available 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/annualreport2023

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