THE FUTURE IS CONNECTED

GROWING SMART

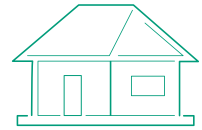
ANNUAL REPORT 2018

WILO PROFILE

THE WILO GROUP IS ONE OF THE **WORLD'S LEADING PREMIUM PROVIDERS** OF PUMPS AND PUMP SYSTEMS FOR THE BUILDING TECHNOLOGY, WATER AND INDUSTRIAL SECTORS.

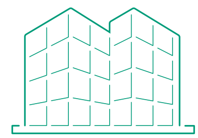
WITH SMART SOLUTIONS THAT CONNECT PEOPLE, PRODUCTS AND SERVICES, THE WILO GROUP IS ON THE WAY TO BECOMING THE **DIGITAL PIONEER IN THE SECTOR**. THE COMPANY HAS AROUND 7,800 EMPLOYEES.

MARKET SEGMENTS



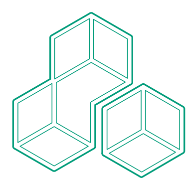
BUILDING SERVICES RESIDENTIAL

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



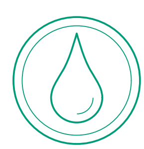
BUILDING SERVICES COMMERCIAL

We are market, innovation and smart solution leader.



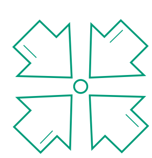
OEM

We are preferred partner for smart integrated solutions.



WATER MANAGEMENT

We are global market player and digital solution provider.



INDUSTRY

We are specialist in selected branches and applications.

KEY FIGURES

		2018	2017	2016	2015	2014	2013
Net sales	EUR million	1,463.5	1,424.8	1,327.1	1,317.1	1,234.7	1,230.8
Net sales growth	%	6,2[1]/2.7	7.4	0.8	6.7	0.3	3.7
EBIT	EUR million	91.9	106.3	107.1	121.2	111.2	125.7
(as % of net sales)	%	6.3	7.5	8.1	9.2	9.0	10.2
Consolidated net income	EUR million	64.2	85.9	76.0	80.5	69.8	83.0
(as % of net sales)	%	4.4	6.0	5.7	6.1	5.7	6.7
Earnings per ordinary share	EUR	6,55	8,76	7,88	8,35	7,11	8,12
Cash	EUR million	135.4	161.8	178.3	165.8	149.1	177.5
Capital expenditure	EUR million	154.8	124.8	109.5	106.4	66.1	63.9
R&D expenses[2]	EUR million	66.3	63.6	65.0	62.4	51.2	43.9
(as % of net sales)	%	4.5	4.5	4.9	4.7	4.1	3.6
Equity	EUR million	738.4	707.0	653.6	560.9	477.1	476.9
Equity ratio	%	49.5	51.6	53.6	49.3	46.4	47.9
Employees (annual average)	Number	7,830	7,726	7,548	7,383	7,425	7,194

[1] Adjusted for exchange rate effects.
[2] Including capitalised development costs.

NET SALES

EUR 1.46 billion

With strong growth of 6.2 percent after adjustment for exchange rate effects, the Wilo Group increased its net sales for the ninth year in succession.

EBIT

EUR 91.9 million

The Wilo Group generated EBIT of EUR 91.9 million. The EBIT margin declined to 6.3 percent, largely as a result of the sharp rise in commodity prices as well as reorganisation measures aimed at cutting costs and securing future viability. Adjusted for non-recurring reorganisation expenses, the EBIT margin amounted to 7.7 percent.

CAPITAL EXPENDITURE

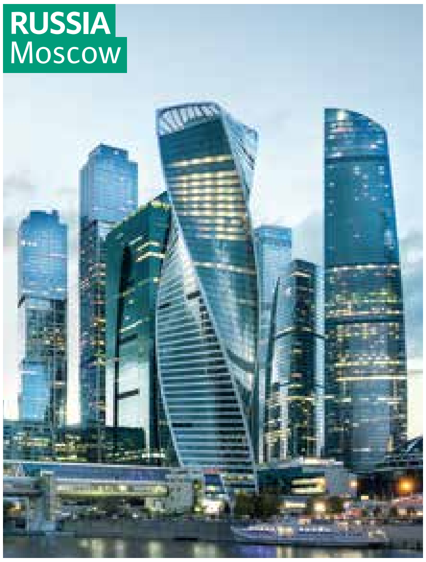
EUR 154.8 million

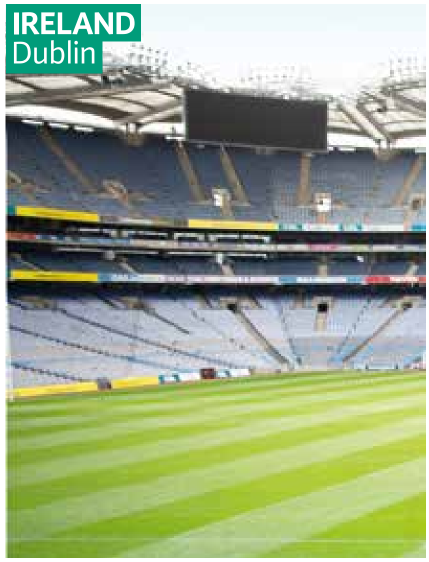
Wilo is investing in a modern and efficient corporate infrastructure in order to strengthen the foundations for its accelerated, profitable growth. Capital expenditure reached a new record in 2018.

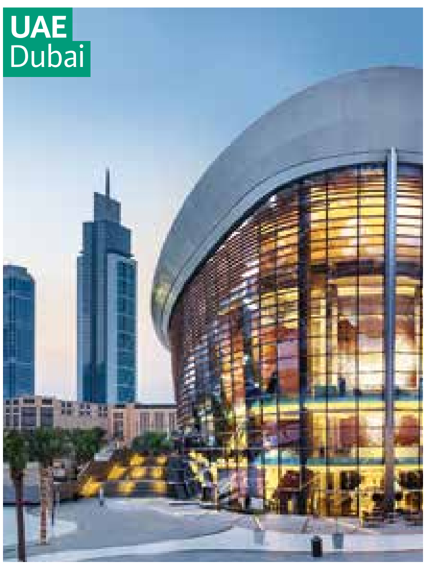
EMPLOYEES

7,830

The Wilo Group had over 7,800 employees worldwide in 2018. More than ever before!







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THE FUTURE
IS CONNECTED

GROWING SMART

Intelligent networks are shaping the present day – technically, socially and economically. The internet and digitalisation are penetrating our everyday lives and our work. The future will be characterised by the underlying principle of connectivity. Connectivity ensures more resource-efficient energy use, more comfortable living, more modern workplaces and highly productive factories – all of which are prerequisites for living and working in smart urban areas. The connected world is fundamentally changing the economy, the environment, infrastructure and logistics. Wilo is addressing this growth area with products and system solutions that are as smart as they are efficient.

OLIVER HERMES
Chairman of the Executive Board &
Chief Executive Officer (CEO)

AMBITION 2025

WORKING TOGETHER TO ACCELERATE OUR PROFIT-ABLE GROWTH AS A GLOBAL SOLUTION PROVIDER

DEAR LADIES AND GENTLEMEN,

With a long-term strategic focus, excellent Group-wide positioning and an established economic growth path, the Wilo Group can look back on a successful financial year full of positive events. Wilo generated record net sales for the ninth year in succession. In numerical terms, consolidated net sales increased by 6.2 percent after adjustment for exchange rate effects to over EUR 1.46 billion.

We are enjoying excellent growth in Korea, India, the Middle East and Eastern Europe in particular, with Poland the outstanding performer in this region.

As part of our “Ambition 2025” corporate strategy, we are systematically realising extensive investments in our infrastructure. Wilo is driving the digital transformation in three dimensions: products and solutions, processes, and business models.

Like many companies, Wilo is also working and developing in a wider geopolitical context that is full of challenges at present.

We are taking a stand

One of the most important tasks currently facing European politicians and, in particular, businesses is the need to create and support an alliance that will uphold the multilateral world order. Peace, freedom, solidarity and partnership must remain the foundations of a stable Europe in future.

The free world economic order is the backbone of global companies like Wilo. The Wilo Group generates around 80 percent of its net sales outside its home market of Germany. Over 50 percent of our economic output now takes place in the emerging markets. In other words, we have a vital interest in ensuring the continued existence of the multilateral world order and free global economic structures. As a company and as entrepreneurs, we take a clear stand on this matter. We seek out dialogue between business and politics and continuously demonstrate that the challenges of our time, such as digitalisation, climate change and water and energy shortages, can only be overcome with a global approach. Wilo also expressly supports the German business initiative “We4Europe”. Together, we are acting to support a strong and open Europe.

We are networkers

Between burgeoning nationalistic tendencies, populism and protectionism in a complex world full of challenges, our proven and reliable alliances are at stake. The Wilo Group is standing up to this development with self-confidence. To this end, we have significantly intensified our networking in respect of political institutions, non-governmental organisations, partnerships with global companies and our membership of international associations. I would like to cite three examples that describe our approach in greater detail:

Following the business conferences in Sochi in 2017 and St. Petersburg in 2018, I again met Russian President Vladimir Putin as part of a delegation to the Kremlin. The topics discussed included partnerships with Russian companies, which form a key element of our local strategy in this market that is so important to us.

Together with the German Ambassador in Abu Dhabi, we visited His Excellency Saeed Al Tayer, CEO of DEWA (Dubai Electricity and Water Authority), in the United Arab Emirates. Dubai is set to become a global centre for efficient energy and water management systems. DEWA is seeking to establish a close strategic partnership with German manufacturers like Wilo in the areas of energy and water management.

We also strengthened Franco-German links by welcoming French Ambassador Anne-Marie Descôtes to a dialogue on networks, location development and the expansion of Franco-German relationships in the area of Industry 4.0.

In a world characterised by division and national interest, I am personally extremely keen to highlight these examples of how Wilo is taking a diametrically opposed approach. We are making connections, creating networks and seeking out international cooperation. We are confident that this is the right way to go about things: working in concert with others, not alone and in isolation.

And our success proves us right. We have gained some major international projects not least thanks to this intensive networking. As part of our smart urban area approach, we are currently realising substantial growth opportunities in urban centres that are becoming increasingly connected. These are

"We have good reason to be optimistic for the future."

future markets in which urban infrastructure and areas of life will be connected with one another intelligently. As a digital pioneer in the pump industry, Wilo is also developing energy-efficient, resource-conserving and smart solutions for the requirements of these markets.

We are on course for success

To achieve the strategic objectives forming part of Ambition 2025, we are currently pursuing a number of important projects. Specifically, these take the form of eight growth initiatives, seven sales efficiency projects and two cost initiatives.

The growth initiatives are necessary if we are to remain stronger than the competition in future. They form part of our strategy of harnessing profitable growth to gain market share in the emerging economies in particular and to defend it in the mature economies. We are adopting different regional focal points across the eight initiatives, thereby intensifying our efforts to drive globalisation. We are also pressing ahead with our business activities by covering every area of application across all market segments in order to comprehensively serve our customers with our product and solution portfolio. Among other things, the seven sales efficiency projects are aimed at making the integration of the acquired Weil & Scot companies in the USA as efficient and profitable as possible. We are already well on the way to achieving this. Wilo USA will already be one of the most profitable companies in the Group next year.

Another project, "Vamos Latam", is addressing the restructuring of our subsidiaries in Mexico and Brazil. We are stabilising our activities in Argentina while simultaneously leveraging business potential in Chile, Colombia, Cuba, Panama and Uruguay. In France, the "Boost" project is modernising our sales and logistics processes and we have decided to focus on a single brand in future: Wilo.

We have good reason to be optimistic for the future. Even with all the technological progress of the digital age, people remain the most important factor for success. We can achieve our targets and strengthen the Wilo Group's leading position on the global markets only with the hard work and dedication of our employees. On behalf of my colleagues on the Executive Board, I would like to take this opportunity to thank the entire international Wilo team for their outstanding personal commitment.

Allow me to finish with a brief word about my own professional development: In late 2018, Dr. Jochen Opländer, honorary chairman of the Supervisory Board and founder of the Wilo Foundation, named me as his business successor. I have accepted this task with great pride and in awareness of the immense trust that is being placed in me. Alongside my role as Chairman of the Executive Board and CEO of the Wilo Group, it is a great honour for me to be given the opportunity to succeed Dr. Opländer. I will make every effort to continue the company's successful history dating back almost 150 years in line with the Opländer family's values.

Yours,

Oliver Hermes
Chairman of the Executive Board &
Chief Executive Officer (CEO)

AMBITION 2025

We (net-)work in co-operation with our stakeholders across the value chain.

We achieve above-average growth with more than 10 percent profitability.

Our organic growth is supported by a boost of M&A activities.

We continue the implementation of our globalisation approach.

We intensify our development of full product ranges, smart systems, services and solutions.

OUR GROWTH STRATEGY IS BUILT ON SIX STRATEGIC PILLARS

Wilo strives for ultimate customer satisfaction.
Wilo strives to ensure maximum customer satisfaction – this is the principle behind the claim “Pioneering for You”.

Wilo engages and empowers employees.
Wilo enables and develops its employees – they are the backbone of the company.

Wilo sets new standards as innovation leader.
Wilo is setting net standards as an innovation leader – including innovations in terms of new technologies and materials, products and services, process and (digital) business models.

Wilo develops into the digital pioneer in the pump industry.
Wilo aspires to establish itself as the digital pioneer of the pump industry – by seizing the opportunities presented by digital transformation.

Wilo stands for business excellence.
Wilo stands for business excellence in all processes – along the entire value chain.

Wilo remains an independent and responsible company.
Wilo will remain an independent, responsible company – based on a stable organisation and shareholder structure.

“Wilo is redefining customer focus and customer satisfaction through connected and customised products. We stand for operational excellence, intelligent system solutions and digital innovation.”

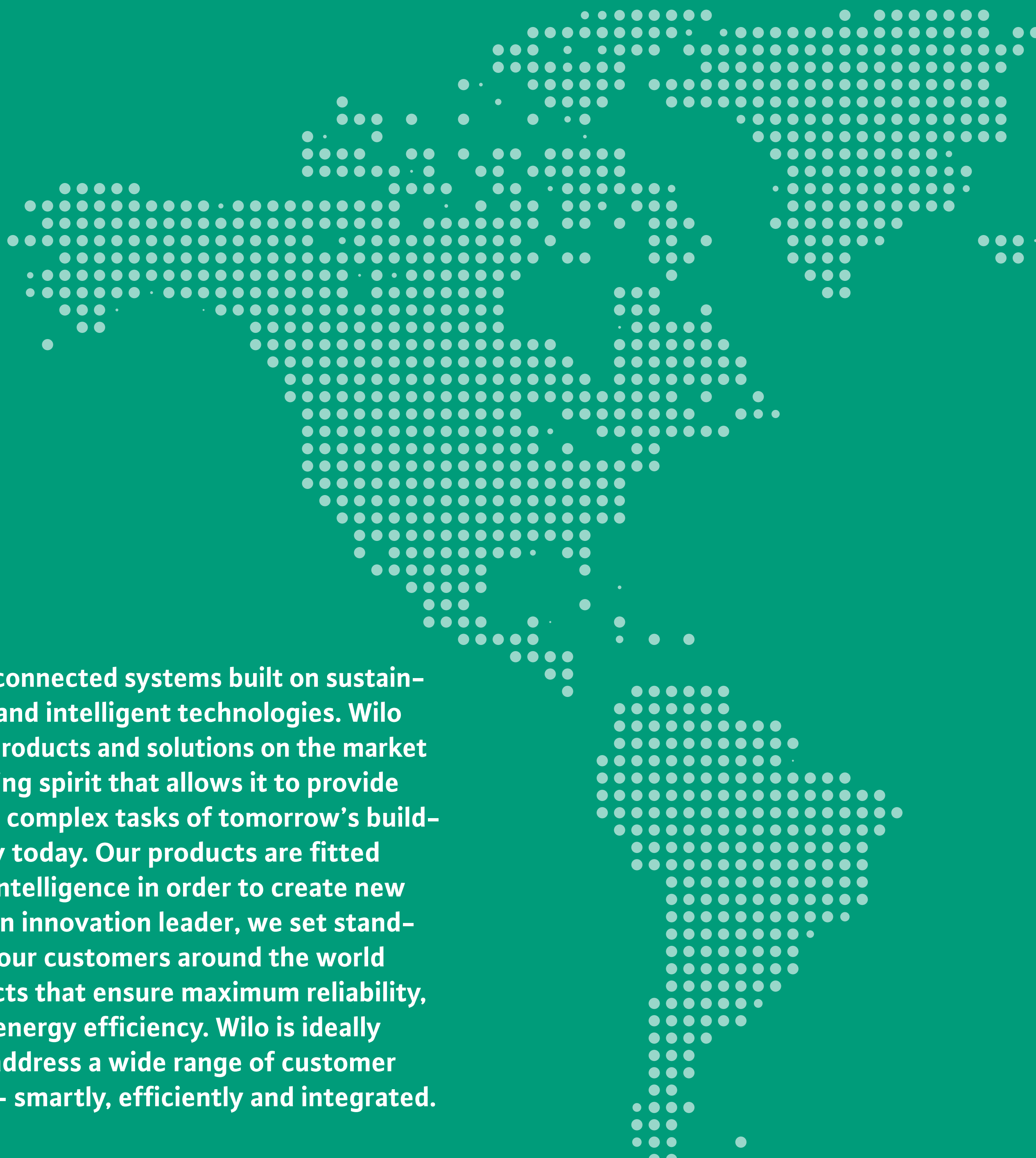
GEORG WEBER
Chief Technology Officer (CTO)

MATHIAS WEYERS
Chief Financial Officer (CFO)

“Profitable growth is a driver and a prerequisite for achieving all of the targets set out in our Ambition 2025. This includes independence, innovation leadership, and developing into the digital pioneer of the pump industry.”

WILO WORLDWIDE

INTELLIGENT SOLUTIONS



Wilo develops connected systems built on sustainable concepts and intelligent technologies. Wilo launches new products and solutions on the market with a pioneering spirit that allows it to provide answers to the complex tasks of tomorrow's building technology today. Our products are fitted with ambient intelligence in order to create new functions. As an innovation leader, we set standards and offer our customers around the world tailored products that ensure maximum reliability, flexibility and energy efficiency. Wilo is ideally positioned to address a wide range of customer requirements – smartly, efficiently and integrated.


WARSAW
INTELLIGENT
PRESSURE DRAINAGE
SHANGHAI
HONGQIAO AIRPORT
MOSCOW
FEDERATION
TOWER
DUBLIN
CROKE
PARK
DUBAI
THE OPERA
DORTMUND
WILO HEADQUARTERS

SMART URBAN AREAS

The world's population is growing. More than half of all people already live in cities, and this figure will continue to rise during the years ahead. Cities will become cityscapes. This is having a wide range of effects on the economy, the environment, infrastructure and logistics. Cities need to be developed in a new way in the future: integrated, sustainable, more efficient.

The widespread introduction of information and communication technology and smart applications in these urban regions will be one of the biggest challenges of the future.

As part of the global megatrend of urbanisation, this will give rise to smart urban areas where the majority of people will live in the future. These interconnected urban centres offer major growth opportunities for Wilo.

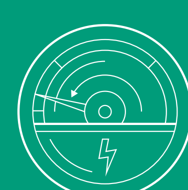
They are the future markets in which urban infrastructure and many areas of life will be connected with one another digitally and intelligently. As a digital pioneer in the pump industry, Wilo is also developing resource-conserving, energy-efficient and smart solutions for the requirements of these markets – with the aim of providing a better quality of life and greater sustainability.

MEGATRENDS

As part of its long-term strategy, Wilo has defined six global megatrends that will affect people's lives over the coming decades and that are crucial to the Group's current and future business.

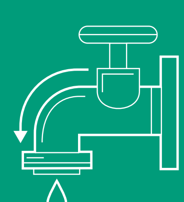
Globalisation

Urbanisation

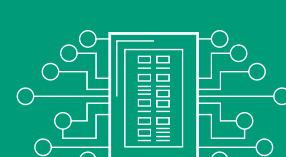


Energy shortage

Climate change



Water shortage



Digital transformation

URBAN ZONES

Urban areas can be broken down into six zones. They represent different needs and functions and constitute different business requirements. Wilo is developing smart and efficient solutions tailored specifically for them.

RECREATIONAL

This zone covers all areas that serve recreational purposes, including a large part of the tourism infrastructure. Smart applications such as park benches equipped with sensors can constantly measure parameters such as the air quality.

TRANSPORTATION & INFRASTRUCTURE

This zone includes all transport infrastructure facilities, distribution systems for electricity and water, and communication systems. Autonomous transport, smart energy and water systems and sensor networks will fundamentally change the way cities currently look and work.

INDUSTRIAL

Interconnected production facilities can respond faster and more flexibly to changes in demand. Predictive maintenance and digitalised manufacturing processes supported by robots also result in greater efficiency and reduce consumption of resources.

AGRICULTURAL

Growing smart urban areas will result in an increase in agricultural processes taking place within urbanised areas. Green roofs, vertical farms and inner-city plots of land used for agriculture will improve the food supply and the climate in urban areas.

HOUSING & LIVING

In residential development, whether in the form of detached houses or apartment blocks, smart home technologies ranging from intelligent heating and air conditioning systems to adaptive domestic electrical equipment to household robots will make housing both more environmentally friendly and more convenient.

COMMERCIAL & INSTITUTIONAL

In the zone of office and administrative buildings, smart office concepts will make working life more pleasant and resource-efficient. Intelligent packaging systems and digitalised logistics will speed up retail and wholesale business and make it more flexible. Robots will take over operations in hospitals and virtual universities will no longer be tied to a particular location.

STRONG PARTNER

LOCATION
Moscow

PROJECT
Federation Tower

ZONE
Commercial & Institutional

An outstanding reference for Wilo's success in Russia in many respects is the 374-metre Federation Tower in Moscow, in which more than 1,000 Wilo pumps are installed.

STRONG PARTNER

Jens Dallendörfer, Managing Director Eurasia

"Wilo is one of Russia's best-known brands and also plays an important role in cross-border business."

Jens Dallendörfer

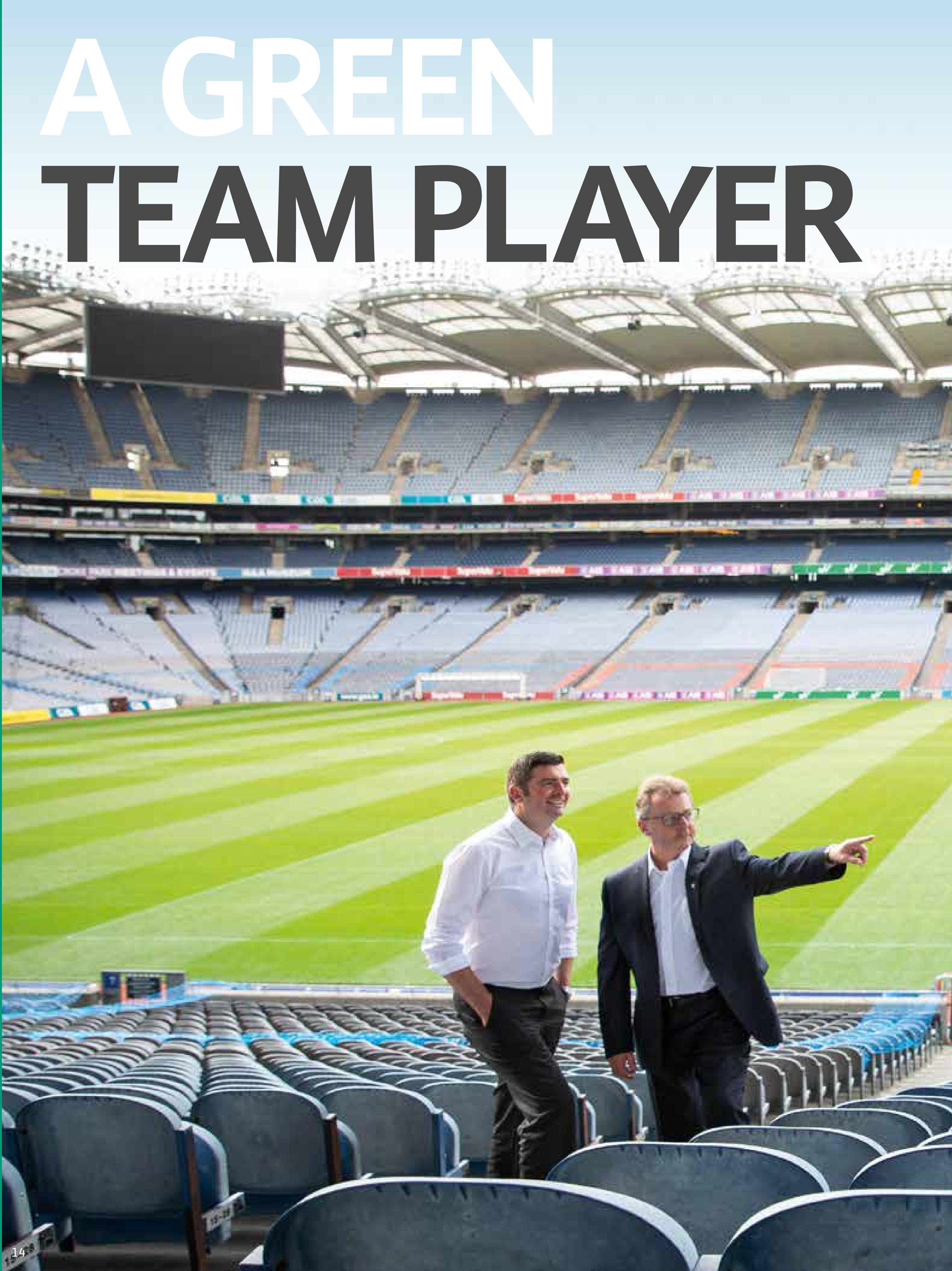
MADE IN RUSSIA

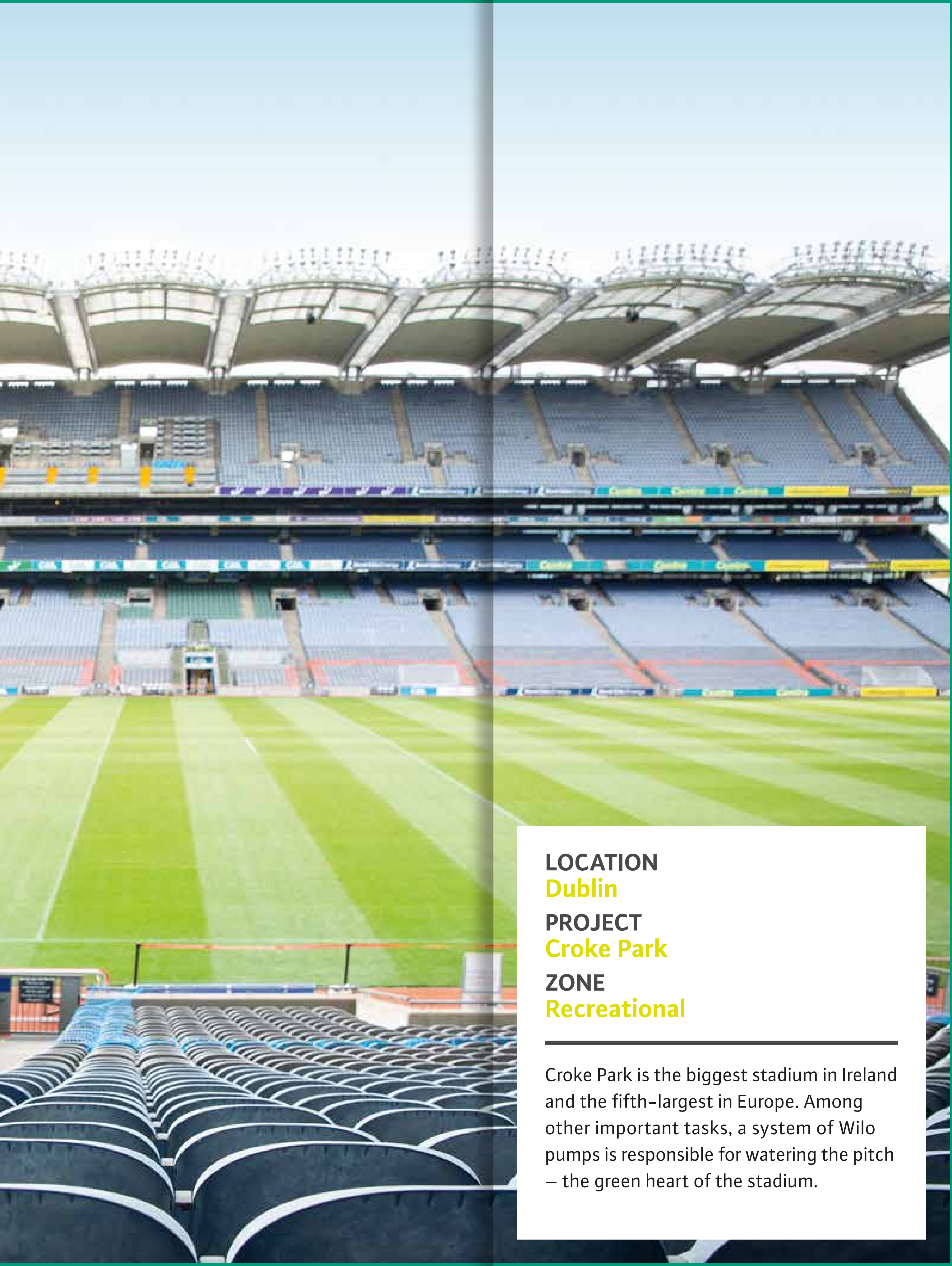
Russia is one of the most important individual markets for the Wilo Group. Wilo has been extremely successful there for a number of years. Russia is also a strong growth market and the gateway to Asia. To this end, Wilo has established a dedicated production facility near Moscow and is systematically pursuing its strategy as a preferred partner and visible brand by both offering and manufacturing solutions locally. Wilo Russia has become a pioneer of digitalisation within the Wilo Group.

Wilo factory in Moscow

Federation Tower

A GREEN TEAM PLAYER





LOCATION
Dublin

PROJECT
Croke Park

ZONE
Recreational

Croke Park is the biggest stadium in Ireland and the fifth-largest in Europe. Among other important tasks, a system of Wilo pumps is responsible for watering the pitch – the green heart of the stadium.

A GREEN TEAM PLAYER

Derek Elton,
Managing Director Ireland

TRUST FOR THE LONG TERM

Pumps and system solutions like those used at Croke Park are part of the Wilo portfolio. Another increasingly important element is service. This allows Wilo to guarantee smooth operation at all times. The result: long-term customer relationships based on mutual trust.

"We offer a complete service portfolio geared towards long-term cooperation with our customers and partners."

Derek Elton

VALUE ADDED

WILO SERVICES SAVE CUSTOMERS TIME AND MONEY

INTELLIGENT MANAGEMENT

LOCATION
Shanghai
PROJECT
Hongqiao International Airport
ZONE
Transportation & Infrastructure

Hongqiao is China's oldest and fourth-largest airport. Wilo has fitted it with over 70 pumps and performs services including pump maintenance and management as part of the "WiloCare" service package.

INTELLIGENT MANAGEMENT

Lyman Tu, Managing Director Sales China

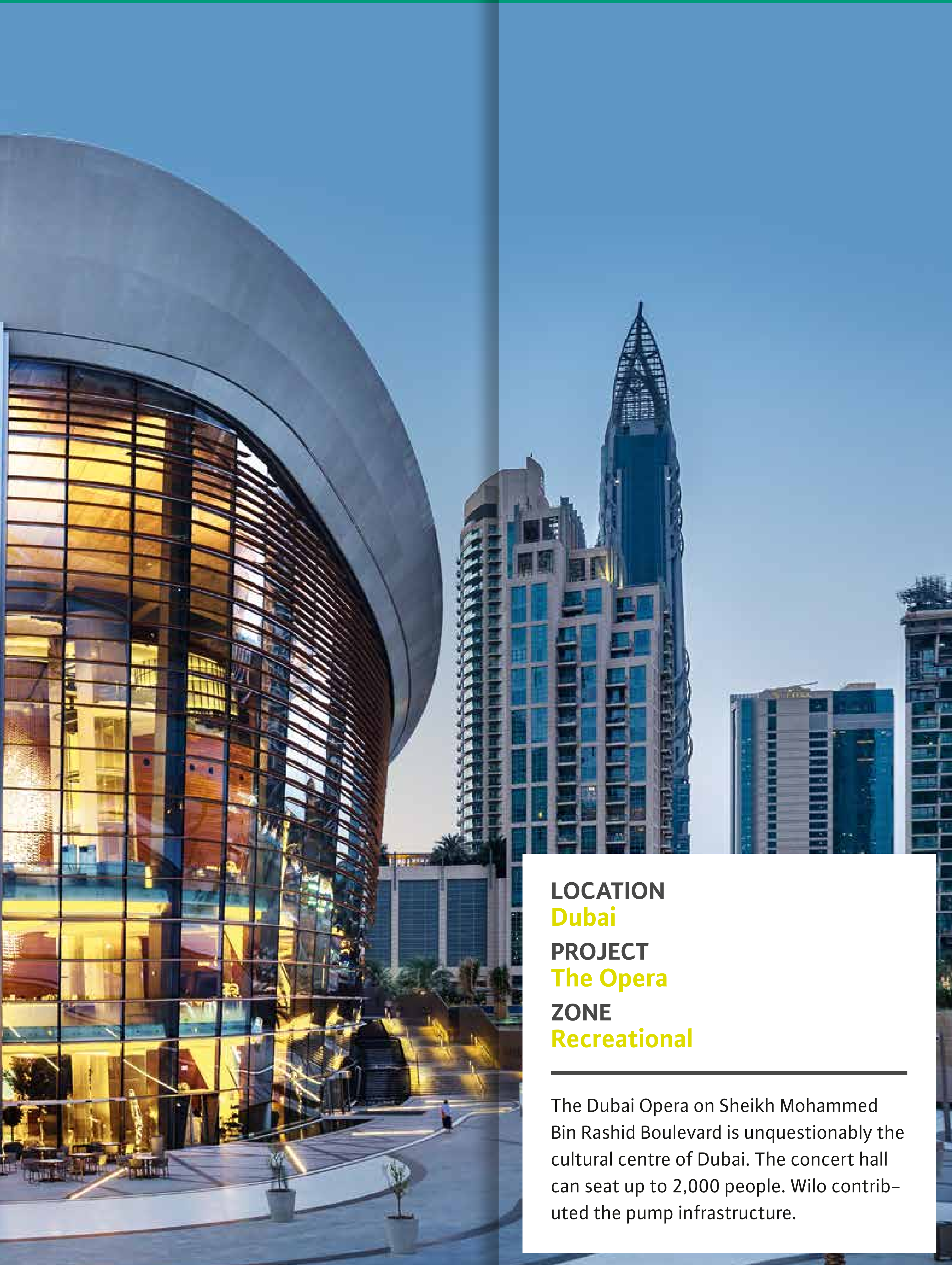
DIGITALISED SERVICES

Pioneering services are as much a key to success as innovative products. “WiloCare”, which is used at Hongqiao International Airport, is a comprehensive cloud-based service package that relieves the burden on the customer to the greatest possible extent and guarantees pump operation with maximum reliability.

WILO CARE

> “Wilo’s extensive network allows us to identify projects of key strategic importance at an early stage.”
>
> Lyman Tu

PERFECT INTERPLAY



LOCATION
Dubai

PROJECT
The Opera

ZONE
Recreational

The Dubai Opera on Sheikh Mohammed Bin Rashid Boulevard is unquestionably the cultural centre of Dubai. The concert hall can seat up to 2,000 people. Wilo contributed the pump infrastructure.

PERFECT INTERPLAY

Morcel Burjas,
Sales Director Gulf

A LANDMARK PROJECT

The Dubai Opera is one of the cultural and architectural landmarks of Dubai, if not the entire Arabian Peninsula. The fact that Wilo was selected to be a part of this prestigious construction project is a particular success, and not only in terms of technology and business: As a supplier for the Dubai Opera, we made extensive and close contacts that extend far beyond this project.

"Wilo's reliable network has paved the way for us to address key stakeholders in the energy and water sector throughout the Middle East."

Morcel Burjas

SMART CONNECTIVITY

LOCATION
Warsaw
PROJECT
Intelligent pressure drainage
ZONE
Housing & Living

Pumping untreated wastewater is an increasingly challenging task. In Tczow near Warsaw, this task is being taken on by an innovative pressure drainage system with Nexos intelligence.

SMART CONNECTIVITY

Andrezej Szeroki,
Business Development, Poland

CONNECTIVITY FOR SUCCESS

Tczow is the first municipality to install a pressure drainage system with Nexos intelligence. 185 pumping stations are now connected using the Wilo software. This ensures the optimal flow rate, minimises the risk of sediment build-up and uses up to 30 percent less energy. Digital controlling increases the operational safety of the entire system and the service life of the individual components.

"Poland is one of Europe's pioneers when it comes to smart connectivity."

Andrezej Szeroki

SAVING MORE

THE WILO SYSTEM USES UP TO 30 PERCENT LESS ENERGY

BUILDING THE FUTURE

LOCATION
Dortmund
PROJECT
Wilo headquarters
ZONE
Industrial

Our future headquarters are being constructed on more than 190,000 square metres at our Dortmund site. The first new building and the heart of the company site will begin operations in 2019: the smart factory.

BUILDING THE FUTURE

Martin Linge-Boom, Vice President
Corporate Real Estate Management

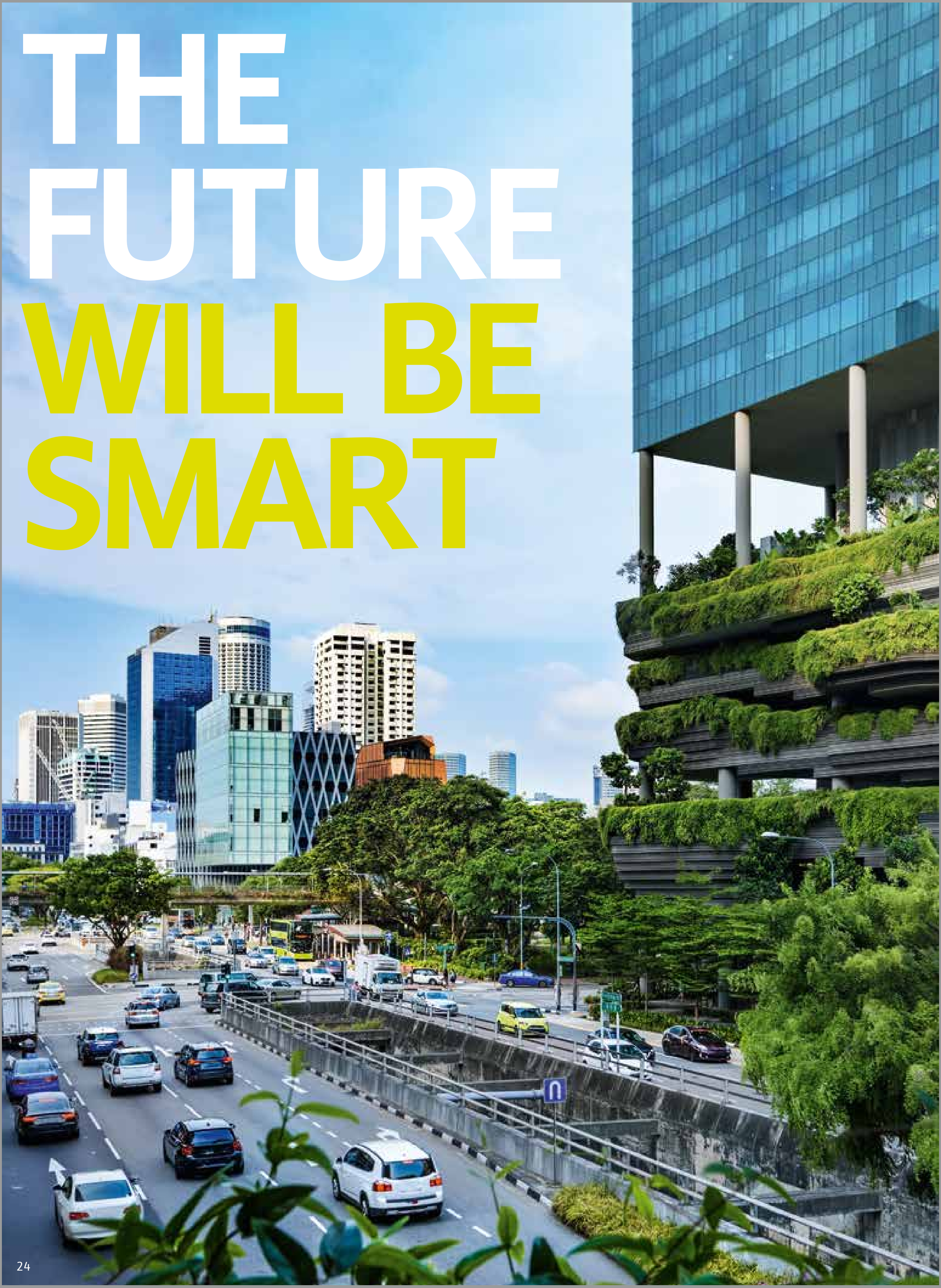
A LEADING DIGITAL LOCATION

In the biggest location development programme in the company's history, Wilo's headquarters in Dortmund are being brought forward into the digital future. Production, administration, product development and customer service are being connected and combined to create the Wilo Group's leading digital location. The result: a pioneering headquarters, fit for the challenges of the future.

"We are connecting machines, workplaces and buildings. And what's more, we are connecting ourselves to the infrastructure around us. This will make Wilo part of the emerging smart urban area in the Ruhr region."

Martin Linge-Boom

THE FUTURE WILL BE SMART



GUEST ARTICLE

Ayesha Khanna on smart cities, the importance of partnerships, and the opportunities and risks of new technologies.

PUTTING PEOPLE AT THE HEART OF PLANNING

When it comes to designing the cities of the future, people must be put at the heart of planning. The focus needs to be on more than just technology – even if it is clear that the foundations of all modern cities, or “smart cities”, will be the Internet of Things, artificial intelligence and intelligent, connected objects. The residents of a city need to be the central focus.

AYESHA KHANNA

Dr. Ayesha Khanna is co-founder and CEO of ADDO AI, a consultancy and incubator for artificial intelligence (AI). She has been a strategic advisor on AI, smart cities and fintech to clients including SMRT, Singapore’s largest public transport company, and Smart Dubai, the government agency tasked with transforming Dubai into a leading smart city. Khanna is the founder of 21C GIRLS, a charity that delivers free coding and AI classes to girls in Singapore.

RAPID URBANISATION

In the coming decades, urbanisation will see massive acceleration around the world. Hundreds of millions of people will leave their villages and move to the cities of China, India and Africa. This will bring the existing infrastructure to its breaking point – and beyond. Governments around the world will be forced to act if they are to serve the needs of future city residents.

> A CENTRAL FOCUS ON CITY RESIDENTS

NETWORK FOR LOCAL SOLUTIONS

In developing countries in particular, cities should not simply blindly follow western models of business and infrastructure. The technology needs to be adapted to the context in which it is used. Intelligent pumps are used very differently in Europe than in a village in Bangladesh, for example. For companies like Wilo to establish themselves in emerging cities, they will have to join forces with other companies and create networks. I believe the successful development of smart cities will depend to a large extent on precisely this kind of alliance between international and local companies.

NEW PARTNERSHIPS

City residents used to be mainly supplied by public authorities and utilities. There are two reasons why this model no longer works: Firstly, rapid urbanisation means cities are bursting at the seams and the existing infrastructure is struggling to cope. And secondly, public authorities do not come into contact with the latest innovations and technologies. This is why it has become essential for the government to cooperate with the private sector, including companies like Wilo, in order to productively meet the needs of future city residents via public-private partnerships.

IMPROVING THE QUALITY OF LIFE

I have been fortunate to work on smart city initiatives with the governments of Dubai and, of course, Singapore in particular. The government authorities were extremely open to the introduction of new technologies like artificial intelligence, which can relieve considerable pressure from the infrastructure and improve residents' quality of life. In Singapore, we developed a platform in cooperation with SMRT, the largest public transport company. The aim was to create a marketplace for different mobility options, bundling the various forms of transportation for residents – buses, rental bikes, rental motor scooters, autonomous vehicles – in a single app. The platform enjoyed a very positive reception and ultimately became a separate company. Getting from A to B in Singapore is now a great deal easier.

THE THREE PILLARS OF THE SMART CITY

A smart city is built on three fundamental pillars. The first is network infrastructure. Establishing a smart city in the first place is extremely difficult without 5G expansion and investment in sensors for intelligent infrastructures. The second pillar is the question of whether the existing resources are being used optimally. For example, water is a valuable commodity, but many cities do not use it productively. And the third pillar is the question of whether residents benefit from the smart city. Are they taking advantage of the opportunities available to them? These three pillars show that a smart city is not merely a futuristic city. Smart cities and cities with smart neighbourhoods can already be found around the world today.

> SMART CITIES ARE EVERYWHERE

NEW YORK, PUNE, SINGAPORE

Take New York, where water consumption is measured using intelligent meters. Or Pune, a city that is significantly less well off, but that has opted to focus on waste management. And, of course, Singapore, which is largely considered to be the world's most intelligent city, and not only in terms of the pure technology. In other words, the smart city concept is continuously evolving – and we first need to understand it before we can properly appreciate it and begin to establish smart cities around the world.

THE YIN AND YANG OF TECHNOLOGY

I am always anxious when people are exposed to a new technology. There are two sides to every technology. All technologies have their good side. But if we fail to curb the negative outside influences, technologies can be abused – and it is crucial that we prevent this from happening. Education is the way to achieve this. The more people understand their rights, the less they will endorse technologies that are bad or that monitor them without any clear benefits. After all, creating infrastructures that are not in people's interests ultimately means prioritising technology over people. Despite the vast benefits involved, then, all of this makes it just as important for us to inform citizens about what it means to live in a smart city and how to protect their rights there.

THE FUTURE

I am often asked whether I am an optimist or a pessimist when it comes to the future of smart cities. My honest answer is "neither". I am not a naive optimist or a depressed pessimist. Balance is the key. It is clear that we cannot do without technology – we need artificial intelligence, robotics and smart products in our cities. But we also need better government administration and new forms of legislation to deal with the data that largely controls these smart products.

> NEW TECHNOLOGIES SIGNIFICANTLY IMPROVE INFRASTRUCTURE

WILO IN 2018

FEBRUARY

A DISTINGUISHED GUEST

➔ The President of the Republic of Ghana, Nana Addo Dankwa Akufo-Addo, visited Wilo in Dortmund together with a delegation of his ministers. During the meeting, he was informed by Wilo CTO Georg Weber about the latest technological developments and Wilo's activities in Africa, and especially in Ghana. "In our country, the topics of wastewater treatment and drinking water quality are of paramount importance," said Akufo-Addo. He had noticed that Wilo has been intensively addressing the area of water shortage for many years: "In our country, we have already taken significant steps in this regard using your products." Ghana has become an important market for Wilo. "We have been active since 2011," added Georg Weber. "We see enormous potential here. Ghana has a stable democracy and is a reliable partner for us in the region." ■

Photo (l to r): Nana Addo Dankwa Akufo-Addo, President of the Republic of Ghana, Georg Weber, Chief Technology Officer WILO SE, and Dominic Addo, Wilo Ghana, at the meeting in Dortmund.

WILO INDIA RECOGNISED FOR SUCCESSFUL EMPLOYEE COMMUNICATIONS

➔ Wilo India won the Maharashtra Best Employer Brand Award at the 26th World HRD Congress. This award is given to companies that successfully use their marketing communications in a targeted manner to attract and retain employees and offer them development opportunities. The Best Employer Brand Award is presented for various regions at the international congress for human resource development. ■

MARCH

WILO AND DEWA TO INTENSIFY THEIR COOPERATION

➔At a meeting in Dubai, DEWA CEO Saeed Mohammed Al Tayer and Wilo CEO Oliver Hermes agreed to intensify their cooperation. The "Dubai Electricity and Water Authority" (DEWA) is responsible for realising the vision of His Excellency Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the United Arab Emirates and Ruler of Dubai, by implementing development projects and strategic initiatives. Dubai is set to become a global centre for efficient energy and water management systems. "We are extremely pleased at having been invited to this exchange of views with His Excellency Saeed Al Tayer and the prospect of working with DEWA on future-oriented projects in Dubai," said Oliver Hermes following the meeting. "Dubai is taking the lead in the smartification of urban regions. We have the right solutions to make a contribution in the area of building services and energy and water management." ■

DORTMUND
DUBAI

MAY

SOLUTION PROVIDER FOR THE FUTURE

➔ At the world's leading trade fair for water, wastewater, waste and raw materials management, the IFAT in Munich, Wilo presented new, customised and increasingly digital solutions for sustainably handling water – like the Wilo-Rexa SOLID-Q in combination with Nexos intelligence, a connected system solution for wastewater disposal. This year, Wilo broadly focused on overarching, connected solutions rather than individual products. Wilo is increasingly using sustainable methods in the area of water extraction, such as the integration of renewable energies. ■

JUNE

Photo (l to r): Georg Weber, Dr. Jochen Opländer, Oliver Hermes and Dortmund's mayor Ullrich Sierau cement in symbols of the office of the past: highlighters, scissors and hole punches.

LAYING ANOTHER MILESTONE

➔ In the presence of Dortmund's mayor Ullrich Sierau and a further 80 guests, the laying of the foundation stone for the new "Office 2020" represented another milestone in the implementation of the biggest location development programme in the company's history. "With this pioneering project, the Wilo Group is highlighting the importance of Dortmund as a location for business and technology," said Sierau. "There are not many cities in Germany these days that can count on the loyalty and affinity of its largest private employer. This deserves our heartfelt gratitude." ■

OLIVER HERMES APPOINTED NEW CHAIRMAN OF NUMOV

➔ The German Near and Middle East Association (NUMOV) is Germany's oldest and largest organisation for economic development between Germany and the countries of the Middle East. The Wilo Group is a long-standing member of NUMOV. Having been a member of the NUMOV Executive Board and its Deputy Chairman for around four years, Wilo CEO Oliver Hermes was elected as the new Chairman at NUMOV's 2018 Annual General Meeting. "We will press ahead with NUMOV's highly successful work and continue to strengthen and expand the bilateral cooperation between Germany and the Middle East region," said Hermes following his appointment. ■

NUMOV
NAH- UND MITTELOST-VEREIN E.V.
GERMAN NEAR AND MIDDLE EAST ASSOCIATION

AUGUST

A NEW BUSINESS PLATFORM IN CENTRAL ASIA

→ Wilo opened its new location in Almaty in the presence of high-ranking representatives of the Kazakh government. Wilo will use its base in the city to develop and support customers and markets both in Kazakhstan and throughout Central Asia. “Our investment in the new site in Kazakhstan forms part of our intensified global localisation strategy. It will strengthen our competitive position not just in Kazakhstan, but in the entire Central Asian region. As a central hub, Kazakhstan will serve as a platform for our business activities in this area,” said Oliver Hermes, CEO and Chairman of the Executive Board of the Wilo Group. ■

SEPTEMBER

SALMSON BECOMES WILO

→ The French brand Salmson has belonged to Wilo SE since 1984. The Wilo and Salmson brands were previously marketed side-by-side. Now Wilo has decided to concentrate all activities under the Wilo brand. “Adapting the positioning of our brands is a key part of our strategy of global development with a local presence. This will enable us to sustainably strengthen our position in France and in other markets, particularly Italy, Africa and Argentina,” explained CEO Oliver Hermes. ■

OCTOBER

A PIONEERING PARTNERSHIP

→ In partnership with the US printer manufacturer HP, Wilo will become the first company from the pump industry to use 3D printing to produce high-quality metal parts in significant numbers. “The HP Metal Jet is up to 50 times more productive than other 3D printing methods at a lower cost. We are delighted and proud to be a partner of this pioneering technology right from the start,” explained Georg Weber, Chief Technology Officer. The new technology is an important step in the process of gearing the operational strategy towards Industry 4.0. Wilo already uses 3D printing to produce hydraulic parts such as impellers, diffusers and pump housings with varying dimensions. ■

NOVEMBER

A LOGICAL STEP

➔ Wilo has agreed to intensify its partnership with Transneft, the state-owned Russian oil pipeline operator. "We are delighted that our relations in Russia are developing so positively and that Wilo is able to pursue its localisation strategy in a straightforward manner as a result," commented Oliver Hermes, CEO and Chairman of the Executive Board of the Wilo Group. "Expanding our business activities with Transneft is a logical step." The meeting with representatives of Transneft in Moscow was agreed last year as part of talks between Oliver Hermes, Russian President Vladimir Putin and Denis Manturov, Minister of Industry and Trade. Last October, Wilo signed a special investment contract to strengthen its competitive position in the Russian market by gaining 'local manufacturer' status. Localisation will be further intensified through future investments in Wilo's Russian sales and production site in the city of Noginsk near Moscow, from where Wilo Russia provides customers throughout the Eurasian region with pump technology products and solutions. ■

GOLD FOR WILO

➔ Wilo won Gold in the renowned German Brand Award for its end-to-end employer branding campaign. The jury reserved particular praise for the company's holistic approach to brand management: "A visionary brand story is retold. Following the 'Wilo brings the future' campaign, Wilo presents itself as an employer that is geared towards the future." In preparation for the 'Keep It Fluent' campaign, Wilo had conducted extensive studies in order to understand the wishes and goals of its workforce. This insight formed the basis for the final component of its brand communication: "Move minds. Move water. Move the future." ■

DECEMBER

DR. JOCHEN OPLÄNDER NAMES OLIVER HERMES AS HIS BUSINESS SUCCESSOR

➔ Dr. Jochen Opländer, shareholder and honorary chairman of the Supervisory Board of WILO SE and founder of the Wilo Foundation, named Oliver Hermes, CEO and Chairman of the Executive Board of WILO SE, as his business successor. He also granted Oliver Hermes, who has been a member of the Executive Board since October 2006 and its Chairman for a number of years, an entrepreneurial equity participation in WILO SE.

Furthermore, Dr. Jochen Opländer appointed him as the Chairman of the Board of Trustees of the Wilo Foundation with effect from 13 April 2019 until his 75th birthday. The family foundation holds the majority of shares in WILO SE. "Oliver Hermes will take over from Prof. Hans-Jörg Bullinger, who is stepping down from the Board of Trustees having reached the age limit for members," explained Dr. Jochen Opländer. He expressed his warm gratitude to Prof. Bullinger for his many years of successful work at the head of the foundation. "Over the course of our long professional cooperation, Oliver Hermes and I have also developed a close personal friendship," said Dr. Jochen Opländer. "Oliver Hermes represents and lives by the personal and professional values of Wilo that embody the Opländer family's guiding principles." ■

GROUP MANAGEMENT REPORT 2018

In a challenging macroeconomic environment characterised by growing uncertainty, the Wilo Group increased its net sales for the ninth year in succession in 2018. Capital expenditure also reached a new historic high. The Wilo Group invested in particular in a modern and efficient corporate infrastructure in order to sustainably strengthen the foundations for its accelerated, profitable growth. Important growth and cost reduction projects and reorganisation measures aimed at securing the Wilo Group's future prospects and profitability for the long term were continued and, in some cases, intensified.

THE 2018 FINANCIAL YEAR AT A GLANCE

NET SALES

EUR 1,463.5 million

The Wilo Group generated substantial growth of 6.2 percent adjusted for exchange rate effects. Net sales reached a new record of EUR 1,463.5 million. Growth including all exchange rate effects amounted to 2.7 percent.

CAPITAL EXPENDITURE

EUR 154.8 million

In the past financial year, the Wilo Group invested EUR 154.8 million in new, state-of-the-art manufacturing technologies and the construction and expansion of new and existing sales and production locations, among other things. More than ever before!

CONSOLIDATED NET INCOME

EUR 64.2 million

EBIT

EUR 91.9 million

Wilo generated EBIT of EUR 91.9 million and consolidated net income of EUR 64.2 million. The EBIT margin declined to 6.3 percent largely as a result of the sharp rise in commodity prices, expenses in connection with various future-proofing and savings-oriented reorganisation measures and sales efficiency improvement projects. Adjusted for non-recurring reorganisation expenses, the EBIT margin amounted to 7.7 percent.

EMPLOYEES

7,830

The Wilo Group's employees are the basis and the driving force for its economic success. An annual average of more than 7,800 people were employed at Wilo around the world.

RESEARCH AND DEVELOPMENT

EUR 66.3 million

With its Ambition 2025 corporate strategy, the Wilo Group is underlining its desire to establish itself as the digital pioneer of the pump industry and set new standards as an innovation leader. This means research and development play an important role. At EUR 66.3 million or 4.5 percent of net sales, expenditure for research and development remained at a very high level in 2018.

STRATEGIC LOCATION DEVELOPMENT PROJECT

The laying of the foundation stone for the new administrative building in June marked the start of the next phase in the construction of the strategic location development project at the headquarters in Dortmund. From 2020, this new, modern and attractive working environment will be home to around 500 head office employees.

AMBITION

2025

The Wilo Group has defined a clear direction in order to ensure that it remains successful in a market characterised by competitive and technological upheaval. Ambition 2025 represents the revision of the successful corporate strategy and its adaptation to reflect changes in economic and technological conditions.

STANDARDISED BRAND PRESENCE

The standardisation of the brand presence in France, Italy, Africa and Latin America was initiated as planned. In these markets, too, the Wilo Group will concentrate on a single, strong international brand in future: Wilo. All Salmson brand products are being successively replaced by Wilo products.

BASIC INFORMATION ON THE WILO GROUP

- Products, system solutions and services for building technology, water management and industry
- Global production and distribution network close to customers
- Over 7,800 employees worldwide
- Ambition 2025 corporate strategy, growth initiatives and sales efficiency projects to accelerate profitable growth
- Research and development activities remain at a very high level

Customers and products

Wilo is a global, premium provider of pumps and pump systems for heating, ventilation and air conditioning, water supply and wastewater disposal. The Wilo Group is one of the world's leading manufacturers in these markets. Wilo meets every need with its portfolio of products, system solutions and services. The extensive product range extends from high-efficiency pumps designed for houses, apartment blocks and commercial buildings, via special pumps and agitators for use in water management, through to products and solutions for industrial applications such as large cooling water pumps for power plants.

Meanwhile, the Wilo Group's corporate strategy and the operational focus of its over 7,800 employees are systematically geared towards customers and their specific needs and requirements for products, applications and services. The foundation of the Wilo Group's market success is the close cooperation with OEM partners, planners, specialist retailers and tradesmen as well as general contractors, investors and end users in a spirit of mutual trust.

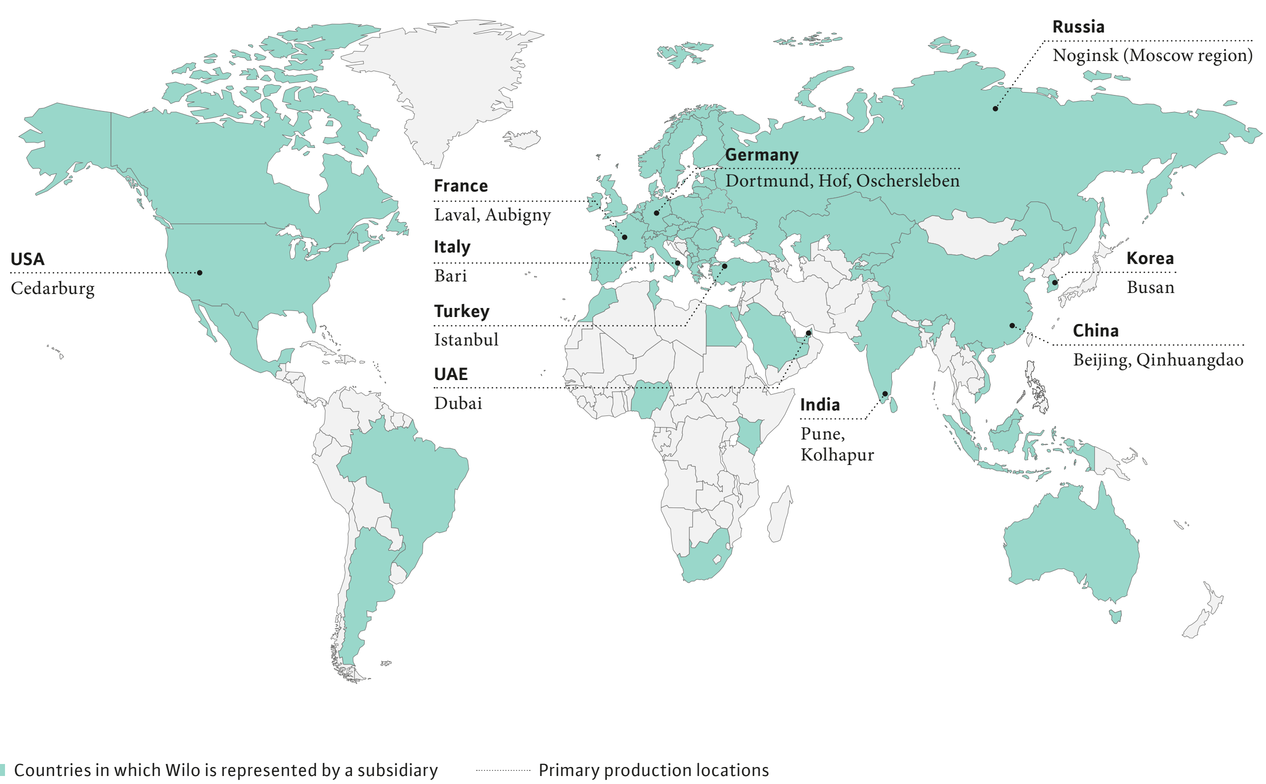
As a premium provider, Wilo aims to develop leading technology and intelligent solutions that make people's everyday lives noticeably easier. This is the principle behind the claim "Pioneering for You".

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

Highly specialised products such as water supply and wastewater treatment systems are developed and produced at other, smaller locations such as Wülfrath and Chemnitz. In addition, products for local markets are assembled at a variety of locations.

This ensures that local requirements can be met efficiently with the fastest possible delivery to customers. The Wilo Group therefore has an efficient, customer-oriented network with currently more than 70 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 to the highest standards of quality worldwide.

WILO GROUP LOCATIONS



Market segments

The Wilo Group operates in the Building Services Residential, Building Services Commercial, OEM (Original Equipment Manufacturers), Water Management and Industry market segments. As part of the revision and enhancement of the corporate strategy to create Ambition 2025, the three existing market segments have been broken down further in order to reflect the growing importance of the individual business areas within the former Building Services market segment. The portfolio of products, system solutions and services is systematically tailored to the needs of customers in these five market segments. This even clearer focus, together with the Group's traditional innovative strength and proximity to customers thanks to a local presence, are key factors in its success. The Wilo Group is therefore able to identify different and changing requirements around the world at an early stage and to respond quickly and flexibly.

Building Services Residential & Commercial

Around the world, energy and resource efficiency is becoming markedly more important in all aspects of life due to ecological and, not least, economic reasons. Economic efficiency and sustainability are also a growing priority when it comes to building use. This makes it increasingly necessary to use innovative systems incorporating optimally coordinated components. Wilo offers the necessary energy-efficient concepts in the Building Services Residential and Building Services Commercial market segments. These relate to heating technology and air conditioning as well as water supply and wastewater disposal. Wilo's product and system solutions find applications in houses, apartment blocks, public buildings, industrial and office buildings, hospitals and hotels.

OEM

Wilo is a strong partner of leading OEMs and manufacturers of products including boilers, heat pumps and air conditioning systems. The Wilo Group's pumps and hydraulic systems offer the highest degree of reliability, flexibility and efficiency. OEM customers also benefit from Wilo's many years of experience, detailed knowledge of the market and application expertise. Taking into account current and future regulatory requirements, Wilo anticipates global market requirements at an early stage in order to develop and offer solutions that are ideally tailored to the specific needs of customers and the market. In this way, the Wilo Group satisfies the continuously changing market requirements with a broad range of established, tried-and-tested integrated products and intelligent, individually developed solutions.

Water Management

Thanks to urbanisation, climate change and environmental pollution, water as a raw material is growing ever scarcer around the world and is becoming a precious commodity in increasing numbers of regions. Providing the rapidly growing global population with enough clean drinking water is a fundamental problem. In addition, the demand for water from agriculture and industry is rising sharply around the world. The safe and sufficient purification and supply of water is therefore already a profound global challenge. Wilo offers professional solutions designed to meet the increasingly complex requirements involved in drinking water extraction, water pumping, and the transportation and processing of wastewater. Wilo's pumps and pump systems for water management set benchmarks around the world in terms of technical performance, efficiency and sustainability.

The new functional organisational structure enables process optimisation and a significant reduction in complexity.

Industry

Wilo develops and manufactures pumps that guarantee the highest level of reliability, flexibility and efficiency. In industrial applications especially, these are vital factors for pumps and pump systems. The Wilo Group's strength in the Industry market segment lies in support applications for processes in various industries. Wilo pumps are used around the world for pumping cooling water in power plants or dewatering in the mining industry.

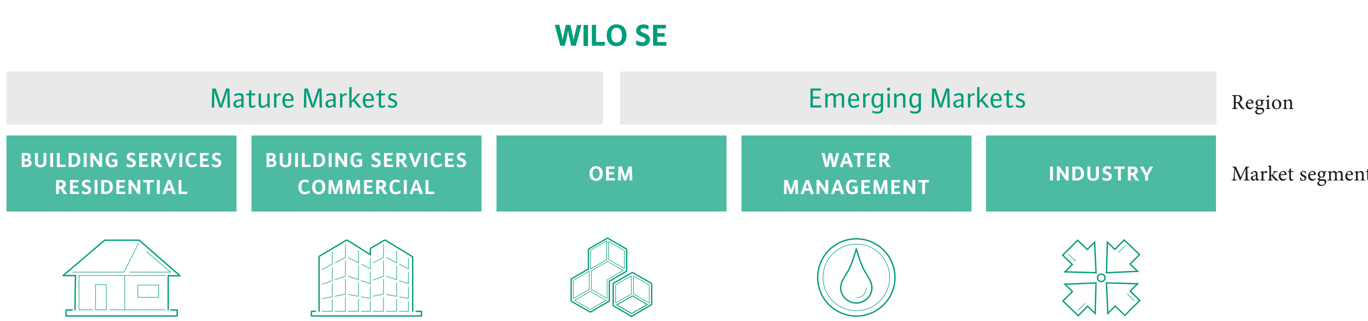
Group organisation and management

The Wilo Group can look back on a long and successful history. The company's foundations were laid more than 140 years ago. "Kupfer- und Messingwarenfabrik Louis Opländer", founded in Dortmund in 1872, was the predecessor to WILO SE, a European Company (Societas Europaea). The company is domiciled in Dortmund, Germany. As the parent company of the Wilo Group, WILO SE performs central management activities for the entire Group as well as its own operations. With around 90 percent of the shares in WILO SE, the majority shareholder is the Wilo-Foundation. The issued capital of WILO SE amounts to EUR 26,980 thousand.

As at 31 December 2018, the Wilo Group encompassed WILO SE and more than 70 production and sales companies worldwide. WILO SE holds a direct majority interest in most of its subsidiaries.

The organisational structure has an entirely functional alignment. The Wilo Group's sales activities around the world are pooled under the sole management and coordination of the Chief Executive Officer (CEO). All production and development-related areas are managed by the Chief Production and Technology Officer (CTO). The long-standing divisional structure, in which the production, development and sales activities were organised by product, was replaced by the new functional organisational structure with effect from 1 January 2018. This led to a significant reduction in the complexity of corporate management. In addition, processes are optimised both within individual areas and in the cooperation between them.

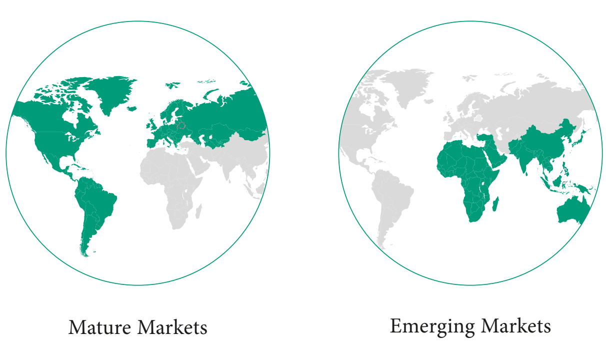
ORGANISATION AND MANAGEMENT STRUCTURE OF THE WILO GROUP



The internal organisational and management structure of the Wilo Group is now based on two dimensions: region and market segment. The leading organisational dimension remains the region, which also forms the basis for segment reporting. The regional reporting units were also adjusted as part of the realignment of the organisational structure. The sales regions are fundamentally broken down into the Sales Region Mature Markets and the Sales Region Emerging Markets, each of which is managed by an experienced region manager who reports directly to the Executive Board. This restructuring allows sales activities to be geared even more specifically towards the requirements of the respective markets and regions.

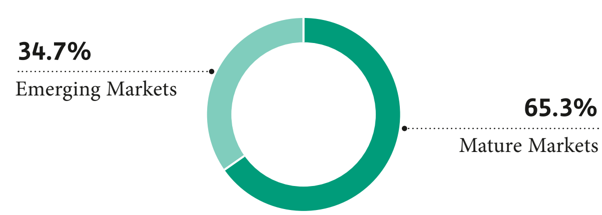
The Mature Markets cover Europe, Russia, Belarus, Ukraine, the Caucasus nations and the American continent. The Emerging Markets encompass China, India, Korea, the Southeast Asian nations, Australia and Oceania, Turkey, the Middle East and Africa.

REGIONS



In the year under review, 65.3 percent of consolidated net sales were attributable to the Mature Markets and 34.7 percent to the Emerging Markets.

NET SALES
by region in 2018



The management of the Wilo Group is the responsibility of the Executive Board of WILO SE, which consists of three members. The following schedule of responsibilities shows the allocation of functional responsibilities within the Executive Board.

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

In managing the Wilo Group, the Executive Board focuses on the development of net sales and earnings power. Earnings power is based on operating earnings, i.e. earnings before interest and taxes (EBIT), and the EBIT margin. Management at Group level and the other overarching organisational and management levels of the Wilo Group (region and market segment) is performed uniformly according to these financial key performance indicators.

This means net sales, EBIT and the EBIT margin are the central performance indicators for the Wilo Group, meaning they are included in the analysis of the course of business, the assessment of the position of the Group and the outlook for the purposes of external financial reporting in accordance with GAS 20.

Another financial key performance indicator at Group level is free cash flow, which reflects the excess liquidity generated by the Wilo Group. A constantly positive free cash flow serves to ensure the financial independence and liquidity of the company. The main levers for improving free cash flow are increases in net sales and EBIT. The development of free cash flow is also aided by the systematic management of working capital and a coordinated investment policy.

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

The Wilo Group is required to maintain certain standard financial ratios (covenants) under the terms of its long-term financing agreements. In particular, these include leverage, i.e. the ratio of consolidated net debt to consolidated EBITDA (earnings before

SCHEDULE OF RESPONSIBILITIES

Chairman of the Executive Board & CEO Oliver Hermes

- Government & Public Affairs
- Group Human Resources & Legal
- Strategic Sales & Marketing
- Sales Regions Mature & Emerging Markets
- Strategic Business Unit OEM
- Group Service
- Digitization Team
- Coordination of Executive Board activities

CTO Georg Weber

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

CFO Mathias Weyers

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

interest, taxes, depreciation and amortisation), the equity ratio and the interest cover ratio, which is defined as the ratio of consolidated EBITDA to consolidated interest expenses. These ratios are also regularly reviewed and reported to the Executive Board in order to ensure compliance with the required minimum values at all times. The Wilo Group continued to comply with the agreed financial ratios in 2018.

In addition to these financial key performance indicators and ratios, non-financial aspects relating to employees and processes along the value chain play an important role in the successful business development of the Wilo Group. They contribute to the company's economic success and the goal of accelerated profitable growth. As such, these factors are of central importance to the strategic and operational management of the Wilo Group. However, priority is given to the financial key performance indicators described, as they directly reflect progress in terms of accelerating profitable growth. Further information can be found in the "Non-financial success factors" section.

Corporate strategy

In the 2018 financial year, the Wilo Group reviewed and refined its corporate strategy and gradually revised it to reflect the new challenges resulting from changes in the social, economic and technological environment as part of its regular strategy review. A fundamental change in the long-term targets of the Wilo Group and its corporate strategy is not necessary. The core objectives continue to apply. Instead, the successful Ambition 2020^+ corporate strategy was supplemented and enhanced to create Ambition 2025. This sets out the corporate objectives until 2025 and beyond.

"Working together to accelerate our profitable growth as a global solution provider" summarises the main objectives and underlines the importance of cooperation with various stakeholders across national, sector and industry boundaries. Accordingly, the Wilo Group plans to press ahead with its globalisation strategy and intensify cooperation and networking among all of the stakeholders along entire value chain in a targeted manner. The corporate strategy clearly highlights the Wilo Group's intention to step up its development from a component manufacturer into a solution provider to an even greater extent.

WILO – OUR AMBITION 2025

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 full-range supplier and customers' first choice.	We are market, innovation and smart solution leader.	We are preferred partner for smart integrated solutions.	We are global market player and digital solution provider.	We are specialist in selected branches and applications.

We (net-)work in co-operation with our stakeholders across the value chain.

We continue the implementation of our globalisation approach.

TOGETHER WE ACCELERATE OUR PROFITABLE GROWTH AS A WORLDWIDE SOLUTION PROVIDER

We achieve above-average growth with more than 10 percent profitability. Our organic growth is supported by a boost of M&A activities.

We intensify our development of full product ranges, smart systems, services and solutions.

Accordingly, the Group is continuing to intensify the development of intelligent products, systems, services and solutions and pressing ahead with its digital transformation.

The Wilo Group still aims to achieve above-average growth with high profitability of over 10 percent (in terms of the EBIT margin). Organic growth is proactively supported by targeted M&A activities.

This growth strategy is built on six strategic pillars:

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

With the revision and enhancement of the existing corporate strategy to create Ambition 2025, the three previous market segments have been broken down further into five market segments. More detailed and geared more strongly towards future customer requirements, this breakdown reflects the increasingly important role of the individual business areas within the former Building Services market segment. It shortens decision-making paths and increases the clout of the individual areas within their market segments.

To achieve the strategic objectives, the fundamental strategic directions for each of the new five market segments were defined. The objective in the Building Services Residential market segment is to be a full-service provider and preferred supplier. The Building Services Commercial market segment is focused on the expansion of market and innovation leadership as a solution provider. In the OEM market segment, Wilo intends to continue to position itself as a preferred partner with smart and integrated solutions. The global market presence in the Water Management market segment will be strengthened through digital solutions for the water management industry.

Wilo has identified smart urban areas as offering attractive business potential and will systematically tap into new business areas here.

In the Industry market segment, the Wilo Group will continue to focus on selected sectors and applications in future.

- **Wilo strives for ultimate customer satisfaction.**
- **Wilo engages and empowers employees.**
- **Wilo sets new standards as innovation leader.**
- **Wilo develops into the digital pioneer in the pump industry.**
- **Wilo stands for business excellence.**
- **Wilo remains an independent and responsible company.**

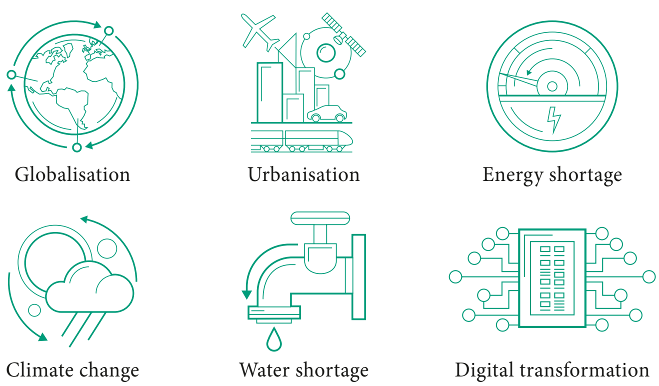
Ambition 2025 is being implemented in eight growth initiatives led by experienced Wilo Group managers. Key aspects include covering every area of application across all market segments, strengthening the position as a provider of solutions, expanding regionally and developing new business models and markets. The growth initiatives explicitly address external growth through targeted corporate acquisitions and investments in young companies and start-ups. The acquisition of a minority interest in the US smart water management specialist HydroPoint Data Systems, Inc. in the 2018 financial year represented another important step in gearing the Wilo Group towards intelligent system solutions for digitally connected areas of life. HydroPoint develops intelligent solutions for water usage and distribution in urban infrastructures and buildings. The “HydroPoint 360° Smart Water Management Platform” identifies savings potential using tools such as real-time water consumption data and weather analyses.

The Wilo Group is also pressing ahead with the WIN and ICI 2.0 cost initiatives and projects to improve sales efficiency in order to permanently secure and accelerate its profitable growth. These extensive, Group-wide projects comprise the analysis and optimisation of significant cost structures and drivers.

Having defined six relevant megatrends in the context of strategic long-term planning, Wilo reviewed and confirmed the relevance of these megatrends in the year under review. Globalisation, urbanisation, energy shortage, digital transformation, water shortage and climate change will influence the Wilo Group’s business in the future and are already having an impact on the company’s current performance.

Taken together, these six megatrends are contributing to a major global trend: the creation of smart urban areas. Wilo defines this as the establishment and expansion of 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 more efficient, conserve resources and reduce negative effects on the environment. Smart urban areas are arising not only in the familiar big cities in mature markets, but also increasingly in many emerging economies such as India and China. Wilo has identified smart urban areas as offering attractive business potential and will systematically tap into new business areas here. This strategy goes hand in hand with the intensive digitalisation of the Group.

THE WILO MEGATRENDS



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

WILO. VISION, MISSION AND VALUES

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

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

Research and development

Strategy and direction

The overarching framework for research and development activities is defined by the Ambition 2025 corporate strategy and the corporate objectives. The primary aim is to further expand the Wilo Group's leading position with regard to technology, innovation and quality. To this end, clear risks and opportunities from the megatrends relevant to Wilo were first identified using the corporate foresight process. On this basis, three strategic action areas were derived for research and development: energy and resource efficiency, systems technology, solutions expertise, and digital technologies.

The specific implementation of the associated technical developments and solutions is extremely complex. This results in challenges for technology and product development in the area of digitalisation in particular. This action area affects every area of the company, and digitalisation will require the development and implementation of entirely new processes and tools.

In some cases, the strategic action areas are also addressed in intensive cooperation with outside partners, other industrial companies and, increasingly, innovative start-ups. The aim is to enrich and expand internal know-how with external expertise. This means the Wilo Group has established a global research and development network to help it conduct the various research projects. Wilo also takes advantage of government grants for application-related basic issues. As a result of digitalisation, Wilo is increasingly shifting its development focus to new business models and complementary services.

A central research and development organisation is responsible for all research and development activities. Traditional areas of development, such as mechanics, hydraulics, microelectronics and software, are addressed by dedicated central developer teams for systems and digital products. This ensures that the challenges arising partly from the digital transformation of all areas of the company are brought together and tackled as quickly as possible.

Product series development is also coordinated centrally but is carried out locally at the Wilo Group's various locations. In addition to a more agile way of working in light of the advance of digitalisation, this form of organisation enables global, cross-divisional and interdisciplinary cooperation with the ideal transfer of knowledge. For example, the specific market requirements of different customers and individual customer requests can be addressed quickly and met in conformity with technological innovations. Product development places particular weight on the growth markets in Asia.

Results

Numerous structural measures were performed in the area of research and technology in 2018, leading to significant process optimisations. With the support of external partners, a Group-wide modular platform concept was developed and has already been partially implemented. The aim is to use the results and development components of the various projects across divisions and projects, thereby ensuring the lasting transfer of technology and knowledge. Development costs can thus be permanently lowered and the time to market reduced.

In 2018, key elements of product development activities included the finalisation of ongoing development projects and the definition of new Wilo top development projects with regard to the new platform concept and advancing digitalisation. These cross-divisional projects are intended to further enhance customer benefit and increase the pace of development.

With the start of production of the world's first smart pump*, the Wilo-Stratos MAXO, one of the biggest development projects in the company's history was successfully completed in autumn 2018 and the product was launched on the market. The distinguishing features of the Wilo-Stratos MAXO include its unprecedented level of system efficiency, bidirectional connectivity, extreme ease of use and optimum range of applications.

In 2018, Wilo also relaunched the Yonos series, an extremely compact pump series that meets the most stringent efficiency criteria and that can be adapted extremely flexibly to the requirements and demands of OEM customers. For the first time, the Wilo-Yonos PARA Premium includes a Local Interconnect Network (LIN bus) for integrating the pump within the customer's application as a system component.

In line with Wilo's digitalisation strategy, the first pilot project for the digital engineering platform was launched in the period under review and the global training of product lifecycle management experts was initiated. When the platform is introduced from mid-2019, the engineering units around the world and the results of their work will be connected directly to the SAP business processes.

Employees

With a slightly lower headcount, the employee structure in research and development remained largely stable in 2018 compared with the previous year. The proportion of women in research and development was still around 10 percent. The proportion of highly qualified university graduates was around 70 percent. The proportion of the Wilo Group's total workforce accounted for by research and development remained at a high level in 2018. However, the needs-driven recruitment of qualified young candidates in the disciplines of technology and the natural sciences represents a growing challenge. With its extensive human resources activities, the Wilo Group therefore seeks to be perceived by potential applicants as an employer of choice. Special talent promotion programmes, a variety of internal and external training and mentoring programmes and increased cooperation with start-ups are some examples of measures aimed at achieving this goal. They are intended to ensure that Wilo will continue to successfully attract and retain highly qualified employees in the future.

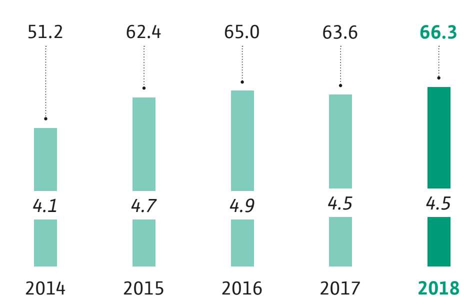
Patents and licences

The Wilo Group's patent strategy focuses on protecting technologies and product innovations that constitute a competitive edge in terms of an exclusive customer benefit. Corresponding new technology and product developments are identified and selected in the Wilo patent process in order to secure them through property rights. This achieves effective protection for the Wilo Group's intellectual property as well as supporting the company's profitable growth. The number of active patents remained stable in 2018 even though older, unused technologies were removed from the patent portfolio. The expired and dropped patents were offset by specifically selected patent applications for new technology and product developments used in Wilo products.

Investment and expenditure

In 2018, investment in research and development focused on the further expansion of laboratory and test facilities. Investment was concentrated in particular on the automation of existing test benches at the Dortmund site and their remote monitoring.

R&D COSTS*
EUR million and *percent of net sales*



* including capitalised development costs

Total research and development costs including capitalised development costs increased amounted to EUR 66.3 million in the year under review (previous year: EUR 63.6 million). At 4.5 percent of net sales, they were at the same high level as in the previous year. Development costs (including borrowing costs) were capitalised in the amount of EUR 16.9 million (previous year: EUR 17.7 million). Research and development costs in the amount of EUR 50.7 million (previous year: EUR 47.8 million) were recognised in profit or loss.

BUSINESS REPORT

- World economy sees steady growth accompanied by increased risk in 2018
- Net sales increase for the ninth year in succession with strong growth of 6.2 percent adjusted for exchange rate effects
- Profitability impacted by sharp rise in commodity prices and limited availability of parts and components
- Realisation of growth-oriented and future-proofing reorganisation projects
- Capital expenditure reaches new historic high

General economic and industry-specific conditions

Robust global economic growth

At 3.7 percent, the world economy grew at almost the same pace as in the previous year (3.8 percent) according to the estimate by the International Monetary Fund (IMF). The Kiel Institute for the World Economy (IfW) also expects an increase of 3.7 percent. However, the upturn lost momentum from late summer onwards as the escalating trade conflict between the USA and China led to growing uncertainty. This was exacerbated by other political factors, such as the continued lack of clarity with regard to the Brexit process and the budget conflict between the new Italian government and the EU. According to the IMF, the industrialised nations enjoyed robust overall growth of 2.3 percent in 2018 (previous year: 2.4 percent). Growth momentum in the emerging and developing economies remained strong at 4.6 percent (previous year: 4.7 percent).

The following section presents the macroeconomic and industry-specific developments in 2018 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 especially influenced by the construction and sanitary industries, among others. The country-specific definition of the regions is based on the segment reporting of the Wilo Group (Mature Markets, Emerging Markets). ➔ *More detailed information on the definition of segments can be found in note (11) to the consolidated financial statements on* ***page 144 et seq.***

Mature Markets – Robust economic performance with sustained lively construction industry in Europe and substantial upturn in the US economy

EUROPE. The European economy enjoyed growth in 2018 in line with the global economy, although the forces behind this development have weakened tangibly since the summer. Although export momentum was lower, private consumption remained robust on the back of sustained favourable financing conditions and growth in employment. Investment activity was also lively thanks to high capacity utilisation and healthy order books. According to the statistical office Eurostat, the euro area recorded economic growth of 1.8 percent (previous year: 2.4 percent). The Eastern European nations saw the highest growth rates. Ireland, the Netherlands, Austria and Spain all enjoyed dynamic growth. Development in France and, in particular, Italy continued to be adversely affected by structural deficits. The economies of both countries saw below-average growth compared with the euro area as a whole. The British economy saw moderate development ahead of the imminent Brexit.

Despite slowing momentum, Deutsche Bundesbank confirmed that the German economy is continuing to boom on the back of extremely robust domestic demand. With further growth in employment and income on the rise, the growth drivers were private consumption and the high propensity to invest. In the third quarter, production stoppages in the automotive industry due to difficulties in connection with a new emissions testing process led to an economic slowdown that the final quarter was unable to offset. According to the German Federal Statistical Office, gross domestic product rose by 1.5 percent across 2018 as a whole (previous year: 2.5 percent).

In this economic environment, the European construction industry continued its upturn. Residential construction was the main driver. According to the Euroconstruct industry network, the volume of construction output grew by 2.8 percent in real terms in 2018 (previous year: 4.1 percent). With the exception of the United Kingdom (–0.8 percent), all of the other 18 countries that are relevant to the European construction sector saw positive growth. Construction output in Western Europe increased by 2.2 percent in real terms (previous year: 3.9 percent). Portugal, the Netherlands, Ireland and Spain saw particularly strong growth. In Eastern Europe, construction output rose by as much as 13.4 percent (previous year: 9.3 percent). The construction industry in these countries benefited from national and EU-funded infrastructure projects, particularly in Hungary and Poland.

According to the German Federal Statistical Office, construction investment in Germany saw further substantial growth of 3.0 percent in real terms in 2018 (previous year: 2.9 percent). The German Institute for Economic Research (DIW) expects the volume of new residential construction to have amounted to EUR 73.1 billion in 2018. This represents extremely dynamic nominal growth of 10.1 percent (previous year: +4.6 percent). The volume of new private- and public-sector building construction rose by 6.2 percent to EUR 37.2 billion in 2018. Two-thirds of the total construction volume was attributable to work on existing buildings such as expansion, conversion, maintenance and modernisation. In 2018, the construction volume in this area also rose sharply by 7.9 percent to EUR 156.8 billion in the residential sector (previous year: +7.1 percent) and by 6.3 percent to EUR 64.7 billion in private- and public-sector buildings (previous year: +5.9 percent).

In a joint assessment by the Association of the German Sanitary Industry and the ifo Institute, net sales in the industry as a whole is estimated to have risen by a nominal 3.3 percent to EUR 24.9 billion in 2018. Of this figure, EUR 20.7 billion was attributable to Germany (+3.0 percent).

RUSSIA. The economy saw a further moderate recovery in 2018. Since the beginning of the sanctions, various steps have been taken to strengthen domestic production. This led to a significant slowdown in import growth in 2018. On the other hand, exports and the national budget were boosted by the sustained rise in oil and gas prices up until October. According to central bank data, the economy was also supported by private consumption. Investment activity remained muted. According to IMF estimates, the Russian economy grew by 1.7 percent in 2018.

The Russian construction industry has been depressed since the imposition of economic sanctions by the West five years ago. However, it recovered in 2018 following a difficult start to the year. According to the industry experts from PMR, the construction volume increased by 5.3 percent adjusted for inflation. Construction activity was dominated by major projects and infrastructure investments. By contrast, commercial construction saw a further downturn in 2018 and residential construction remained weak.

USA. Growth picked up considerably in 2018 on the back of massive tax cuts and increased government spending. The main pillars of the extremely lively domestic economy were equipment investments and, following a rise in employment, private consumption. According to the IMF, the US economy is expected to have seen higher growth of 2.9 percent in 2018 (previous year: 2.2 percent).

The US construction industry remained on its growth path. Despite a gradual rise in interest rates, private construction activity was stimulated by the strength of the economy as a whole. Public construction activities saw above-average growth. To the end of November 2018, construction expenditure saw nominal growth of 4.5 percent overall and 3.8 percent in the residential construction segment. Construction expenditure in the water supply sector increased by 18.0 percent in nominal terms, while the figure for the broadly defined wastewater/waste disposal sector rose by 8.6 percent. The number of residential units completed in the USA increased by 4.2 percent compared with the previous year.

LATIN AMERICA. Latin America saw mixed development in terms of the economy and the construction industry in 2018. The IMF expects economic growth to have slowed slightly to 1.1 percent (previous year: 1.3 percent). While Chile enjoyed a substantial upturn of 3.9 percent according to the World Bank, Mexico and Brazil saw moderate growth of 2.1 percent and 1.3 percent respectively according to the IMF, thereby falling below the forecasts at the start of the year. According to World Bank data, Argentina entered a severe recession (–2.8 percent) while Venezuela's economic output declined for the fifth year in succession at –18 percent.

Emerging Markets – Asian economies largely strong, but massive economic crisis in Turkey

CHINA. As expected, the pace of expansion in China slowed in 2018. This was due in part to the structural shift towards domestic demand, services and high-tech. At the same time, lending was curbed in order to prevent overheating and limit debt. The trade conflict with the USA also had an initial impact. Despite these developments, industrial production and investment activity remained robust. According to the National Bureau of Statistics (NBS), the Chinese economy grew by 6.6 percent in 2018 (previous year: 6.9 percent).

The Chinese construction industry is enjoying an extremely robust expansion driven by residential construction. According to the NBS, building investments increased by 9.5 percent (previous year: 7.0 percent), with residential construction rising by 13.4 percent. Following the substantial growth in the previous year, however, China reduced investments in water management by 4.9 percent in 2018.

INDIA. According to the IMF, the Indian economy saw more rapid growth of 7.3 percent in 2018 on the back of private consumption. The prior-year figure was temporarily impacted by reforms. By contrast, tension in the financial sector meant that investment activity was muted.

Despite these problems in the financial sector, India's construction industry recovered in 2018, with residential and office construction bottoming out. The affordable housing segment, which is subsidised by the government, developed extremely well. Commercial construction remained stable, while vacancy rates decreased. Civil engineering benefited from public infrastructure investments. Among other things, investments focused on modern and efficient water and wastewater management, particularly in connection with the Indian government's "Smart Cities Mission" projects.

KOREA. The economic upturn in 2018 was robust. According to the Korean central bank, gross domestic product rose by 2.7 percent (previous year: 3.1 percent). Exports continued to pick up, while private consumption rose on the back of increased employment, rising wages and lower excise duties. By contrast, investment declined from the second quarter onwards, in some cases significantly.

The Korean construction industry contracted in 2018. The deterioration that had been visible since the previous year accelerated on the back of measures to stabilise the overheated housing market as well as budget cuts for government infrastructure investments. According to the central bank, construction investments fell by 4.0 percent in real terms (previous year: +7.6 percent). This affected residential construction in particular, but commercial construction and civil engineering also saw negative development.

SOUTHEAST ASIA. According to the IMF, the dynamic growth in the economy of the five major ASEAN nations remained largely stable at 5.2 percent overall. This development was supported by exports and investment programmes.

In the Southeast Asian nations, the structure of the construction industry is dominated by substantial investments in infrastructure. Residential construction is being driven by population growth, increased prosperity and urbanisation. This is leading to overheating in some areas. While the construction industry in Singapore failed to bottom out in 2018, the construction industry in the five major ASEAN nations saw substantial growth in some cases.

TURKEY. The country entered a severe economic crisis in 2018 with runaway inflation that peaked at 46 percent in the autumn. Thanks to strong growth in the first half of 2018, however, the World Bank estimates an increase in growth domestic product of 3.5 percent across the year as a whole (previous year: 7.4 percent). Domestic demand declined on the back of rising unemployment and high debt. The central bank increased the key interest rate in several stages to 24 percent in September in order to support the Turkish lira and curb inflation. Confidence in the economy dwindled across the board and industrial production declined.

There was a massive slump in construction activity as a result, with the number of building permits for homes falling by 58 percent in the first three quarters of 2018. In line with the overall inflationary trend, construction costs increased by around 40 percent at their peak.

MIDDLE EAST & AFRICA. The economy of the oil-exporting states of the Gulf Region benefited from the upturn in oil prices in 2018. However, the economic climate continued to be impacted by political uncertainty and conflict. The new US sanctions against Iran had a particularly negative impact. While Saudi Arabia, Kuwait and Iraq again recorded growth, Iran entered a recession. In some oil-importing nations, like Tunisia and Egypt, the robust economic growth accelerated further. According to the IMF, the upturn in the Sub-Saharan region was a robust 2.9 percent, thanks in part to slightly higher growth in Nigeria.

Despite the widespread economic improvement in North Africa and the Middle East, only some parts of the region saw an improvement in the construction industry in 2018. In Egypt, construction was one of the main drivers of the economic upturn. Investments focused on ports, oil production, and residential construction to meet increased demand due to population growth. The United Arab Emirates and Tunisia saw lively construction activity. The Nigerian construction industry recovered slightly but remained at a low level due to political factors. By contrast, the South African economy weakened, with the crisis in the construction industry persisting due to low demand and excess capacity.

The Wilo Group increased its net sales for the ninth year in succession with strong growth of 6.2 percent adjusted for exchange rate effects.

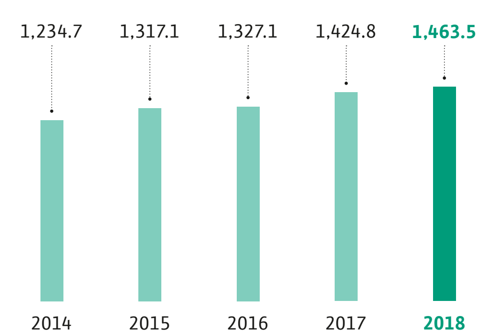
Business performance

In the 2018 financial year, the Wilo Group increased its net sales for the ninth year in succession with strong growth of 6.2 percent adjusted for exchange rate effects. Net sales rose to EUR 1,463.5 million. Including net exchange rate effects, which were significantly negative, the Wilo Group generated net sales of 2.7 percent. The original planning for 2018, which predicted growth of around 3 percent, was thus realised.

The Wilo Group again saw very varied regional development in the past financial year. The Asian region remained the growth driver in 2018, although net sales performance was curbed substantially by the depreciation of various currencies. High growth rates were also recorded in Eastern Europe, the USA, the Middle East and Africa. Net sales remained at the prior-year level in Germany but declined in France. The Wilo Group's business activities in Turkey were heavily impacted by the increasingly strained political and economic situation over the course of the year. Overall, the Wilo Group was well able to compensate for these varying developments in individual countries and markets. The broad regional and sectoral positioning of the business activities is crucial here. Diversification is a strategic success factor, successfully minimising risks while opening up opportunities in individual markets.

Earnings before interest and taxes (EBIT) were down year-on-year at EUR 91.9 million. To sustainably secure the Wilo Group's future viability and profitability, various initiatives to promote growth and cut costs were initiated, continued and, in some cases, intensified. These reorganisation measures primarily related to the Group functions of administration, sales, research and development at the Dortmund location as well as production capacities in the USA. Projects to improve sales efficiency were also initiated around the world. Expenses of around EUR 21 million were recognised in profit or loss in connection with the measures described. Despite these non-recurring expenses, important growth- and future-oriented projects, such as the digital transformation, the modularisation of products and the strategic location development in Dortmund, were continued systematically and as planned. Production costs also increased due to a significant rise in commodity prices and the limited availability of certain parts and components. Together with the growth in net sales, these factors led to a lower level of profitability in terms of the EBIT margin, which declined to 6.3 percent. Adjusted for the aforementioned non-recurring reorganisation expenses, the EBIT margin amounted to 7.7 percent.

NET SALES DEVELOPMENT
in EUR million



The Wilo Group's investment policy has a long-term, sustainable focus on allowing it to continue the development of its profitable growth in future in line with its corporate strategy. In 2018, EUR 154.8 million was invested in new manufacturing technologies and the construction and expansion of new and existing sales and production locations, among other things. The investment priority was again the strategic location development project at the headquarters in Dortmund, which will last for several years.

Net sales development in the individual regions was as follows in the 2018 and 2017 financial years:

NET SALES DEVELOPMENT BY REGION

EUR million	**2018**	2017	Change %	Change % (adjusted for exchange rate effects)
Mature Markets	955.5	926.7	3.1	5.6
Emerging Markets	508.0	498.1	2.0	7.2
Total	**1,463.5**	**1,424.8**	**2.7**	**6.2**

The two reportable segments, Mature Markets and Emerging Markets, consist of the following countries:
– Mature Markets: All European countries, Russia, Belarus, Ukraine, the Caucasus nations and the nations of the American continent
– Emerging Markets: India, China, South Korea, the Southeast Asian nations, Australia and Oceania, Turkey, the nations of the Middle East and the African nations

Net sales in the market segments developed as follows in the 2018 and 2017 financial years:

NET SALES DEVELOPMENT BY MARKET SEGMENT

EUR million	**2018**	2017	Change %
Building Services & OEM	1,189.5	1,165.2	2.1
Water Management & Industry	274.0	259.6	5.5
Total	**1,463.5**	**1,424.8**	**2.7**

Mature Markets

Net sales in the Mature Markets increased by 3.1 percent to EUR 955.5 million. Adjusted for exchange rate effects, net sales growth was more substantial at 5.6 percent.

In Germany, the Wilo Group's largest individual market, net sales remained largely unchanged year-on-year. Growth in the Building Services Residential, Building Services Commercial and Water Management market segments offset the downturns in the other market segments. Targeted sales campaigns contributed to a moderate expansion of business development in the Buildings Services Residential and Building Services Commercial market segments. By contrast, a weak start to the heating season due to mild weather in autumn 2018 and sluggish project business had an adverse effect on net sales development. With the sanitary industry at full capacity and trade capacity only available to a limited extent, it was not possible to leverage the potential offered by the extensive market opportunities.

Net sales in the Mature Markets increased by 5.6 percent to over EUR 955 million after adjustment for exchange rate effects.

Net sales in Austria increased by 2.4 percent thanks to good project business in the Water Management market segment and a focused sales strategy in the Building Services Residential market segment, whereas net sales in Switzerland declined by 5.7 percent. This was partially due to the depreciation of the Swiss franc against the euro. Adjusted for exchange rate effects, net sales fell by just 3.4 percent. The main reason for this development was the merger of two wholesalers with corresponding stock consolidation.

Net sales in France decreased by 1.8 percent. Growth in the Water Management, OEM and Industry market segments was not enough to offset the downturn in the other two market segments. Business confidence in France remains low, with a corresponding impact on project business throughout the Building Services market. Price pressure also remains high. By contrast, the Water Management market segment enjoyed extremely positive development. Some major projects were completed, including repairs to hurricane damage in France's overseas departments. Following a long phase of spending cuts, the number of government infrastructure projects being launched increased again.

In the Benelux countries, net sales increased by 2.3 percent with growth in almost all market segments. The only exception was the OEM market segment, which saw a slight reduction in net sales.

In Italy, net sales rose by 3.5 percent on the back of significant growth in the OEM market segment, whereas net sales in the other market segments declined. Project business was characterised by high price pressure, while the warm weather meant the start of the heating season was delayed. Meanwhile, the other Mediterranean nations saw substantial net sales growth of 11.7 percent. In Spain, considerable growth was generated from business with maintenance companies in the Building Services Commercial market segment in particular. Greece and Portugal also saw strong net sales growth. In Greece, this positive development was driven by the realisation of some major projects in the Water Management market segment.

Poland saw significant net sales growth of 16.6 percent, with the healthy economic situation allowing all market segments to contribute to this development. A specific focus on individual market segments had a particularly positive effect. In addition, net sales development was again boosted by European Union infrastructure projects in the Water Management market segment.

In the other Eastern European nations, net sales increased by 4.3 percent overall. There was growth in all market segments with the exception of Water Management, as EU-funded water management projects again proved slow to take off. By contrast, the OEM and Industry market segments enjoyed extremely positive performance. In Hungary, a major project for fitting pumps in a customer's new production facility was realised. In Slovakia, the Wilo Group produces OEM pumps for an international heating manufacturer. The Wilo principle of ensuring proximity to its customers again proved to be an important factor in its competitive success.

The Baltic region saw mixed development, with strong net sales growth in Lithuania more than offsetting the slight downturns in Latvia and Estonia. All in all, net sales increased by 12.2 percent. The Water Management market segment enjoyed particularly substantial growth in excess of 70 percent as numerous projects were realised in Lithuania and Latvia.

Scandinavia saw growth in all market segments other than Building Services Commercial, with net sales rising by 2.6 percent overall. The main growth drivers were the OEM and Water Management market segments.

Net sales declined by 2.5 percent in the United Kingdom and Ireland. This was due in part to the depreciation of the pound sterling against the euro. After adjustment for exchange rate effects, net sales fell by 1.7 percent. Project business stalled due to extremely high levels of uncertainty among market participants in light of the imminent Brexit.

In Russia, net sales in Group currency climbed by 2.0 percent year-on-year despite the considerable depreciation of the Russian rouble against the euro. Adjusted for exchange rate effects, net sales growth amounted to 13.9 percent. Targeted sales measures and a stronger focus on local products to serve the middle market segment contributed to the business expansion in almost all market segments. The production site in Noginsk, near Moscow, enables the Wilo Group to serve the local market efficiently and according to requirements and to benefit from the increasing trend towards localisation. Strong growth was achieved in the Building Services Residential market segment thanks to focused and proactive market cultivation. Only the Building Services Commercial market segment saw a downturn in net sales. A lack of financing options led to increased project delays and postponements. In addition, construction activity in Russia saw a shift towards a number of major water management and industrial projects.

In North America, net sales increased by a substantial 19.8 percent. While the USA enjoyed strong growth, net sales declined slightly in Canada. However, this was due solely to the depreciation of the Canadian dollar against the euro. Adjusted for these effects, Canada also saw net sales growth of 1.6 percent. With the acquisition of Weil & Scot in the previous financial year, the Wilo Group further enhanced its application expertise in the year under review and reinforced its US activities in the Building Services Commercial, Industry and OEM market segments. The acquired manufacturing capacity enables the company to meet the needs of customers on the US market in a prompt and targeted manner and to offer a wider range of high-quality products made in the USA. The realignment of the sales organisation had a positive effect. All three sales units now provide their customers with a comprehensive product range from the three brands and a corresponding network and service offering. As a result, dealer and customer relationships were strengthened and the first synergies identified in connection with the integration of Weil & Scot were realised. The extremely positive economic environment in the USA meant that OEM business was particularly lively in 2018, with the acquisition of some large-scale orders and new customers. In addition, major orders for fitting pumps in two sports stadiums were realised.

In Latin America, net sales declined by 3.5 percent. The significant depreciation of the Argentinian peso had a particularly negative impact on net sales development. Adjusted for exchange rate effects, net sales rose by more than 40 percent. However, this strong growth was primarily due to price rises on the back of high inflation in Argentina. In Mexico and Brazil, double-digit growth rates were generated in local currency in a moderately positive economic environment.

In the Emerging Markets, the Wilo Group achieved strong growth of 7.2 percent adjusted for exchange rate effects. Net sales increased to EUR 508 million.

Emerging Markets

In the Emerging Markets, the Wilo Group generated substantial net sales growth of 7.2 percent after adjustment for exchange rate effects. Development in the individual regions was adversely affected by currency depreciation, in some cases significantly. Net sales increased by 2.0 percent in Group currency.

On the Chinese market, net sales grew by 3.0 percent. Adjusted for exchange rate effects, net sales growth amounted to 4.8 percent. The biggest growth rate was achieved in the Water Management market segment, where net sales rose by more than 20 percent. Focused key account management and public infrastructure projects supported the business expansion. Double-digit growth rates were also achieved in the Building Services Residential and Building Services Commercial market segments. Among other things, this was due to the continued expansion of the dealer network. By contrast, net sales in the OEM market segment declined significantly. In the previous year, the Chinese government's campaign to promote more environmentally friendly boilers (coal-to-electricity/coal-to-gas) resulted in significant growth. As expected, this boom slowed in the year under review. Excluding the OEM market segment, net sales growth in China was in excess of 15 percent.

Korea also saw an increase in net sales of 4.6 percent. In local currency, net sales rose by as much as 5.9 percent. Despite the weak performance of the construction industry, the Building Services Residential and Building Services Commercial market segments saw substantial growth. A stronger sales strategy focus on the mid-range product segment played a considerable role in this positive development. The Water Management and Industry market segments also enjoyed robust growth thanks to strong project business, among other things.

Net sales on the Indian market increased by 3.6 percent. Negative exchange rate effects curbed net sales development considerably. In local currency, net sales growth amounted to 12.8 percent. The sales organisation was expanded further with the aim of achieving greater diversification between the market segments, while the dealer network was extended. This allowed significant growth to be achieved in almost all market segments. The recovery in the industrial sector continued, with a return to substantial growth following a pronounced phase of weakness.

In Southeast Asia and Oceania, net sales in Group currency declined slightly by 2.0 percent. However, this was due solely to the depreciation of various currencies. Adjusted for these exchange rate effects, net sales increased by 2.7 percent. Among other things, this was due to the strengthened sales infrastructure in Indonesia, Vietnam, the Philippines and Australia. The market presence was also expanded across various industrial sectors.

In Turkey, net sales in Group revenue dropped by over 20 percent. The country is in a severe economic crisis, with inflation climbing to over 40 percent in the autumn. The Turkish lira depreciated by around 40 percent against the euro. While the OEM and Water Management market segments saw further growth even in Group currency, net sales declined sharply in the Building Services Residential and Building Services Commercial market segments in particular due to the impact of the crisis. The strained political and economic situation meant that many projects were postponed or cancelled. The situation was exacerbated in the second half of the year in particular. Corresponding cost reduction measures were initiated at the Turkish subsidiary. Adjusted for exchange rate effects, net sales increased by 4.4 percent.

Net sales rose by 14.5 percent in the Middle East region. Project business recovered well in the United Arab Emirates and Saudi Arabia in particular. This more than offset the downturn in net sales in the OEM market segment, which was primarily due to the suspension of business in Iran. Following weaker performance in the previous year, the North Africa region enjoyed a substantial recovery, with net sales rising by 10.4 percent. Central and Southern Africa saw particularly high growth of 18.2 percent. Among other things, this was due to a major water supply project in Nigeria.

EBIT development in the individual regions was as follows in the 2018 and 2017 financial years:

EBIT DEVELOPMENT BY REGION

EUR million	**2018**	2017	Change
Mature Markets	71.2	80.5	–9.3
Emerging Markets	20.7	25.8	–5.1
Total	**91.9**	**106.3**	**–14.4**

Earnings before interest and taxes (EBIT) in the Mature Markets declined by EUR 9.3 million year-on-year to EUR 71.2 million. This was due in part to the lower gross margin as a result of changes in the product mix, among other things. Lower-margin OEM products in particular again enjoyed above-average net sales growth in the Mature Markets. The increase in production costs also considerably outstripped the growth in net sales due to rising commodity prices and the limited availability of parts and components. EBIT was also impacted by non-recurring expenses in connection with reorganisation and sales efficiency measures.

In the Emerging Markets, EBIT declined by EUR 5.1 million to EUR 20.7 million. The gross margin also declined in this region. Although there were positive shifts in the product mix, production costs were also significantly impacted by the increase in commodity prices and the shortage of parts and components. Many markets also saw increased price pressure. Selling and administrative expenses increased at a slightly faster rate than net sales.

Results of operations

Adjusted for exchange rate effects from the translation of the various local currencies into the reporting currency, the euro, net sales were 6.2 percent higher than in the previous year. The Wilo Group's net sales development in the 2018 financial year was significantly impacted by the depreciation of various foreign currencies. Taking exchange rate effects into account, consolidated net sales increased by 2.7 percent or EUR 38.7 million to EUR 1,463.5 million.

Earnings before interest and taxes (EBIT) fell by EUR 14.4 million to EUR 91.9 million. Accordingly, the EBIT margin (ratio of EBIT to net sales) declined from 7.5 percent in the previous year to 6.3 percent in the 2018 financial year. This was mainly due to non-recurring expenses in connection with the reorganisation measures. Adjusted for these expenses, the EBIT margin amounted to 7.7 percent.

The development of earnings is presented below.

RESULTS OF OPERATIONS EUR million	**2018**	2017	Change %
Net sales	1,463.5	1,424.8	2.7
Cost of sales	-941.7	-901.2	4.5
Gross profit	521.8	523.6	-0.3
Selling and administrative expenses	-373.3	-364.1	2.5
Research and non-capitalised development costs	-50.7	-47.8	6.1
Other operating income	-5.9	-5.4	-9.3
Earnings before interest and taxes (EBIT)	**91.9**	**106.3**	**-13.5**
Net finance costs and net income from investments carried at equity	-8.5	-9.2	7.6
Income taxes	-19.2	-11.2	71.4
Consolidated net income	64.2	85.9	-25.3
EBIT in % of net sales (EBIT margin)	**6.3%**	**7.5%**	
Earnings per ordinary share (EUR)	**6.55**	**8.76**	

The gross margin fell by 1.1 percentage points year-on-year to 35.7 percent. This was due in particular to the increase in production costs on the back of higher commodity and component prices. The savings generated through cost reduction measures partially offset the negative consequences of the increased commodity and component prices. More stringent environmental protection requirements in China and the resulting immediate closure of mines and steelworks also meant restrictions on the availability of cast parts during the year. Meanwhile, the global market saw a significant shortage of electronic components and certain plastics. This required adjustments to production planning at short notice and led to reduced productivity.

Selling and administrative expenses climbed by 2.5 percent year-on-year to EUR 373.3 million. This was mainly due to the future-proofing and growth- and savings-oriented expenses in connection with various reorganisation projects and initiatives aimed at improving sales efficiency.

As a customer-focused premium provider, the Wilo Group counts on pioneering and innovative product and technology developments. Research and development therefore play a central role at Wilo. Total spending on research and development, i.e. all research and development costs including capitalised development costs, amounted to EUR 66.3 million in the year under review (previous year: EUR 63.6 million). At 4.5 percent of net sales (previous year: 4.5 percent), it remains very high. Research costs recognised in profit or loss and non-capitalised development costs amounted to EUR 50.7 million (previous year: EUR 47.8 million). This equates to an increase of 6.1 percent.

Other operating income fell slightly by EUR 0.5 million year-on-year to minus EUR 5.9 million. Net foreign-currency income from operating activities improved by EUR 2.1 million to minus EUR 2.9 million. Net foreign-currency income includes realised gains and losses from exchange rate changes between the inception and settlement of intragroup and external foreign-currency receivables and liabilities, and as yet unrealised gains resulting from the measurement of intragroup and external foreign-currency receivables and liabilities at the exchange rate as at the end of the reporting period. This was offset by expenses in connection with reorganisation and sales efficiency improvement measures.

The net finance costs of the Wilo Group (including net income from investments carried at equity) changed by EUR 0.7 million, from minus EUR 9.2 million in the previous year to minus EUR 8.5 million in the year under review. An improvement of

EBIT
in EUR million

CONSOLIDATED NET INCOME
in EUR million

EUR 3.5 million in net income from investments carried at equity was offset by a reduction in the net result from the utilisation and remeasurement of derivative financial instruments of EUR 3.1 million. The price of copper fell below the average hedging rate during the year, leading to negative market values for the copper derivatives entered into by the Wilo Group with a corresponding impact on net finance costs. Net interest costs were constant at minus EUR 3.3 million.

Income taxes amounted to EUR 19.2 million (previous year: EUR 11.2 million). They comprised income from deferred taxes in the amount of EUR 7.0 million (previous year: EUR 14.9 million) and stable current tax expense of EUR 26.1 million (previous year: EUR 26.1 million). The income from deferred taxes was primarily based on the recognition of deferred tax assets on tax loss carryforwards. The previous year saw an unusually high level of income from deferred taxes as a result of the recognition of deferred taxes on loss carryforwards in connection with the acquisition of Weil & Scot.

Accordingly, consolidated net income declined by EUR 21.7 million to EUR 64.2 million after taxes. As a result, earnings per ordinary share amounted to EUR 6.55 after EUR 8.76 in the previous year. The return on sales, which describes the Wilo Group's ratio of consolidated net income to net sales, decreased from 6.0 percent in the previous year to 4.4 percent in the year under review.

Cash flows

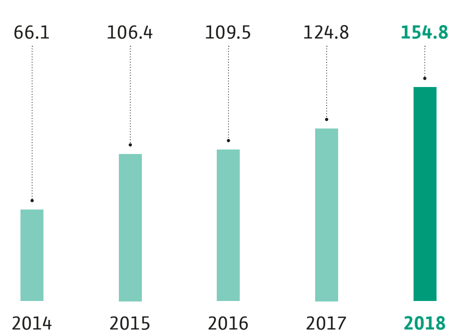
Capital expenditure

Capital expenditure on intangible assets and property, plant and equipment (not including corporate acquisitions) increased by EUR 30.0 million year-on-year to EUR 154.8 million, thereby reaching a new historic high. In accordance with the strategic objective of long-term profitable growth, the priority in the year under review remained to enhance capacity and structures for production and sales and to implement new technologies. Once again, this included a particular focus on the targeted expansion and ongoing modernisation of production capacity, the establishment of structures in the wake of the digital transformation of the Wilo Group, new production technologies and new and expanded sales and production locations.

The record capital expenditure of around EUR 155 million primarily focused on the strategic location development project in Dortmund.

In the year under review, the majority of capital expenditure for the modernisation and adjustment of production capacity again went on the European locations in Germany and France. Capital expenditure on property, plant and equipment and intangible assets including capitalised development costs at these locations totalled EUR 137.3 million. This corresponds to almost 90 percent of the Wilo Group's total capital expenditure in the year under review and reflects the importance of the Group's Western European locations in terms of its strategic focus. With these future-oriented investments, the Group is seeking to actively strengthen these locations even further. In the previous years, priority was given to the expansion of production and sales infrastructures in the Emerging Markets and in Russia.

CAPITAL EXPENDITURE
in EUR million



Capital expenditure in the year under review primarily related to the strategic location development project at the Wilo Group's headquarters in Dortmund. Among other things, this involves the construction of a state-of-the-art Smart Factory where significant elements of the Industry 4.0 vision are realised. In the year under review, work began on the technical building services, the interior fittings of the factory, the construction and expansion of the administrative building and preparations for thoroughfares and parking spaces. Additional land was also acquired.

The Wilo Group also invested in appropriate production capacity to account for current and future changes in the product portfolio. Among other things, OEM production capacities at the Aubigny site were expanded and the construction of new, modern production facilities for the Wilo-Stratos MAXO was completed. In addition, a large portion of the investments again went on the expansion of IT infrastructure as part of the digital transformation. Development costs including borrowing costs were capitalised in the amount of EUR 16.9 million (previous year: EUR 17.7 million).

By upgrading the production and sales locations in the rapidly expanding markets of Korea, China, India, Turkey and Russia, the Wilo Group has in recent years purposefully laid the foundations for participating in these markets' great growth potential. In the year under review, notable investments were again made in the expansion of the sales locations in Romania, Kazakhstan and Dubai. The opening ceremony for the new sales office in Almaty, Kazakhstan, took place in August. Construction work on the new office and production facilities in Dubai was completed in the year under review. Further investments were also made in the sales infrastructures in Southeast Asia, Africa and Latin America, thereby broadening the foundations for accelerated growth outside of the established markets in Europe.

Capital expenditure on intangible assets and property, plant and equipment (not including corporate acquisitions) broke down as follows in the 2018 and 2017 financial years:

CAPITAL EXPENDITURE ON INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT

EUR million	2018	2017	Change
Capital expenditure on intangible assets	**24.8**	**30.0**	**–5.2**
Land and buildings	21.5	22.9	–1.4
Technical equipment and machinery	8.8	8.2	0.6
Operating and office equipment	21.4	21.4	0.0
Advance payments made and assets under construction	78.3	42.3	36.0
Capital expenditure on property, plant and equipment	**130.0**	**94.8**	**35.2**
Total	**154.8**	**124.8**	**30.0**

Cash flow and liquidity

In the 2018 financial year, net cash from operating activities declined by EUR 58.7 million to EUR 81.7 million. This was due in part to the lower level of earnings before interest and taxes (EBIT), which fell by EUR 14.4 million to EUR 91.9 million. The EUR 50.9 million change in working capital in the year under review also served to reduce liquidity. The corresponding effect in the previous year amounted to just EUR 7.7 million. The significant increase in working capital was primarily attributable to the sharp rise in inventories of EUR 33.6 million after adjustment for exchange rate effects (previous year: EUR 26.3 million). The considerable expansion in inventories was in response to the sustained global shortage of certain parts and components. This bottleneck required adjustments to inventory and production planning in 2018. The resulting delays and rescheduling in the production process meant that inventories increased to a larger degree than anticipated. To ensure smooth production and security of supply, the contingency reserve of the affected parts and components was also expanded. In addition, inventories were increased in a targeted manner in preparation for the move to the new Smart Factory. Furthermore, trade receivables rose significantly on the back of the net sales growth, while trade payables in particular increased only slightly compared with the previous year. The substantial rise in trade receivables of EUR 22.4 million after adjustment for exchange rate effects (previous year: EUR 10.7 million) is largely due to the considerable business expansion as at the end of the year. In 2018, trade payables only increased by EUR 5.1 million after adjustment for exchange rate effects. The unusually high increase of EUR 29.3 million in the previous year was attributable to the start of the main construction work on the location development project in Dortmund. By contrast, the EUR 11.1 million reduction in income tax payments to EUR 22.7 million had a positive effect.

CASH FLOW FROM OPERATING ACTIVITIES
in EUR million

Net cash used in investing activities in the year under review fell by a considerable EUR 44.7 million to EUR 148.6 million. Although purchases of property, plant and equipment increased substantially by EUR 35.2 million, the prior-period figure included substantial cash outflows of EUR 70.9 million in connection with the acquisition of Weil & Scot.

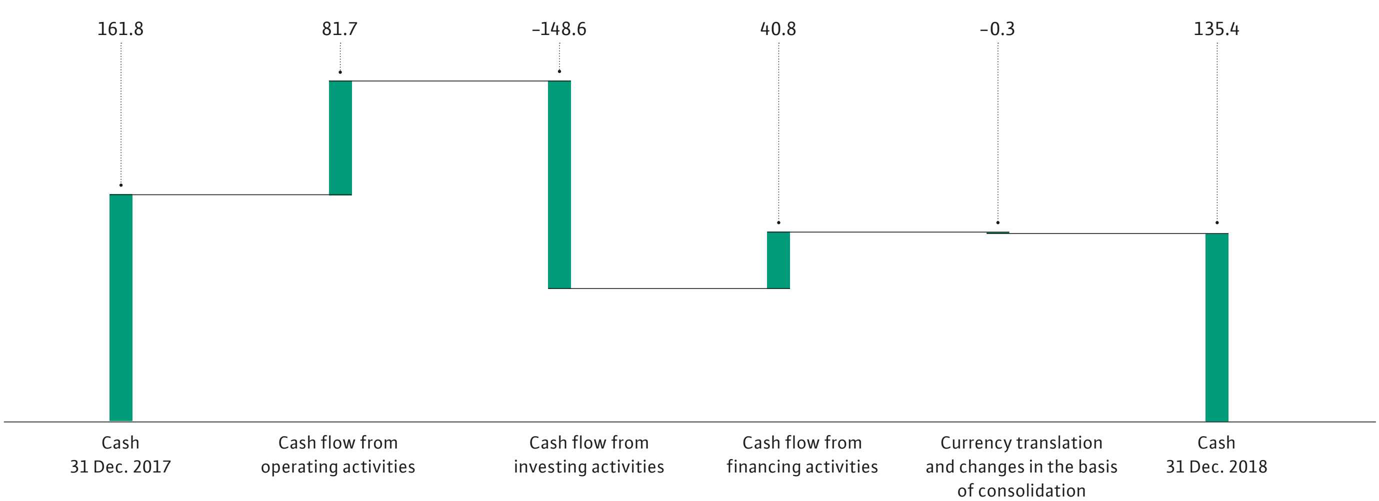
The higher level of capital expenditure on property, plant and equipment in 2018 was primarily due to the ongoing construction measures for the Smart Factory and the new administrative building in Dortmund. Net cash from financing activities remained essentially unchanged as against the previous year. EUR 60.0 million of the syndicated loan and EUR 8.0 million of the KfW development loan was drawn down in the 2018 financial year. The prior-year figure included the senior note of USD 30.0 million issued to finance the Weil & Scot acquisition and an additional promissory note loan in the amount of EUR 50.0 million. The EUR 19.3 million dividend payment to the shareholders of WILO SE served to reduce liquidity (previous year: EUR 17.3 million).

The individual cash flows for the 2018 and 2017 financial years were as follows:

FINANCIAL POSITION

EUR million	**2018**	2017	Change
Cash flow from operating activities	81.7	140.4	-58.7
Cash flow from investing activities	-148.6	-193.3	44.7
Cash flow from financing activities	40.8	41.6	-0.8
Change in cash	**-26.1**	**-11.3**	**-14.8**
Cash at the end of the financial year	135.4	161.8	-26.4
Free cash flow	-73.1	-58.8	-14.3

CHANGE IN CASH
in EUR million



As a result of the lower level of net cash from operating activities and the substantial capital expenditure in connection with the location development project in Dortmund in particular, the Wilo Group generated a negative free cash flow of EUR 73.1 million in the 2018 financial year, calculated as the difference between the cash flows from operating and investing activities including interest income and expenses and dividends received.

Including the negative net effects of currency translation and changes in the basis of consolidation in the amount of EUR 0.3 million, cash decreased by EUR 26.4 million to EUR 135.4 million as at 31 December 2018.

Financial management

The goal of financial management is to maintain the financial independence of the company, ensure liquidity at all times and support the operating activities of the Wilo Group. In addition to its operating cash flow, the Wilo Group has sufficient financing facilities from international banks for this purpose, consisting of short and medium-term cash credit facilities of more than EUR 390 million. This includes a syndicated loan concluded in 2013. The corresponding credit facility was increased from EUR 200.0 million to EUR 300.0 million in the year under review and its term was extended by one year to 2023. There is an option to extend the term by an additional year. Overall, EUR 67.3 million (previous year: EUR 7.7 million) of the cash credit facilities were utilised as at 31 December 2018.

The Wilo Group's financial liabilities increased by EUR 66.4 million to EUR 268.5 million as at 31 December 2018.

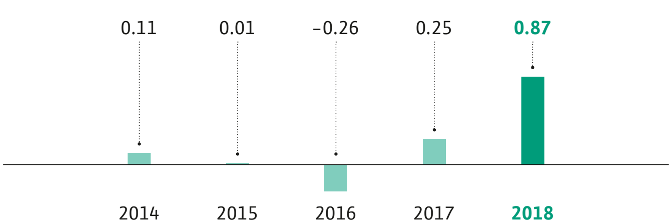
Financial liabilities primarily comprise senior notes in the amount of EUR 75.0 million, EUR 37.0 million and EUR 30.0 million. These senior notes, each of which has a ten-year term, were issued by WILO SE in US private placements in 2011, 2013 and 2017. The Group also has a promissory note loan with a volume of EUR 25.0 million, which was taken out in 2011 and will be repaid in instalments until 2020. This promissory note loan had a carrying amount of EUR 5.0 million as at 31 December 2018 (previous year: EUR 7.5 million). An additional promissory note loan with a volume of EUR 50.0 million and a term of ten years was taken out in 2017. This loan will be repaid in instalments from 2022. In addition, a KfW development loan of EUR 19.5 million with a term of ten years was concluded in 2017 to finance the administrative building as part of the construction project at the Dortmund location. The loan amount will be drawn down from 2018 according to the progress of construction. It will be repaid in instalments after two redemption-free years. The KfW development loan had a carrying amount of EUR 8.0 million as at 31 December 2018.

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 the tranches of the senior notes and promissory note loans, other loan liabilities and overdrafts on maturity from its budgeted cash flows from operations, as well as through refinancing measures as required. There is no indication that the increasing volatility and deterioration of the global economic and financial market environment will have any material negative impact on the Wilo Group's financing activities. As at 31 December 2018, cash amounted to EUR 135.4 million (previous year: EUR 161.8 million). The Wilo

Group's leverage, which describes the ratio of the net financial position (financial liabilities less cash) to consolidated EBITDA, increased from 0.25 at the end of the previous year to 0.87 as at 31 December 2018. → *More detailed information on the financing structure can be found in note (9.12) to the consolidated financial statements on* ***page 138 et seq.***

LEVERAGE



Financial position

In the year under review, the Wilo Group's total assets increased by 8.9 percent or EUR 121.4 million year-on-year to EUR 1,490.8 million. Non-current assets increased by 14.7 percent or EUR 98.4 million to EUR 767.2 million. This was particularly attributable to capital expenditure on intangible assets and property, plant and equipment in the amount of EUR 154.8 million. Investments in property, plant and equipment of EUR 130.0 million mainly related to new manufacturing technologies and location development in Dortmund. A further EUR 24.8 million was invested in intangible assets, of which EUR 15.5 million relates to capitalised development costs plus capitalised borrowing costs of EUR 1.4 million. Amortisation of intangible assets and depreciation of property, plant and equipment amounted to EUR 61.6 million in the year under review. Negative exchange rate effects also resulted from the remeasurement of intangible assets and property, plant and equipment originally held in foreign currency in the amount of EUR 1.9 million. Intangible assets and property, plant and equipment increased by EUR 85.3 million in net terms. Deferred tax assets increased by EUR 14.9 million to EUR 73.3 million. This was mainly attributable to the capitalisation of deferred taxes on tax loss carryforwards.

The carrying amount of current assets rose by 3.3 percent or EUR 23.0 million year-on-year to EUR 723.6 million as at 31 December 2018. Inventories increased by 12.7 percent to EUR 264.5 million, largely as a result of the business expansion as well as non-recurring effects. The sustained limited global availability of certain parts and components required adjustments to inventory and production planning. The resulting delays and rescheduling in the production process meant that inventories increased to a larger degree than anticipated. In addition, a contingency reserve was established in response to the aforementioned shortage of materials and in preparation for the move to the Smart Factory. Current trade receivables increased by 5.5 percent to EUR 283.9 million. Working capital rose by 12.1 percent overall to EUR 378.3 million. Cash amounted to EUR 135.4 million as at 31 December 2018 and was thus EUR 26.4 million lower than at the end of the previous year.

EQUITY RATIO
in %

The Wilo Group's equity increased by 4.4 percent or EUR 31.4 million year-on-year to EUR 738.4 million as at 31 December 2018. This was mainly due to the consolidated net income of EUR 64.2 million for the 2018 financial year. Equity was decreased in particular by negative effects from the translation of subsidiaries' separate financial statements prepared in local currencies of EUR 12.1 million and the scheduled dividend distribution to shareholders of WILO SE of EUR 19.3 million for the previous year. The equity ratio declined slightly from 51.6 percent to 49.5 percent, primarily as a result of the additional financial liabilities taken on in the financial year.

As at 31 December 2018, non-current liabilities primarily consisted of financial liabilities in the amount of EUR 198.1 million and pension and similar obligations of EUR 80.0 million. Both items increased only slightly, by EUR 6.9 million and EUR 0.4 million respectively. Deferred tax liabilities rose by EUR 7.4 million to EUR 49.7 million. This was primarily due to capitalised development costs, for which corresponding deferred tax liabilities were recognised.

The carrying amount of current liabilities rose by EUR 73.6 million year-on-year to EUR 410.1 million as at 31 December 2018. On the one hand, current financial liabilities increased by EUR 59.5 million to EUR 70.4 million, largely as a result of the utilisation of the syndicated credit facility to finance the location project in Dortmund, among other things. On the other hand, other current liabilities rose by EUR 12.6 million, primarily due to the reorganisation measures in the year under review.

The net assets of the Wilo Group were as follows as at 31 December 2018 and 2017:

NET ASSETS

EUR million	**2018**	**%**	2017	%
Non-current assets	767.2	51.5	668.8	48.8
Inventories	264.5	17.7	234.6	17.1
Current trade receivables	283.9	19.0	269.2	19.7
Cash	135.4	9.1	161.8	11.8
Other current assets	39.8	2.7	35.0	2.6
Total assets	**1,490.8**	**100.0**	**1,369.4**	**100.0**
Equity	738.4	49.5	707.0	51.6
Non-current liabilities	342.3	22.9	325.9	23.9
Current trade payables	172.3	11.6	169.0	12.3
Other current liabilities	237.8	16.0	167.5	12.2
Total equity and liabilities	**1,490.8**	**100.0**	**1,369.4**	**100.0**

Non-financial success factors

In addition to financial performance indicators (for further information please see the section "Basic information on the Wilo Group – Group organisation and management"), other non-financial success factors are relevant to the strategic and operational management of the Wilo Group. These include employees, efficient production processes, integrated procurement management, quality, resource efficiency and corporate compliance.

Employees

The Wilo Group stands for technologically advanced products and system solutions that allow the efficient use of water as a resource. The company's highly dedicated employees around the world are the basis and the driving force for its sustainable economic success. Their innovative strength and technological expertise serve to secure the Wilo Group's future prospects. Engineers, technicians and commercial employees contribute their various strengths and competencies every single day with passion and pioneering spirit.

Priorities in human resources (HR) are derived from the corporate strategy, implemented and adapted to new challenges as necessary. The HR strategy is influenced both by social and human resources developments and by long-term trends, which are accounted for accordingly in the HR work. As the Wilo Group intends to remain competitive on the labour market in the long term as an attractive employer, the following HR activities are assigned particular significance.

eACADEMY Enabling employees' long-term development and the realisation of their potential is a central task of modern HR development and an essential element of the company's digital transformation. In order to remain a successful employer on the international employment market, the Wilo Group invests continuously in knowledge building and transfer among its employees.

To this end, the existing eLearning platform was expanded significantly in the year under review in terms of both technical and soft skills content. Employees can now draw upon a wide range of different, modern and tailored learning options, including webinars, eLearning and eLectures. This allows every type of learning to be addressed individually and developed in a targeted manner.

To ensure learning in line with employees' individual requirements, function-specific learning units are also provided. Employees can also use the eAcademy to track their personal training history and the progress of their knowledge building. Access to the course content is unrestricted in terms of time and location. The digital learning environment provides employees with individual and flexible training around the world. In this way, all Wilo Group employees can expand their individual potential and advance their professional development in a targeted manner.

MANAGEMENT IN THE DIGITAL AGE Digitalisation and the associated technological progress is also placing bigger demands on senior managers. In order to optimally prepare Wilo's managers for their specific duties in the digital age, a corresponding management development programme was developed for top international managers and completed in the year under review. This programme is currently being adapted and rolled out at all Wilo Group locations.

As well as dealing with topics such as eLearning and guiding employees through the digital transformation, the programme primarily serves to communicate the Group-wide management guidelines. These were derived from the megatrends relevant to the Wilo Group, the corporate strategy, the digitalisation strategy enshrined therein and the corporate values. People are and always will be the focus at Wilo, even in the age of digital transformation.

DIVERSITY MANAGEMENT Globalisation and the growing diversity of the workforce are presenting the Wilo Group with wide-ranging potential in terms of cooperation and resource utilisation. Diversity opens up opportunities and leads to new tasks that are addressed in many respects as part of HR management. In this way, the Wilo Group is promoting intercultural cooperation in a targeted manner as well as creating modern working conditions that encourage individual differences and have a direct, positive effect on business success. Thanks to this alignment of HR policy and HR processes as well as numerous activities and measures derived on this basis, employees are motivated to successfully contribute their potential to the organisation.

Following the signature of the “Diversity Charter” in 2016, a Diversity Day was held at many Wilo locations for the second time in the year under review. In 2018, this event was themed around internationalism. This included the production of a film, “United in Diversity”, in which Wilo Group employees describe their common bond in spite of the differences between them.

2018 also saw the development of a dashboard that visualises various key indicators relating to the development of diversity. With these measures, the Wilo Group is reaffirming its commitment to recognising, appreciating and encouraging diversity throughout the company.

TALENT MANAGEMENT The key tasks of HR management include the optimum deployment of employees and the use and enhancement of knowledge and skills, both of which make a material contribution to the Wilo Group’s competitiveness. By way of the established international management development pools, the Wilo Group supports and promotes the emergence of young managers from its own ranks. These programmes also substantially support the retention of talented young managers within the company. In the year under review, the programme concept was revised at international, regional and local level in order to reflect the Wilo Group’s new functional organisational structure.

SUCCESSION PLANNING Systematic succession planning is carried out regularly so that key functions can be filled internally in good time and in line with requirements. This ensures a stable and steady course of business at all times. Targeted HR planning and development at team and departmental level requires Wilo to regularly determine the performance and development potential of the individual employees and make potential succession arrangements at an early stage. Individual staff development measures and career paths thus ensure that employees are deployed in line with the respective requirements at all times.

REMUNERATION Appropriate employee remuneration is an important element of HR policy at the Wilo Group. The remuneration of employees under collective agreements in Germany is based on the collective agreement regulations applicable to the company. In addition to their basic salary, employees not covered by collective agreements receive a bonus linked to both company goals and the achievement of personal targets. The basis of remuneration is formed by clearly documented job descriptions that are formulated uniformly throughout the Group. The remuneration of employees at subsidiaries is also based on these job descriptions, taking into account local practices, country-specific regulations and guidelines. The Wilo Group assists its employees in their pension provision and offers pension benefits in line with the specific circumstances and regulations of individual countries.

The Wilo Group had an average of 7,830 employees worldwide in the 2018 financial year (previous year: 7,726). The number of employees as at 31 December 2018 was 7,814 (previous year: 7,802).

As an average for the year as a whole, the number of employees in the regions developed as follows:

NUMBER OF EMPLOYEES BY REGION

	2018	2017	Change %
Mature Markets	5,421	5,370	0.9
Emerging Markets	2,409	2,356	2.2
Total	**7,830**	**7,726**	**1.3**

Production

The Wilo Group's global production strategy (GPS) centres on design principles to be followed by all production locations and subsidiaries. The aim is to ensure that customers worldwide are supplied with the right products and services quickly and efficiently at any time or place. A detailed knowledge of the market and Wilo's transparent production network are important prerequisites for achieving this. Strategic decisions such as volume allocations and investments are coordinated systematically. This allows the Wilo Group to harmonise production processes worldwide. The localisation strategy derived on this basis is regularly reviewed and adapted to the requirements of the respective market.

The Wilo Group aims to permanently maintain the operating efficiency of its global production locations at the highest possible level while adopting a pioneering role in terms of production technology. The achievement of these goals is the main task of global production technology management. It develops the Group's production technology focus based on its corporate strategy, competitive situation and technological core competencies. The optimum production technology solutions are identified for each production location and their planned deployment is ensured. The Group is also working actively to realise the Industry 4.0 vision. A global Industry 4.0 strategy has been derived from the company's digitalisation strategy. It aims to gradually make operational processes more autonomous, and hence more efficient. The corresponding projects are extremely varied, ranging from pilots of driverless logistics and production line transport systems to assembly assistance systems and machine-to-machine interaction. Innovative additive production processes (3D printing) were also investigated for their economic feasibility in conjunction with cooperation partners. This allows potential to be identified at an early stage and made usable for the Wilo Group.

The principles and methods of streamlined production systems are firmly established in the company via the Wilo Production System (WPS). The WPS sets out binding requirements for the design, implementation, control and improvement of processes at all production locations. They are adapted to reflect the company-specific and local conditions in each location and region.

Based on the corporate strategy and the resulting annual divisional and plant targets, the WPS prescribes the framework and direction for continuous improvement activities and the targeted use of the respective methods. To this end, each operating organisational and production unit defines an annual policy deployment process with the support of the Group-wide Operational Excellence function. This process is broken down incrementally to the level of the individual departments in order to safeguard and promote a culture of continuous improvement by involving all employees. The focus is on value generation from a customer perspective. All the value streams in the Wilo production network are therefore geared towards customer requirements. The individual stages of the value chain are designed efficiently and flexibly. The WPS methods and standards provide the framework for meeting customer needs in terms of quality, costs and delivery times. Key elements of the WPS include the standardisation of processes, avoiding waste, value stream design and the integration of relevant lean principles into product and process development. Cross-departmental steering meetings ensure that all WPS activities are checked against the overarching objectives and continuously monitored, coordinated and communicated. The WPS philosophies are already firmly established and provide orientation for the concept design and planning of new locations, thereby enabling waste-free processes.

The application of the WPS system is subject to an annual evaluation process at each production site. Maturity levels are determined for the plant strategy, system and process improvement and qualification of employees. On the basis of these maturity levels, an improvement plan is compiled for each production site that identifies potential and sets out the direction for the next twelve months.

In response to the requirements for growth, infrastructure and modernisation, the Wilo Group is investing in a Smart Factory at its headquarters in Dortmund, among other things. Production is being fundamentally redesigned in this entirely new production complex. This is laying a milestone in terms of digital transformation and Industry 4.0 that also underlines Dortmund's importance as a high-tech location.

The heart of this strategic location development project is a new, future-oriented production and logistics concept for versatile, low-waste production whose characteristics include an optimal, direct material flow and a corresponding building layout. Further steps for the implementation of the future production location have also been developed. The process of transformation into a factory of the future is taking place via overarching projects along the entire supply chain. The aim is to establish a transparent and versatile production location with efficient and stable processes that allow greater value-stream orientation and alignment to customer demand than previously. The main aims are to consistently plan and control customer orders, meaningfully link production processes, improve inbound and intra-logistics processes, systematically integrate suppliers and implement optimum and transparent information flow within the supply chain. In addition, the focus is on securing stable production processes and the quality of deliveries and developing concepts with regard to the future requirements of the Smart Factory in terms of working hours and remuneration systems.

All sub-projects are accompanied by dedicated project management that specifically manages the digital transformation of all production and logistics processes. Furthermore, comprehensive change management was established that ensures the involvement of all employees in the transformation process. Among other things, a smart training room is being established in which processes are replicated as realistically as possible and new digital applications can be tested out. The aim is to prepare employees for their new tasks and their future working environment at an early stage in order to eliminate potential uncertainty before it happens.

In line with the digitalisation strategy, new technologies such as the interconnection of machines and products are continuously analysed and tested. Interconnection allows real-time verification of process data in production. As well as an effective IT infrastructure, the implementation of the digitalisation strategy primarily requires stable processes. These requirements will be ensured with the implementation of the new, future-oriented production and logistics concept for the Smart Factory in Dortmund.

Procurement

As a manufacturing technology company, Wilo is dependent on the development of material costs to a large extent. In addition, the performance of partners along the entire supply chain already permanently influences the success and quality of Wilo's products.

The Wilo Group's efficient, integrated procurement and supplier management is a significant factor when it comes to successfully achieving the defined business targets, especially with regard to the acceleration of profitable growth. Accordingly, all procurement activities are geared towards achieving a permanent balance between quality, innovation, flexible and secure supply structures, and competitive costs and prices.

To achieve this objective, the Group Procurement & Supply Chain Management function has established a clearly structured global product group management system with corresponding product group-specific strategies as well as an international partner and supplier network. The activities resulting from these strategies are implemented consistently so that the increased requirements for cost targets, quality guidelines, delivery performance and corresponding sustainability aspects are met.

Group-wide commodity and material management is continuously enhanced and optimised in order to generate additional synergy potential. Efficient, standardised procurement processes are important when it comes to achieving high reliability and substantial economic efficiency. More stringent environmental protection requirements in China and the resulting immediate closure of mines and steelworks led to restrictions on the availability of commodities and components during 2018. Meanwhile, the global market saw a significant shortage of electronic components and a sharp rise in commodity prices. The long-standing, fair nature of the Wilo Group's partnerships with its suppliers around the world played an important role in ensuring that the impact of the general shortage of materials and increased commodity prices were limited, at least to an extent.

In the Wilo Group's two procurement departments, production materials and non-production materials & services, the purchasing and procurement processes as well as the necessary tools and methods are continuously developed. Taking into account the product group-specific strategies, these internationally implemented processes, which are largely highly standardised with regard to structured tenders, negotiations and contracting activities, contributed to the optimisation of cooperation with strategic suppliers in the 2018 financial year. Additional high-performing partners were also nominated.

Above and beyond this, the Wilo Group has efficient supplier relationship management (SRM), which is constantly advancing the standardisation and automation of the corresponding business processes. Process times in the company are significantly reduced using the WILO Purchasing Collaboration Portal (WPC), a powerful electronic procurement system. The Wilo Group generates significant efficiency improvements in procurement thanks to the electronic data exchange between Wilo and its suppliers via EDI (electronic data exchange) and web-based EDI connections and the use of system-based request and query processes.

As part of the digital transformation, the project to introduce a new supplier management system with the aim of sustainably optimising process costs was continued in 2018. An important element of this system is supplier portfolio management that covers all phases of supplier relations. Among other things, this includes the separate online registration of potential suppliers including corresponding information on the components and services offered by the supplier and available certification. The purpose of the Wilo Group's supplier management system is to generate cost savings through the further optimisation of the supplier structure while maintaining maximum quality and reliability of supply. The acceleration of automation in connection with the digital transformation and the increased standardisation of procurement processes are making an important contribution to achieving this aim.

In close cooperation with value management, various procurement processes and material costs for the procurement of both production materials and non-production materials & services are continuously analysed with a view to realising cost savings potential.

In the 2018 financial year, the procurement of non-production materials & services continued to focus on intensified internationalisation and the product group-specific analysis of the supplier market structure. Group-wide, regional and national synergy potential was also identified. The new functional organisational structure enabled a further improvement in intragroup cooperation, resulting in increased cost optimisation potential. In addition, the degree of business process automation was continuously increased and the integration of individual applications was optimised.

The Topic Days concept, which was established in the previous year, continued in 2018. For example, Topic Days for supplier integration and logistics concepts were held at the Dortmund site. Solutions to specific questions and technology requirements were devised together with international suppliers in cross-functional teams. This allowed new technologies, know-how and potential innovations from the Wilo Group's partners to be optimally integrated into the value chain at an early stage. In this way, the Topic Days concept is making a crucial contribution to the digital transformation and the development of innovative products.

Quality

As a premium provider, the Wilo Group demands the highest standards of itself when it comes to ensuring the reliably high quality of its products and services along the entire value chain. Quality assurance is therefore a core task at the company. It begins with the development of products and sourcing of products and extends from production to customer service.

The quality assurance measures centre on customers, their specific requirements and their satisfaction with the services offered by the Wilo Group.

Group Quality ensures systematic quality management throughout the Group, thereby making a significant contribution to the strategic corporate objective of accelerating profitable growth. Quality management is organised by way of the House of Quality.

The organisation of Group Quality was fundamentally changed in the year under review. It is now aligned to the fully functional organisational structure that the Group introduced in the year under review, thereby standardising processes, responsibilities and interfaces worldwide to an even greater extent, among other things. This also serves to ensure the same high standard of quality across all levels and at all locations. As previously, the House of Quality comprises four pillars/processes. Preventive quality, customer quality and supplier quality remain unchanged in their targeting. However, they are now being managed and enhanced internationally as a Group function. The production quality pillar was bundled centrally with the operational quality units at the production plants, which were previously organised locally.

The House of Quality builds on the areas of system quality, HSE (health, safety, environment) and PCI (product compliance intelligence).

The individual pillars/processes of the House of Quality are subject to permanent development with a particular focus on the implementation and harmonisation of global processes and the Group-wide strategy. The aim is to increase the efficiency and speed of the international organisation in order to permanently improve quality.

Among other things, the preventive quality activities are aimed at identifying possible product risks early in the development phase of new products and preventing them by way of suitable measures and the optimum design of production processes. Firstly, this generates positive effects for the entire value chain. Secondly, the Wilo Group lives up to its standard of the best possible fulfilment of ever higher customer requirements. The Wilo Development Guideline and the Development Cockpit enabled a significant increase in transparency in development projects in 2018. This means potential problems can be addressed even more quickly and at even shorter notice. The “milestone reviews” within the development process were also standardised and are now coordinated and performed by preventive quality. Preventive quality activities in 2018 also focused on the qualification maturity level of products and processes.

The role of the production quality pillar is to support the production process methodically in order to ensure reliable production quality through high process stability. Quality-related key indicators are closely coordinated with all locations on a regular basis in the “quality hour”. In this way, standard processes are harmonised throughout the Group and a uniform method for the quality-related monitoring of production processes is ensured. The Wilo Group intends to continue to guarantee stable quality in its production processes in the future. The expansion of the digitally recorded process key indicators and the application of state-of-the-art quality standards are of central importance to the Smart Factory that is being constructed in Dortmund. To support this, auto-quality projects are carried out to safeguard the stability of future production processes in the Smart Factory and the quality of deliveries.

Customer quality activities are aimed at further enhancing customer satisfaction while reducing or avoiding warranty costs. The collection and evaluation of complaint data and regular close contact with subsidiaries in the form of monthly field return calls are key elements. The top quality issues are derived from the insights gained and prioritised appropriately so that fault rectification projects can be conducted in a targeted manner. The aim is to increase customer satisfaction and hence reduce warranty costs. Another five top quality topics were addressed in 2018, bringing the total number of available quality updates to 68. The Wilo Group's subsidiaries thus receive structured information on the causes of identified quality deficiencies and on measures and repairs so that they can permanently rectify deficiencies. Standardised reporting structures for global complaint data ensure the professional tracking of these optimisation measures using isochrone charts. In order to guarantee an efficient and quick process for the customer in the event of guarantee decisions, a troubleshooting guideline was developed and made available to the subsidiaries for the first time in 2017. These activities were continued in the year under review, meaning that a comprehensive troubleshooting guideline is now available across all product lines. Customer quality activities in 2018 reduced warranty costs by 6.7 percent compared with the previous year.

Supplier quality management, the fourth pillar in the House of Quality, controls supplier quality throughout the entire product lifecycle systematically and in close cooperation with procurement and production. This minimises the quality costs that can be caused by deficiencies in purchased parts and ensures reliable supplier quality. In addition to ongoing quality improvement and a continuous reduction in PPM indicators, activities in 2018 focused on the implementation of the new functional organisational structure. Synergies were generated through the streamlining of audit planning, the improved exchange of information, the more dynamic inspection of incoming goods and process standardisation. The transparency of test results such as the supplier quality review was also improved using detailed balanced scorecards. Activities in 2018 also focused on establishing a closer connection and a more intensive exchange with the Group Procurement & Supply Chain Management function in order to ensure that the quality aspects of supplier quality management are integrated into the supplier selection process at an early stage. This serves to minimise subsequent risks or exclude them right from the start.

The integrated management system for QHSEE (Quality, Health, Safety, Environment, Energy) defines standards and methods that ensure compliance with all relevant laws and standards. The key tools for this are digital legal information systems and Group-wide process and document management. One key milestone in 2018 was successful recertification in accordance with ISO 9001:2015 and ISO 14001:2015. All Wilo locations now meet the new requirements.

In 2018, the focus in the area of health, safety and environment (HSE) was on the development and implementation of preventive measures with a view to reaching the zero-error target (Vision Zero). Activities included the implementation of Group-wide standards on significant accident risks and the introduction of tools to improve the safety culture, such as regular communication routines, cross-location accident prevention measures and the increased visualisation of occupational safety at the plants.

In light of the growing variety of products and the wide range of regulatory requirements in the individual sales markets, product-related compliance is an extremely important topic. Product compliance intelligence (PCI) analyses and evaluates the technical provisions around the world that the Wilo Group is legally required to comply with or that are established as industry standards. It ensures that the risks arising from constantly changing, country-specific technical standards can be identified at an early stage. In addition, appropriate measures with regard to product design, production or documentation can thus be initiated proactively. This guarantees country-specific product conformity and thus global market access at all times. Above and beyond this, the long-term objective is to turn perceived disadvantages into advantages, e.g. by harnessing technical barriers as a competitive advantage and a source of innovation.

Resource efficiency

The scarcity of resources, which is becoming more pronounced worldwide, is being driven by the megatrend of globalisation. Very high efficiency in the handling and use of resources is thus becoming an ever more persistent necessity. This challenge is particularly relevant for the Wilo Group. Accordingly, resource efficiency has been a firmly established objective of the company for a number of years, and one which it pursues systematically and effectively. The Wilo Group's numerous product innovations, which have set efficiency-related technology and product standards in the international market, are just one aspect of the sustainable handling of resources.

Product recycling is another important dimension of resource efficiency. The key objective here is ensuring the best possible long-term conservation of resources at the end of a product's life. To this end, old products that have been removed from the market are separated to the greatest possible extent and recycled. There is potential for resource efficiency even in the early phases of the product lifecycle. Building on Ecodesign specifications, Wilo therefore already uses recycling-appropriate construction taking into account the aspects of disassembly and reuse as well as the necessary, recycling-appropriate production processes for every new product developed. To this end, an internal guideline was developed on the basis of VDI Standard 2243 and the Ecodesign Directive of the European Commission. In this way, the conditions for a product that can be effectively and efficiently recycled at the end of its life cycle are put in place at an early stage. As a result, the potential recycling rate for a Wilo pump is almost 100 percent. In addition, Wilo returns magnets with resource-critical rare earth elements to its production process. Together with partners from science and industry, research projects are conducted to investigate options for the even more extensive and efficient recycling of magnets and the optimisation of the take-back process for old products.

State-of-the-art analysis, repair and recycling centres are operated at the Dortmund and Hof locations under the management of the Quality group function. Among other things, these centres develop Group-wide recycling standards under the motto "prevention through use before recycling and disposal". These standards also consider the leveraging of potential in the areas of production and product returns. An IT-based process enables the plants' own customer service teams to use certain spare parts directly from returns processing in a targeted manner. Components that were not subject to wear and tear during operation are thus used by the repair centre efficiently to conserve resources. This allows around 30,000 parts to be kept in circulation every year. Components that cannot be reused are separated into their constituent materials and returned to the recyclable material cycle by a certified recycling partner.

The Recycling function also supports product development by formulating precise requirements for recycling-friendly product design. The existing processes are also analysed on a Group-wide basis in order to establish suitable performance indicators that enable the evaluation and prioritisation of recycling activities. The primary objective is to design and coordinate recycling activities so that they are beneficial both ecologically and economically.

The Wilo Group demands high ecological standards for all new production and administrative buildings. Wilo buildings worldwide are planned, constructed and operated in accordance with building standards that are geared towards sustainability and low environmental impact. Gold LEED certification was achieved for the new buildings completed by Wilo in Korea, China, India, Turkey, Russia, Dubai and Kazakhstan in recent years. LEED (Leadership in Energy and Environmental Design) is an ecological building standard developed by the US Green Building Council that prescribes stringent standards for environmentally friendly, resource-conserving and sustainable construction. The planned, state-of-the-art production and administrative buildings at the Dortmund location are also being designed and implemented with these high resource efficiency standards.

Corporate compliance

The sustainable success of the Wilo Group is not least based on shared concepts of values and ethical principles that guide employees in their daily activities. The Executive Board of the Wilo Group therefore clearly acknowledges the fundamental Wilo values of integrity, fairness, respect, passion and responsibility. They are the starting point for the common system of principles and values across all cultural groups. The “Acting Responsibly” code of conduct is based on this and defines the binding Wilo principles for the actions of all executives and employees of the Wilo Group.

Central Wilo principles include:

- adherence to basic social principles such as respecting human rights, equal treatment and equal opportunities,
- compliance with international and national laws, regulations and standards,
- sustainable corporate development taking into account economy, ecology and social issues,
- a commitment to fair competitive practices,
- compliance with laws and regulations in dealings with our business partners,
- a commitment to fair working conditions and the trusting treatment of employees.

Corporate compliance is firmly established in the organisation of the Wilo Group and safeguarded by the compliance office and the head of the Group Internal Audit & Compliance function. The head of Group Internal Audit & Compliance reports directly to the Chief Financial Officer about all compliance-related matters. Among other things, the compliance office is responsible for the Wilo Business Keeper Monitoring System (BKMS®). With this certified whistle-blower system, employees and third parties can confidentially and anonymously report violations of the code of conduct. In addition to the Executive Board, the Audit Committee receives regular and ad hoc reports on compliance issues.

The roll-out of the Group-wide eLearning initiative to reinforce the compliance culture and knowledge of relevant compliance regulations among all executives and employees continued in the year under review with a focus on competition law. In addition, the Compliance Office arranged international training events with managers in the various sales regions around the world. The compliance officers at the subsidiaries are successively implementing a uniform Group-wide training concept for all local employees. In addition, the regulations on corruption prevention are being refined further and their monitoring is being made more systematic.

These activities are part of the continuous development and refinement of the existing compliance management system (CMS), including to meet the recommendations of ISO 19600:2014 “Compliance Management Systems”. In the medium term, the Wilo Group is seeking to obtain certification for its CMS in accordance with Audit Standard 980 “Principles for the Proper Audit of Compliance Management Systems” promulgated by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany, IDW).

Building on the analysis of the requirements of the European General Data Protection Regulation (EU-GDPR) in 2017, the measures and concepts derived at the time with regard to the data protection organisation, processes, guidelines and documentation was implemented ahead of the EU-wide effective date of 25 May 2018. Among other things, this included adjusting the registers of procedures, updating the contracts with service providers for contract data processing, and amending the privacy statements on the websites. In addition, 2018 again saw extensive eLearning campaigns that will be pursued systematically in subsequent years.

Statement by the Executive Board on the economic situation

The 2018 financial year was a challenging one for the Wilo Group. Following a good start, the economic upturn increasingly slowed as the year progressed. Geopolitical and economic risks increased, accompanied by growing uncertainty among market participants. The trade dispute between China and the USA, the sanctions against Iran and Russia, Italy’s high debt level and concerns about a hard Brexit were just some of the factors contributing to global uncertainty. The political and economic situation in Turkey – an important market for the Wilo Group – deteriorated massively over the course of the year, while the economic crisis in Argentina expanded. After years on a strong upward trend, there are growing signs that global economic momentum is on the wane. In this challenging environment, the Wilo Group increased its net sales for the ninth year in succession, setting a new record of EUR 1,463.5 million.

The strong net sales growth of 6.2 percent adjusted for exchange rate effects validates the strategic direction and illustrates the effectiveness of the eight major growth initiatives launched to implement Ambition 2025. Including the substantial negative exchange rate effects, net sales growth amounted to 2.7 percent. This meant the original planning for 2018, which predicted growth of around 3 percent, was realised.

The Asian region remained the growth driver, although net sales performance was curbed substantially by the depreciation of various currencies. The Wilo Group continued to expand its market presence in China, India and Korea. High growth rates were also recorded in Eastern Europe, the USA, the Middle East and Africa.

The strong growth of 6.2 percent adjusted for exchange rate effects validates the strategic direction and illustrates the effectiveness of the eight major growth initiatives launched to implement Ambition 2025.

The integration of the business activities of Weil & Scot, which were acquired in 2017, into Wilo USA is progressing successfully and according to plan. Wilo USA will already be one of the most profitable companies in the Group in 2019.

The Wilo Group recorded solid growth in Russia in the year under review. The production site in Noginsk, near Moscow, enables the Wilo Group to serve the local market efficiently, in a customer-specific and requirement-orientated manner. It is also benefiting from the growing trend towards localisation.

Development in Europe varied considerably. While substantial growth was generated in Eastern Europe, particularly in Poland, net sales declined in France and the United Kingdom. In Germany, the largest individual market, net sales were largely unchanged year-on-year. Business performance in Germany was curbed by the bottlenecks among tradesmen due to high utilisation.

By contrast, the Wilo Group's business activities in Turkey were heavily impacted by the increasingly strained political and economic situation over the course of the year.

The Wilo Group compensated well for the varying economic developments in individual regions, countries and markets. The broad regional and sectoral positioning of the business activities was crucial here. Diversification is a strategic success factor, successfully minimising risks while opening up opportunities in individual markets. The net sales performance in the individual regions demonstrates the Wilo Group's ability to limit the impact of adverse developments and risks in individual countries thanks to a strong local market presence and to offset these effects with strong growth in other countries.

EBIT and consolidated net income were down on the previous year and lower than forecast by the Executive Board. Profitability in terms of the EBIT margin declined from 7.5 percent to 6.3 percent, thereby falling short of the strategic long-term target corridor of between 9 and 11 percent. This development is attributable to various factors. For example, production costs increased on the back of a significant rise in commodity prices. The limited availability of certain materials and components on the global market required adjustments to production planning. This led to reduced productivity and also contributed to the increase in production costs. The reorganisation measures conducted in 2018 constituted another major cost component. Adjusted for expenses in connection with these reorganisation measures, the EBIT margin amounted to 7.7 percent.

With the WIN and ICI 2.0 cost initiatives and the realignment of its organisational structure, the Wilo Group began to analyse and optimise significant cost structures and drivers in the previous year. However, the current geopolitical and economic developments made it necessary to take additional measures in order to secure the growth and profitability targets forming part of Ambition 2025. Some of the current measures were intensified and supplemented by projects to improve sales efficiency, among other things. This demanded the full commitment of all managers and employees and significantly impacted the Wilo Group's operating earnings, and hence its profitability. However, these measures are essential from a strategic perspective, i.e. for the targeted implementation of Ambition 2025 as planned. They will secure the company's future viability and strengthen the foundations for accelerated and profitable growth.

Sustainable, stable profitability within the target corridor guarantees business agility and flexibility. Moreover, it safeguards the Wilo Group's independence, an overriding goal that was reaffirmed in the Ambition 2025 corporate strategy. This is why the Wilo Group has set itself strict profitability targets. Short-term declines in profitability are accepted if they serve to secure the company's future viability and strengthen its performance in the long term. The measures carried out in the 2018 financial year to reduce costs and promote cost efficiency serve to optimise the structural foundations for profitable growth and thus steer profitability into the strategic target corridor in the short to medium term.

The French brand Salmson, a successful manufacturer of pumps and pump systems, has belonged to the Wilo Group since 1984. In anticipation of current market trends and the digital transformation, a decision was taken to concentrate on a single, strong international Group brand in future: Wilo. The standardisation of the brand presence France, Italy, Africa and Latin America was initiated as planned in 2018. In these markets, all Salmson brand products are being successively replaced by Wilo products.

One of the strategic aims of the Wilo Group as formulated in Ambition 2025 is to strengthen its innovation and technology leadership in order to secure its accelerated and sustainably profitable growth in future. Total research and development costs including capitalised development costs remained at a very high level in 2018 at over EUR 66 million, or 4.5 percent of net sales.

Capital expenditure reached a new historic high of around EUR 155 million. The Wilo Group invested in a modern and efficient corporate infrastructure in particular. The priority was again the strategic location development project at the headquarters in Dortmund. Among other things, this involves the construction of a state-of-the-art Smart Factory where significant elements of the Industry 4.0 vision are realised, as well as a modern office building.

Considering the challenging environment and the specific factors for the Wilo Group's business, the Executive Board has a broadly positive assessment of the company's business performance and economic situation in terms of the growth generated, its strong market presence and innovative capacity and its strong financing structure. However, operating profitability in terms of the EBIT margin fell short of expectations and strategic targets, including as a result of the effects described above.

In summary, the Executive Board considers the economic situation of the Wilo Group to be highly stable and sustainable. This assessment is based on the results in the consolidated financial statements and the separate financial statements of WILO SE for 2018 and takes into account business performance up until the preparation of the 2018 Group management report. At the time of this Group management report being prepared, business performance in early 2019 is in line with the Executive Board's expectations.

REPORT OF RISKS AND OPPORTUNITIES

— Integrated risk management system creates transparency and security
— Systematic identification and realisation of operational and strategic opportunities
— Overall risk situation largely unchanged year-on-year
— No risks that could jeopardise the future of the company

Risk and opportunities policy

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

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

Opportunities management

The systematic identification and realisation of operational and strategic opportunities is essential for promoting and ensuring the intended profitable growth.

Opportunities management is not directly integrated into the risk management system. Opportunities are therefore not assessed in line with the methodology prescribed by risk management.

Instead, the Wilo Group identifies and assesses operational opportunities directly in the regions, market segments and central functions, 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 deduced. The latter are then evaluated in detail as part of the planning process and incorporated directly into medium-term planning via scenario calculations. Resources are coordinated and allocated at Group level.

Opportunities of elevated strategic significance arising from acquisitions or partnerships are analysed, assessed and implemented at Executive Board level, as are changes in strategy. The risks and opportunities potentially arising from the relevant global megatrends for the Wilo Group and the accompanying implications for the company are derived and analysed as part of the corporate foresight process. The corresponding opportunities are systematically included in the ongoing development of the corporate strategy.

Risk management system

The Wilo Group has a state-of-the-art, integrated, globally available risk management system. It ensures that business risks are identified at an early stage and effective countermeasures are initiated promptly. Monitoring of the measures initiated and their consistent implementation is a key component of the system. This is based on the following central principle – once identified, risks are assessed, managed as far as possible, and monitored at all times. The risk management system is audited annually by Internal Audit on the basis of Audit Standard No. 2 promulgated by Deutsches Institut für Interne Revision (DIIR).

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

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

Integral components of the risk management system are:

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

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

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

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

As part of risk identification, information on customers and suppliers is analysed and market and competition analyses are prepared. Furthermore, risks emerging from the political and overall economic environment are monitored and assessed.

The risks identified are analysed using a uniform methodology set out by the Risk Management Directive. The probability of occurrence (in the next twelve months), gross and net risk are calculated for each identified risk. The net risk takes into account measures to prevent or mitigate risk. The aim of these measures is to reduce the potential loss or the probability of occurrence. Where possible and economically feasible, risks are limited by insurance policies or, for financial risks, by the use of suitable derivative financial instruments. The Risk Management Directive 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 it appoints are comprehensively and constantly 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. Suitable countermeasures, hedges and the general conditions are taken into account in calculating the respective probability of occurrence and potential loss.

The risks, their probabilities of occurrence and their possible financial impact on EBIT 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 EBIT	
Low	≤ 10%
Medium	> 10% ≤ 50%
High	> 50%

In the event of the assumed occurrence of a risk, the possible financial impact on EBIT that can be derived is classified into one of the three categories low, medium or high based on the forecast percentage deterioration of EBIT.

An EBIT 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 EBIT 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 impact on EBIT
General risks		
Economic environment	Possible	Medium
Extraordinary external disruptions	Unlikely	Medium
Legal and regulatory environment	Possible	Medium
Industry-specific risks		
Competition	Possible	Medium
Company-specific risks		
Research and development	Possible	Low
Production	Unlikely	Medium
Human resources	Possible	Low
Information technology	Unlikely	Medium
Acquisitions and strategic partnerships	Possible	Medium
Financial risks		
Exchange rates	Likely	Low
Interest*	Possible	None
Commodities	Possible	Low
Defaults	Possible	Low
Financing and liquidity	Unlikely	Low

* The possible impact of interest rate risk relates to net financial costs and is classed as low. More detailed information can be found in section "Financial risks and opportunities" 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 and the sanitary industry in the respective countries and regions is considered particularly important in terms of industries. The Wilo Group is dependent on these developments to a significant extent. However, the broad international presence of the Wilo Group also helps to balance risk between activities in individual regions.

The Wilo Group carefully monitors and constantly analyses developments and expectations for the economy as a whole, politics and customers' industry developments on account of uncertainty and risks. If necessary, appropriate countermeasures can thus be taken early in order to safeguard the current or planned economic situation of the Wilo Group as well as possible. Special attention is paid in this context to specific country risks, and targeted countermeasures have been defined to minimise them. Although the conditions on the global markets remain extremely uncertain and expectations for the future are therefore risky, selected Asian, Latin American and African markets offer very good growth opportunities.

However, these markets also involve heightened risk. The Wilo Group reduces its risk potential considerably by adopting targeted organisational changes, expanding and upgrading local production capacity, optimising their use and leveraging synergies.

The world economy saw steady growth in 2018. The industrial nations recorded robust growth, while the emerging and developing nations continued to enjoy high growth momentum. However, economic researchers expect the growth trend to slow in 2019. Forecasts are also subject to considerable uncertainty. Growing nationalism and protectionism are major risk factors, and the expansion of the US trade conflicts to Europe cannot be ruled out. Meanwhile, the crises in places such as Eastern Ukraine, Syria, Iran and North Korea remain unresolved. The economic consequences of Brexit still cannot be reliably estimated, while financial stability within the EU could be jeopardised by doubts as to the quality and sustainability of the public finances in highly indebted member states and the prospect of contagion with regard to the domestic banking sectors. The Wilo Group is closely monitoring these developments and, if necessary, will selectively adjust business policy decisions in a timely manner in order to limit the financial risks to the Group and reassess the opportunities. All in all, the Wilo Group considers the potential negative impact of the economic environment on the company's results of operations to be moderate (medium earnings impact according to risk classification).

Extraordinary external disruptions

As a globally operating group of companies, Wilo is exposed to various external risks. Natural disasters, terror attacks, fire or political unrest can potentially impair business activity at the location in question. The Wilo Group classifies the probability of occurrence of extraordinary disruptions as unlikely, though political unrest is considered possible. Targeted measures have been taken to minimise the potential impact of the current geopolitical crises in individual countries and regions and the relevant forecast risks for the Wilo Group's business. In the event of a further escalation, additional steps will be taken to limit the risk to which the Group is exposed. To the extent possible and reasonable, the Wilo Group is also adequately insured against operational shutdowns and property damage. In addition, Wilo has developed and implemented appropriate emergency plans and preventive measures to minimise the potential negative effects. The Wilo Group classes the earnings effect of extraordinary external disruptions as moderate (medium earnings impact according to risk classification).

Legal and regulatory environment

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

On the one hand, restrictions on trade could make commodity procurement more difficult or more expensive and the sale of products in certain markets or regions may be restricted. There has been a global rise in protectionist tendencies and an observable rejection of free trade and globalisation. It remains uncertain to what extent this will actually translate into restrictive measures. For example, the western sanctions against Russia have been extended for the time being. The trade conflict between the USA and China is now also having an impact on the real economy, including beyond the two countries concerned. Agreement between the countries is possible, but a further exacerbation of the situation cannot be ruled out. It is also possible that the USA will impose more stringent conditions on trade with Europe in future. In addition, trade regulations with the United Kingdom could deteriorate following Brexit. In the event of a hard Brexit, the consequences could even be significant.

In addition, heightened requirements as a result of product quality or safety standards may lead to increased production or research and development costs.

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 lead to increased 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 of its key markets are continuously observed in order to ensure that it can identify potential problem areas or opportunities at an early stage and quickly adapt its business activities accordingly. The occurrence of risks arising from the legal or regulatory environment is possible. The impact on the Wilo Group's results of operations is considered to be moderate (medium earnings impact according to risk classification).

Urbanisation

The rapid growth of the world's population is unabated; population explosions are being seen in Asia and Africa in particular. The United Nations (UN) expects the Earth will be home to nearly ten billion people in 2050. At the same time, the proportion of the population living in urban conurbations is increasingly rapidly worldwide. Over half of all people currently live in cities. The UN estimates that it will be a good two-thirds by 2050. In addition to the existing, constantly growing cities and metropolitan regions, other entirely new cities will be built. According to analyses by the consulting firm Strategy&, more than USD 350 trillion will be invested in urban and infrastructure development worldwide up to 2030. The emerging economies, particularly the Asian region, will account for much of this. This dramatic urbanisation in conjunction with sustained high population growth will go hand in hand with numerous ecological, economic and social challenges. Sustainable and intelligent urban development in these regions is therefore essential. The same applies to growing established conurbations in industrialised nations, which are increasingly modernising their urban structures and public networks. Globally, smart cities and smart urban areas are being designed that integrate digital infrastructures in order to make cities more efficient, less wasteful of resources and more social. The megatrend of urbanisation – especially in the shape of smart urban areas – is the source of considerable long-term growth potential for the Building Services Residential and Commercial and Water Management market segments.

Water shortage

Water is a scarce resource in many regions of the world. According to estimates from WHO (World Health Organisation) and UNICEF, 844 million people currently have no access to a rudimentary supply of drinking water. Around 2.3 billion people live without basic sanitation. Especially in rapidly growing cities in the wake of urbanisation, water supply and wastewater disposal present an increasing problem. The overuse of groundwater reserves there often results in a drop in the water table, while huge quantities of drinking water are lost each year due to outdated and dilapidated pipe systems. In the future, it will therefore be all the more important to use the available resources efficiently and to utilise intelligent technologies for water extraction and purification. 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, giving rise to substantial growth opportunities in the Emerging Markets in particular.

Digital transformation presents significant opportunities for the Wilo Group. In addition to efficiency and productivity improvements, it also opens up the possibility of new and innovative business models for the pump industry.

Climate change & energy shortage

Man-made climate change is becoming increasingly visible and tangible thanks to global warming and the growing incidence of extreme weather conditions. The continued melting of the polar ice caps, rising sea levels and the clustering of droughts and storms are just a few of the expected and already relevant effects of climate change. Drastic action is required worldwide to stop, or at least limit, climate change and its consequences. One important measure is the reduction of greenhouse gases. In addition to the increased use of renewable energies, the focus is on developing and using more energy-efficient processes and technologies. At the same time, steadily increasing world trade, the drastic growth of cities in the wake of urbanisation and the rapid economic development of emerging economies entail a significant rise in demand for energy. Demand also remains high in the industrialised nations. The global competition for raw materials is coming up against the finite nature of fossil resources such as oil, coal and gas. In this respect, renewable energies have to be used and sustainable energy savings made not just for ecological reasons but also economic ones.

The megatrends of climate change and energy shortage give rise to substantial growth opportunities for all five of the Wilo Group's market segments in all of the regions in which the company has a presence. In particular, numerous opportunities are arising in urban conurbations, where increasing populations, stricter environmental standards and heightened requirements for energy and resource efficiency are posing new challenges for urban planners. Around the world, innovative urban infrastructures are being created that are characterised by smart systems and digital solutions. Demand for forward-looking, resource-conserving products and system solutions will also increase as a result of the tightening of minimum legal standards. Wilo products already offer customers higher energy efficiency throughout the entire operation phase. High-efficiency pumps reduce power consumption by up to 90 percent compared with older, unregulated pumps. Wilo aspires to shape the future as an innovation leader and digital pioneer and to evolve into the leading system provider with tailored, intelligent, and resource-efficient solutions in line with the company's vision. In this way, Wilo is helping to reduce energy consumption and hence lessen the impact of CO_2 on the environment.

Digitalisation

The digital transformation of society, trade and industry is ever-present. The fundamental changes driven by the establishment of new technologies are affecting almost everything. Modern information and communication technologies are finding their way into all areas of life and commerce. New digital technologies are changing traditional production and business processes. Companies' complete value chains are being affected by the digital transformation. Established business models are being called into question and new, innovative business models are emerging. The digital transformation presents significant opportunities for the Wilo Group. In addition to efficiency and productivity improvements and the corresponding optimisation of existing business processes, it also opens up the possibility of new and innovative business models for the pump industry. Digitalising the company 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 internal group of experts has been formed in order to drive the Wilo Group's digital transformation.

Wilo expects the targeted, strategic 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 will systematically tap into new business areas here. However, the effects on the Group's earnings and liquidity are difficult to estimate at this early stage. Accordingly, they are not yet included in the Wilo Group's specific earnings and financial planning.

Industry-specific risks and opportunities

Competition

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

Technological progress in building management

Manufacturers and consumers are increasingly focusing on smart living. In smart homes, everyday devices and systems in private households are electronically integrated in order to combine higher energy efficiency with greater convenience, economic efficiency, flexibility and safety. The devices and systems can be controlled and accessed centrally and remotely. Smart homes offer attractive growth opportunities for the Building Services Residential and Commercial market segments in the medium to long term. The Wilo Group 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 company continuously invests in the development of new technologies and products to strengthen its market position. In 2018, research and development costs including capitalised development costs amounted to 4.5 percent of consolidated net sales. In order to identify the opportunities of new technologies at an early stage, Wilo conducts regular technology screening and maintains continuous dialogue with universities and research institutions. The risk of paying insufficient attention to customer requirements in the development process is limited with customer surveys, trend analyses and targeted market tests.

The effectiveness and target conformity of all development activities are examined continuously. The purpose of this is to minimise qualitative, time and financial risks in development projects. Professional project management and regular deviation analyses ensure a constant focus on customer requirements. Binding Group-wide standards and guidelines are applied here. The occurrence of risks from research and development is possible, but the impact on the results of operations of the Wilo Group is considered low.

Production
Quality risk is mitigated by the uniform Group-wide production standards of the Wilo Production System (WPS) and by the company's 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. The Wilo Group counters procurement risks by way of integrated procurement and supplier management. Supply bottlenecks are primarily prevented by ensuring the availability of second-source suppliers. Insurance is also taken out to offset the financial consequences of business risks of this kind. If such risks occur despite this, the company estimates that this could entail a medium earnings effect for the Wilo Group.

Human resources
The Wilo Group's success is built on its qualified employees and their expertise, their commitment and their motivation. The loss of qualified personnel in strategic positions can lead to the loss of company-specific knowledge, 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 EBIT is classified as low.

Information technology
All important business processes for the Wilo Group are integrated into IT systems. In extreme circumstances, the failure of key systems or substantial data losses could lead to business interruptions. Wilo mitigates these IT risks with daily backups of critical business data. In particular, the business database aiding production, materials management, order processing, financial accounting and cost accounting in particular conforms to top security standards. The Wilo Group runs its critical business applications in two separate, certified and highly powerful data centres. Certified processes and business recovery plans are also in place for the event of disasters. An annual monitoring audit is performed to maintain the certificate. System downtime is further minimised by targeted utilisation of an in-house support team and outside service providers. Given these measures, the occurrence of IT risks is unlikely and the earnings effects have been limited to a medium level.

Acquisitions and strategic partnerships
In order to expand its technological spectrum and geographical presence, the Wilo Group also provides for the realisation of external growth opportunities as part of the corporate strategy. Company acquisitions are considered only if they are considered beneficial from both a strategic and economic perspective. The opportunities arising from acquisitions and strategic partnerships are varied. Acquisitions and strategic partnerships offer additional potential for growth and efficiency. In addition, they can provide access to new sales channels and markets. With regard to research and development in particular, the Wilo Group enters into strategic partnerships in order to advance joint technology projects. It 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. Accordingly, each investment decision is preceded by a careful assessment and analysis of the commercial, technical, legal, tax and financial conditions (due diligence). The aim is to identify, quantify and limit the risks associated with the acquisition. In addition, an individual strategy for integration into the Wilo Group is developed and corresponding measures are planned and implemented for each acquisition.

Despite this careful examination, risks may emerge after an acquisition that were not identified during the due diligence process, not considered to be material or not accurately quantified. In addition, the identified benefits and synergies may not occur to the expected extent, within the expected timeframe, or at all. The integration process may be more difficult and cost-intensive than expected, thereby jeopardising the realisation of the planned goals and synergies. If business develops more poorly than expected, the necessary goodwill impairment may have an impact on earnings.

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

Financial risks and opportunities

Exchange rates

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

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

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

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

Overall, the occurrence of currency risks is considered likely, but the Wilo Group classes the associated impact on earnings as low. ➔ *Further information on currency risks in accordance with IFRS 7 and a corresponding sensitivity analysis can be found in section (13) "Risk management and derivative financial instruments" of the notes to the consolidated financial statements on* ***page 150 et seq.***

Interest

The 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, and the impact on net finance costs is rated as low as most financial liabilities have fixed long-term interest rates. On the other hand, favourable interest rate developments 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 (13) "Risk management and derivative financial instruments" of the notes to the consolidated financial statements on* ***page 152****.*

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. The Wilo Group uses commodity derivatives in a targeted manner to minimise commodity price risk. They are used if the effect on earnings from the change in commodity prices is significant to the Wilo Group and corresponding financial instruments are available and can also be used efficiently at the same time.

The prices for most of the copper procurement volume for the 2019 financial year have already been determined in order to minimise the impact on earnings from the change in copper prices for the Wilo Group. In contrast, the prices for the procurement volume for stainless steels and their alloys are not hedged, as the available financial instruments are not suitable for effectively minimising the risk of price changes for these specific commodities.

According to current information, the Wilo Group's results of operations could primarily be affected by price fluctuations on the global markets for copper and aluminium from the 2020 financial year.

Commodity price risks are possible, but the Wilo Group classes 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 (13) "Risk management and derivative financial instruments" of the notes to the consolidated financial statements on* ***page 152****.*

Defaults

The Wilo Group counters customer credit risk with a uniform and effective Group-wide system. It 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 past financial year. The possible effect on earnings of default is currently also considered low for 2019.

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

Financing and liquidity

Liquidity risk stems from a potential lack of cash for paying due liabilities in full and on time in the agreed currency. There is also a risk of having to accept unfavourable financing terms in the event of liquidity bottlenecks and volatility on the international financial and capital markets. To minimise liquidity and financing risks, the Wilo Group aims to ensure 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 for the parent company and subsidiaries of more than EUR 390 million with international banks of good to very good credit standing. EUR 67.3 million of the cash credit facilities had been utilised as at 31 December 2018. Furthermore, as at 31 December 2018, there were also promissory note loans of EUR 55.0 million and senior notes of EUR 138.2 million that were issued in US private placements, as well as a KfW development loan that was utilised in the amount of EUR 8.0 million.

The Wilo Group's leverage, i.e. the ratio of the net financial position (financial liabilities less cash) to consolidated EBITDA, increased from 0.25 at the end of the previous year (net debt) to 0.87 as at 31 December 2018 (net debt) as a result of the strategic high level of targeted investment.

In order to achieve a needs-driven supply of cash with matching maturities and the optimum allocation of cash within the Group, the Wilo Group prepares corresponding liquidity and finance plans based on the budget planning and strategic five-year planning process in addition to the year-to-date forecast. Rolling three-month liquidity planning is also prepared on a monthly basis for each Group company. The cash directly available to the Wilo Group over the course of 2018, including committed cash credit facilities, was at all times higher than the minimum reserve of EUR 100.0 million defined by the Executive Board of WILO SE.

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

The Wilo Group is required to maintain standard financial ratios (financial covenants) under the terms of its long-term financing agreements. If they fall short of certain minimum values, the lenders are 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 (12) and (13) on* ***page 146 et seq.*** *of the notes to the consolidated financial statements.*

Overall assessment

The Wilo Group's risk situation is largely unchanged compared with the previous year. The integrated risk management system ensures that all of the identified risks are controlled at all times. In the view of the Executive Board, no risks or combinations of risks that could jeopardise the company as a going concern are currently discernible. Taken together with the attractive opportunities available to it in the medium and long term in particular, the Wilo Group has a balanced, future-oriented risk-reward profile allowing it to continue to grow profitably in line with its corporate strategy.

EVENTS AFTER THE BALANCE SHEET DATE

Information on significant organisational, economic, socio-political, company law, or financing-related changes that occurred after the end of the financial year and that could have a material impact on the operating activities of the Wilo Group in the opinion of the management is provided in note (14.6) to the consolidated financial statements.

OUTLOOK

- Global economy to see slower expansion in 2019 than in recent years
- Growth risks exacerbated by political uncertainty and potential crises
- Moderate net sales increase expected in 2019
- Profitability expected to be within strategic target corridor as reorganisation measures take effect
- Completion of Smart Factory at headquarters in Dortmund

General economic and industry-specific conditions

Global upturn set to slow considerably in 2019

The global economy will continue to grow in 2019 but has already passed the high point in its cycle. Key leading indicators like the ifo Institute's World Economic Survey suggest that the global economic factors are weakening. This means it is possible that the current deterioration in the economic upturn will continue or even intensify. This is likely to be reflected in a slowdown in industrial production and lower investment. At the same time, investment activity is expected to stabilise due to the long-term structural demand for digitalisation and the conversion of the energy industry, mobility and infrastructure. Many industrialised nations are now seeing a shortage of qualified employees, meaning that employment should remain high and support private consumption.

Now that the turnaround in interest rate policy, which has largely been cautious and tailored to reflect the economic conditions, has been completed and looks set to continue, there is a lack of fiscal policy impetus for the economy. A more expansive fiscal policy will now take on this role in many cases. However, the significant structural deficits in some EU nations and major emerging economies mean the options for stimulating the economy are limited.

The majority of leading economists expect 2019 to see continued global economic growth but at a lower level than previously. For example, the Kiel Institute for the World Economy (IfW) is forecasting growth in global GDP of 3.4 percent. The IMF has downwardly revised its 2019 estimate to 3.5 percent. The pace of growth in the industrialised nations is set to slow to 2.0 percent, with the emerging and developing nations also seeing lower growth of 4.5 percent.

However, the deterioration in the risk profile means these forecasts are subject to greater uncertainty than in previous years. The biggest risk factors are nationalism and protectionism. The intensification of the trade conflict between the USA and China and its expansion to include Europe are possibilities. In addition, the consequences of Brexit are likely to have an impact on the European economy, although it is not currently possible to estimate the overall extent of this development. The high level of government debt in France and, in particular, Italy pose additional risks – including to the cohesion of the monetary union. Differing national interests among individual EU nations and, in some cases, complicated government coalitions are providing additional uncertainty. Furthermore, it is possible that existing political hotspots like Eastern Ukraine, Syria, India or North Korea will flare up, the number of refugees will increase once again or new crises will emerge, e.g. in Taiwan. Finally, the real economy could be impacted by drastic value corrections on the real estate and financial markets and currency turbulence. The risks outlined above are significant, making the global economy highly susceptible to disruption in 2019 despite the robust underlying trend.

The following section presents the expected macroeconomic and industry-specific developments in 2019 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. The country-specific definition of the regions is based on the segment reporting of the Wilo Group (Mature Markets, Emerging Markets). ➔ *More detailed information on the definition of segments can be found in note (11) to the consolidated financial statements on* ***page 144 et seq***.

Mature Markets – Economic slowdown in Europe, robust economic environment in the USA

EUROPE. According to the IfW and the IMF, the pace of economic expansion is gradually slowing. At the same time, the challenges facing the European economy in 2019 are particularly pronounced due to the risk factors illustrated. Assuming no broad-based escalation in these risks, the growth components remain intact, meaning the available financing options are still favourable and fiscal policy is likely to be at least slightly expansive in its impact. As such, production is expected to increase slightly, accompanied by further moderate growth in employment. However, growth momentum is slowing in all areas. The increasing shortage of workers means some euro area countries are reaching their limits in terms of growth. A lack of reforms in France and the structural deficits affecting Italy are curbing the growth opportunities in these countries. According to the IMF, growth in the euro area is expected to slow to 1.6 percent in 2019, while the IfW is forecasting growth of 1.7 percent. The IfW expects the pace of expansion to slow across almost the entire euro area, including France, Italy, Spain, Austria and the Netherlands. Switzerland is also expected to see weaker growth, as is the United Kingdom as a result of Brexit. Growth rates in the Eastern European nations are expected to remain higher than in the rest of Europe.

According to the economic researchers, the economic upturn in Germany is initially expected to continue in 2019, but growth will slow over the course of the year. Production capacities are near full utilisation and are only seeing slight growth despite healthy investment activity. Growth is increasingly being curbed by a shortage of qualified employees. Deutsche Bundesbank cites private consumption as the main pillar of economic growth, with rising wages and an expansive fiscal policy set to deliver important momentum. It is also assumed that the automotive industry will make up for the losses incurred due to last year's production stoppages. The IMF is forecasting GDP growth of 1.3 percent for Germany in 2019, while Deutsche Bundesbank's forecast is 1.6 percent. In its economic report, the German Federal Government made a significant downward revision to its growth forecast for 2019, which is now just 1.0 percent.

The Euroconstruct industry network expects the European construction industry to see a sustained upturn until 2021, although the pace of growth will slow gradually. Construction output is expected to increase by 2.0 percent in real terms in 2019. Particularly strong growth of 9.1 percent is forecast for Eastern Europe, while the forecast growth rate for Western Europe is a modest 1.5 percent.

Construction activity in the Netherlands, Spain, Portugal and Ireland is expected to see particularly strong growth. The structural conditions for the construction industry are expected to remain positive in the medium term due to the high level of demand in the area of infrastructure and building modernisation and maintenance in particular. Additional support programmes for CO_2 reductions are also expected to provide impetus. This is supporting investments in heat insulation in buildings and the modernisation of heating and air conditioning systems.

The German industry entered the new year with an extremely healthy order situation. Incoming orders continued to saw substantial growth in the residential construction sector in particular, but commercial construction and civil engineering also saw growth. According to Deutsche Bundesbank, however, capacity in the construction industry is near full utilisation. To date, it has succeeded in significantly expanding its output despite the strained situation on the employment market, but this momentum is set to slow in the medium term due to demographic bottlenecks. The IfW expects construction investment to see further substantial growth of 3.1 percent in real terms in 2019, with a particularly high growth rate in residential construction (+4.0 percent).

The ifo Institute and the industry association VDS expect the German sanitary industry to continue on its growth path in 2019. Although trade capacity is fully utilised, total net sales are forecast to rise by 2.8 percent to EUR 25.6 billion, with the figure attributable to Germany increasing by 2.9 percent to EUR 21.3 billion. The heating industry expects to see a structural expansion. According to the Federal Association of the German Heating Industry (BDH), converting a heating system to digital control can result in average energy savings of up to 15 percent, while the figure for the conversion of a completely obsolete system is as high as 30 percent.

RUSSIA. In its baseline scenario for 2019, the Russian central bank is forecasting a slight economic slowdown. This is based on the assumption that oil prices will be lower, thereby meaning slower export growth. With VAT rising from 18 to 20 percent from the start of 2019 and the depreciation of the rouble, inflation is currently forecast at a good 5 percent. Lending to private households also became more problematic, with the result that private consumption is likely to increase only slightly. At the same time, however, the Russian government is planning increased expenditure and measures to promote investment in key industries. The IMF expects the Russian economy to see further moderate growth of 1.6 percent in 2019.

A major transport infrastructure programme is intended to stimulate the construction industry. A total of EUR 82 billion will be invested in up to eleven major projects up until 2024. The government is stepping up residential construction with another national project. This will result in the creation of around 425 million m² of residential space between 2018 and 2024. The project has a budget of EUR 12.5 billion, with a good EUR 6.5 billion earmarked for residential construction and municipal infrastructure from 2019 to 2021 alone. After 2024, the annual completion rate will be around 120 million m². Compared with the corresponding construction output in 2017, this is roughly twice as much again. The programme will see the millions of residents of run-down housing being resettled in new apartments. Commercial construction (commerce, logistics, retail) is expected to see a recovery in 2020 at the earliest.

USA. A certain economic slowdown is expected in 2019 as the strong impetus from the tax reform in the previous year starts to wear off and the current trade conflicts have the expected negative consequences. Despite this, the IMF is forecasting robust growth of 2.5 percent. Private consumption and investment are expected to lose momentum somewhat due to interest rate development.

In this environment, the US construction industry is also expected to see robust growth. However, construction momentum, particularly in the area of residential construction, has slowed slightly of late due to high construction costs and higher interest rates. By contrast, companies are stepping up investments in construction. The public sector is also substantially increasing its expenditure, including for infrastructure construction. For example, 2018 saw the approval of a multi-year budget of USD 4.2 billion for projects to improve fresh water treatment. Around USD 1.2 billion of this is expected to be spent in 2019.

LATIN AMERICA. The economic outlook in Latin America remains mixed. The IMF expects the region as a whole to enjoy significantly accelerated growth of 2.0 percent. In Brazil, the IMF is forecasting a slight upturn in growth to 2.5 percent, while Mexico is expected to see stable growth of 2.1 percent. The World Bank is anticipating a continuation in the economic upturn in Chile, albeit at a slightly slower growth rate of 3.5 percent. Economic researchers expect Argentina to remain in a recession in 2019, with economic output set to contract by 1.7 percent according to the World Bank.

Emerging Markets: Asian economy set to remain dynamic in 2019, expectations for Turkey remain gloomy

Even as the global outlook becomes cloudier, the prospects for the Asia-Pacific economic region remain positive. The pace of expansion in China is expected to continue to slow, while lower global export momentum and a deterioration in capital flows are set to result in slightly slower economic growth in 2019 for the emerging and developing nations of Asia as a whole. With a forecast growth rate of 6.3 percent, however, the IMF expects these nations to remain the driver of the world economy.

CHINA. The IMF is forecasting growth of 6.2 percent for China in 2019. Although this is slower than in recent years, economic momentum in China remains dynamic and is extremely important to the world economy if only due to the size of the Chinese economy. However, an intensification of the trade dispute with the USA could have a tangible impact on growth, at least temporarily. The high level of private-sector and municipal debt that has built up means there may be limited opportunities for wide-scale economic programmes.

The current structure of China's building investments suggests growth in 2019, with robust growth in total investment of late in terms of the floor space of all new building construction projects. Rapid urbanisation and wide-scale environmental pollution pose enormous problems for China both today and in the years to come. Among other things, massive investment in climate and water management is required. To this end, a new environmental ministry was created in 2018. China is seeking to improve its extremely poor water quality. The aim is for 70 percent of surface water to be drinkable by 2020. This requires substantial investment. The current five-year plan (2016–2020) sets out USD 600 billion for the modernisation of water management. However, the wastewater infrastructure is now also set to be modernised through extensive investment in the pipe system. This is estimated to involve investments of around EUR 131 billion.

INDIA. Following the reform shock two years ago, the economy has returned to growth of more than 7 percent. The government has introduced various incentives aimed at stimulating private consumption. Although capacity utilisation at companies has improved of late, the problems affecting the financial sector, a high degree of bureaucracy, new import duties and rising interest rates are all working to prevent a sustainable upturn in investment. The IMF expects gross domestic product to increase by 7.5 percent in 2019.

India's rapid population and economic growth and urbanisation are changing the structure of the construction industry. The government programme to combat the housing shortage is expected to involve the construction of around ten million homes between now and 2022. As part of the AMRUT project, India is also making substantial investments in the establishment of 100 smart cities as well as the conversion of infrastructure and the provision of affordable housing in 500 cities. Among other things, these projects include efficient water and wastewater management. With demand for water on the rise, falling groundwater levels and significant surface water pollution are key problems. Sewage treatment plants can only treat around one-third of wastewater, and the available plants are old and dilapidated. As a result, industrial companies are increasingly making their own investments in the water supply and sewage treatment plants.

KOREA. According to the Bank of Korea, the country is expected to see consistent growth of 2.7 percent once again in 2019. The central bank has begun normalising its interest rate policy. Meanwhile, the government is providing additional fiscal impetus. Alongside lively exports, private consumption is likely to be a key pillar of the upturn. Equipment investments are also expected to see further growth, particularly in the semiconductor sector.

The construction industry will remain in flux in 2019. Government measures to curb overheating, particularly in the residential construction market, are continuing to have an effect, while incoming orders have declined tangibly of late. This suggests that the weakness in civil engineering and building construction will continue. The central bank expects construction investment to fall by 2.5 percent in real terms in 2019.

SOUTHEAST ASIA. Despite a cloudier export outlook, the IMF expects the five major ASEAN nations to again record strong overall economic growth of 5.1 percent in 2019.

This means the prospects for the construction industry in Southeast Asia are largely positive, particularly in Thailand, Indonesia and Vietnam. Growth rates are mostly double-digit. Only Malaysia is likely to see more muted development due to excess supply in all building segments. The Philippines, Indonesia and Vietnam are also planning substantial investments in water management.

TURKEY. The outlook for the Turkish economy remains gloomy in 2019. Key indicators are negative, including a weak currency, extremely high interest rates and inflation, and growing private and public-sector debt. Unemployment is also high on the back of falling industrial production. Given this scenario, investment is not expected to pick up, not least since the government has decided not to initiate any new projects in 2019. The European Commission expects equipment investments to decrease by 12 percent in real terms in 2019. The World Bank expects Turkey to see GDP growth of just 1.6 percent in 2019.

Accordingly, the outlook for the Turkish construction industry also remains negative. Poor financing conditions are standing in the way of a turnaround, while the industry is also suffering from considerable excess supply, particularly in Istanbul. Commercial construction is being curbed by currency depreciation and the weakness of the domestic economy. The government is also scaling back its infrastructure investments for 2019. In the area of industrial construction, however, major strategic projects in the oil and petrochemical industry are set to continue. Although Turkey offers attractive potential for building construction in the medium to long term, particularly in the areas of air conditioning and water and wastewater management, 2019 therefore looks like being another difficult year.

MIDDLE EAST & AFRICA. The countries in this region are politically and economically very varied and must be considered selectively. The crises in Syria and Nigeria have calmed slightly but the conflicts have not been resolved. As such, normalisation with a positive economic impact in the short term is not anticipated. Other trouble spots, such as Yemen and Iran, remain in place. Despite this, the economy of North Africa and many of the commodity-exporting nations has gained a stronger foothold recently. The IMF expects the upturn in the Middle East and North Africa to continue, with growth again amounting to 2.4 percent in 2019. The Sub-Saharan region is expected to see economic growth of 3.5 percent, with slightly higher momentum in Nigeria and South Africa.

For the construction industry in the Middle East and Africa, the environment will remain risky and uncertain in 2019. The outlook in South Africa and Nigeria remains modest, whereas the construction industry in Egypt is being boosted by various factors. Strong population growth means there is a high level of demand for housing, while 20 new cities are being constructed for 30 million inhabitants, including the new capital. Infrastructure investments and healthy commercial construction are likely to provide additional impetus. The Tunisian construction industry is expected to see annual growth of around 3 percent over the coming years. The drivers will be new construction projects in the areas of traffic infrastructure and hotels. With population growth, urbanisation and the immense need to catch up with regard to infrastructure, especially in drinking water and wastewater management, the region is attractive for the long term.

Outlook for the Wilo Group

Future orientation

The economic prospects for 2019 are challenging and subject to risk. Although global economic growth is set to continue, many regions of the world are seeing a tangible slowdown. In particular, the impact of the trade conflict between the USA and China and the risk of new restrictions affecting trade with Europe are leading to growing economic uncertainty. The flattening of the growth trend in China means the world economy is short of key growth drivers. In addition, the consequences of Brexit remain unclear and substantial turbulence on the international currency and capital markets cannot be ruled out in light of the modest economic outlook, increased levels of government debt in some nations and higher interest rates. The risk profile for the world economy is currently considerably worse than it was one year ago.

A high degree of flexibility and pronounced adaptability are key factors for success, particularly in challenging and high-risk markets. These are especially important in crisis situations and in the event of upheavals in the Wilo Group's core segments. The Wilo Group's adaptability is demonstrated by its many years of profitable growth in the face of a changing environment and intensive international competition. In order to secure the success factor of flexibility and adaptability going forward, the Wilo Group has enhanced and sharpened its existing corporate strategy and adapted it to reflect the new challenges in the shape of Ambition 2025. It is pressing ahead with the existing globalisation strategy and intensifying cooperation and networking between all of the stakeholders along the value chain in a targeted manner. The Wilo Group is clearly committed to its continuous development into a solution provider irrespective of the short-term changes in conditions that could occur in 2019.

The Wilo Group is continuing to intensify the development of intelligent products, systems, services and solutions and pressing ahead with its digital transformation.

Accordingly, the Group is intensifying the development of intelligent products, systems, services and solutions and pressing ahead with its digital transformation. The Wilo Group will continue expanding its product portfolio, focusing on core competencies in heating, air conditioning and cooling as well as water supply and wastewater disposal. This means the company is future-proof. In addition to accelerated organic growth, corporate acquisitions to promote growth play an important role providing they make good strategic and economic sense.

The clear and sustainable implementation of the future-oriented business policy and balancing risk within the company are therefore extremely important. The Wilo Group will continue to harness its strengths. This includes its successful customer orientation. With the reorganisation and the establishment of a structure with five operational market segments that are even more closely tailored to the needs of the respective customers and markets, the Wilo Group has significantly increased its proximity to the customer and its local flexibility once again. This will already start to pay off in 2019. Wilo's successful strengths over many years also include its pronounced innovative ability and the continuous development of new technologies. In addition, the Wilo Group's strong international market presence and diversification in terms of regions and market and product segments typically allow it to offset individual risks and temporary market disruption to a certain extent.

A fundamental management principle at Wilo is and will remain to identify trends and changes on the market at an early stage and to analyse them quickly. Alternative scenarios can thus be devised and implemented very quickly, and countermeasures can be initiated at short notice. This is also reflected in the special initiatives in the past year. In order to support the goal of accelerated and profitable growth, the foresighted investments in an effective and state-of-the-art corporate infrastructure continued. The management also anticipated and assessed new challenges and risks in 2018. This resulted in the timely and systematic initiation or continuation and, in some cases, intensification of key growth projects and reorganisation measures aimed at cutting costs. Although this was done in the knowledge that it would temporarily impact profitability, it was an important step in sustainably ensuring the Wilo Group's long-term viability and profitability. These measures have also made the Wilo Group more robust with regard to the market conditions that are expected to become increasingly tough in 2019. A great deal of importance is attached to effective crisis management in the event of considerable volatility on the international financial and currency markets and the intensification of geopolitical crises with negative consequences for the real economy as well as an unexpectedly pronounced deterioration in the economy. When necessary, the Wilo Group will continue to initiate appropriate and prompt countermeasures from this position of strength in future.

The megatrends relevant to the company are the cornerstones of the defined corporate strategy, regardless of short-term crises and fluctuations in demand. They will change, drive and shape the Wilo markets in the decades to come. The six megatrends are together contributing to a major global trend: the creation of smart urban areas, which integrate digital infrastructures in order to make cities more efficient, less wasteful of resources and more social. Wilo has identified smart urban areas as offering business potential and will systematically tap into new business areas here.

The megatrend of digitalisation is particularly important. It is already necessitating extensive business initiatives in order to take the resulting opportunities and to avoid future disadvantages for the company. To this end, Wilo is continuing on its own path of digital transformation. Its own value chain and existing business processes are thus being fundamentally and sustainably reorganised with high levels of investment – initially at the Dortmund location in particular. The central element is the intelligent, digital networking of production methods, products and logistics. This networking is sustainably improving the Wilo Group's competitiveness while generating direct benefits for customers, including in terms of quality standards, punctual deliveries and optimised service. In addition, Wilo is likewise purposefully targeting its innovative capacity at providing customers with intelligent, networkable solutions.

Outlook for the regions

MATURE MARKETS The economic research institutes expect Europe, and the euro area in particular, to see a further economic slowdown in 2019, albeit with continued growth. While the international outlook will have a negative impact, development will be stabilised by the robust domestic economy. Fiscal policy will also provide impetus. The ECB has also announced that it intends to maintain its zero-interest policy at least until late summer, and longer if necessary. This means financing conditions for private households and companies will remain favourable in 2019. Private consumer demand and lively construction activity are the pillars of the domestic European economy. However, Europe is facing major political challenges that could slow economic development. The greatest uncertainty lies in Brexit, which is already substantially curbing economic performance in the United Kingdom and could also become an economic burden in the European Union in the future. High government debt and structural deficits in France and, in particular, Italy could lead to increased political and economic tension. The USA could also expand its restrictive trade policy to Europe. As such, the economic outlook in Europe is particularly susceptible to disruption despite the positive underlying trend.

Provided the uncertainties and risks remain manageable, the fundamental economic conditions for the Wilo Group's specific business in Europe are still good. Leading economists expect all of the euro area countries to continue to grow despite the slowdown, including in France, Italy, Spain, Austria and the Netherlands. Switzerland and the United Kingdom are also expected to see slower but positive growth. Growth rates in the Eastern European EU and euro area nations will remain above-average in 2019. The environment in the core European markets of particular importance to the Wilo Group due to market size and competitive position, especially France and Germany, remains good thanks to moderate economic growth and low interest rates, albeit not as positive as in the previous year. In both countries, as in Europe as a whole, the construction industry will continue its upturn in 2019.

There is high demand for energy-saving and environmentally friendly heating and air conditioning systems in Europe. The majority of the installed systems are outdated and need to be replaced, especially with regard to more stringent environmental protection requirements. This is broadly stimulating demand in the areas of new construction and modernisation alike. In line with the EU's ambitious climate targets, additional government subsidy programmes to increase energy efficiency are also expected to be initiated. Investments in climate-efficient and economically beneficial heating and air conditioning systems and the modernisation of water and wastewater plants are being boosted by financing conditions that remain favourable. The strong momentum in the construction of new buildings in Europe is gradually slowing, with the result that building modernisation and renovation is growing in importance. Smart, connected and digitally controllable devices and systems are becoming increasingly popular. The Wilo Group therefore expects structural demand for high-quality energy-efficient pumps to continue to grow throughout Europe over the coming years.

As a high-tech, high-volume market for pumps, pump systems and associated services, Europe is of central strategic significance for the Wilo Group. Wilo is securing its strong market position in Europe through innovative strength, high quality and close customer relationships. This is particularly important in light of the intense competition. The clearly defined digitalisation strategy, the future-oriented realignment of the organisation, targeted measures to reduce costs and increase efficiency and investments in the future are essential if the company is to continue to overcome the challenges of the market and take advantage of the opportunities presented in the years ahead. Wilo's product mix in Europe is attractive, but the market varies considerably region by region. While the market in the German-speaking region is largely saturated, business is likely to continue to develop well in the Eastern European countries in particular. Various EU subsidy programmes are supporting development in these countries.

The Russian economy is again expected to grow moderately in 2019. Growth is being curbed by the depreciation of the rouble, higher inflation and the VAT rise at the start of the year. However, the government is promoting investment, including in the construction industry. New homes for several million inhabitants will be created in various cities between now and 2024, with new buildings replacing run-down housing. A nationwide project with a significant financial volume has been initiated to achieve this. With its own production site near Moscow, the Wilo Group is well positioned to continue to participate in the country's growth in the 2019 financial year. This location is also beneficial due to the increasing localisation of the economy in Russia.

The economic outlook for the USA and Latin America for 2019 is varied, but positive with regard to the Wilo Group's product and service markets. The construction industry in the USA is enjoying robust growth on the whole. While the growth rate in residential construction is slowing, commercial construction is becoming more dynamic. Government projects to improve fresh water treatment represent another notable development. The Wilo Group is also likely to benefit from the realignment of sales in the USA and other synergies following the acquisition of Weil & Scot. In Latin America, the overall economic picture is clouded by the crises in Argentina and Venezuela. However, growth in Mexico, Brazil and Chile, which is lively in some cases, should have a positive impact on the Wilo Group's business in 2019.

The company's diversified positioning in terms of regional and product- and service-specific markets allows it to balance different trends within the Mature Markets region. All in all, the Wilo Group expects to see moderate net sales growth in this region in 2019, albeit at a lower level than the figure for the Group as a whole.

EMERGING MARKETS Despite the shift towards increased domestic demand and high-tech and the impact of the trade conflict with the USA – both factors that are curbing the pace of expansion – the Chinese economy will see extremely dynamic growth in 2019 by global standards. The size of the economy alone means growth in China supports the economy of the surrounding countries and the industrialised nations in turn. The Chinese construction industry and its activities in the areas of residential and commercial construction and drinking water and wastewater management are particularly relevant to the Wilo Group. The prospects for residential construction for 2019 are positive. The country is also making extensive investments in modernising its water management, including as a response to wide-scale environmental pollution and rapid urbanisation. All in all, the Wilo Group has every chance of recording strong growth in China once again.

India's above-average economic growth by global standards, urbanisation and an extremely lively construction sector will provide a positive environment for the Wilo Group in 2019. In addition to the programme to promote affordable housing in major conurbations, India is working hard to advance state-of-the-art projects such as the establishment of smart urban areas and efficient water and wastewater management. Large industrial companies are also involved, allowing some projects to be realised more quickly. The Philippines, Indonesia and Vietnam are also planning extensive investments in water management. The construction industry in Southeast Asia will again largely see double-digit growth in 2019.

In Korea, the business outlook for the Wilo Group in 2019 is stable. However, the environment in Turkey will remain extremely strained and challenging due to the economic crisis and the weak currency. In the Middle East and Africa, there are attractive opportunities for the Wilo Group in certain countries. In Egypt in particular, the construction industry is booming. The main drivers are massive investments in the new capital and the construction of a further 20 cities, while commercial construction is also lively. The construction sector in Tunisia is seeing robust growth. In South Africa and Nigeria, there are opportunities for moderate growth on a project-specific basis.

The Wilo Group therefore expects the extremely positive business performance in the Emerging Markets region to continue in 2019. Here, too, varying trends within the region can be largely absorbed thanks to the Group's broad-based regional presence and market-appropriate product mix. Countries seeing a temporary slowdown in demand or less favourable financing conditions for investments, as is currently the case in Turkey, are more than offset by the large number of markets enjoying strong structural growth. The Asian region in particular is likely to remain a growth driver for the company in 2019. All in all, the Wilo Group expects the Emerging Markets region to see strong net sales growth in 2019 at a higher level than the figure for the Group as a whole.

Statement by the Executive Board on forecast development

The general economic environment is increasingly weakening. Despite this, the outlook for the construction industry, the sanitary industry and heating and air conditioning, which are particularly important for the Wilo Group, remains positive for 2019. This development is being supported by the high level of construction demand and the good financing conditions in the industrialised nations. Another driver is the extensive, long-term investment programmes initiated by many emerging nations with a view to promoting residential construction and establishing, expanding and modernising their water management systems. Many of the relevant markets for the Wilo Group are growing, some extremely dynamically. However, competition in some regions and product areas is extremely intensive and requires strenuous effort within the entire company.

The Wilo Group is expected to record net sales growth of around 5 percent in the 2019 financial year.

The numerous risks in terms of the economy, exchange rates and interest rates, and hence for the Wilo Group's business development, require particularly anticipatory, risk-conscious and flexible company management. Provided the impacts of the risks remain limited, demand should be brisk in most of the countries and market segments of importance to the Wilo Group in 2019. The net sales and cost planning for 2019 takes the described uncertainties into account. Current developments are also continuously observed and new trends are anticipated, analysed and evaluated in a timely manner. This allows the Wilo Group to leverage the growth potential in regions and countries that are enjoying positive development on a targeted basis, as well as implementing additional risk mitigation measures in regions and markets that could be affected by potential setbacks. The Executive Board of the Wilo Group is confident that the company will enjoy successful further development in line with its corporate strategy in this generally positive but uncertain environment.

On the basis of the expected regional business development described above, the Executive Board anticipates growth in the Wilo Group's net sales of around 5 percent in the 2019 financial year. This is based on the assumptions that the world economy will develop as forecast and largely free of disruption and that there will be no major upheaval on the currency and capital markets.

The Executive Board has set strict profitability targets in order to ensure the Wilo Group's business agility, flexibility and independence at all times. Short-term deviations from these profitability targets will be accepted as long as they are due to measures to secure growth and future viability. With the growth projects initiated and continued in 2018 and the targeted reorganisation measures with the aim of reducing costs, the Wilo Group is well prepared to meet the challenges of the new financial year. These initiatives have improved the structural foundations for accelerated, profitable growth and sustainably strengthened the Wilo Group's future viability. The aim is to steer profitability, in terms of the EBIT margin, back into the strategic target corridor of between 9 percent and 11 percent in the short to medium term. In the previous year profitability was also impacted by non-recurring effects. The Executive Board of the Wilo Group is aiming to improve the EBIT margin to around 9 percent in 2019, thereby reaching the lower end of the target corridor.

The Wilo Group systematically aligns its research and development to its medium- and long-term corporate strategy. The Ambition 2025 corporate strategy reaffirms the primary objectives of remaining independent and generating profitable growth. This requires consistently strong innovation. The Wilo Group stands for future-oriented, innovative products and system solutions and intends to press ahead with its evolution into a solution provider. In this respect, research and development have traditionally played an important role and will continue to do so in future. Accordingly, expenditure for research and development will again reach a high level in 2019 irrespective of temporary factors affecting the economy or the Group's markets.

The Wilo Group's objective of accelerated and profitable growth also builds upon the extensive investments in recent years. This is creating a modern, efficient, future-oriented corporate infrastructure that will promote growth. This is a key requirement for sustainable growth and high profitability. Multi-year projects, particularly the strategic location development project at the headquarters in Dortmund, will continue. Construction work on the Smart Factory will be completed in 2019, while the completion of the new administrative building is scheduled for 2020. At all other locations, too, the Wilo Group is continuously examining the existing infrastructure and capacities to ensure that they are fit for the future and making targeted investments if this can generate positive effects for the company. In addition, the Wilo Group's digital transformation will continue to be pursued at a fast pace in 2019. For this reason, Wilo will continue to invest substantially in innovative manufacturing technologies and the expansion of the existing sales and production locations in future. The Wilo Group's capital expenditure will remain high in 2019 and is expected to increase slightly compared with the previous year. In line with the corporate strategy, the Group is also focusing on company acquisitions that are beneficial from a strategic and economic perspective.

The long-term financing structure, the extremely high equity ratio of around 50 percent and cash of over EUR 130 million constitute a solid basis for the long-term profitable growth of the Wilo Group. Under the terms of the long-term financing instruments in place as at 31 December 2018, WILO SE is required to comply with certain standard financial ratios, or covenants. WILO SE fully complied with these covenants in the 2017 and 2018 financial years and there are currently no indications that it will be unable to comply with them in future.

The risks and the impact of any possible forecasting inaccuracies regarding the development of the sales and procurement markets, and the currency markets in particular, are still considered to be high overall in the 2019 financial year. This means the net sales and EBIT forecasts of the Wilo Group are subject to greater uncertainty. The global orientation of the Wilo Group means that regional economic fluctuations can be partially offset. However, a significantly more pronounced slowdown in global economic momentum than currently anticipated – or massive changes in the relevant exchange rates, the escalation of political crises or a drastic deterioration of international trade relationships – could substantially influence the growth targets of the Wilo Group.

The business targets for 2019 are embedded in the Ambition 2025 corporate strategy. They are based on a professional and detailed planning process and take into account 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 compared with the previous year are based on an unchanged basis of consolidation and unchanged exchange rates.

CONSOLIDATED FINANCIAL STATEMENTS

Consolidated income statement

for the period 1 January to 31 December 2018

EUR thousand	Note	**2018**	2017
Net sales	(8.1)	1,463,528	1,424,778
Cost of sales	(8.2)	–941,747	–901,145
Gross profit		**521,781**	**523,633**
Selling expenses	(8.3)	–270,986	–258,919
Administrative expenses	(8.4)	–102,236	–105,192
Research and non-capitalised development costs	(8.5)	–50,743	–47,826
Other operating income	(8.6)	14,932	13,583
Other operating expenses	(8.7)	–20,811	–19,007
Earnings before interest and taxes (EBIT)	(8.10)	**91,937**	**106,272**
Net income from investments carried at equity	(9.4)	0	–3,490
Net finance costs	(8.8)	–8,557	–5,680
Consolidated net income before taxes	(8.10)	**83,380**	**97,102**
Income taxes	(8.9)	–19,158	–11,183
Consolidated net income	(8.10)	**64,222**	**85,919**
of which: attributable to non-controlling interests		0	4
of which: attributable to shareholders of WILO SE		64,222	85,915
Basic and diluted EPS amount to: EUR 6.55 (previous year: EUR 8.76) per ordinary share	(8.11)		

Consolidated statement of comprehensive income

for the period 1 January to 31 December 2018

EUR thousand	Note	**2018**	2017
Consolidated net income		**64,222**	**85,919**
Items not reclassified to profit or loss in the future			
Remeasurement of pension obligation and plan assets		214	5,351
On which current income taxes	(8.9)	–107	–1,447
Initial application of IFRS 9 and IFRS 15	(3.0)	–778	0
On which current income taxes	(8.9)	420	0
		–251	**3,904**
Items that may be reclassified to profit or loss in the future			
Currency translation differences		–12,335	–17,962
Currency translation differences deferred taxes	(8.9)	214	–504
		–12,121	**–18,466**
Cash flow hedges – reclassified to consolidated income statement	(12.1)	–101	–668
Other comprehensive income		**–12,473**	**–15,230**
Total comprehensive income		**51,749**	**70,689**
of which: attributable to non-controlling interests		0	4
of which: attributable to shareholders of WILO SE		51,749	70,685

Consolidated statement of financial position

as at 31 December 2018

ASSETS			
EUR thousand	Note	**2018**	2017
Non-current assets			
Intangible assets	(9.1)	222,005	204,949
Property, plant and equipment	(9.2)	451,214	382,985
Investments carried at equity	(9.4)	2,640	2,640
Trade receivables	(9.6)	2,299	2,762
Other financial assets	(9.7)	6,509	6,148
Other receivables and assets	(9.8)	9,281	10,928
Deferred tax assets	(8.9)	73,272	58,367
		767,220	**668,779**
Current assets			
Inventories	(9.5)	264,458	234,593
Trade receivables	(9.6)	283,932	269,160
Other financial assets	(9.7)	7,123	5,941
Other receivables and assets	(9.8)	30,833	29,130
Cash	(9.9)	135,412	161,814
Assets held for sale	(9.10)	1,811	0
		723,569	**700,638**
Total assets		**1,490,789**	**1,369,417**

EQUITY AND LIABILITIES			
EUR thousand	Note	**2018**	2017
Equity	(9.11)		
Issued capital		26,980	26,980
./. Nominal amount of treasury shares		–1,477	–1,477
Subscribed capital		25,503	25,503
Capital reserves		26,161	26,161
Other reserves		716,458	685,018
Treasury share reserve		–29,766	–29,766
Equity attributable to shareholders of WILO SE		738,356	706,916
Non-controlling interests		0	63
		738,356	**706,979**
Non-current liabilities			
Financial liabilities	(9.12)	198,123	191,214
Trade payables	(9.13)	103	89
Other financial liabilities	(9.14)	7,196	7,462
Other liabilities	(9.15)	3,568	1,601
Provisions for pensions and similar obligations	(9.16)	80,030	79,669
Other provisions	(9.17)	3,571	3,624
Deferred tax liabilities	(8.9)	49,690	42,282
		342,281	**325,941**
Current liabilities			
Financial liabilities	(9.12)	70,357	10,911
Trade payables	(9.13)	172,287	169,024
Other financial liabilities	(9.14)	35,912	33,813
Other liabilities	(9.15)	91,557	78,959
Other provisions	(9.17)	40,039	43,790
		410,152	**336,497**
Total equity and liabilities		**1,490,789**	**1,369,417**

Consolidated statement of cash flows

for the period 1 January to 31 December 2018

EUR thousand	**2018**	2017	Change
Earnings before interest and taxes (EBIT)	**91,937**	**106,272**	**–14,335**
Depreciation and amortisation of intangible assets and property, plant and equipment	61,557	54,257	7,300
Decrease/increase in provisions	–4,665	–12	–4,653
Losses/gains on disposals of intangible assets and property, plant and equipment	–56	135	–191
Increase in inventories	–33,649	–26,316	–7,333
Increase in trade receivables	–22,363	–10,652	–11,711
Increase in trade payables	5,085	29,282	–24,197
Increase/decrease in other assets/liabilities not attributable to investing or financing activities	6,480	13,979	–7,499
Other non-cash expenses and income	33	7,217	–7,184
Operating cash flow before income taxes	**104,359**	**174,162**	**–69,803**
Income taxes paid	–22,653	–33,767	11,114
Cash flow from operating activities	**81,706**	**140,395**	**–58,689**
Purchases of intangible assets	–21,858	–27,374	5,516
Disposals of property, plant and equipment	5,764	266	5,498
Purchases of property, plant and equipment	–130,046	–94,779	–35,267
Purchases of consolidated companies	0	–70,855	70,855
Other purchases attributable to investing activities	–2,408	–531	–1,877
Cash flow from investing activities	**–148,548**	**–193,273**	**44,725**
Dividend payment	–19,323	–17,268	–2,055
Proceeds from assuming financial liabilities	70,068	79,584	–9,516
Repayment of financial liabilities	–3,713	–14,797	11,084
Interest payments received	2,279	1,992	287
Interest payments made	–8,535	–7,889	–646
Cash flow from financing activities	**40,776**	**41,622**	**–846**
Change in cash	–26,066	–11,256	–14,810
Effects of exchange rate changes on cash	–753	–5,204	4,451
Changes on cash resulting from the basis of consolidation	417	0	417
Cash at beginning of period	161,814	178,274	–16,460
Cash at end of period	**135,412**	**161,814**	**–26,402**

Detailed information can be found in note (10).

Consolidated statement of changes in equity

for the period 1 January to 31 December 2018

	Subscribed capital			Other reserves							
EUR thousand	Issued capital	Nominal amount of treasury shares	Capital reserves	Retained earnings	Currency translation reserve	Hedging reserve	Reserve for remeasurement of pensions	Treasury share reserve	Equity attributable to shareholders of WILO SE	Non-controlling interests	**Equity**
1 January 2017	**26,980**	**–1,477**	**26,161**	**679,079**	**–22,766**	0	**–24,690**	**–29,766**	**653,521**	**61**	**653,582**
Consolidated net income 2017	0	0	0	85,915	0	0	0	0	85,915	4	85,919
Other comprehensive income	0	0	0	0	–18,466	–668	3,904	0	–15,230	0	–15,230
Dividend payments	0	0	0	–17,268	0	0	0	0	–17,268	0	–17,268
Other changes	0	0	0	–22	0	0	0	0	–22	–2	–24
31 December 2017	**26,980**	**–1,477**	**26,161**	**747,704**	**–41,232**	**–668**	**–20,786**	**–29,766**	**706,916**	**63**	**706,979**
1 January 2018	**26,980**	**–1,477**	**26,161**	**747,704**	**–41,232**	**–668**	**–20,786**	**–29,766**	**706,916**	**63**	**706,979**
Consolidated net income 2018	0	0	0	64,222	0	0	0	0	64,222	0	64,222
Other comprehensive income	0	0	0	–358	–12,121	–101	107	0	–12,473	0	–12,473
Dividend payments	0	0	0	–19,323	0	0	0	0	–19,323	0	–19,323
Other changes	0	0	0	–986	0	0	0	0	–986	–63	–1,049
31 December 2018	**26,980**	**–1,477**	**26,161**	**791,259**	**–53,353**	**–769**	**–20,679**	**–29,766**	**738,356**	**0**	**738,356**

Detailed information can be found in note (7) and note (9.11).

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 of preparation

The consolidated financial statements of WILO SE as at 31 December 2018 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 2017 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. The consolidated financial statements are in compliance with IFRS as endorsed in the EU and present a true and fair view of the Group's economic situation.

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).

(3.) Adoption of new and amended IFRS

IFRS 9 FINANCIAL INSTRUMENTS As at 1 January 2018, the Wilo Group applied the new standard IFRS 9 Financial Instruments for the first time Wilo elected to use the cumulative method for the transition. For this reason, the transitional effects are recognised in other comprehensive income. Due to the transition methods deployed by Wilo for applying this standard, the comparative information in these financial statements was not restated. IFRS 9 specifies the principles for recognising and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This standard replaces IAS 39 Financial Instruments: Recognition and Measurement.

In addition, for the financial year 2018 Wilo applied amendments to IFRS 7 Financial Instruments: Disclosures for the notes to the financial statements for the 2018 financial year. Due to the selected transition method, the comparative information is not restated.

At Wilo, the impact from the initial application of IFRS 9 is limited largely to the introduction of new guidelines on the classification and measurement of financial instruments and the application of the new model for expected credit losses. At Wilo, the IFRS 9 concept of expected credit loss replaces the previous concept of the general valuation allowance. As a result, the first application impact of the expected credit loss model with the reversal of the general valuation allowance is netted in the transition reserve. In the transition to IFRS 9, the opening balance figures as at 1 January 2018 for trade receivables and other reserves increased by EUR 1,240 thousand.

CLASSIFICATION AND MEASUREMENT OF FINANCIAL ASSETS AND FINANCIAL LIABILITIES IN ACCORDANCE WITH IFRS 9
IFRS 9 has three main categories for classifying assets: "At amortised cost", "At fair value with changes through other comprehensive income (FVOCI)" and "At fair value with changes through profit and loss (FVTPL)". The classification of financial instruments and relevant profits and losses in accordance with IFRS 9 are described under (7.) Accounting policies "Financial assets".

IFRS 9 largely retains the existing requirements of IAS 39 for classifying financial liabilities. In respect to financial liabilities and derivative financial instruments, the initial application of IFRS 9 has no material impact on the subsequent measurement principles for financial assets and liabilities of the Wilo Group. A reclassification of financial assets and thus the relative remeasurement of carrying values as at 31 December 2017 under IAS 39 was not necessary for the transition to IFRS 9 as at 1 January 2018.

The following table shows the original measurement category in accordance with IAS 39 and the new measurement category in accordance with IFRS 9 as at 1 January 2018 for each class of financial assets and financial liabilities established at Wilo:

FINANCIAL ASSETS AND LIABILITIES AS AT 1 JANUARY 2018

EUR thousand	Original measurement category under IAS 39	Measurement category under IFRS 9	Carrying amount under IAS 39	Carrying amount under IFRS 9
Current and non-current financial assets				
Trade receivables	LaR	Amortised cost	271,922	273,162
Other financial assets				
Receivables from subsidiaries, jointly controlled entities and associates	LaR	Amortised cost	151	151
Receivables from derivative financial instruments	FAHfT	FVTPL	5,883	5,883
Loans	LaR	Amortised cost	37	37
Available-for-sale financial assets	Available for sale	FVOCI	723	723
Miscellaneous financial receivables	LaR	Amortised cost	6,018	6,018
Cash	LaR	Amortised cost	161,814	161,814
Current and non-current financial liabilities				
Financial liabilities	Financial liabilities at amortised cost	Amortised cost	202,125	202,125
Trade payables	Financial liabilities at amortised cost	Amortised cost	169,113	169,113
Other financial liabilities				
Bills payable	Financial liabilities at amortised cost	Amortised cost	11,252	11,252
Liabilities to subsidiaries, jointly controlled entities and associates	Financial liabilities at amortised cost	Amortised cost	2,701	2,701
Finance lease liabilities	n/a IAS 17	n/a IAS 17	5,075	5,075
Liabilities from derivative financial instruments	FLHfT	FVTPL	534	534
Miscellaneous financial liabilities	Financial liabilities at amortised cost	Amortised cost	21,713	21,713

ABBREVIATIONS IAS 39

- Loans and Receivables (LaR)
- Available for Sale (AfS)
- Financial Assets Held for Trading (FAHfT)
- Financial Liabilities measured at Amortized Cost (FLAC)
- Financial Liabilities Held for Trading (FLHfT)

IFRS 15 REVENUE FROM CONTRACTS WITH CUSTOMERS As at 1 January 2018, for the first time the Wilo Group applied the new standard IFRS 15 "Revenue from Contracts with Customers". The new standard specifies an extensive framework for determining whether, when and in what amount to recognise revenue. IFRS 15 replaces existing guidelines on the recognition of revenue, including IAS 18 "Revenue", IAS 11 "Construction Contracts" and IFRIC 13 "Customer Loyalty Programmes". In accordance with IFRS 15, revenue is recognised when a customer obtains control over the goods or services. Determining whether control is transferred at a point in time or over time requires the exercise of judgement. Wilo applies the modified retrospective method in the transition to IFRS 15, whereby the cumulative adjustments as at 1 January 2018 are recorded in other comprehensive income. On the basis of this transition method deployed by Wilo for the application of IFRS 15, the comparative information in these financial statements was not restated. The comparative information of the previous year is based on IAS 18, IAS 11 and the corresponding interpretations. In addition, the disclosures in accordance with IFRS 15 are generally not applied to comparative information.

The impact of the initial application of the standard is due to later revenue realisation from sales contracts with warranties which extend beyond the statutory warranty coverage period.

In the transition to IFRS 15, for the first time contract liabilities of EUR 2,018 thousand were reported under other liabilities as at 1 January 2018. Thus other reserves were reduced by the same amount through other comprehensive income.

The following standards, interpretations and amendments to existing standards were adopted for the first time in the 2018 financial year, but had no or no material effect on the consolidated financial statements of WILO SE:

- Amendments to IFRS 2 "Share-based Payment"
- Amendments to IFRS 4 "Insurance Contracts"
- Amendments to IAS 40 "Investment Property"
- IFRIC 22 "Foreign Currency Transactions and Advance Consideration"
- Various amendments as part of the "Improvements to International Financial Reporting Standards 2014–2016" regarding IFRS 1 and IAS 28

The following standards, amendments to existing standards and interpretations issued by the IASB and the IFRS Interpretations Committee are not yet effective in the 2018 financial year or have not yet been endorsed by the European Union. WILO SE is not adopting early these standards, interpretations or amendments to existing standards or interpretations:

- Framework "Amendments to References to the Conceptual Framework
- Amendments to IAS 1 and IAS 8 "Definition of Material"
- Amendments to IAS 19 "Plan Amendment, Curtailment or Settlement"
- Amendments to IFRS 3 "Definition of a Business"
- Amendments to IFRS 9 "Financial instruments: Prepayment Features with Negative Compensation"
- IFRS 16 "Leases"
- IFRS 14 "Regulatory Deferral Accounts"
- Amendments to IFRS 10 "Consolidated Financial Statements" and IAS 28 "Investments in Associates and Joint Ventures" – Sale or Contribution of Assets between an Investor and its Associate or Joint Venture and Long-term Interests in Associates and Joint Ventures
- Amendments to IAS 28 "Investments in Associates and Joint Ventures" – Long-term Interests in Associates and Joint Ventures
- IFRIC 23 "Uncertainty over Income Tax Treatments"
- IFRS 17 "Insurance Contracts"
- Various amendments as part of the "Improvements to International Financial Reporting Standards 2015–2017" regarding IFRS 3 and 11 and IAS 12 and 23

IFRS 16 LEASES IFRS 16 introduces a standardised accounting model that requires leases to be recognised in the lessee's statement of financial position. A lessee recognises a right of use that represents its right to use the underlying asset and a lease liability that represents its obligation to make lease payments. There are exemptions for leases relating to assets of low value and for short-term leases.

IFRS 16 replaces the existing guidelines on leases, including IAS 17 "Leases", IFRIC 4 "Determining Whether an Arrangement Contains a Lease", SIC-15 "Operating Leases – Incentives" and SIC-27 "Evaluating the Substance of Transactions in the Legal Form of a Lease". The standard is applicable for the first time in the first reporting period of a financial year beginning on or after 1 January 2019. Early application is permissible for entities that already apply IFRS 15 "Revenue from Contracts with Customers" on or before the date of the first-time application of IFRS 16. Wilo will not apply IFRS 16 early. The Group has begun to evaluate the potential impact of the application of IFRS 16 on its consolidated financial statements, without quantifying this impact at present. No decision has yet been made as to which transition method to use.

The first-time adoption of the other standards, interpretations and amendments to existing standards listed above are not expected to have an effect on the consolidated financial statements of WILO SE.

(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 2018 include seven (previous year: seven) German entities and 60 (previous year: 56) foreign subsidiaries. In addition, one joint venture (previous year: one) is included in the consolidated financial statements using the equity method.

A foreign subsidiary is in the process of voluntary liquidation. The income relating to the loss of control of EUR 1,029 thousand was recognised in the consolidated income statement.

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. The fair value of any assets and liabilities not acquired is reported under non-controlling interests.

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, 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.

One foreign subsidiary applies IAS 29 for hyperinflation. Here the items of the consolidated income statement are translated at closing rates. The overall impact from the application of IAS 29 is not material for the Group.

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

EXCHANGE RATES

		Annual average rate		Rate as at 31 Dec.	
	EUR 1 =	**2018**	2017	**2018**	2017
Pound sterling	GBP	0.8855	0.8753	0.8981	0,8883
Chinese renminbi (yuan)	CNY	7.8060	7.6715	7.8426	7,8216
Indian rupee	INR	80.5622	73.9390	79.6527	76,7139
Polish zloty	PLN	4.2694	4.2463	4.2938	4,1786
Russian rouble	RUB	74.0612	66.2766	79.7958	69,1006
Swedish krona	SEK	10.2972	9.6461	10.1631	9,8196
Swiss franc	CHF	1.1506	1.1162	1.1266	1,1705
South Korean won	KRW	1,294.6704	1,278.7502	1,277.0302	1,283,7969
Turkish lira	TRY	5.7070	4.1513	6.0662	4,5493
US dollar	USD	1.1780	1.1393	1.1446	1,201

(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.

ESTIMATES AND ASSUMPTIONS 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. Essentially the following matters are affected by estimates and assumptions:

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

In goodwill impairment testing, the recoverable amount of cash-generating units is measured as the higher of fair value less costs to sell and value in use. Fair value is the best estimate of the amount obtainable at the end of the reporting period from the sale of a cash-generating unit in an arm's length transaction. Value in use is the present value of the future cash flows expected to be derived from continuing use of a cash-generating unit.

The Wilo Group uses the value in use as calculated using the discounted cash flow method in impairment testing for goodwill. The discounted cash flows are based on the strategic planning for a period of five years.

The cash flows forecasts take into account past experience and are based on the best estimate of future development by the company's management. Cash flows after the 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 include discounted cash flows, estimated growth rates, the weighted average cost of capital and tax rates. These estimates and the underlying method 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 104,179 thousand as at the end of the reporting period (previous year: EUR 102,268 thousand). Further information can be found in "Intangible assets" and "Impairment of assets" (note (7)) and note (9.1).

For intangible assets and items of property, plant and equipment, the useful lives used consistently throughout the Group 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 incorrect. The Wilo Group reported intangible assets of EUR 222,005 thousand (previous year: EUR 204,949 thousand) and property, plant and equipment of EUR 451,214 thousand (previous year: EUR 382,985 thousand) as at the end of the reporting period.

Further information can be found in "Intangible assets", "Property, plant and equipment" and "Impairment of assets" (note (7)) and under 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 21,700 thousand (previous year: EUR 19,932 thousand) as at the end of the reporting period. Further information can be found in "Financial assets" (note (7)) and note (9.6).

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 essentially reported provisions for possible warranty claims and provisions for bonuses and customer rebates under other provisions. In total, other provisions of EUR 43,610 thousand (previous year: EUR 47,414 thousand) were reported as at the end of the reporting period. Further information can be found in "Other provisions" (note (7)) and note (9.17).

The calculation of provisions for pensions and similar post-employment obligations is based on key premises, such as the discounting rates, salary trends, life expectancies and assumptions regarding trends in healthcare. The discounting rates used are determined on the basis of the returns on government 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. Further information can be found in "Pensions and similar obligations" (note (7)) and 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 amounts differ from those estimated, the carrying amounts of the relevant assets and liabilities are adjusted accordingly.

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

- When allocating financial assets in accordance with IFRS 9 to the measurement categories at amortised cost, at fair value through property and loss (FVTPL) and at fair value, with changes through other comprehensive income (FVOCI), judgements must be made.
- 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.
- In realising revenues in accordance with IFRS 15 determining whether control is transferred to the customer at a point in time or over time requires the exercise of judgement.

EXPENSE AND REVENUE RECOGNITION In accordance with IFRS, Wilo realises sales when control of distinct goods or services is transferred to the customer, that is, when the customer has the ability to determine the use of the transferred goods or services and obtain substantially all the remaining benefits. This requires that an agreement with enforceable rights and obligations exists and receiving the consideration – taking into account the customer's creditworthiness – is probable. Revenue corresponds to the transaction price to which Wilo expects to be entitled. At Wilo 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 revenues to net financial costs. If a contract covers several distinct goods and/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, revenue is realised either at a point in time or over a specific period time. Net sales are presented net of 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 plus 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 15,520 thousand (previous year: EUR 15,753 thousand). Furthermore, the addition to capitalised development costs also includes borrowing costs of EUR 1,348 thousand (previous year: EUR 1,903 thousand), so the addition in note 9.1 totals EUR 16,868 thousand (previous year: EUR 17,656 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 2018 financial year, borrowing costs were capitalised in the amount of EUR 3,004 thousand (previous year: EUR 2,644 thousand). The borrowing cost rate, which forms the basis for determining the capitalisable borrowing costs, was 2.41 percent in the year under review (previous year: 2.41 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).

The amortisation for the financial year is allocated to the corresponding functional areas. 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 impairment testing of goodwill shows the goodwill to be impaired, the impairment loss is recognised under other operating expenses.

If the conditions of IAS 38 are met, development costs with a finite useful life are capitalised and amortised on a straight-line basis over their useful lives (15 years in the Wilo Group).

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. Useful lives are based on the standard depreciation of the assets.

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

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

LEASES Wilo does not lease out any items itself, instead acting as a lessee only. Leases that meet the classification criteria for finance leases under IAS 17 are initially recognised as assets and liabilities at amounts equal to the fair value of the leased property or, if lower, the present value of the minimum lease payments, each determined at the inception of the lease. If it is not reasonably certain that the lessee will obtain ownership by the end of the lease term, the leased asset is fully depreciated on a straight-line basis over the shorter of the lease term and its useful life. In such a case, the useful life is taken as a basis. On first-time recognition of finance leases under IAS 17, the capitalised amount and the liability are identical. Leased property is returned to the lessor at the end of the lease term.

Where consolidated companies are lessees under operating leases, lease payments are recognised on a straight-line basis over the term of the lease in profit or loss.

IMPAIRMENT OF ASSETS At the end of each reporting period it is assessed whether there is any indication that an asset may be impaired. Depreciable assets are tested for impairment if there is an indication that their carrying amount may exceed their recoverable amount. The recoverable amount is the higher of fair value less costs to sell and value in use.

Goodwill is tested for impairment once per financial year when the annual financial statements are prepared at the end of the reporting period and whenever there are indications that it may have become impaired ("triggering event"). In 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 a cash-generating unit.

The recoverable amount is measured using the discounted cash flow method on the basis of approved planning over 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. The cash-generating units at the Wilo Group are the *Heating, Ventilation, Air-Conditioning* and *Clean and Waste Water* product divisions.

The impairment test for goodwill performed in the 2018 financial year showed that there was no need for recognising an impairment loss.

In impairment testing, goodwill and all other assets are allocated to cash-generating units and compared to the recoverable amount of the respective cash-generating unit. If the recoverable amount of a cash-generating unit is lower than the total carrying amount of the goodwill and all other assets allocated to it, an impairment loss must be recognised in profit or loss. An impairment loss is deducted from the goodwill allocated to the cash-generating unit and then pro rata from the other assets in the unit. Impairment losses are reported in other operating expenses in profit and loss.

The Wilo Group uses the value in use of each product division as its recoverable amount for the purposes of goodwill impairment testing. Goodwill is also recoverable if the key parameters, in particular the discount rate before tax and the long-term growth rate, are implemented in a sensitivity analysis.

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

The discount rate used in annual impairment testing of cash-generating units is determined on the basis of market data. A rate of 11.9 percent or 11.8 percent before income taxes was used for the cash-generating units in the 2018 financial year (previous year: 11.4 percent or 11.6 percent before income taxes). As in the previous year, the long-term growth factor for the cash-generating units is 0.1 percent or 0.7 percent.

2018 FINANCIAL YEAR

Product division	Goodwill in EUR thousand	Long-term growth factor in %	Discount rate before income taxes in %
Heating, Ventilation, Air-Conditioning	7,639	0.1	11.9
Clean and Waste Water	96,540	0.7	11.8

The impairment test for capitalised development costs performed in the 2018 financial year resulted in an impairment loss of EUR 1,424 thousand.

INVESTMENTS CARRIED AT EQUITY Investments in associates and joint ventures are reported in investments carried at equity.

Associates are those entities in which the Wilo Group has significant influence, but not control or joint control, over the financial and operating policies.

Joint ventures are based on joint arrangements whereby the Wilo Group and a third party have joint control of the arrangement and rights to the net assets of the arrangement.

Associates and joint ventures are accounted for using the equity method. They are recognised at cost at the acquisition date. Cost includes transaction costs directly attributable to the acquisition. At subsequent reporting dates, the carrying amount is increased or reduced by the changes in equity attributable to the Wilo Group's equity interest. There were no significant intragroup profits or losses from transactions between Group companies and investments carried at equity 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 that are assets. Within the Wilo Group, these financial assets are reported under trade receivables, other financial assets and cash.

Financial assets are recognised and measured in line with IFRS 9, IAS 32 and IFRS 13. In accordance with IRFS 9, financial assets are recognised in the consolidated balance sheet when Wilo is a party to a corresponding contract or a contractual agreement.

On the basis of IFRS 9 Financial Instruments– business models of "Hold to collect", "Trade" and "Hold to collect and sell", the financial assets are allocated to one of the following measurement categories:

- *Carried at amortised cost* Loans and receivables which are not derivative financial assets that are not quoted on an active market whose payments are fixed or determinable are assigned to this measurement category. Subsequent measurement is at amortised cost. This category includes trade receivables in addition to receivables and loans classified as other financial assets. The interest income from items in this category is calculated using the effective interest method, provided they are not current receivables and the effect of discounting is immaterial.
- *At fair value, with changes through profit and loss (FVTPL)* Only derivative financial instruments not used as hedge accounting instruments are allocated to this category in the Wilo Group.
- *At fair value, with changes through other comprehensive income (FVOCI)* In line with the option in IFRS 9, Wilo allocates to this category equity instruments which are not held for speculative purposes (held for trading). In the Wilo Group the financial assets in this measurement category consist mainly of investments in companies for which no quoted market price exists and no reliable estimate of fair value can be made. These comprise shares in unconsolidated subsidiaries and associated companies not accounted for at equity. Recognition and subsequent measurements take place at fair value. Only when no better information is available does a measurement of the fair value take place on the basis of cost. Transaction costs that are directly attributable to the acquisition are also taken into account here. When these financial assets are derecognised, the cumulative gains and losses from fair value measurement recognised in other comprehensive income are not taken to profit or loss but remain in other comprehensive income.

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. Current trade receivables are recognised at nominal amount. Discounting is not performed on other current receivables.

The risk provision and thus an impairment is based on the expected loss credit model of IFRS 9. These measurement regulations 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 is independent of the change of the 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 payables and receivables, contract assets and lease payments there is a simplified approach using an impairment matrix. These receivables are subject to the lifetime expected credit loss.

If financial assets measured at amortised cost show objective, substantial indications of impairment, they are tested to see if the carrying amount of the asset exceeds the present value of the expected future cash flows discounted using the original effective interest rate; an impairment loss is recognised if this is the case. The difference is deducted from the carrying amount of the financial asset in profit or loss either directly or by way of an allowance account.

Financial assets are derecognised if the contractual rights to payments from the financial assets no longer exist or the financial assets are transferred with all material risks and rewards.

For the comparative period, depending on the transitional method used, the accounting policies of IAS 39 are retained. In the comparative period, subsequent measurement is in line with the classification of financial assets into the following categories in accordance with IAS 39, each of which is subject to different measurement rules:

- *Financial assets at fair value through profit and loss and financial assets held for trading* (HAGfT) comprise financial assets held for trading. Any changes in the fair value of financial assets in this category are recognised in profit or loss at the time their value increases or decreases. Only derivative financial instruments not used as hedge accounting instruments are allocated to this category in the Wilo Group.
- *Loans and receivables* are non-derivative financial assets that are not quoted on an active market whose payments are fixed or determinable and that were not allocated to a different category on initial recognition. Subsequent measurement is at amortised cost. This category includes trade receivables in addition to receivables and loans classified as other financial assets. The interest income from items in this category is calculated using the effective interest method, provided they are not current receivables and the effect of discounting is immaterial.
- *Held-to-maturity investments* are non-derivative financial assets that are quoted on an active market with fixed or determinable payments and a fixed maturity to which they are held. These are measured at amortised cost using the effective interest method. No financial assets of this category were reported by the Wilo Group as at 31 December 2017.
- *Available-for-sale financial assets* comprise non-derivative financial assets that are not classified in one of the above categories. These include in particular equity securities (e.g. shares and other interests in companies) which are contained in other financial assets.

INVENTORIES Raw materials and 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 and supplies and merchandise 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 The Wilo Group uses derivatives solely to reduce exchange rate, interest rate and commodity price risk. These instruments are hedges from an economic perspective. Wilo continues to elect using hedge accounting under IAS 39.

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

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

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

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

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

Deferred tax assets are also recognised in respect of the expected utilisation of unused tax loss carry-forwards in subsequent years provided that according to the estimates made by the Executive Board the tax loss carry-forwards are sufficiently likely to be utilised. Deferred tax assets are tested for impairment as at the end of the reporting period. The impairment test is based on approved planning over a strategic planning horizon of five years. The plans are based on past experience and projected market development. Deferred tax assets on loss carry-forwards of EUR 35,242 thousand (previous year: EUR 22,953 thousand) were recognised as at the end of the reporting period.

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

Deferred tax assets are only 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 2018 is provided in note (8.9).

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

EQUITY Treasury shares are measured at cost and reported separately as a deduction from equity. Treasury shares in the notional amount of EUR 1,477 thousand (previous year: EUR 1,477 thousand) are openly deducted from issued capital.

FINANCIAL LIABILITIES Financial liabilities comprise primary 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, the derivative liabilities are recognised at fair value, with changes in value being recognised at fair value through profit or loss.

In subsequent measurement, finance lease liabilities are carried at the present value of the lease payments.

Financial liabilities are derecognised if the contractual obligations are discharged, cancelled or expire.

Financial assets and financial liabilities are generally reported without offsetting.

OTHER LIABILITIES Other liabilities mainly comprise tax liabilities, advance payments received, deferrals and liabilities to employees that are not financial liabilities as defined by IAS 32. These are measured at amortised cost.

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 2018**	31 December 2017
Discount rate	2.05	1.77
Pension adjustment	1.99	1.99
Salary increase	3.19	3.07

The net interest expense is calculated by multiplying the net pension liability by the discount rate of 2.05 percent (previous year: 1.77 percent).

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 Provisions for taxes include current income tax liabilities. 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	2018	%	2017	%
Mature Markets	955,499	65.3	926,646	65.0
Emerging Markets	508,029	34.7	498,132	35.0
Total	**1,463,528**	**100.0**	**1,424,778**	**100.0**

The two reportable segments, Mature Markets and Emerging Markets consist of the following countries:

- Mature Markets: All European countries, Russia, Belarus, Ukraine, Caucasus nations and nations of the American continent
- Emerging Markets: India, China, South Korea, Southeast Asian nations, Australia and Oceania, Turkey, Near East and Middle East countries, African nations

Net sales include revenue from the sale of goods of EUR 1,346,096 thousand (previous year: EUR 1,312,381 thousand) and service income of EUR 117,432 thousand (previous year: EUR 112,397 thousand).

(8.2) Cost of sales

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

COST OF SALES

EUR thousand	2018	2017
Cost of materials	-650,792	-621,020
Staff costs	-158,062	-152,663
Depreciation and amortisation of intangible assets and property, plant and equipment	-39,837	-33,505
Other staff costs including personnel leasing	-26,628	-23,589
Purchased services	-13,948	-13,142
Third-party maintenance	-11,556	-11,167
Energy costs	-7,543	-7,834
Small tools	-5,032	-4,404
Supplies and consumables	-4,608	-3,230
Travel and entertainment expenses	-2,790	-2,841
Other	-20,951	-27,750
Total	**-941,747**	**-901,145**

(8.3) Selling expenses

SELLING EXPENSES

EUR thousand	2018	2017
Staff costs	-147,043	-140,279
Outgoing freight	-28,990	-27,566
Advertising costs	-20,692	-20,256
Sales force costs	-18,178	-18,858
Depreciation and amortisation of intangible assets and property, plant and equipment	-7,670	-7,688
Other staff costs including personnel leasing	-5,836	-4,950
Write-downs on trade receivables (net)	-4,052	954
Defaults	-2,426	-1,637
Purchased services	-3,975	-6,995
Legal and consulting costs	-3,198	-3,431
Supplies and consumables	-2,436	-2,494
Communication costs	-2,333	-2,188
Other	-24,157	-23,531
Total	**-270,986**	**-258,919**

(8.4) Administrative expenses

ADMINISTRATIVE EXPENSES

EUR thousand	**2018**	2017
Staff costs	–56,343	–56,833
Legal and consulting costs	–8,282	–11,871
Depreciation and amortisation of intangible assets and property, plant and equipment	–8,895	–10,065
Purchased services	–5,702	–6,304
Other staff costs including personnel leasing	–4,539	–4,342
Travel and entertainment expenses	–3,145	–3,217
Communication costs	–1,517	–1,765
Other	–13,813	–10,795
Total	**–102,236**	**–105,192**

(8.5) Research and non-capitalised development costs

RESEARCH AND NON-CAPITALISED DEVELOPMENT COSTS

EUR thousand	**2018**	2017
Staff costs	–39,640	–38,805
Purchased services	–5,928	–6,957
Depreciation and amortisation of intangible assets and property, plant and equipment	–5,155	–2,999
Other staff costs including personnel leasing	–1,835	–1,519
Material product development	–1,718	–1,695
Third-party maintenance	–1,334	–1,329
Legal and consulting costs	–1,032	–1,246
Other	–9,621	–9,029
	–66,263	**–63,579**
Capitalised development costs	15,520	15,753
Total	**–50,743**	**–47,826**

(8.6) Other operating income

OTHER OPERATING INCOME

EUR thousand	**2018**	2017
Foreign-currency gains from operating activities	5,995	7,400
Income from disposals of intangible assets and property, plant and equipment	554	635
Government grants	2,099	1,980
Insurance compensation	608	211
Rental income	97	45
Income from deconsolidation	1,029	0
Other	4,550	3,312
Total	**14,932**	**13,583**

The foreign-currency gains from operating activities of EUR 5,995 thousand (previous year: EUR 7,400 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 8,888 thousand (previous year: EUR 12,356 thousand) from these items are reported under other operating expenses (see note (8.7)). As subsidiaries mostly trade with customers and suppliers in local currency, these foreign-currency gains and losses mainly arise on intragroup transactions.

(8.7) Other operating expenses

OTHER OPERATING EXPENSES

EUR thousand	**2018**	2017
Foreign-currency losses from operating activities	–8,888	–12,356
Losses on disposals of intangible assets and property, plant and equipment	–498	–770
Other	–11,425	–5,881
Total	**–20,811**	**–19,007**

(8.8) Net finance costs

Net finance costs break down as follows:

NET FINANCE COSTS

EUR thousand	2018	2017
Net interest costs	-3,252	-3,253
Other net finance costs	-5,305	-2,427
Total	**-8,557**	**-5,680**

Net interest costs consists of the following interest income and expenses:

NET INTEREST INCOME

EUR thousand	2018	2017
Interest income on cash	2,279	1,992
Interest income	**2,279**	**1,992**
Interest expenses on financial liabilities	-7,923	-7,538
Interest on finance leases	-612	-351
Capitalised borrowing costs	3,004	2,644
Interest expenses	**-5,531**	**-5,245**
Total	**-3,252**	**-3,253**

Other net finance costs breaks down as follows:

OTHER NET FINANCE INCOME

EUR thousand	2018	2017
Gains on derivative financial instruments	797	1,803
Foreign-currency gains from financing activities	1,131	0
Other	149	50
Other financial income	**2,077**	**1,853**
Losses on derivative financial instruments	-4,277	-2,150
Foreign-currency losses from financing activities	-1,352	-895
Interest rate effects from pensions, non-current liabilities and receivables	-1,753	-1,235
Other financial expenses	**-7,382**	**-4,280**
Total	**-5,305**	**-2,427**

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 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	2018	2017
Current tax expenses/income		
– Reporting year	-25,980	-23,725
– Adjustments for prior periods	-148	-2,329
Current income taxes	**-26,128**	**-26,054**
Deferred tax income/expense		
– from unutilised loss carry-forwards	12,288	14,942
– from changes in tax rates	-286	-2,693
– from the creation and reversal of temporary differences	-4,802	2,511
– from write-downs and reversals of write-downs on deferred tax assets	-230	111
Deferred tax income/expense	**6,970**	**14,871**
Income taxes	**-19,158**	**-11,183**

Deferred taxes are determined according to local income tax rates. For Germany, this is a combined tax rate of 30.8 percent (previous year: 30.8 percent) consisting of corporation tax, solidarity surcharge and trade tax. As in the previous year, local income tax rates for foreign entities range 9.0 percent to 34.9 percent (previous year: from 10.0 percent to 40.0 percent).

Deferred taxes by item in the statement of financial position

Deferred tax assets and liabilities are recognised as follows in relation to measurement differences on individual items of the statement of financial position and tax loss carry-forwards:

DEFERRED TAXES BY ITEM IN THE STATEMENT OF FINANCIAL POSITION

	Deferred tax assets		Deferred tax liabilities	
EUR thousand	**2018**	2017	**2018**	2017
Intangible assets	858	650	25,602	20,978
Property, plant and equipment	2,138	1,362	10,524	7,797
Inventories	5,228	5,038	419	341
Receivables and other assets	7,843	7,561	2,920	2,870
	16,067	**14,611**	**39,465**	**31,986**
Financial liabilities	0	0	686	1,145
Trade payables	677	103	5	28
Pensions and similar obligations	14,213	14,119	0	26
Other provisions and liabilities	7,073	6,581	9,534	9,097
Tax loss carry-forwards	35,242	22,953	0	0
	57,205	**43,756**	**10,225**	**10,296**
Carrying amount	**73,272**	**58,367**	**49,690**	**42,282**

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

CHANGE IN DEFERRED TAXES

EUR thousand	Net amount of deferred tax assets/ liabilities as at 31 Dec. 2017	Recognised in profit or loss	Recognised in other comprehensive income	**Net amount of deferred tax assets/ liabilities as at 31 Dec. 2018**
Intangible assets	-20,328	-4,416	0	-24,744
Property, plant and equipment	-6,435	-2,133	182	-8,386
Inventories	4,697	111	0	4,808
Receivables and other assets	4,691	176	32	4,899
Financial liabilities	-1,145	459	0	-686
Trade payables	75	598	0	673
Pensions and similar obligations	14,093	227	-107	14,213
Other provisions and liabilities	-2,516	-341	0	-2,857
Initial application of IFRS 9 and IFRS 15	0	0	420	420
Tax loss carry-forwards	22,953	12,289	0	35,242
Total	**16,085**	**6,970**	**527**	**23,582**

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. 2016	Recognised in profit or loss	Recognised in other comprehensive income	Net amount of deferred tax assets/ liabilities as at 31 Dec. 2017
Intangible assets	–15,664	–4,601	–63	–20,328
Property, plant and equipment	–7,804	1,319	50	–6,435
Inventories	4,124	684	–111	4,697
Receivables and other assets	2,915	2,016	–240	4,691
Financial liabilities	–174	–971	0	–1,145
Trade payables	57	18	0	75
Pensions and similar obligations	15,608	–68	–1,447	14,093
Other provisions and liabilities	–3,908	1,532	–140	–2,516
Tax loss carry-forwards	8,011	14,942	0	22,953
Total	**3,165**	**14,871**	**–1,951**	**16,085**

EUR 214 thousand of the deferred tax expenses of EUR 527 thousand recognised in other comprehensive income relate to currency differences. Of the remaining amount of EUR 313 thousand, EUR –107 thousand relate to the actuarial changes of the present value of the pension obligations and the remeasurement of the related plan assets. In addition, an amount of EUR 420 thousand relates to the initial application of IFRS 9 and IFRS 15.

Unutilised tax loss carry-forwards amounted to EUR 152,945 thousand (previous year: EUR 114,608 thousand) as at the end of the reporting period, EUR 102,286 thousand of which (previous year: EUR 62,764 thousand) can be carried forward indefinitely. The limited tax loss carry-forwards amount to EUR 50,659 thousand (previous year: EUR 51,844 thousand) and can be carried forward between five and 20 years.

Applying local income tax rates, deferred tax assets on loss carry-forwards of EUR 35,242 thousand (previous year: EUR 22,953 thousand) were recognised as at the end of the reporting period. A potential deferred tax asset on loss carry-forwards of EUR 8,426 thousand (previous year: EUR 8,554 thousand) was not recognised on the remaining loss carry-forwards 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 3,096 thousand (previous year: EUR 2,839 thousand) have been recognised on these distributions.

In addition, there were retained profits of EUR 150,796 thousand at subsidiaries as at 31 December 2018 (previous year: EUR 159,060 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 of approximately 15.0 percent (previous year's total: 30.8 percent) was used in the reconciliation of income taxes in the 2018 financial year. The Wilo Group reported tax expenses of EUR 19,158 thousand (previous year: EUR 11,183 thousand) in its consolidated income statement for 2018. This is EUR 6,523 thousand lower (previous year: EUR 18,725 thousand lower) than the expected tax expense of EUR 25,681 thousand (previous year: EUR 29,907 thousand) that results from applying the domestic rate of 30.8 percent (previous year: 30.8 percent) at Group level.

The difference is attributable to the following causes:

TAX RECONCILIATION

EUR thousand	**2018**	2017
Consolidated net income before taxes	83,380	97,102
Expected tax expense	**–25,681**	**–29,907**
Tax rate changes	–286	–2,693
Difference from foreign tax rates	9,856	7,597
Temporary differences arising on consolidation	–85	647
Other permanent differences	–2,797	–5,533
Tax-free income	3,597	8,692
Change in unrecognised deferred taxes on loss carry-forwards	147	12,045
Withholding tax	–3,292	–1,283
Prior-period taxes	–148	–350
Other	–469	–398
Current tax expense	**–19,158**	**–11,183**

(8.10) Consolidated net income

CONSOLIDATED NET INCOME

EUR thousand	**2018**	2017
Earnings before interest and taxes (EBIT)	**91,937**	**106,272**
Net income from investments carried at equity	0	–3,490
Net finance costs	–8,557	–5,680
Consolidated net income before taxes	**83,380**	**97,102**
Income taxes	–19,158	–11,183
Consolidated net income	**64,222**	**85,919**

EBIT is reported before net income from investments carried at equity, net finance costs and income taxes. EBIT and consolidated net income are determined from the income and expense items in the consolidated income statement. As net income from investments carried at equity relates to a company without operating business in liquidation, there was neither a profit nor a loss in financial year 2018. Net interest costs are included in the consolidated income statement in net finance costs.

(8.11) 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 in the financial year. Both basic and diluted earnings per ordinary share amount to EUR 6.55 (previous year: EUR 8.76), which was calculated after deducting income attributable to non-controlling interests. There are no outstanding preferred shares.

EARNINGS PER SHARE

	2018	2017
Consolidated net income in EUR thousand	64,222	85,919
of which: attributable to non-controlling interests	0	4
of which: attributable to shareholders of WILO SE	64,222	85,915
Number of ordinary shares as at 31 Dec.	9,808,760	9,808,760
Weighted average number of ordinary shares outstanding	9,808,760	9,808,760
Earnings per ordinary share (EUR)	**6.55**	**8.76**

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

(9.1) Intangible assets

Intangible assets developed as follows in the financial years 2018 and 2017:

INTANGIBLE ASSETS

EUR thousand	Patents, property rights and customer base	Goodwill	Capitalised development costs	Advance payments	**Total**
Cumulative cost					
As at 1 January 2017	54,567	70,022	45,822	7,043	177,454
Currency translation	–2,321	–5,259	0	0	–7,580
Additions	5,007	0	17,656	7,354	30,017
Additions from business combinations	17,289	43,176	0	0	60,465
Disposals	–441	0	0	–32	–473
Reclassifications	1,766	0	0	–1,766	0
As at 31 December 2017	**75,867**	**107,939**	**63,478**	**12,599**	**259,883**
As at 1 January 2018	75,867	107,939	63,478	12,599	259,883
Currency translation	655	1,871	0	0	2,526
Additions	4,559	43	16,868	3,392	24,862
Disposals	–313	0	0	–7	–320
Reclassifications	6,801	0	0	–6,801	0
As at 31 December 2018	**87,569**	**109,853**	**80,346**	**9,183**	**286,951**
Cumulative depreciation					
As at 1 January 2017	42,458	5,686	0	0	48,144
Currency translation	–309	–15	0	0	–324
Depreciation in the financial year	7,483	0	47	0	7,530
Disposals	–416	0	0	0	–416
As at 31 December 2017	**49,216**	**5,671**	**47**	**0**	**54,934**
As at 1 January 2018	49,216	5,671	47	0	54,934
Currency translation	34	3	0	0	37
Depreciation in the financial year	7,903	0	2,327	0	10,230
Disposals	–255	0	0	0	–255
As at 31 December 2018	**56,898**	**5,674**	**2,374**	**0**	**64,946**
Residual carrying amounts					
As at 1 January 2017	12,109	64,336	45,822	7,043	129,310
As at 31 December 2017	**26,651**	**102,268**	**63,431**	**12,599**	**204,949**
As at 1 January 2018	26,651	102,268	63,431	12,599	204,949
As at 31 December 2018	**30,671**	**104,179**	**77,972**	**9,183**	**222,005**

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 2018 financial year:

DEVELOPMENT OF GOODWILL BY PRODUCT DIVISION

EUR thousand	1 Jan. 2018	Additions	Currency translation	**31 Dec. 2018**
Product division				
Heating, Ventilation, Air-Conditioning	7,632	0	7	7,639
Clean and Waste Water	94,636	43	1,861	96,540
Total	**102,268**	**43**	**1,868**	**104,179**

(9.2) Property, plant and equipment

Property, plant and equipment developed as follows in the 2018 and 2017 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 2017	228,345	210,275	294,034	33,339	765,993
Currency translation	–5,966	–2,420	–3,198	–413	–11,997
Additions	22,890	8,223	21,341	42,325	94,779
Additions from business combinations	0	973	0	0	973
Reclassifications	5,908	8,639	8,148	–22,695	0
Disposals	–280	–2,196	–7,127	–348	–9,951
As at 31 December 2017	**250,897**	**223,494**	**313,198**	**52,208**	**839,797**
As at 1 January 2018	250,897	223,494	313,198	52,208	839,797
Currency translation	–3,782	–541	–1,056	59	–5,320
Additions	21,470	8,820	21,464	78,309	130,063
Reclassifications	1,188	10,869	8,021	–20,078	0
Disposals	–1,107	–12,438	–6,546	–744	–20,835
As at 31 December 2018	**268,666**	**230,204**	**335,081**	**109,754**	**943,705**
Cumulative depreciation					
As at 1 January 2017	62,326	145,488	216,385	0	424,199
Currency translation	–940	–1,651	–1,916	0	–4,507
Depreciation in the financial year	7,850	13,414	25,463	0	46,727
Disposals	–146	–2,028	–7,433	0	–9,607
As at 31 December 2017	**69,090**	**155,223**	**232,499**	**0**	**456,812**
As at 1 January 2018	69,090	155,223	232,499	0	456,812
Currency translation	164	–329	–307	0	–472
Depreciation in the financial year	10,086	14,103	27,138	0	51,327
Disposals	–490	–8,657	–6,029	0	–15,176
As at 31 December 2018	**78,850**	**160,340**	**253,301**	**0**	**492,491**
Residual carrying amounts					
As at 1 January 2017	166,019	64,787	77,649	33,339	341,794
As at 31 December 2017	**181,807**	**68,271**	**80,699**	**52,208**	**382,985**
As at 1 January 2018	181,807	68,271	80,699	52,208	382,985
As at 31 December 2018	**189,816**	**69,864**	**81,780**	**109,754**	**451,214**

Property, plant and equipment includes leased assets in the amount of EUR 5,278 thousand (previous year: EUR 5,371 thousand) classified as finance leases under IAS 17 and of which the Group holds beneficial ownership.

The net carrying amounts are as follows:

NET CARRYING AMOUNTS OF FINANCE LEASES

EUR thousand	**31 Dec. 2018**	31 Dec. 2017
Buildings	512	606
Operating and office equipment	4,766	4,765
Total	**5,278**	**5,371**

The total future minimum lease payments and the reconciliation to their present value are shown in the table below. The carrying amount of the corresponding liabilities as at the end of the reporting period was EUR 5,010 thousand (previous year: EUR 5,075 thousand).

MINIMUM LEASE PAYMENTS

EUR thousand	**31 Dec. 2018**	31 Dec. 2017
Total minimum lease payments	5,766	5,586
Interest portion	–756	–511
Present value	**5,010**	**5,075**
Due within one year	2,117	2,040
Due in one to five years	2,893	3,035

(9.3) Operating leases

Total future minimum lease payments on operating leases are shown in the table below:

OPERATING LEASES

EUR thousand	**31 Dec. 2018**	31 Dec. 2017
Total minimum lease payments	**40,638**	**32,817**
Due within one year	13,732	11,214
Due in one to five years	22,389	17,997
Due after five years	4,517	3,606

The operating leases mainly relate to rent for properties and operating and office equipment. Lease payments of EUR 22,071 thousand (previous year: EUR 22,393 thousand) were recognised in profit or loss in the year under review.

(9.4) Investments carried at equity

The investment carried at equity consist of the shares in the joint venture WILO Middle East LLC i.L., Riyadh, Saudi Arabia.

WILO Middle East has not had any operating activities since November 2008. The official liquidation process for this company was opened in the 2011 financial year and is expected to be concluded in 2019.

The carrying amount of the shares and WILO SE's proportionate interest in profit or loss are shown below:

EUR thousand	**31 Dec. 2018**	31 Dec. 2017
As at 1 January	**2,640**	**6,106**
Addition	0	24
Interest in net loss for the year	0	–789
Impairment	0	–2,701
As at 31 December	**2,640**	**2,640**

(9.5) Inventories

INVENTORIES

EUR thousand	**31 Dec. 2018**	31 Dec. 2017
Raw materials and supplies	106,823	95,226
Work in progress	20,481	18,554
Finished goods and goods for resale	136,347	119,831
Advance payments	807	982
Total	**264,458**	**234,593**

The write-down on inventories results from the difference between the lower of cost and net realisable value. As at 31 December 2018, the write-down on inventories amounted to EUR 24,503 thousand (previous year: EUR 22,732 thousand) with a gross carrying amount of EUR 288,961 thousand (previous year: EUR 257,325 thousand). Inventories are not subject to any restrictions on title beyond the suppliers' customary retention of title.

(9.6) Current trade receivables

The trade receivables result from normal goods and services transactions of the Wilo Group. Current trade receivables of EUR 283,932 thousand (previous year: EUR 269,160 thousand) are due in the 2019 financial year. Non-current trade receivables of EUR 2,299 thousand (previous year: EUR 2,762 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 by 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 2018 and 2017 financial years:

SPECIFIC VALUATION ALLOWANCES

EUR thousand	**2018**	2017
As at 1 January	**15,006**	**17,458**
Currency translation	–306	–847
Additions	4,083	1,997
Utilisation	–1,130	–632
Reversals	–1,274	–2,970
As at 31 December without general valuation allowance	**16,379**	**15,006**
General valuation allowance	0	4,926
As at 31 December	**16,379**	**19,932**

IFRS 9 "EXPECTED CREDIT LOSS"

EUR thousand	Expected loss rate	Gross carrying amount	Risk provision
Europe	0.2 – 1.0 %	129,812	770
Asia Pacific	0.5 – 9.8 %	98,884	4,173
MEA	1.4 %	13,220	185
Others	0.5 – 1.0 %	24,175	193
As at 31 December		**266,091**	**5,321**

The regions Europe, Asia Pacific, MEA and Others, consist of the following countries:
- **Europe:** All European states except Russia and Belarus
- **Asia Pacific:** India, China, South Korea, Southeast Asian nations, Australia and Oceania
- **MEA:** Caucasus nations, Near East and Middle East countries, Turkey and African nations
- **Others:** Nations of the American continent, Russia and Belarus

Further information on the expected credit loss is provided in note (13.) Risk management and derivative finance instruments. In the initial application of IFRS 9, due to the transitional methods use, the figures form the comparative period are not restated.

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

(9.7) Other financial assets

Other financial assets break down as follows as at 31 December 2018 and 2017:

OTHER FINANCIAL ASSETS

	31 Dec. 2018 of which with a remaining term			31 Dec. 2017 of which with a remaining term		
EUR thousand	**Total**	**Less than 1 year**	**More than 1 year**	Total	Less than 1 year	More than 1 year
Receivables from unconsolidated subsidiaries, jointly controlled entities and associates	127	127	0	151	151	0
Receivables from derivative financial instruments	1,418	558	860	5,883	3,139	2,744
Loans	25	0	25	37	0	37
Available-for-sale financial assets	1,957	0	1,957	0	0	0
Miscellaneous other financial receivables	10,105	6,438	3,667	6,018	2,651	3,367
Total	**13,632**	**7,123**	**6,509**	**12,089**	**5,941**	**6,148**

Available-for-sale financial assets and equity instruments of EUR 1,957 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.

(9.8) Other receivables and assets

Other receivables and assets are composed as follows as at 31 December 2018 and 2017:

OTHER RECEIVABLES AND ASSETS

	31 Dec. 2018 of which with a remaining term			31 Dec. 2017 of which with a remaining term		
EUR thousand	**Total**	**Less than 1 year**	**More than 1 year**	Total	Less than 1 year	More than 1 year
Tax receivables	26,112	19,375	6,737	27,301	20,394	6,907
Advance payments	7,145	7,132	13	5,431	5,418	13
Employer pension liability assets	1,813	0	1,813	3,204	0	3,204
Prepaid expenses	4,003	3,946	57	2,354	2,273	81
Non-consolidated subsidiaries	652	0	652	723	0	723
Receivables from employees	389	380	9	1,045	1,045	0
Total	**40,114**	**30,833**	**9,281**	**40,058**	**29,130**	**10,928**

(9.9) Cash

The cash of EUR 135,412 thousand (previous year: EUR 161,814 thousand) mainly comprises cash and sight deposits at banks. There are restrictions on title of EUR 663 thousand (previous year: EUR 495 thousand).

(9.10) Assets held for sale

The assets held for sale of EUR 1,811 EUR (previous year: EUR 0 thousand) relate to technical equipment and machinery of WILO SE in Dortmund which are being sold to a third party. The disposal process for the assets was started in 2018, but had not been concluded as at the reporting date.

(9.11) 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 9,808,760 ordinary shares (previous year: 9,808,760) and, as in the previous year, no preferred shares in circulation as at 31 December 2018.

Treasury shares in the notional amount of EUR 1,477 thousand (previous year: EUR 1,477 thousand) are openly deducted from issued capital.

CAPITAL RESERVES The capital reserves of EUR 26,161 thousand (previous year: EUR 26,161 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.

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, the actuarial gains and losses from pension obligations and the gains and losses from the revaluation of plan assets. The legal reserve in retained earnings in accordance with section 150 (2) of the Aktiengesetz (AktG – German Stock Corporation Act) amounts to 10.0 percent of the issued capital of WILO SE.

Other reserves developed as follows in the financial years 2018 and 2017:

OTHER RESERVES

EUR thousand	2018	2017
As at 1 January	**685,018**	**631,623**
WILO SE shareholders' interest in:		
Consolidated net income	64,222	85,915
Other comprehensive income	–12,473	–15,230
Dividend payment	–19,323	–17,268
Other changes	–986	–22
As at 31 December	**716,458**	**685,018**

TREASURY SHARES As at 31 December 2018, the company held 567,989 treasury shares, or 5.5 percent of the share capital. As at 31 December 2018, the company reported 308,571 ordinary shares (previous year: 308,571) and 259,418 preference shares (previous year: 259,418) as treasury shares.

NON-CONTROLLING INTERESTS In the financial year 2018, WILO SE acquired a non-controlling interest of 0.1 percent, relating to the shareholders of WILO Mather and Platt Pumps Private Ltd., Pune / India. For this reason, no non-controlling interests are to be reported on the reporting date.

DIVIDENDS The Annual General Meeting on 28 March 2018 resolved to distribute EUR 19,323 thousand from the unappropriated surplus as at 31 December 2017 (previous year: EUR 17,268 thousand). This corresponds to a dividend per ordinary share of EUR 1.97.

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

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

The total equity of the Wilo Group as at 31 December 2018 was EUR 738,356 thousand (previous year: EUR 706,979 thousand). This is mostly accounted for by EUR 788,561 thousand (previous year: EUR 745,006 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 791,259 thousand (previous year: EUR 747,704 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 2018 and 2017 financial years. More detailed information on these senior notes and promissory note loans can be found in note (9.12).

(9.12) Financial liabilities

Financial liabilities break down as follows as at 31 December 2018 and 2017:

FINANCIAL LIABILITIES

EUR thousand	31 Dec. 2018	31 Dec. 2017
Long-term borrowings		
with a remaining term		
of between one and five years	132,968	84,291
of more than five years	65,155	106,923
Total	**198,123**	**191,214**
Current financial liabilities		
with a remaining term		
of less than one year	**70,357**	**10,911**

WILO SE reported the following material financing agreements as at 31 December 2018:

- **USPP 2027** In May 2017, WILO SE issued a senior note of USD 30.0 million (EUR 27.5 million) maturing in 2027 with an interest rate of 3.22 percent p.a. as part of another US private placement ("USPP 2027"). It is not secured against real property or financial assets of WILO SE. The placement was part of a multi-currency shelf facility totalling USD 150.0 million. The senior note had a carrying amount of EUR 26.2 million as at 31 December 2018.

- **USPP 2023 & USPP 2021** In March 2013 and February 2011, WILO SE issued senior notes of EUR 37.0 million and EUR 75.0 million as US private placements. Both placements were implemented as part of a private shelf facility (non-binding debt commitment) in the amount of USD 150.0 million, which was thus fully utilised. The senior notes were both borrowed in euro and are not secured against real property or financial assets of the company. The senior note of EUR 37.0 million ("USPP 2023") matures in 2023 and bears interest at 3.1125 percent p.a. The senior note of EUR 75.0 million ("USPP 2021") matures in 2021 and has an interest coupon of 4.50 percent p.a.

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

- **PROMISSORY NOTE LOAN 2020** In January 2011, WILO SE took out a promissory note loan ("promissory note loan 2020") of EUR 25.0 million, maturing in 2020, at an interest rate of 4.08 percent p.a. It has been repaid semi-annually in the amount of around EUR 1.25 million since 2011. The promissory note loan had a carrying amount of EUR 5.0 million (previous year: EUR 7.5 million) as at the end of the reporting period and is not secured against real property or financial assets of the company.

- **KFW DEVELOPMENT LOAN 2027** To finance the construction project at the Dortmund location, in November 2017 a KfW development loan of EUR 19.5 million with a term of ten years and an interest rate of 1.15% was concluded for the administrative building ("KfW development loan 2027") and secured by a land charge. The loan amount will be drawn on from 2018 according to the progress of construction. It will be repaid in instalments after two redemption-free years. The KfW development loan had a carrying amount of EUR 8.0 million as at 31 December 2018.

The company is required to satisfy certain standard financial ratios (ratio of consolidated EBITDA to consolidated interest expenses (interest cover ratio), ratio of consolidated net debt to consolidated EBITDA (leverage) and the equity ratio) for the senior notes and promissory note loans it has issued. WILO SE fully complied with this obligation in the 2018 and 2017 financial years. The agreements also include a number of standard grounds for termination.

Incidental costs were incurred in connection with these financing arrangements that are deducted from the financial liabilities and reported in profit or loss over the term of the financing arrangements using the effective interest method. The incidental costs of acquisition outstanding as at the end of the reporting period amounted to EUR 824 thousand (previous year: EUR 995 thousand).

The fair value of the financial liabilities calculated using net present value models was EUR 281,974 thousand as at 31 December 2018 (previous year: EUR 217,554 thousand).

Current financial liabilities mainly consist of overdrafts and the current portion of non-current financial liabilities to be repaid in the 2019 financial year.

MATURITY STRUCTURE OF FINANCIAL LIABILITIES The following table shows the maturity structure of all financial liabilities of the Wilo Group as at 31 December 2018 and 2017:

MATURITY STRUCTURE OF FINANCIAL LIABILITIES
As at 31 December 2018

			Maturity structure with a remaining term			
EUR million	Nominal amount	Carrying amount	of less than 1 year	of between 1 and 5 years	of more than 5 years	**Total**
USPP 2027	USD 30.0 million	26.2	0.0	0.0	26.2	26.2
USPP 2023	EUR 37.0 million	37.0	0.0	37.0	0.0	37.0
USPP 2021	EUR 75.0 million	75.0	0.0	75.0	0.0	75.0
Promissory note loan 2027	EUR 50.0 million	50.0	0.0	15.0	35.0	50.0
Promissory note loan 2020	EUR 25.0 million	5.0	2.5	2.5	0.0	5.0
KfW 2027	EUR 19.5 million	8.0	0.0	4.0	4.0	8.0
		201.2	**2.5**	**133.5**	**65.2**	**201.2**
Overdraft		67.3	67.3	0.0	0.0	67.3
Transaction costs			0.6	–0.6	0.0	0.0
Financial liabilities		**268.5**	**70.4**	**132.9**	**65.2**	**268.5**

As at 31 December 2017

			Maturity structure with a remaining term			
EUR million	Nominal amount	Carrying amount	of less than 1 year	of between 1 and 5 years	of more than 5 years	**Total**
USPP 2027	USD 30.0 million	24.9	0.0	0.0	24.9	24.9
USPP 2023	EUR 37.0 million	37.0	0.0	0.0	37.0	37.0
USPP 2021	EUR 75.0 million	75.0	0.0	75.0	0.0	75.0
Promissory note loan 2027	EUR 50.0 million	50.0	0.0	5.0	45.0	50.0
Promissory note loan 2020	EUR 25.0 million	7.5	2.5	5.0	0.0	7.5
		194.4	**2.5**	**85.0**	**106.9**	**194.4**
Overdraft		7.7	7.7	0.0	0.0	7.7
Transaction costs			0.7	–0.7		0.0
Financial liabilities		**202.1**	**10.9**	**84.3**	**106.9**	**202.1**

(9.13) Current trade payables

Trade payables break down as follows as at 31 December 2018 and 2017:

TRADE PAYABLES

EUR thousand	31 Dec. 2018	31 Dec. 2017
Trade payables		
with a remaining term		
of between one and five years	103	89
of less than one year	172,287	169,024
Total	**172,390**	**169,113**

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.

(9.14) Other financial liabilities

OTHER FINANCIAL LIABILITIES

EUR thousand	31 Dec. 2018	31 Dec. 2017
Non-current other financial liabilities	**7,196**	**7,462**
of which		
Finance lease liabilities		
with a remaining term of between one and five years	2,893	3,035
Liabilities from derivative financial instruments		
with a remaining term of between one and five years	0	138
Other financial liabilities		
with a remaining term of between one and five years	4,303	4,289
Total	**7,196**	**7,462**
Current other financial liabilities	**35,912**	**33,813**
of which		
Bills payable	10,653	11,252
Liabilities to non-consolidated subsidiaries, jointly controlled entities or associates	6,150	2,701
Finance lease liabilities	2,117	2,040
Liabilities from derivative financial instruments	1,850	396
Miscellaneous financial liabilities	15,142	17,424
Total	**35,912**	**33,813**

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.

(9.15) Other liabilities

Other liabilities break down as follows as at 31 December 2018 and 2017:

OTHER LIABILITIES

EUR thousand	**31 Dec. 2018**	31 Dec. 2017
Non-current other liabilities		
Contract liabilities (IFRS 15)	2,223	0
Deferred income	1,345	1,601
Total	**3,568**	**1,601**
Current other liabilities		
Tax liabilities	25,548	23,384
Staff liabilities	32,761	32,897
Advance payments received	15,897	11,361
Social security liabilities	4,464	4,874
Deferred income	95	18
Miscellaneous other liabilities	12,792	6,425
Total	**91,557**	**78,959**

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.

(9.16) Provisions for pensions and similar obligations

Pension obligations and other post-employment benefits are composed as follows as at 31 December 2018 and 2017:

PROVISIONS FOR PENSIONS AND SIMILAR OBLIGATIONS

EUR thousand	**31 Dec. 2018**	31 Dec. 2017
Provisions for pensions	76,425	75,676
Similar obligations	3,605	3,993
Total	**80,030**	**79,669**

Provisions for pensions are composed as follows:

PROVISIONS FOR PENSIONS

EUR thousand	**31 Dec. 2018**	31 Dec. 2017
Present value of the pension obligation	87,771	87,849
Fair value of plan assets	-11,346	-12,173
Provisions for pensions	**76,425**	**75,676**

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

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

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

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

WILO SE's defined benefit plan was discontinued on 31 December 2005. A defined contribution plan has been set up in its place for WILO SE employees for whom a pension obligation has existed from 1 January 2006. An expense of EUR 2,951 thousand (previous year: EUR 2,916 thousand) was recognised in the reporting year for defined contribution plans in the Wilo Group.

The present value of the pension obligation developed as follows:

PRESENT VALUE OF THE PENSION OBLIGATION

EUR thousand	**2018**	2017
As at 1 January	**87,849**	**91,907**
Current service cost	3,093	3,271
Past service cost	42	49
Interest expense	1,801	1,416
Remeasurement		
Actuarial gains/losses from the change in demographic assumptions	-524	-843
Actuarial gains/losses from the change in financial assumptions	-93	-4,106
Actuarial gains/losses from experience adjustments	-300	-483
Pension payments	-4,047	-3,224
Currency effects and other changes	-50	-138
As at 31 December	**87,771**	**87,849**

The pension obligation breaks down among the beneficiaries as follows:

- Active members: EUR 48,409 thousand (previous year: EUR 48,325 thousand)
- Deferred members: EUR 7,684 thousand (previous year: EUR 7,183 thousand)
- Pensioners: EUR 31,677 thousand (previous year: EUR 32,341 thousand)

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 %	
		2018	2017
Discount rate	+0.5 %	-6.7	-7.2
	-0.5 %	7.6	8.2
Pension factor	+0.25 %	2.4	2.4
	-0.25 %	-2.3	-2.3
Salary factor	+0.25 %	0.6	0.7
	-0.25 %	-0.9	-0.6
Life expectancy	+10 %	6.2	6.0

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 2018, the weighted average duration of the defined benefit obligation was 15.8 years (previous year: 16.9 years).

72.2 percent of the pension obligations of EUR 87,771 thousand (previous year: EUR 87,849 thousand) relate to Germany (previous year: 71.8 percent).

The fair value of plan assets changed as follows:

FAIR VALUE OF PLAN ASSETS

EUR thousand	2018	2017
As at 1 January	**12,173**	**10,962**
Interest income	311	223
Remeasurement		
Loss on plan assets (excluding interest income)	-703	-81
Payments	-1,556	-599
Amounts paid in by employer	1,081	1,700
Currency effects and other changes	40	-32
As at 31 December	**11,346**	**12,173**

Plan assets comprise the following:

PLAN ASSETS BREAK DOWN

EUR thousand	2018	2017
Cash	9,625	10,094
Qualifying insurance policies	1,333	1,700
Investment funds	388	379
As at 31 December	**11,346**	**12,173**

Furthermore, there are employee pension liability policies to cover provision-funded pension obligations in the amount of EUR 1,442 thousand (previous year: EUR 2,405 thousand) though these do not satisfy the requirements for classification as plan assets under IAS 19.

The company is not currently assuming any further payments into plan assets in the coming years.

SIMILAR OBLIGATIONS Similar obligations for post-employment benefits amount to EUR 3,605 thousand for 2018 (previous year: EUR 3,993 thousand). They include gross obligations for WILO SE of EUR 4,164 thousand (previous year: EUR 2,900 thousand). The EUR 2,830 thousand (previous year: EUR 1,978 thousand) fair value of plan assets as at the end of the reporting period is deducted insofar as it relates to obligations under the partial retirement scheme. The remaining plan assets of EUR 371 thousand (previous year: EUR 799 thousand) not attributable to obligations under the partial retirement scheme 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 2018 was determined using a discount rate of 2.00 percent (previous year: 2.00 percent). Furthermore, an annual wage and salary increase of 3.10 percent was assumed (previous year: 1.50 percent).

(9.17) 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 mainly relates to customer reimbursement for the 2018 financial year. The Wilo Group expects that the corresponding repayments of EUR 17,541 thousand (previous year: EUR 19,140 thousand) will be almost fully paid to customers by the middle of 2019.

OTHER PROVISIONS

EUR thousand	1 Jan. 2018	Currency translation	Utilisation	Reversal	Addition	31 Dec. 2018
Non-current						
Guarantees	3,624	-35	624	24	630	3,571
Current						
Guarantees	16,622	-82	1,188	3,374	3,345	15,323
Bonuses and rebates	19,140	-133	15,938	3,513	17,985	17,541
Other	8,028	-20	2,534	282	1,983	7,175
Total	**43,790**	**-235**	**19,660**	**7,169**	**23,313**	**40,039**

(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 2018 consisted of EUR 135,412 thousand (previous year: EUR 161,814 thousand) in cash and sight deposits with banks, EUR 663 thousand (previous year: EUR 495 thousand) of which was subject to restrictions on title.

The consolidated statement of cash flows starts with earnings before interest and taxes (EBIT) derived from the income statement (see note (8.10)). The changes in cash due to exchange rate changes of EUR -753 thousand (previous year: EUR -5,204 thousand) relate to the effect of translating foreign-currency items of cash into the reporting currency. Detailed information on the consolidated statement of cash flows can be found under "Capital expenditure and cash flows" in the Group management report. Purchases of intangible assets include payments in connection with capitalised development costs of EUR 16,844 thousand (previous year: EUR 17,656 thousand).

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

CHANGES IN FINANCIAL LIABILITIES

EUR thousand	**1 Jan. 2018**	Proceeds from assuming financial liabilities	Repayment of financial liabilities	**31 Dec. 2018**
Financial liabilities (non-current)	191,214	9,413	2,504	198,123
Overdraft	10,911	60,655	1,209	70,357
Financial liabilities	**202,125**			**268,480**
Cash flow from financing activities		**70,068**	**3,713**	

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

(11.) Segment reporting

In the reporting year, Wilo aligned the segment reporting according to the functional organisational structure in place since 1 January 2018. For comparative purposes the previous-period figures were adjusted. The Wilo Group's segment reporting is prepared, in line with IFRS 8 Operating Segments, according to the internal organisation and management structure as well as the monthly reports to the Executive Board and Supervisory Board of WILO SE. A key element of the new organisational structure is the sale-oriented breakdown into the Mature Markets and Emerging Markets regions. Management decisions and measures by the WILO SE Executive Board are made and implemented mainly on the basis of the regional financial performance indicators of revenue and EBIT. Thus, the regions represent the operating segments within segment reporting.

The two reportable segments comprise the following countries or groups of countries:

- *Mature Markets:* All European countries, Russia, Belarus, Ukraine, Caucasus nations and nations of the American continent
- *Emerging Markets:* India, China, South Korea, Southeast Asian nations, Australia and Oceania, Turkey, Near East and Middle East countries, African nations

Segment information is prepared in accordance with the accounting policies used for the underlying consolidated financial statements. Segment figures are stated after consolidation of intra-segment and inter-segment transactions as they are not a component of internal monthly reporting within the Wilo Group.

Net sales by segment show transactions with third parties and with companies not included in the consolidated financial statements in which the Wilo Group has an interest, and are allocated by customer domicile. In Germany, net sales of EUR 234,658 thousand (previous year: EUR 235,038 thousand) were generated with external customers in the 2018 financial year.

Segment EBIT shows earnings before interest and taxes including any amounts attributable to non-controlling interests.

Segment assets and sales between reportable operating segments are not shown as they are not a component of internal monthly reporting within the Wilo Group.

Segment information according to the sales structure for the 2018 and 2017 financial years is as follows:

SEGMENT INFORMATION
2018

EUR thousand	Mature Markets	Emerging Markets	**Total**
Net sales by segment	**955,499**	**508,029**	**1,463,528**
Segment EBIT	**71,191**	**20,746**	**91,937**
of which depreciation and amortisation on intangible assets and property, plant and equipment	43,147	18,410	61,557
of which non-cash expenses	24,752	7,149	31,901

2017

EUR thousand	Mature Markets	Emerging Markets	**Total**
Net sales by segment	**926,646**	**498,132**	**1,424,778**
Segment EBIT	**80,446**	**25,826**	**106,272**
of which depreciation and amortisation on intangible assets and property, plant and equipment	37,611	16,646	54,257
of which non-cash expenses	25,829	4,850	30,679

EBIT in the Group is reconciled to net income as follows:

RECONCILIATION

EUR thousand	**2018**	2017
Earnings before interest and taxes (EBIT)	91,937	106,272
Net income from investments carried at equity	0	–3,490
Net finance costs	–8,557	–5,680
Consolidated net income before taxes	**83,380**	**97,102**
Income taxes	–19,158	–11,183
Consolidated net income	**64,222**	**85,919**

Net sales break down as follows among the market segments:

NET SALES BY MARKET SEGMENT

EUR thousand	**2018**	2017
Building Services & OEM	1,189,547	1,165,156
Water Management & Industry	273,981	259,622
Total	**1,463,528**	**1,424,778**

(12.) Disclosures on financial instruments

(12.1) Derivative financial instruments

The following table shows the fair values of derivative financial instruments as at 31 December 2018 and the changes as against the previous year:

DERIVATIVE FINANCIAL INSTRUMENTS

	Fair value				Nominal amount	
	Maturity from 31 Dec. 2018					
EUR thousand	Less than 1 year	Between 1 and 5 years	Previous year	Total change	**31 Dec. 2018**	31 Dec. 2017
Forward exchange contracts	115	1,140	3,413	–2,158	61,037	86,351
Commodity derivatives	–1,687	0	1,936	–3,623	16,825	11,795

Net finance costs include gains of EUR 797 thousand (previous year: EUR 1,803 thousand) and losses of EUR 4,277 thousand (previous year: EUR 2,150 thousand) (see note (8.8)).

CASHFLOW HEDGE ACCOUNTING On April 28 2017, WILO SE extended a group loan for USD 45 million to Wilo USA LLC. On the reporting date EUR 32.5 million was recognised (previous year: EUR 45.0 million). The loan agreement schedules interest and principle payments and has a final maturity date of 28 April 2022. Even though the loan (hedged item) is eliminated in the consolidation process, from the currency translation of the Group loan in the financial statements of WILO SE there remains a currency risk and net foreign-currency result in net financial income of the consolidated financial statements. The risk is the variable value of the USD cash flow for repayments at the respective repayment times in the EUR required.

For this reason, as at 31 December 2018, WILO SE held seven (previous year: ten) external forward exchange contracts (hedging instrument) which hedge the repayment tranches of this loan to 28 April 2022 and which are designated in cash flow hedge accounting. As at the reporting date, the fair value of these derivatives was EUR 1,140 thousand (previous year: EUR 3,821 thousand) and was recognised in other financial assets.

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

2018	Carrying amount	Expected reclassification			
EUR thousand		2019	2020	2021	2022
Other comprehensive income	769	249	208	204	108
Nominal amount in USD million		9.0	9.0	9.5	5.0
Average exchange rate hedge USD/EUR		1,1268	1,1541	1,1817	1,2020
Fair value	1,140	280	321	354	185

2017	Carrying amount	Expected reclassification			
EUR thousand		2018	2019	2020	>2021
Other comprehensive income	668	170	113	124	261
Nominal amount in USD million		12.5	9.0	9.0	14.5
Average exchange rate hedge USD/EUR		1,0991	1,1268	1,1541	1,1887
Fair value	3,821	1,077	785	774	1,185

In the financial year, a result for the market performance of the derivatives of EUR –1,605 thousand (previous year: EUR 3,821 thousand was recognised in other comprehensive income. In the same period, part of the deferred result of EUR 1,333 thousand (previous year: EUR –4,489 thousand) for existing derivatives and EUR 170 thousand (previous year: EUR 0 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.

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

The following tables show the financial assets and liabilities with their carrying amounts as at 31 December 2018 per measurement category under IFRS 9 and statement of financial position category.

Finance lease liabilities have also been included, even though they are not assigned to an IFRS 9 measurement category.

FINANCIAL ASSETS AND LIABILITIES AS AT 31 DECEMBER 2018

		Carrying amount under IFRS 9			
EUR thousand	Measurement category under IFRS 9	Amortised cost	Fair value	Carrying amount under IAS 17	**Carrying amount as at 31 Dec. 2018**
Current and non-current financial assets					
Trade receivables	Amortised cost	286,231			286,231
Other financial assets					
Receivables from subsidiaries, jointly controlled entities and associates	Amortised cost	127			127
Receivables from derivative financial instruments	FVTPL		1,418		1,418
Loans	Amortised cost	25			25
Available-for-sale financial assets	FVOCI		1,957		1,957
Miscellaneous financial receivables	Amortised cost	10,105			10,105
Cash	Amortised cost	135,412			135,412
Current and non-current financial liabilities					
Financial liabilities	Amortised cost	268,480			268,480
Trade payables	Amortised cost	172,390			172,390
Other financial liabilities					
Bills payable	Amortised cost	10,653			10,653
Liabilities to subsidiaries, jointly controlled entities and associates	Amortised cost	6,150			6,150
Finance lease liabilities	n/a			5,010	5,010
Liabilities from derivative financial instruments	FVTPL		1,850		1,850
Miscellaneous financial liabilities	Amortised cost	19,445			19,445
of which aggregated by measurement category under IFRS 9					
Amortised cost		909,018		5,010	914,028
FVOCI		0	1,957		1,957
FVTPL		0	3,268		3,268

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 is not the case only for financial liabilities, which have a carrying amount of EUR 268,480 thousand (previous year: EUR 202,125 thousand) and a fair value of EUR 281,974 thousand (previous year: EUR 217,554 thousand). The fair values of financial liabilities were calculated using net present value methods.

Since 2018, the Group has two minority interests which are measured at fair value in other comprehensive income and whose fair value of EUR 1,957 thousand is in line with hierarchy Level 3.

In October 2018, in the context of a strategic investment, WILO SE acquired an 8 percent stake in EUROCARBO S.P.A., Italy. 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 2018.

In May 2018, a 2.6 percent stake in HydroPoint Data Systems, Inc., Petaluma/USA was acquired. The company is a specialist on the US American smart water management market. This innovative and new business area brings with it planning uncertainties. As a result of this uncertainty, fair value not cost is used for measurement.

However, neither impacts earnings or other comprehensive income. Sensitivity can be determined only on the basis of the overall value. An increase (reduction) of the respective value by 10 percent results in an increase (decrease) of other comprehensive income by EUR 196 thousand.

The calculation of the fair values of the receivables and liabilities from derivative financial instruments, which are assigned to the FVTPL category, of EUR 1,418 thousand (previous year: EUR 5,883 thousand) and EUR 1,850 thousand (previous year: EUR 534 thousand) respectively, is shown under note (7).

(12.3) Net gains and losses by measurement category

The table below shows the net earnings reported under profit and loss for the 2018 financial year in line with IFRS 7, consisting of interest, dividends, changes in fair value, impairment, impairment reversals and the effects of currency translation on each measurement category of financial assets and liabilities. This does not include the earnings effects of finance leases as finance leases do not belong to any IFRS 9 measurement category.

NET GAINS AND LOSSES BY MEASUREMENT CATEGORY

2018 financial year

Measurement category	Carrying amount as at 31 Dec.	Interest and dividends	Change in fair value	Impairments	Impairment reversals	Effects of currency translation	Net gains/losses
Amortised cost	914,028	–2,640	0	–5,918	1,377	–3,114	–10,295
FVOCI	1,957	0	0	0	0	0	0
FVTPL	3,268	0	–3,480	0	0	0	–3,480
Total		**–2,640**	**–3,480**	**–5,918**	**1,377**	**–3,114**	**–13,775**

(12.4) 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 2018 and 2017 that were recognised at fair value or for which the fair value was disclosed.

FAIR VALUE HIERARCHY

	31 Dec. 2018 Level 2	31 Dec. 2017 Level 2
Receivables from derivative financial instruments (FVTPL)	1,418	5,883
Liabilities from derivative financial instruments (FVTPL)	1,850	534
Financial liabilities (amortised cost)	281,974	217,554
	Level 3	Level 3
Available-for-sale financial assets (FVOCI)	1,957	0

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 2018 and 2017. More detailed information on available-for-sale assets (FVOCI) can be found in note (12.2).

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.

(13.) Risk management and derivative financial instruments

RISK MANAGEMENT PRINCIPLES Due to the international nature of its business activities, the assets, liabilities and planned transactions of the Wilo Group are subject to market risks from changes in exchange rates, interest rates and commodity prices in particular. The objective of financial risk management is to mitigate this risk from operating and financial activities. This is achieved using derivative and primary hedging instruments selected according to estimated risk. Derivative financial instruments are solely used 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 opportunities and risk report section of the Group management report.

CURRENCY RISK The Wilo Group faces 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 2018 and 2017 in the respective foreign currency. This consists of foreign-currency transactions in operating activities and foreign-currency financing activities up to 31 December 2018 and 2017, as well as expected foreign-currency transactions in operating activities in 2018 and 2017. 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 POSITION AS AT 31 DECEMBER 2018

in EUR million	EUR	USD	GBP	PLN	RON	RUB	SEK
Cash	6.8	4.0	1.7	0.1	0.0	0.0	0.9
Trade and other receivables	12.7	9.2	0.0	0.0	0.0	0.0	0.0
Receivables from affiliated companies	3.5	13.4	0.3	10.3	13.8	118.7	65.3
Trade and other payables	-2.9	-11.3	0.0	0.0	0.0	-0.1	0.0
Liabilities due to affiliated companies	-20.7	-10.4	-0.4	0.0	0.0	-22.6	-6.0
Financial liabilities	-3.9	-0.1	0.0	0.0	0.0	0.0	0.0
Currency risk from assets and liabilities (gross)	**-4.5**	**4.8**	**1.6**	**10.4**	**13.8**	**96.0**	**60.2**
Expected sales in 2018	78.7	44.9	15.8	117.2	42.1	4,000.0	45.0
Expected acquisitions in 2018	-107.2	-73.5	-0.4	0.0	0.0	-108.7	0.0
Currency risk from expected transactions in operating activities in 2018 (gross)	**-28.5**	**-28.6**	**15.4**	**117.2**	**42.1**	**3,891.3**	**45.0**
Hedging	0.0	1.5	-8.0	-7.0	-3.0	-250.0	-24.0
Currency risk (net)	**-33.0**	**-22.3**	**9.0**	**120.6**	**52.9**	**3,737.3**	**81.2**

FOREIGN CURRENCY RISK POSITION AS AT 31 DECEMBER 2017

in EUR million	EUR	USD	GBP	PLN	RON	RUB	SEK
Cash	7.1	4.6	2.2	0.0	0.0	0.0	8.0
Trade and other receivables	11.9	5.2	0.0	0.0	0.0	0.0	0.0
Receivables from affiliated companies	3.1	20.6	0.8	6.2	14.2	26.2	27.0
Trade and other payables	-3.9	-13.8	0.0	0.0	0.0	0.0	0.0
Liabilities due to affiliated companies	-29.0	-17.0	-0.2	-0.2	0.0	-10.8	0.0
Financial liabilities	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Currency risk from assets and liabilities (gross)	**-10.8**	**-0.4**	**2.8**	**6.0**	**14.2**	**15.4**	**35.0**
Expected sales in 2017	78.3	74.5	16.2	104.5	36.9	3,530.0	65.0
Expected acquisitions in 2017	-106.8	-95.5	-0.1	0.0	0.0	-60.0	0.0
Currency risk from expected transactions in operating activities in 2017 (gross)	**-28.5**	**-21.0**	**16.1**	**104.5**	**36.9**	**3,470.0**	**65.0**
Hedging	0.0	3.3	-10.0	-24.0	-7.0	-360.0	-36.0
Currency risk (net)	**-39.3**	**-18.1**	**8.9**	**86.5**	**44.1**	**3,125.4**	**64.0**

The foreign-currency receivables and liabilities, expected foreign-currency transactions and derivative financial instruments in the form of cross-currency interest rate swaps and forward exchange contracts have certain sensitivities to currency fluctuations. A 10.0 percent appreciation or depreciation in the respective currency compared with the other currencies as at 31 December would have the following hypothetical impact on earnings.

SENSITIVITY ANALYSIS

	2018		2017	
EUR million	**+10 %**	**-10 %**	+10 %	-10 %
EUR	-3.7	3.0	-4.4	-3.6
USD	-2.2	1.8	-1.7	1.4
GBP	1.1	-0.9	1.1	-0.9
PLN	3.1	-2.6	2.3	-1.9
RON	1.3	-1.0	1.0	-0.9
RUB	5.2	-4.3	5.0	-4.1
SEK	0.9	-0.7	0.7	-0.6

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. Interest rate risk as defined in IFRS 7 is considered to be low as most financial liabilities have long-term fixed interest rates.

An increase of the interest level by 100 basis points would improve net interest costs from the investment of cash by approximately EUR 250 thousand (previous year: EUR 250 thousand). If interest rates declined with the consequence of negative interest rates on deposits, Wilo would align its investment strategy accordingly in order to minimise the negative impact on net interest costs.

COMMODITY PRICE RISK The Wilo Group is subject to commodity price risk primarily from price fluctuations on the global markets for copper and aluminium and their alloys. The Wilo Group uses commodity derivatives in a targeted manner to control this risk. The prices for most of the copper procurement volume for the 2018 financial year have already been fixed. Currently, the Wilo Group's result of operations would be influenced by price fluctuations on the global markets for copper and aluminium and their alloys from the 2019 financial year onwards.

In accordance with IFRS, commodity price risks are shown using sensitivity analyses. These show the impact of a change in commodity prices. A 10 percent increase (decrease) in the price of copper and aluminium as at 31 December would have the following impact on earnings.

SENSITIVITY ANALYSIS

	Copper		Aluminium		Total	
EUR thousand	**2018**	2017	**2018**	2017	**2018**	2017
Price increase (10%)						
Impact on earnings	-323	-685	-405	-497	-728	-1,182
Price increase (10%)						
Impact on earnings	323	685	405	497	728	1,182

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 RISK Customer credit risk is countered with a uniform and effective Group-wide system for systematic receivables management and the monitoring of payment behaviour. Dependency on individual customers is limited because Wilo does not generate more than 10.0 percent of its total revenues 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 307,931 thousand (previous year: EUR 291,855 thousand). As at 31 December 2018, EUR 16,379 thousand (previous year: EUR 15,006 thousand) in specific write-downs was recognised on past due trade receivables of EUR 35,795 thousand (previous year: EUR 36,825 thousand).

As a result of introducing the expected credit loss concept in accordance with IFRS 9, the previous general valuation allowance for trade receivables was replaced. Using the expected credit loss concept, Wilo has a key objective. Eleven 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 using time buckets an examination is made 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 5,321 thousand using the expected credit loss model. Further information can be found in note (9.6) Trade receivables.

In addition, there is a maximum credit risk of EUR 1,957 thousand for financial assets in the Fair Value through OCI (FVOCI) measurement category and of EUR 3,268 thousand for financial assets in the Fair Value through Profit or Loss (FVTPL) measurement category resulting exclusively from derivative financial instruments. With regard to other financial assets that are neither impaired nor past due, there are no indications as at the end of the reporting period that debtors will fail to make payment. As in the previous year, no impairment was recognised on other financial assets as at 31 December 2018.

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/liabilities with a right of set-off that do not however meet the criteria for offsetting in the statement of financial position	Net values
31 December 2018			
Receivables from derivative financial instruments	1,418	–150	1,268
Liabilities from derivative financial instruments	–1,850	150	–1,700
31 December 2017			
Receivables from derivative financial instruments	5,884	–513	5,371
Liabilities from derivative financial instruments	–534	513	–21

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 credit facilities from various national and international reputable banks with maturities of up to five years. The credit facilities of more than EUR 200 million had been utilised in the amount of EUR 67.3 million as at 31 December 2018 (previous year: EUR 7.7 million). In addition, WILO SE has secured its long-term financial requirements by issuing promissory note loans, which were also placed with financially sound, reputable financial partners (see note (9.12)).

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 remaining contractual maturities and corresponding cash outflows, including estimated interest payments, for financial liabilities as at 31 December 2018 and 2017:

CASH OUTFLOWS FOR FINANCIAL LIABILITIES AS AT 31 DEC. 2018

			Maturities		
31 Dec. 2018	Carrying amount	Agreed payments	Less than 1 year	Between 1 and 5 years	More than 5 years
Financial liabilities					
Non-current	198,123	–221,964	–6,295	–150,663	–65,006
Current	70,357	–70,357	–70,357	0	0
Trade payables	172,390	–172,390	–172,287	–103	0
Finance lease liabilities	5,010	–5,075	–2,040	–3,035	0
Other financial liabilities	36,248	–36,248	–31,945	–4,303	0
Derivative financial instruments	1,850	–1,850	–1,850	0	0
Total	**483,978**	**–507,884**	**–284,774**	**–158,104**	**–65,006**

CASH OUTFLOWS FOR FINANCIAL LIABILITIES AS AT 31 DEC. 2017

			Maturities		
31 Dec. 2017	Carrying amount	Agreed payments	Less than 1 year	Between 1 and 5 years	More than 5 years
Financial liabilities					
Non-current	191,214	–221,197	–6,323	–102,394	–112,480
Current	10,911	–10,911	–10,911	0	0
Trade payables	169,113	–169,113	–169,024	–89	0
Finance lease liabilities	5,075	–5,075	–2,040	–3,035	0
Other financial liabilities	35,666	–35,666	–31,377	–4,289	0
Derivative financial instruments	534	–534	–396	–138	0
Total	**412,513**	**–442,496**	**–220,071**	**–109,945**	**–112,480**

(14.) Other disclosures

(14.1) Waiver of disclosure

The following Group companies waived disclosure in accordance with section 264 (3) HGB: WILO-Mitarbeiter-Beteiligungs-gesellschaft mbH, Dortmund, WILO Nord Amerika GmbH, Dortmund, WILO IndustrieSysteme GmbH, Chemnitz, and WILO-Mitarbeiter Invest GmbH, Dortmund.

(14.2) Contingent liabilities and other financial obligations

The company reported contingent liabilities from warranties of EUR 2,993 thousand as at 31 December 2018 (previous year: EUR 4,669 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 from warranties essentially result from operating activities with the customers and suppliers of the Wilo Group. Warranties with a nominal obligation of EUR 38 thousand (previous year: EUR 656 thousand) had an agreed remaining term of less than one year as at 31 December 2018, while nominal obligations of EUR 360 thousand (previous year: EUR 102 thousand) with an agreed remaining term of more than one year have been contractually stipulated. There are also indefinite guarantees with a nominal obligation of EUR 2,595 thousand (previous year: EUR 3,912 thousand).

Purchase commitments for planned capital expenditure on property, plant and equipment amounted to EUR 81,877 thousand as at 31 December 2018 (previous year: EUR 82,449 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.

(14.3) Average number of employees over the year

Average employee numbers for the year were as follows:

EMPLOYEES

	2018	2017
Production	4,435	4,382
Sales and administration	3,395	3,344
Total	**7,830**	**7,726**
Germany	2,689	2,690
Abroad	5,141	5,036
Total	**7,830**	**7,726**

The average number of employees rose by 1.3 percent year on year (previous year: 2.2 percent).

(14.4) Staff costs

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	**2018**	2017
Wages and salaries	328,134	317,343
Social security contributions and expenses for retirement benefits	72,954	71,237
of which for retirement benefit expenses EUR 7,855 thousand (previous year: EUR 7,718 thousand)		
Total	**401,088**	**388,580**

(14.5) Proposal for the appropriation of profits

At the proposal of the Executive Board, the Annual General Meeting of WILO SE on 2 April 2019 shall resolve the payment of a dividend of EUR 1.51 per ordinary share, with the remaining unappropriated surplus of WILO SE being carried forward to new account.

(14.6) Events after the balance sheet date

The Executive Board of WILO SE approved the consolidated financial statements for submission to the Supervisory Board on 19 February 2019. It is the responsibility of the Supervisory Board to examine the consolidated financial statements and to state whether it adopts them.

(14.7) Related party disclosures

All business transactions consisting solely of the provision of goods and services to non-consolidated subsidiaries, jointly controlled entities and associates of WILO SE are settled at standard market conditions. The outstanding trade receivables from these companies amounted to EUR 127 thousand (previous year: EUR 151 thousand). Liabilities to these companies amounted to EUR 6,150 thousand at the reporting date (previous year: EUR 2,701 thousand), of which EUR 2,650 thousand related to joint ventures (previous year: EUR 2,650 thousand). Sales and services passed on to these companies amounted to EUR 725 thousand (previous year: EUR 517 thousand).

All legal transactions are based on standard market conditions. The balances outstanding at the end of the financial year are unsecured, do not bear interest and will be settled via payment.

Members of the Supervisory Board control or influence companies that provide consultancy services for WILO SE. WILO SE generated net sales totalling EUR 1,500 thousand (previous year: EUR 1,863 thousand) from these companies in the 2018 financial year.

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. These services are remunerated at standard market conditions. Revenues of EUR 35 thousand (previous year: EUR 731 thousand) were generated with the heating and air conditioning installation company in the 2018 financial year. There were receivables from this company of EUR 9 thousand as at 31 December 2018 (previous year: EUR 677 thousand). At the same time, the Wilo Group procured goods and services in the amount of EUR 497 thousand (previous year: EUR 623 thousand) from this company. There were liabilities to this company of EUR 4 thousand as at 31 December 2018 (previous year: EUR 2 thousand).

There are also leases relating to land and buildings that are directly or indirectly owned by shareholders. Total lease payments of EUR 353 thousand were made to these shareholders in 2018 (previous year: EUR 492 thousand). The rent was agreed in line with market conditions.

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 2018 (previous year: EUR 39 thousand). As in the previous year, there were no receivables from the Foundation as at 31 December 2018.

(14.8) Auditor's fees

The following fees were recognised as an expense in the 2018 financial year for services provided by the auditor of the consolidated financial statements, KPMG AG Wirtschaftsprüfungsgesellschaft:

AUDITOR'S FEES

EUR thousand	**2018**	2017
Audits of financial statements		
of which for the previous year: EUR 15 thousand (2017: EUR 7 thousand)	443	428
Other assurance services		
of which for the previous year: EUR 2 thousand (2017: EUR 2 thousand)	92	91
Other services		
of which for the previous year: EUR 0 thousand (2017: EUR 23 thousand)	93	132
Total	**628**	**651**

(14.9) Remuneration of the Executive Board and the Supervisory Board

The table below shows the remuneration of the Executive Board:

REMUNERATION OF THE EXECUTIVE BOARD AND THE SUPERVISORY BOARD

EUR thousand	**2018**	2017
Total remuneration of the Executive Board	**3,885**	**5,442**
Short-term benefits	2,859	3,838
Post-employment benefits	392	310
Benefits under IAS 24.17 (d)	634	1,294

As at the end of the reporting period, EUR 0.5 million (previous year: EUR 0.8 million) was recognised as a liability that will not be paid out until the following financial year after approval of the consolidated financial statements.

The Supervisory Board has established a virtual management participation model for the members of the Executive Board of WILO SE under which the participating members contractually receive virtual shares entitling them to participate in the company's positive performance. This does not make them shareholders of the company with corresponding shareholders' rights (e.g. rights of information, voting rights at the Annual General Meeting, right to receive dividends). As at 31 December 2018, a total of 259,420 virtual shares have been granted to the Executive Board. As a matter of principle, the term of the individual virtual participation is unlimited. A participant's virtual participation ends automatically when he or she steps down from the respective management position on the Executive Board. The ordinary termination of the virtual participation ahead of schedule is excluded. The potential benefit earned by the participants of the management participation programme is calculated as the difference between the cost and the retransfer value of the virtual shares. Payment is made within a defined period after participation ends. The fair value (retransfer value) of the provisions recognised in connection with the virtual shares was calculated on the basis of historical averages. As at 31 December 2018, no provision was reported under other provisions (previous year: EUR 250 thousand).

The total remuneration paid to former members of the Executive Board amounted to EUR 1.0 million in the 2018 financial year (previous year: EUR 1.0 million). As at the end of the reporting period, a pension provision of EUR 8.2 million (previous year: EUR 8.3 million) was recognised for former members of executive bodies, some of whom are also related parties.

The remuneration of the Supervisory Board amounted to EUR 0.5 million (previous year: EUR 0.5 million) in the 2018 financial year.

(14.10) Executive bodies of the company

SUPERVISORY BOARD

Prof. Dr. Norbert Wieselhuber
– Chairman –
Managing Director of Dr. Wieselhuber & Partner GmbH
Management Consultancy
Planegg

Prof. Dr. Hans-Jörg Bullinger
– Deputy Chairman –
Former President of the Fraunhofer-Gesellschaft
Stuttgart

Jean-Francois Germerie
European Works Council
Laval, France

Dr. Hinrich Mählmann
Personally liable partner and Managing Director of Otto Fuchs KG
Wiehl

Daniela Mohr
European Works Council
Dortmund

Lars Roßner
Partner at Buse Heberer Fromm, Rechtsanwälte Steuerberater
PartG mbH
Dusseldorf

Dr.-Ing. h.c. Jochen Opländer
is the Honorary Chairman of the Supervisory Board.

EXECUTIVE BOARD

Oliver Hermes
– Chairman –
Essen

Carsten Krumm (until 15 July 2018)
Dortmund

Georg Weber
Dusseldorf

Mathias Weyers
Essen

Dortmund, 19 February 2019

The Executive Board

Oliver Hermes | Georg Weber | Mathias Weyers

Shareholdings

SHAREHOLDINGS OF WILO SE AS AT 31 DECEMBER 2018
(Disclosure pursuant to section 315e HGB)

	Ownership interest in %
Bombas WILO-SALMSON Portugal – Sistemas Hidráulicos, Lda., Porto/Portugal	100.0
Circulating Pumps Ltd., King's Lynn, Norfolk/Great Britain	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
HydroPoint Data Systems, Inc., Petaluma/USA*	2.6
Hydroserve GmbH, Leopoldsdorf/Austria*	100.0
PT. WILO Pumps Indonesia, Jakarta/Indonesia	100.0
S.E.S.E.M. S.A.S., Saint-Denis/France	100.0
STEMMA S.R.L., Trissino/Italy	100.0
WILO (Singapore) Pte. Ltd, Singapore/Singapore	100.0
WILO (UK) Ltd., Burton-on-Trent/Great Britain	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 China Ltd., Beijing/China	100.0
WILO CS s.r.o., Prague/Czechia	100.0
WILO Danmark A/S, Karlslunde/Denmark	100.0
WILO Eesti OÜ, Tallinn/Estonia*	100.0
WILO Egypt LLC, Cairo/Egypt	100.0
WILO Egypt for Import LLC, Cairo/Egypt	100.0
WILO ELEC China Ltd., Qinhuangdao/China	100.0
WILO EMU Anlagenbau GmbH, Roth/Germany	100.0
WILO Engineering Ltd t/a Wilo Ireland, Limerick/Ireland	100.0
WILO East Africa Ltd., Nairobi/Kenya	100.0
WILO Finland OY, Espoo/Finland	100.0
WILO GVA GmbH, Wülfrath/Germany	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
WILO Industriebeteiligungen GmbH, Dortmund/Germany	100.0
WILO IndustrieSysteme GmbH, Chemnitz/Germany	100.0
WILO Intec S.A.S., Aubigny/France	100.0

SHAREHOLDINGS OF WILO SE AS AT 31 DECEMBER 2018
(Disclosure pursuant to section 315e HGB)

	Ownership interest in %
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 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 Pumpen Österreich GmbH, Wiener Neudorf/Austria	100.0
WILO Pumps Ltd., Busan/Korea	100.0
WILO Pumps Ltd., Limerick/Ireland*	100.0
WILO Pumps Nigeria Ltd., Gbagada/Nigeria	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 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 SYSTEMS ITALIA S.R.L., Bari/Italy	100.0
WILO Taiwan Company Ltd., New Taipei/Taiwan	100.0
WILO Tunisia SUARL, Tunis/Tunisia*	49.0
WILO Ukrainia t.o.w., Kiev/Ukraine	100.0
WILO USA LLC, Rosemont, IL/USA	100.0
WILO Vietnam Co. Ltd., Ho Chi Minh City/Vietnam	100.0
WILO-Mitarbeiter-Beteiligungsgesellschaft mbH, Dortmund/Germany	100.0
WILO-SALMSON France S.A.S., Chatou/France	100.0

* These companies were not included in the 2018 consolidated financial statements.
** This is an associate accounted for at cost.
*** This is a joint venture accounted for using the equity method.

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 2018, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of cash flows and the consolidated statement of changes in equity for the financial year from 1 January 2018 to 31 December 2018 and the notes to the consolidated financial statements, including the accounting policies presented therein. In addition, we have audited the group management report of the Wilo Group for the financial year from 1 January 2018 to 31 December 2018.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2018 and of its financial performance for the financial year from 1 January 2018 to 31 December 2018.

- 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.

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 auditor's report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report

Management is responsible for the preparation of consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, management is responsible for such internal control as they, in accordance with German Legally Required Accounting Principles, have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud 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 a material misstatement resulting from fraud is higher than for one 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 overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to Section 315e (1) HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible 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 control that we identify during our audit.

Essen, 19 February 2019
KPMG AG
Wirtschaftsprüfungsgesellschaft

Beumer German Public Auditor	Huperz 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 2018 financial year. At regular meetings, the Supervisory Board was kept fully informed about the development of the Wilo Group's business and all factors affecting it. Members of the Supervisory Board received regular written reports from the Executive Board on the current business situation and on current and planned Group activities. Measures requiring the approval of the Supervisory Board were discussed at length and submitted to the Supervisory Board for resolution. In addition, there was a direct exchange of information between the Chairman of the Supervisory Board and the CEO on important matters arising between the meetings.

The Supervisory Board held four meetings in person in 2018.

The Supervisory Board meeting on 28 March 2018 focused on the annual financial statements and the consolidated financial statements as at 31 December 2017. The business performance of the Wilo Group in light of the global economic situation was discussed in detail. Another key topic at the meeting was the status of the location development project in Dortmund.

At the meeting on 21 June 2018, the Supervisory Board dealt in particular with the economic situation of the Wilo Group, which was presented and illuminated on the basis of the development of individual regions. In addition, planned growth initiatives and the current status of ongoing growth initiatives were discussed. In addition, the acquisition of an investment in Hydropoint Data Systems Inc., Petaluma, California, was approved by the Supervisory Board.

At its meeting on 16 October 2018, the Supervisory Board dealt with current economic developments and the status of the Dortmund location development. In addition, the results of the annual, international executive conference were presented. Furthermore, the current status of ongoing M&A projects was discussed at the meeting.

At its meeting on 11 December 2018, the Supervisory Board dealt in depth with the integrated planning 2018–2023 as well as location development. In addition, the appointment of Dr. Patrick Niehr as General Representative was resolved.

Both the consolidated financial statements with the management report for the 2018 financial year presented with the annual report and the separate financial statements of WILO SE for the 2018 financial year, each comprising an income statement, statement of financial position and notes to the financial statements, have been audited and issued with an unqualified audit opinion by KPMG AG Wirtschaftsprüfungsgesellschaft, Essen, Germany. The auditor also ascertained that the internal control system (ICS) established by the Executive Board, the internal audit system and the compliance system are adequate and capable in their design and use of recognising developments that would jeopardise the company's continued existence in good time.

The above documents were submitted to the Supervisory Board for examination in good time and subjected to comprehensive scrutiny. The auditor took part in the discussion of the annual financial statements and the consolidated financial statements in the meeting of the Audit Committee on 1 April 2019 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. In the period under review, the Audit Committee comprised Dr Hinrich Mählmann, Lars Roßner and Prof. Hans-Jörg Bullinger.

There are no other committees.

After thorough examination and discussion of the annual financial statements, the consolidated financial statements, the management report and the Group management report, the Supervisory Board endorsed the opinion of the auditor and approved the annual financial statements and the consolidated financial statements prepared by the Executive Board in its meeting on 2 April 2019, 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.

The following personnel changes took place on the Supervisory and Executive Boards in the year under review:

Carsten Krumm resigned his post as member of the Executive Board effective 14 July 2018. The Supervisory Board expressly thanks Carsten Krumm for his dedication and successful work. The Chairman of the Executive Board and CEO Oliver Hermes assumed the Executive Board responsibilities of Carsten Krumm.

In the interests of good, responsible corporate governance, WILO SE and its executive bodies voluntarily comply with the current version of the German 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 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 continued its growth course for the ninth year in succession and taking into consideration the difficult and challenging conditions looks back at a good financial year 2018.

The Supervisory Board wishes to thank the members of the Executive Board, the employees and employee representatives of the Wilo Group for their work, the tremendous loyalty and exemplary commitment in this challenging year.

Dortmund, April 2019

The Supervisory Board
Prof. Dr. Norbert Wieselhuber
Chairman

GLOSSARY

Business Keeper Monitoring System (BKMS®)
Internet-based electronic whistle-blower system for providing information on violations of the law or code of conduct.

Cash flow
Net inflow of cash generated from business activities.

Cash pooling
Instrument for optimisation of liquidity management. Daily liquidity equalisation is performed within the Group by the parent company, whereby excess liquidity is siphoned from Group companies to cover liquidity shortages.

Corporate foresight process
In the corporate foresight process, both risks and opportunities are derived and analysed from forecast future developments with respect to the global megatrends, and hence systematically taken into account in the ongoing development of corporate strategy.

EBIT / EBIT margin
EBIT is earnings before net income from investments carried at equity, net finance costs and income taxes. The EBIT margin describes the ratio of EBIT to net sales.

EBITDA
EBITDA is earnings before net income from investments carried at equity, net finance costs, income taxes and depreciation and amortisation.

Emerging Markets
The Emerging Markets region / segment covers China, India, South Korea, Southeast Asian nations, Australia and Oceania, Turkey, the Near East and Middle East, Africa.

Equity method
Method of accounting for investments in entities over which the investor has a significant influence. Changes in equity at these companies influence the corresponding carrying amounts of the investments.

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.

Mature Markets
The Mature Markets region/segment covers Europe, Russia, Belarus, Ukraine, Caucasus nations and the American continent.

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.

* We understand a smart-pump as a new category of pumps, which goes far beyond our high-efficiency pumps or pumps with pump intelligence. Only the combination of the latest sensor technology and innovative control functions (e.g. Dynamic Adapt plus and Multi-Flow Adaptation), bidirectional connectivity (e.g. Bluetooth, integrated analogue inputs, binary inputs and outputs, Wilo Net interface), software updates and excellent usability (e.g. thanks to the Setup Guide, the preview principle for predictive navigation and the tried and tested Green Button Technology) make this pump a smart-pump.

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