Annual report 2019

1 January 2019 – 31 December 2019
Vestas Wind Systems A/S
Hedeager 42, 8200 Aarhus N, Denmark
Company Reg. No.: 10403782

Wind. It means the world to us.™

Contents

How to read this report – definitions:

Vestas

"Vestas" is the entity covering the two onshore business areas Power solutions and Service – as referred to in the chapters "Outlook" and "Capital structure strategy" and in the sections "Sustainability", "Vestas people", and "Governance". The entity includes all subsidiaries over which Vestas has control.

The Group

"The Group" refers to activities in all three business areas, including the offshore business in the joint venture MHI Vestas Offshore Wind A/S.

The three business areas are:

Power solutions | Service | Offshore

The offshore business is accounted for using the equity method and the net result for the year for the joint venture is recognised in the income statements as "Income from investments in joint ventures and associates".

In brief

Key achievements

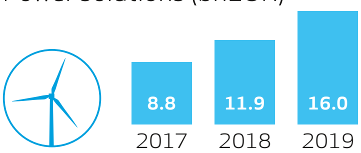
2019 financial performance within guidance

	Realised	Guidance
Revenue (bnEUR)	12,147	11.0-12.25
EBIT margin before special items (%)	8.3	8-9
Total Investments* (mEUR)	729	approx. 800

* Excl. any investments in marketable securities, short-term financial investments, and the acquisition of SoWiTec Group GmbH.

All-time high order backlog

Power solutions (bnEUR)



Service (bnEUR)

Service duration increases
– average length on new contracts signed

18 years

Dividend

EUR 211m

The Board recommends a dividend of DKK 7.93 per share be paid for the financial year 2019.

Share buy-back programme

EUR 201m

Bought back 2.3 million Vestas shares at a total value of EUR 201m.

Highest order intake ever

17.9 GW

Launch of ambitious sustainability strategy

Reduction in injuries
Total recordable injury rate at

3.9

Letter from the Chairman & the CEO

Forty years of progress, challenges, and opportunities

In 1979, Vestas delivered and installed its very first wind turbine for a customer in Jutland, Denmark. Around the same time, at the first World Climate Conference in Geneva, Switzerland, 50 scientists gathered to discuss climate change. Unaware of what was being installed just over 1,000 km away to the north, the scientists agreed that urgent action was needed to counter the alarming climate change trends they could observe around the world.

Today, 40 years on, wind energy and renewables have evolved tremendously, multiplying turbine output significantly to the benefit of Vestas' customers and the global environment. In fact, the technological leaps witnessed in the last 10 years, along with the sharp decline in the Levelised Cost of Energy, have made renewables the cheapest electricity source in two-thirds of the world's countries. As a result, the technology required to make the transition to renewable energy is available here and now; and this availability, combined with climate targets, will continue to drive global demand for renewables long into the future.

Manifesting our leadership in a tough market

In this environment, in 2019, Vestas continued to push itself and the industry to higher levels, including breaking our order record again, launching a new modular platform, achieving record high profitability in Service, expanding our footprint and scaling up manufacturing. With a record order intake of 17.9 GW, continued growth in Service, the highest order backlog of EUR 34bn and an unprecedented volume of deliveries, 2019 was our busiest year to date. Compared to 2015, we doubled our order intake and, once again, delivered market-leading profitability. This performance enabled us to create value for our shareholders, as demonstrated by our dividend pay-out and completion of a share buy-back program.

However, alongside Vestas' results in 2019 and the technological and competitive milestones, the industry still faces major challenges and impediments caused by trade wars and tariffs. In 2019, industry rules changed, the cost of raw materials and transport went up, and capacity became limited. Combined with the industry's continued competitiveness, these factors led to an increase in the profitability required to sustain technological development, causing many competitors to struggle and, in some cases, close down and leave the industry.

Leading the industry, building new partnerships

For Vestas, the reality of the climate crisis shapes, informs and motivates our business at every level. Every day, we go to work knowing that what we do supports the global transition from traditional energy sources to renewables, helping to make the world a better and more sustainable place. First and foremost, this entails designing, delivering and servicing sustainable energy solutions that help our customers' businesses thrive, while reducing CO_2 emissions from their energy mix. And we are pleased to say that Vestas is doing well; so well, that in 2019 we sold, delivered, and serviced record amounts of wind energy solutions, consolidating our leadership position and, most importantly, working to ensure a healthy planet for future generations. We embrace our leadership role within the industry, and we are inspired to continue driving our solutions to provide excellence for our customers.

To exploit present and future growth, we must constantly consider how to leverage our size, scale, and volumes. Advantages of scale will underpin our future success, from designing and building turbines, to expanding our digital and multi-brand capacities, to establishing partnerships with suppliers willing to take on larger volumes. Such efforts will enable us to serve a truly global and growing marketplace for sustainable energy solutions.

Our commitment to help address the climate crisis also means taking on more responsibility. To this end, with this annual report we are launching our new sustainability strategy, called "Sustainability in everything we do". This strategy sets out a range of commitments, such as achieving carbon neutrality by 2030 and producing zero-waste turbines by 2040. As an example, we started converting our benefit and service cars to electric vehicles on 1 January 2020. In combination, these initiatives will have a significant positive impact on Vestas' sustainability performance, while driving improvements across the entire wind energy value chain to the benefit of our global customers and wider stakeholders.

To engage more actively in global conversations on the electrification of the energy system, in 2019 we entered a partnership with Mercedes-Benz EQ Formula E team. Through this partnership, we will raise awareness of Vestas and the need for electrification, with the aim of bringing sustainable energy into the mainstream. As energy-based sectors such as mobility and heating become electric, increased demand for electricity will drive wind energy's penetration of the energy system.

Denmark
Østerild Test Centre
V150-4.2 MW™

Australia
Lal Lal Wind Farm
V136-3.45®

Maintaining our strategic focus

The backbone of our expansion remains our winning strategy, which is based on our three core business areas: onshore wind, offshore wind, and service solutions. To sustain our success, we continue to leverage our technology leadership, scale and reach, while also working even more closely with our customers and partners. And through our passion and accountability, we aim to deliver what we promise – or speak up early to address challenges and avoid unexpected costs.

In 2019, Vestas once again pushed the boundaries of technology further, having invested EUR 729m, more than any other company across the industry. We introduced the EnVentus™ platform architecture, taking a big leap into modular product development. We also invested heavily in localisation and scale in order to meet growing demand for our sustainable energy solutions. At the same time, we continued to invest in the technology that will be essential to achieving full decarbonisation, such as hybrids, grid integration, and Power-2-X.

During the year, as wind energy became increasingly competitive, new markets opened and others re-opened, which meant that all regions contributed to our overall results. Once again the USA was our largest market, and while traditionally strong markets such as Germany and India remained in a state of temporary uncertainty, others such as Brazil, Poland, and Australia showed great progress in order intake, localisation and execution.

Preparing for the future

Unlike 40 years ago, it is clear today that renewable energy is the future. To ensure Vestas can maximise the opportunities and benefits arising from the growth of renewables, in 2019 the Board and Executive Management made changes to the company's leadership. These changes were designed to support strategic continuity, value-based leadership and long-term succession planning. Underlining our Service business' importance, the Head of Service was appointed to Executive Management, while our emphasis on value-based leadership was highlighted when People and Culture were elevated to fall under the remit of Executive Management as well.

The year ahead will be even busier than 2019. It is therefore vital that we live by our values of simplicity, accountability, collaboration, and passion. Only in this way will we find efficiencies across the value chain that support our success; efficiencies that will help us further lower the Levelised Cost of Energy for the benefit of our customers, while ensuring our profitability and future investments in technology.

Almost everything in wind energy and renewables has changed since 1979, but one thing remains the same: urgent action is still required to divert our climate trajectory. Whether the scale of this challenge is articulated by 50 scientist in 1979 or 11,000 scientists, who in 2019 endorsed the "World Scientists' Warning of Climate Emergency", we continue to work as relentlessly today as we did 40 years ago to develop solutions for a carbon-free energy system. By doing so, we provide decision makers with one of the strongest tools to address the climate crisis, and the opportunity to access one of the world's most efficient energy sources.

We want to thank Vestas' employees for all their ongoing passion, hard work and dedication. We also want to thank our customers, partners, and other stakeholders who continue to help us overcome challenges and achieve impressive results. Through our collaboration in 2019, we created strong foundations that will enable us to execute our demands and responsibilities in an even busier 2020.

Bert Nordberg
Chairman of the Board of Directors

Henrik Andersen
Group President & CEO

Norway
Fosen Vind
V117-3.45 MW®

Thailand
Had Kanghan
Wind Farm
V110-1.8 MW®

Brazil
Parque Alegria Alta
V110-2.0 MW®

Outlook

Outlook 2020

Revenue is expected to range between EUR 14bn and 15bn, including service revenue, which is expected to grow approx. 7 percent. Vestas expects to achieve an EBIT margin before special items of 7-9 percent with a service EBIT margin of approx. 25 percent.

Total investments[1)] are expected to amount to approx. EUR 700m in 2020.

It should be emphasised that Vestas' accounting policies only allow the recognition of revenue when the control has passed to the customer, either at a point in time or over time. Disruptions in production and challenges in relation to shipment of wind turbines and installation hereof, for example bad weather, lack of grid connections, and similar matters, may thus cause delays that could affect Vestas' financial results for 2020. Further, movements in exchange rates from current tlevels may also impact Vestas' financial results for 2020.

Outlook 2020

Revenue (bnEUR)	14-15
EBIT margin (%) before special items	7-9
Total investments [1)] (mEUR)	approx. 700

1) Excl. any investments in marketable securities and short-term financial investments.

Long-term financial ambitions

The wind power industry is maturing into a commercially viable, unsubsidised industry. On the global agenda is now an acute call for renewable energy to replace fossil fuels in the energy mix, and hence the growth potential is immense. There is furthermore a strong demand for technology that can improve energy efficiency and displace CO_2 emissions created by conventional sources of electricity. With its global reach, scale, and leading technology, Vestas is well positioned to explore the unprecedented opportunities that the great growth potential and demand for innovation create.

The company observes an industry that despite moving towards the end of the transition period is still highly competitive and impacted from current trade restrictions.

Vestas' long-term financial ambitions reflect the projected market conditions as well as the company's strategy and priorities.

In the coming years, revenue in the Service segment is expected to grow faster than the market with an EBIT margin of approx. 24 percent.

Long-term financial ambitions

Revenue	Grow faster than the market and be the market leader in revenue
EBIT margin	At least 10 percent
Free cash flow	Positive each year
ROCE	Minimum 20 percent over the cycle

E factor

The **electrification** of consumer goods and business processes create a unique business opportunity for Vestas to be at the forefront of the wind power industry in delivering the capacity needed for the future.

S factor

Vestas has the ambition and capabilities to lead the energy transition towards a world powered by sustainable energy – with **sustainability** deeply embedded in everything we do.

Who we are

The biggest challenge – and business opportunity – of our time

The climate crisis is the most pressing and fundamental challenge of our times and urgent action is required to prevent global warming exceeding 1.5 °C. At Vestas, we have for the last 40 years been committed to protecting the planet: Sustainability is at the core of everything we do. By pioneering wind energy, today recognised as a key solution to fight climate change, we have already prevented billions of tonnes of CO_2 from being released into the atmosphere.

Through our heritage and current leadership, we are uniquely positioned to drive the energy transition forward and exploit the many business opportunities it offers.

But the transition to a world powered by renewable energy requires more than just competitive renewable energy sources, it also requires a fundamental shift in how we produce, distribute, and use energy. Vestas therefore has a vision to become the Global Leader in Sustainable Energy Solutions.

The energy transition and Vestas' journey have only just begun. Nations, corporations, and investors alike are opening their eyes to the inevitable historic transformation and are channelling funds into renewable energy projects and research.

Vestas' value proposition

In the face of the biggest challenge of our time, utilities, corporations, infrastructure investors, pension funds, energy companies, and even oil and gas companies are asking for efficient and sustainable energy solutions. With its global reach, scale, and leading technology, Vestas knows better than anyone how to build the right solution for the individual customer and specific location.

We are the energy industry's global partner on sustainable energy solutions. We design, manufacture, install, and service wind turbines across the globe, and with more than 113 GW of wind turbines in 81 countries, we have, together with our offshore joint venture, installed more wind power than anyone else.

Through our industry-leading smart data capabilities and unparalleled 96 GW of wind turbines under service, we use data to interpret, forecast, and exploit wind resources and deliver best-in-class wind power solutions. Together with our customers, Vestas' more than 25,000 employees are bringing the world sustainable energy solutions to power a bright future.

Group business model

Key resources

Natural resources
Our energy solutions utilise natural resources such as wind.

Research and development
We constantly provide our customers with industry-leading technology.

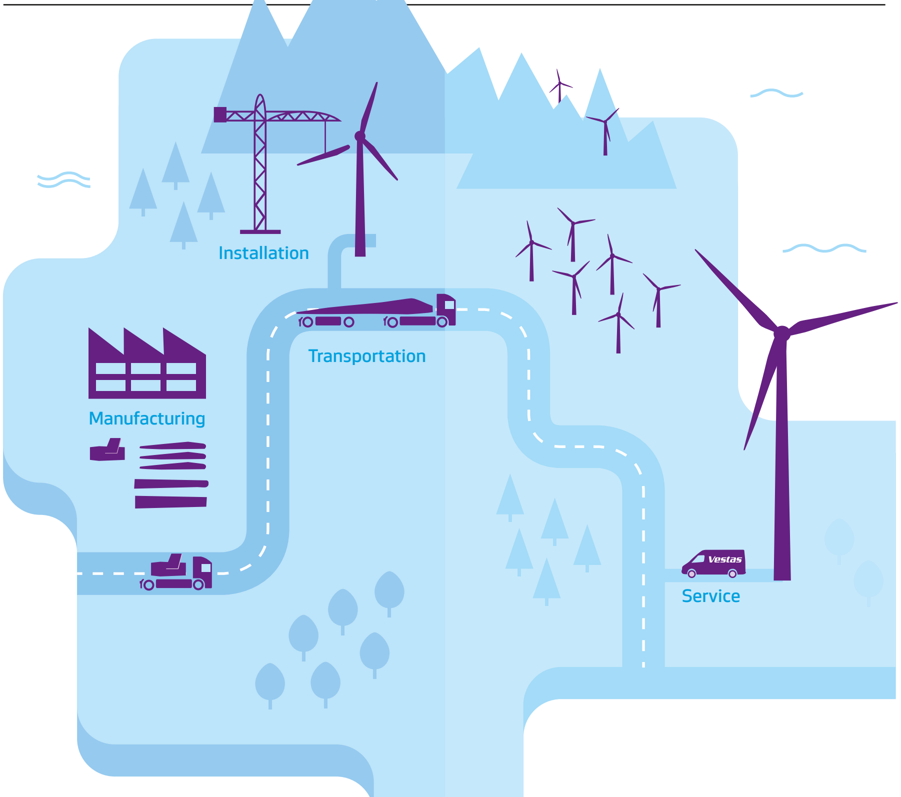
Human resources
We employ the best and most passionate people.

Manufacturing capabilities
Our global manufacturing and supply chain capabilities secure high quality and efficiency.

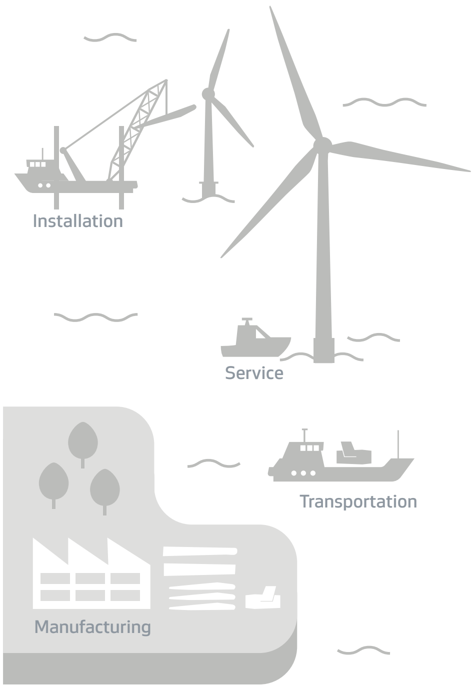
Working capital management
Prepayments and milestone payments from customers fund our manufacturing and service operations.

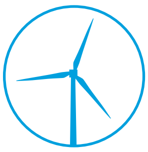
Credit worthiness
Our green bond facility showcases our financial strength and serves as a business enabler for customers.

Vestas



MHI Vestas Offshore Wind





Power solutions

With developing and manufacturing of onshore wind turbines at the core, Vestas provides sustainable energy solutions from site studies to installation.

Service

Service solutions and performance optimisation for Vestas and non-Vestas wind turbines globally to improve business case certainty.

Offshore

Through the joint venture, MHI Vestas Offshore Wind, developing, manufacturing, installing, and servicing offshore wind turbines.

Value created

Return on investment
We optimise solutions for our customers to generate the highest possible return on investment.

Local community development
We engage with and create value for local communities when entering into new territories.

Safety culture
Safety is always top priority. This provides our employees with a safe working place in all parts of our operations.

Climate efficiency
A single wind turbine produces 30-50 times more energy than it uses in its entire lifetime.

Shareholder value
Through our priorities for capital allocation, we create value for our shareholders.

Strategy and ambitions

Corporate strategy

Leadership through unprecedented change

Energy is the cornerstone of modern society and the key to a better quality of life for those living in less developed areas. At the same time, energy today accounts for two-thirds of total global greenhouse gas emissions, making it the main contributor to the climate crisis.[1] Moreover, burning of fossil fuels results in millions of deaths per year caused by air pollution.[2] Unless the world fundamentally changes the way it produces, distributes, and uses energy, these figures will continue to rise as energy demand increases.

To limit global warming to 1.5°C requires unprecedented transitions in all areas. In response to this challenge, countries, governments, states, cities, and companies are beginning to introduce increasingly ambitious climate and renewable energy targets. But there is still much to be done. In 2017, human-induced warming reached approx. 1°C above pre-industrial levels, causing multiple changes in the climate system, reminding us that the alleviation of the climate crisis remains a long way off.[3]

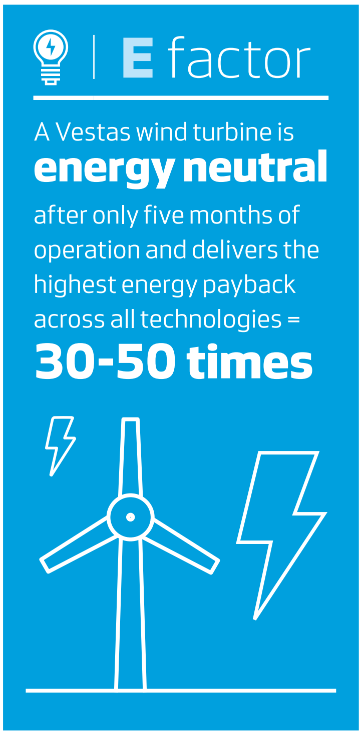
Although the road to a sustainable future is long and uncertain, and the risk of irreversible environmental damage is increasing, renewables now offer a viable solution. With availability today at a scale and cost that can meet the world's energy demand and limit the impact of human activity,[4] the case for renewables has become too strong to ignore. As the leader and pioneer in wind energy, Vestas is well positioned to lead the global energy transition. But the company is also aware that although renewables are now cheaper than fossil fuel in two-thirds of the world, this transition – and Vestas' journey within it – has only just begun.

For the last 40 years, Vestas has worked passionately to develop solutions to address both the climate crisis and the world's growing need for energy. Along the way, Vestas has installed more than 113 GW, preventing the release of 1.3 billion tonnes of CO_2 into the atmosphere. Today, as Vestas works towards becoming the global leader in sustainable energy solutions, with wind at its core, Vestas remains as committed to protecting the environment as Vestas was in 1979, when it installed the very first wind turbine. Ensuring a healthy planet for future generations is a key part of what Vestas does – it is Vestas' purpose as a company and as individuals.

To guide its efforts in the future, Vestas has introduced a goal: To lead the transition towards a world powered by sustainable energy.

Through this goal, Vestas commits to taking a leading role in driving electrification and decarbonisation beyond the power sector; to team up with sustainability leaders to drive change and; to support Vestas' partners in their journey to become more sustainable.

But preventing the release of billions of tonnes of CO_2 into the atmosphere is not enough. Vestas therefore expands its ambitions beyond leading the global energy transition and introduces three additional goals that will ensure sustainability in everything Vestas does. They are:



- Carbon neutrality, without carbon offsets, by 2030
- Zero-waste wind turbines by 2040
- The safest, most inclusive, and socially responsible workplace in the energy industry

Through these goals, Vestas aims to integrate sustainability across and through all businesses and operations. Vestas will also use them to explore the real meaning of its vision of being the Global Leader in Sustainable Energy Solutions. In doing so, Vestas will embark on the next phase of its journey.

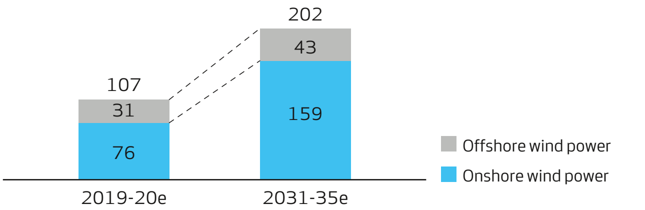
The greatest challenge and opportunity of our time

Without doubt, the climate crisis is the greatest challenge facing humankind today. But it also presents a unique opportunity. Put simply, the world needs more sustainable and affordable energy. Efforts to generate and distribute this energy have resulted in the largest human-made transition in history: the global energy transition. As this transition accelerates, with demand increasing and technology advancing, the growth potential for renewables is huge.

A 62 percent increase in electricity demand globally will almost triple global generation capacity, attracting USD 13.3 trillion in investments by 2050, of which USD 5.3 trillion and USD 4.2 trillion are expected to go to wind and solar energy respectively.[5] Annual investments into new wind capacity are expected to roughly be doubled in the years 2031-35 compared to 2019-20.

1) Source: International Energy Agency (IEA): Global Energy & CO2 Status Report 2019. March 2019.
2) Source: World Health Organization: COP24 Special Report, Health & Climate Change. 2018.
3) Source: The Intergovernmental Panel on Climate Change (IPCC): Special Report - Global warming of 1.5°C. 2018.
4) Source: The Boston Consulting Group: The Economic Case for Combating Climate Change. September 2018.
5) Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.

Average annual investments in new wind power capacity
USDbn



Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.

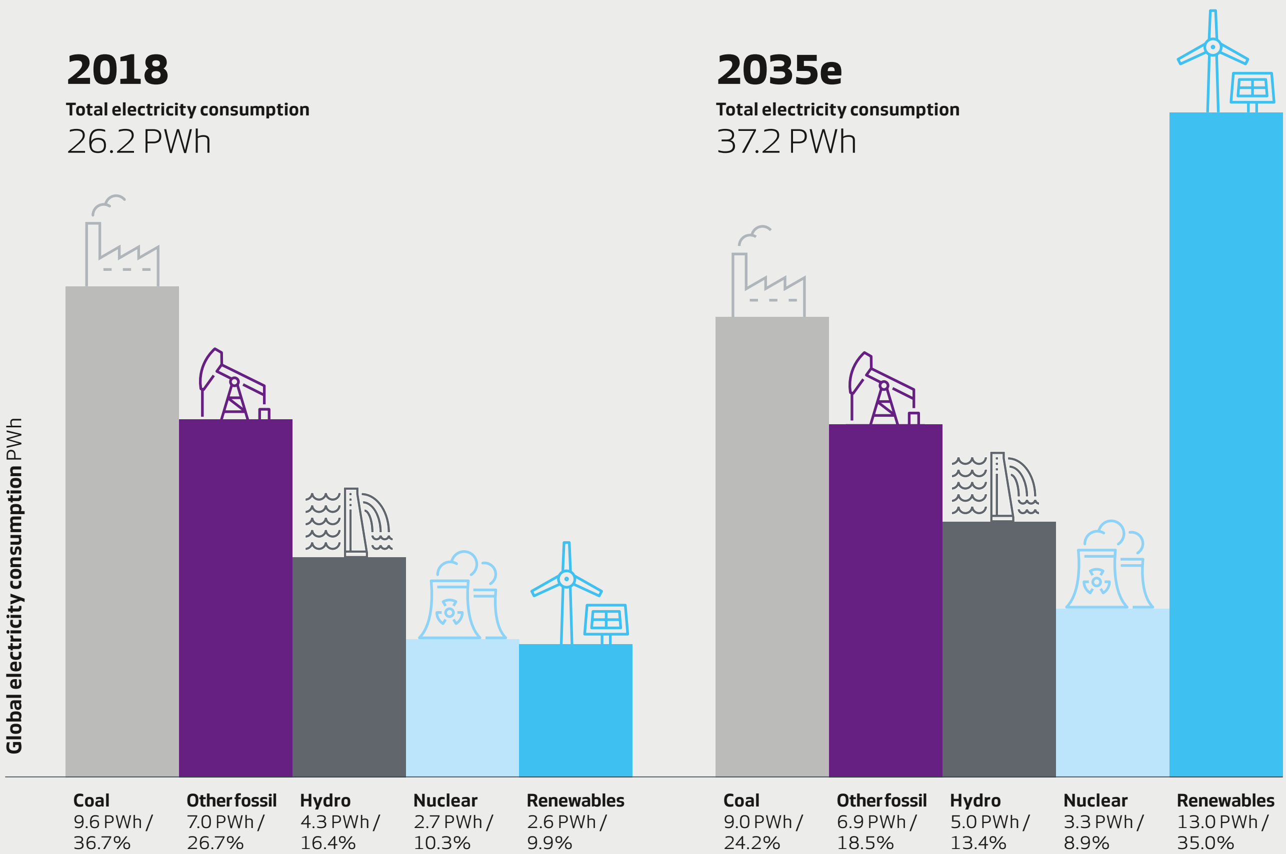
With renewables being the cheapest source of electricity in two-thirds of the world today, and set to beat coal and gas on cost almost everywhere by 2030, these investments will see wind and solar providing 50 percent of the world's electricity in 2050. Compared to 2018, growth and electrification of the energy system is also expected to require 40 percent more electricity consumption by 2035, which will necessitate a five-fold increase in total renewable generation.[6)]

As part of its efforts to lead the global energy transition, Vestas aims to bring sustainable energy into the mainstream. To this end, in 2019 Vestas began to engage more directly with electrification, which is key to driving decarbonisation, increasing wind's penetration of the energy system. To create a sustainable energy system, electrification of transport, heating, cooling, and industrial processes is absolutely pivotal and Vestas will work to increase the attention around this aspect of the energy transition. During the year, Vestas partnered with the Mercedes Benz EQ Formula E team to explore opportunities for innovation and collaboration in the area of electric cars and motorsport. The transportation sector generally, as a large greenhouse gas emitter, offers great potential to showcase electrification as an impactful means of addressing the climate crisis, and its electrification will be a focus for Vestas going forward.

In addition to the adoption of electric vehicles, the electrification of heating, cooling, and industrial processes will stimulate extraordinary growth in demand for sustainable electricity. In emerging countries, for example, population and GDP growth, including uptake in air-conditioning is expected to increase overall electricity demand by 93 percent from 2018 to 2050.[6)]

Renewables to expand electricity capacity

In 2035, renewables are set to account for more than 30 percent of the global electricity consumption.

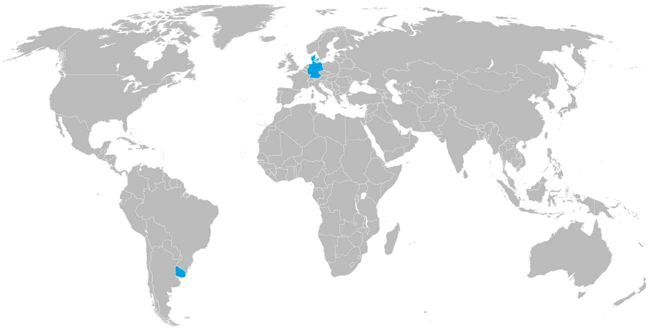


* Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.

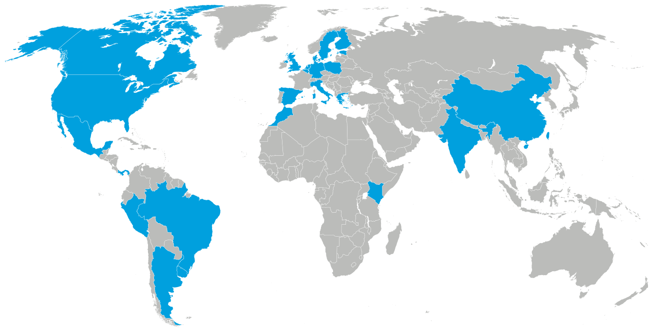
6) Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.

Global reach of wind power as most competitive energy source

2014



2019



■ Countries with wind power as most competitive energy source

Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.

Strategic focus areas

Vestas is driving the energy transition forward by focusing on three core business areas: **onshore wind**, **service solutions** and **offshore wind**. Vestas is present in all key markets globally and offer the most compelling and sustainable wind power plant and service solutions, thereby expanding the global reach of renewable energy.

Through its operational scope and efficiency, as well as its investments and innovations, Vestas is able to keep pushing the technology and economics of wind power. In particular, Vestas' global scale and operating model are critical to driving supply chain industrialisation and sustaining cost leadership. With localisation becoming a requirement in an increasing number of markets, close partnerships with suppliers and local governments remain key to sustaining Vestas' competitiveness across the globe. Because of its stable leadership position, Vestas is able to re-invest more of its profit into new technology than any other player in the renewables sector. As the industry continues to consolidate, its ability to generate sustainable profits, which can be reinvested to drive innovation, becomes increasingly important, and Vestas remains committed to sustaining its industry-leading profitability and investing in new technology. In this way, Vestas is able to maintain and expand its leadership – for the benefit of the planet, Vestas' customers and shareholders.

Group main business areas

Power solutions
Global leader in onshore wind

Service
Global leader in onshore service

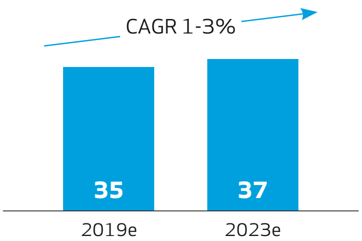
Offshore
Top player in offshore wind

Market position

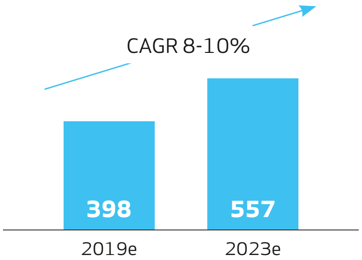
#1	#1	#2
Onshore wind	**Wind service**	**Offshore wind**
Large market healthy growth	Mid-sized market high growth	Younger market high growth

Market expectations

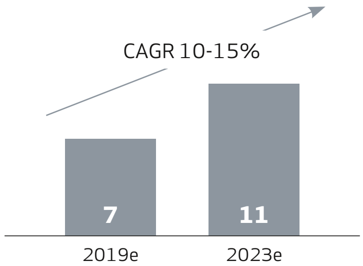
New installations, excl. China (GW)*



Installed fleet (GW)*



New installations (GW)*



* Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. 25 November 2019.

Global leader in onshore wind energy solutions – outlook and priorities

Vestas' legacy and current position as the global leader in wind power is measured on scale, market reach, innovation, and global footprint. Vestas uses this position to expand the reach of wind energy and develop, sell, and deliver superior onshore wind power plant solutions. These solutions ensure enhanced performance for both owners of wind power plants and operators of broader electricity systems. In 2019, for example, Vestas introduced the EnVentus™ platform, leveraging its unparalleled scale, research and development investments, and experience to deliver further improvements in the annual output, cost and value of wind energy.

During 2019, the wind energy industry underwent significant change and consolidation. This was the result of both short-term margin pressures – driven by the introduction of auctions and a worsening global trade environment – and the fast-paced transition to more advanced wind turbine technology. In the near-term, however, the onshore segment is seeing strong growth in global installed volumes and is expected to make a step-change to more than 40 GW or more a year from 2020 onwards compared to less than 30 GW in 2018, excl. China.[7]

Besides the large, well-known markets such as the USA, China, and Germany, and the EU's proposed renewable energy target of more than 50 percent by 2030, global activity is increasingly shaped by the emergence of new sizable markets – for example, Colombia, Russia, Brazil, and India. The broadening of global demand provides further stability and reinforces the value of Vestas' global sales, service, and supply chain footprint.

To maximise the value of Vestas' leading onshore wind energy position, its priorities are to:

- Continue growing faster than the market to further strengthen its global leadership and ensure presence in key growth segments, while sustaining profitability and capital efficiency.
- Expand its solutions offering to address critical steps in the renewable energy value chain, such as turnkey (EPC) projects and co-development solutions, helping customers to solve bottlenecks while capturing additional value for Vestas.
- Sustain its leading wind turbine portfolio through the successful introduction and development of the EnVentus™ platform, offering leading cost and value performance.
- Optimise operations to sustain the most cost-effective, flexible and reliable supply chain, offering superior quality, safety, and sustainability across its own operations and through close collaboration with suppliers. Modular product development plays a key role in optimising Vestas' operations as it will create further scale advantages and pave the way for close collaboration with key suppliers, which could lead to single or joint partnerships.
- Pioneer the development and launch of new technology, solutions, and business models that help maximise power plant economics and further unlock the significant long-term potential of renewables. This includes more advanced grid integration and cyber-security solutions, as well as hybrid solutions leveraging wind, storage and/or other generation sources.

7) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. 25 November 2019.

Global leader in wind energy service solutions – outlook and priorities

With a tremendous short- and long-term outlook for renewables, there is also a major growth potential for wind energy service solutions. The value of the service solutions market is expected to continue growing at a rate of more than 5 percent a year towards 2025[8], driven by growth in the number of wind turbines globally and the need for predictable energy production and revenues.

Being the service partner of choice for customers, asset owners, and operators therefore puts Vestas on a strong value and growth trajectory. To sustain its position and accelerate its growth in the service segment, Vestas aims to enhance customer and shareholder value through expanded offerings, service scope, and more integrated digitised operations and solutions.

To maximise Vestas' service growth and value, its priorities are to:

- Provide further value to Vestas' customers and create new revenue streams by expanding its service sales approach. Vestas will also meet emerging needs related to increased energy market exposure and asset life extension.
- Cover all its customers' service needs for their diversified fleets, by expanding its multi-brand offering and building further capabilities to service non-Vestas wind turbines.
- Optimise its service operating model by increasing the deployment of digital tools. This will enable Vestas to focus further on servicing individual customers' needs, while capturing the full cost benefit of Vestas' scale and operational efficiency.
- Secure Vestas' position as the digital leader in renewables by deploying a broader range of digital services. Vestas' aim here is to access new revenue streams and enhance its competitiveness for all customers, including self-performers. This work includes, but is not limited to, rolling out more advanced solutions, including predictive and prescriptive maintenance, via its subsidiary, Utopus Insights, Inc. This will enable asset owners and operators to monitor, orchestrate, and optimise their fleets.

Global leader in offshore wind energy solutions – outlook and priorities

Within wind energy, the offshore segment is set to expand by 13 percent per year under current investment plans and policies, becoming a USD 1 trillion business by 2040.[9] The outlook for offshore wind power is underpinned by volume certainty (linked to long-term planning horizons) extending to the mid-to-late 2020s. Annual installed volumes are expected to experience double-digit percentage growth until late 2020s.[10]

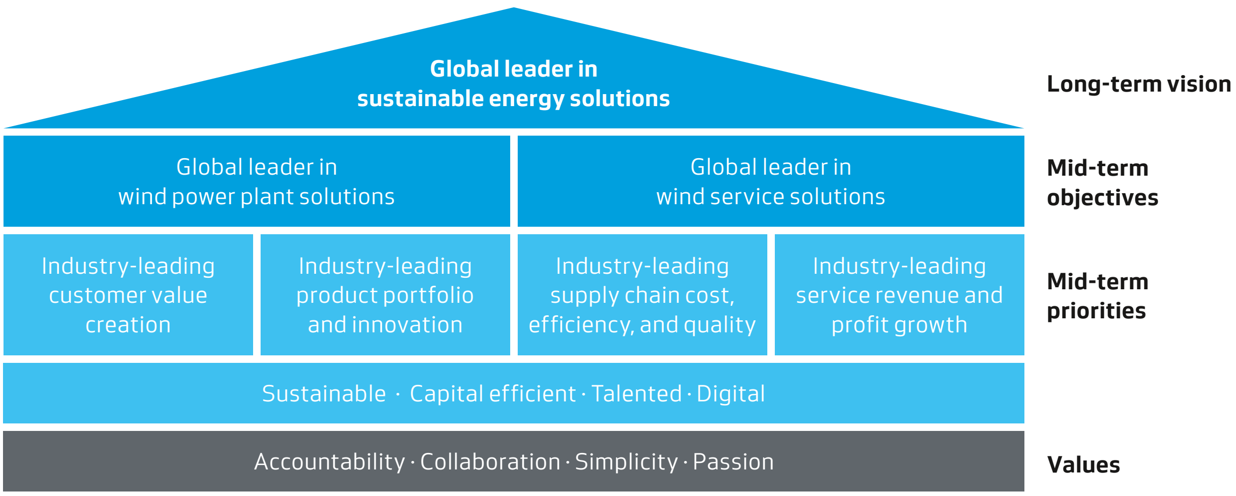
The impressive expansion of offshore wind power is being driven by rapid reductions in cost of energy. Investor appetite and regulatory support are also strong due to the size of projects and the consistency and predictability of electricity generation. This has led to increased offshore capacity and land area allocations in established markets, plus growth in new markets such as the USA, Taiwan, and Japan.

Vestas' joint venture with Mitsubishi Heavy Industries Ltd., MHI Vestas Offshore Wind A/S, provides a leading product platform and global footprint and its aim is to become a market leader in offshore wind power.

To maximise the growth and value of Vestas' offshore wind energy position, its priorities are to:

- Execute in core markets, such as the UK, Germany, the Netherlands, and Scandinavia – and successfully deliver on volumes in new markets.
- Develop a global sales, service and supply chain organisation, leveraging both Vestas' and Mitsubishi Heavy Industry's global experience.
- Innovate products, services, and solutions that drive down Levelised Cost of Energy and improve grid integration in order to ensure MHI Vestas Offshore Wind A/S' competitiveness in established and new offshore markets.

The building blocks of the corporate strategy



8) Source: Wood Mackenzie: 2019 Global Onshore Wind Operations & Maintenance Report. December 2019.
9) Source: International Energy Agency (IEA): Offshore Wind Outlook 2019. 25 October 2019.
10) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. 25 November 2019.

Capital structure strategy

Financial management

In connection with financial management it is the Board of Directors of Vestas Wind Systems A/S' (the Board) objective to create the necessary stability to implement strategic development work while in the long term achieving a competitive return for the company's shareholders. At the same time, Vestas has the objective of reducing cost of capital.

Capital structure targets

As a player in a market where projects, customers, and wind energy investors are becoming larger, Vestas aims to be a strong financial counterpart. Capital resources will be maintained to secure compliance with Vestas' capital structure target: Net interest bearing debt/EBITDA ratio below 1x at any point in the cycle – as well as related dividend policy, linked to the strategic aspirations of the company.

Capital allocation priorities

The main priority when it comes to the allocation of capital is the required investments and research and development to realise Vestas' corporate strategy and its long-term vision of being Global Leader in Sustainable Energy Solutions.

Available capital resources may also be used for bolt-on acquisitions to accelerate or increase profitable growth prospects. All investments in organic growth and acquisitions must support Vestas in achieving its long-term financial ambition for return on capital employed.

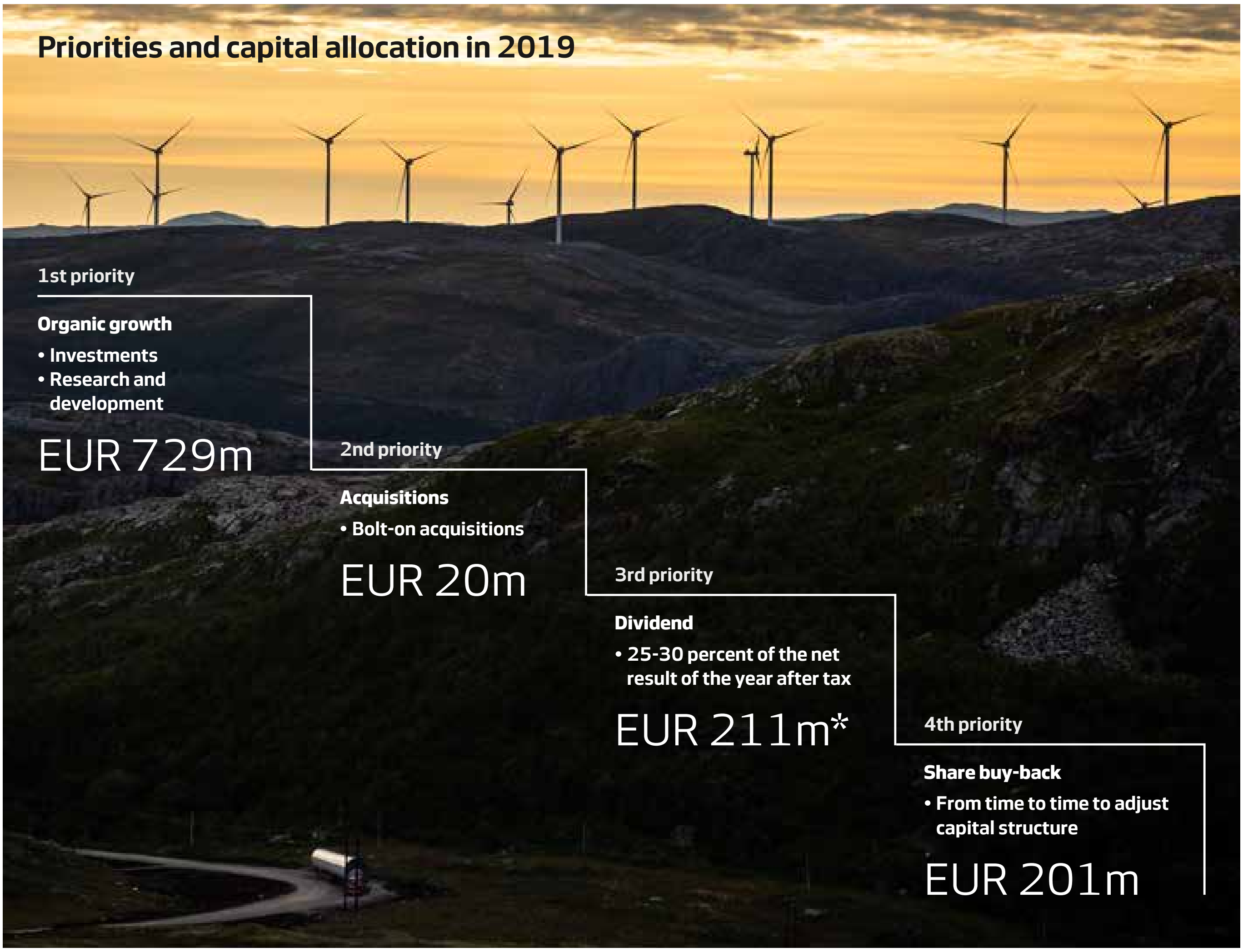
Any decision to distribute cash to shareholders will be made in appropriate consideration of the capital structure target and availability of excess cash. Determining the level of excess cash will be based on the company's growth plans and liquidity requirements.

The dividend policy reflects the general intention of the Board to recommend a dividend of 25-30 percent of the year's net result after tax, which will be paid out following approval by the shareholders at the annual general meeting.

In addition, Vestas may from time to time supplement with share buy-back programmes to adjust the capital structure. Such share buy-backs, if any, will likely be initiated in the second half of the year based on realised performance. In years without major investments, most of the free cash flow may be distributed to shareholders through dividends and share buy-backs.

The Board continuously evaluates to what extent the company's capital structure, share structure, and capital resources are reasonable, in consideration of Vestas' operations and the stakeholders' interests.

The Board and Executive Management consider that the current capital and share structure of Vestas serves the interests of the shareholders and the company well, providing strategic flexibility to pursue Vestas' vision.



* Based on recommended dividend for the financial year 2019.

Group performance

Highlights

mEUR	2019	2018	2017	2016	2015
FINANCIAL HIGHLIGHTS					
INCOME STATEMENT					
Revenue	12,147	10,134	9,953	10,237	8,423
Gross profit	1,761	1,631	1,963	2,126	1,505
Operating profit before amortisation, depreciation and impairment losses (EBITDA) before special items	1,550	1,394	1,651	1,826	1,212
Operating profit (EBIT) before special items	1,004	959	1,230	1,421	860
Operating profit before amortisation, depreciation and impairment losses (EBITDA)	1,550	1,379	1,651	1,826	1,258
Operating profit (EBIT)	1,004	921	1,230	1,421	906
Operating profit (EBIT) before special items adjusted for tax	773	719	923	1,066	636
Net financial items	(98)	(51)	2	(33)	(15)
Profit before tax	909	910	1,192	1,287	925
Profit for the year	700	683	894	965	685
BALANCE SHEET					
Balance sheet total	14,331	11,899	10,871	9,931	8,587
Equity	3,345	3,104	3,112	3,190	2,899
Investments in property, plant and equipment	451	312	268	304	220
Net working capital	(1,583)	(2,040)	(1,984)	(1,941)	(1,383)
Capital employed	4,165	3,602	3,609	3,686	3,394
Interest-bearing position (net), at the end of the period	2,452	3,046	3,359	3,255	2,270
Interest-bearing debt, at the end of the period	820	498	497	496	495
CASH FLOW STATEMENT					
Cash flow from operating activities	823	1,021	1,625	2,181	1,472
Cash flow from investing activities before acquisitions of subsidiaries and financial investments	(729)	(603)	(407)	(617)	(425)
Free cash flow before acquisitions of subsidiaries and financial investments	94	418	1,218	1,564	1,047
Free cash flow	332	(69)	1,218	1,364	1,047
FINANCIAL RATIOS[1)]					
FINANCIAL RATIOS					
Gross margin (%)	14.5	16.1	19.7	20.8	17.9
EBITDA margin (%) before special items	12.8	13.8	16.6	17.8	14.4
EBIT margin (%) before special items	8.3	9.5	12.4	13.9	10.2
EBITDA margin (%)	12.8	13.6	16.6	17.8	14.9
EBIT margin (%)	8.3	9.1	12.4	13.9	10.8
Return of capital employed (ROCE) (%)	19.7	20.4	25.1	30.8	20.3
Net interest-bearing debt/EBITDA before special items	(1.6)	(2.2)	(2.0)	(1.8)	(1.9)
Solvency ratio (%)	23.3	26.1	28.6	32.1	33.8
Return on equity (%)	22.1	22.6	28.1	32.6	26.2
SHARE RATIOS					
Earnings per share (EUR)	3.6	3.4	4.2	4.4	3.1
Book value per share (EUR)	16.8	15.1	14.4	14.4	12.9
P/E ratio	25.4	19.3	13.6	14.0	21.2
Dividend per share (EUR)	1.06[2)]	1.00	1.24	1.31	0.91
Payout ratio (%)	30.0[2)]	30.0	29.9	30.0	29.9
Share price at the end of the period (EUR)	90.1	65.9	57.6	61.7	64.8
Number of shares at the end of the period	198,901,963	205,696,003	215,496,947	221,544,727	224,074,513
OPERATIONAL KEY FIGURES (ONSHORE)					
Order intake (bnEUR)	13.8	10.6	8.9	9.5	8.2
Order intake (MW)	17,877	14,214	11,176	10,494	8,943
Order backlog – wind turbines (bnEUR)	16.0	11.9	8.8	8.5	7.9
Order backlog – wind turbines (MW)	20,974	15,646	11,492	9,530	8,732
Order backlog – service (bnEUR)	17.8	14.3	12.1	10.7	8.9
Produced and shipped wind turbines (MW)	12,618	10,676	11,237	9,957	7,948
Produced and shipped wind turbines (number)	4,185	3,729	4,241	4,264	3,330
Deliveries (MW)	12,884	10,847	8,779	9,654	7,486

1) The ratios have been calculated in accordance with the guidelines from "Finansforeningen" (The Danish Finance Society) (Recommendations and Financial ratios).
2) Based on proposed dividend.

Group business areas

Vestas

Consolidated

Vestas' consolidated numbers comprise Vestas Wind Systems A/S and the subsidiaries over which Vestas exercises control. Vestas covers the two business areas: Power solutions and Service. MHI Vestas Offshore Wind A/S is accounted for using the equity method.

Power solutions

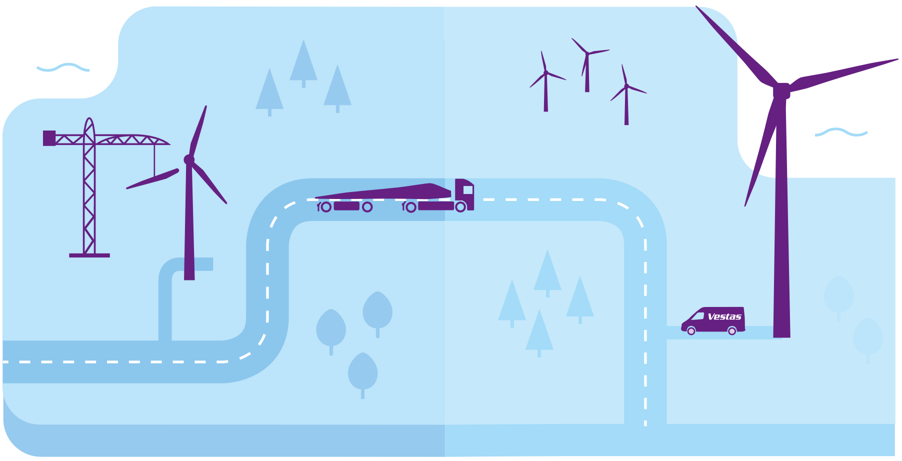
Service

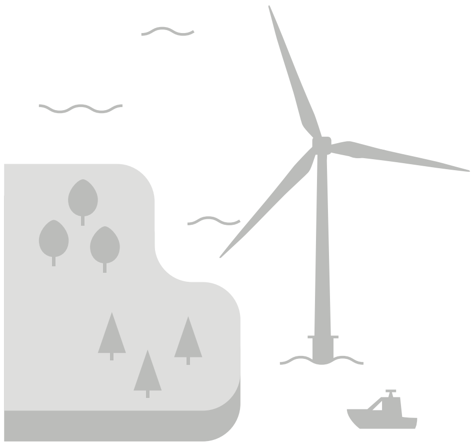
MHI Vestas Offshore Wind

Joint venture

MHI Vestas Offshore Wind A/S reports information on a stand-alone basis.

Offshore





Power solutions – Key highlights 2019

Revenue

EUR 10,276m

EBIT before special items

EUR 742m

Order backlog

EUR 16.0bn

In a rapidly changing market, Vestas achieved an increase in order intake compared to 2018, with a record-high 17,877 MW. This also resulted in an order backlog of 20,974 MW. Activity levels remained at a high level with 12,618 MW produced and shipped and 12,884 MW delivered to the customers.

Service – Key highlights 2019

Revenue

EUR 1,871m

EBIT before special items

EUR 482m

Order backlog

EUR 17.8bn

Vestas' reputation as a trusted service partner for customers was confirmed by 2019's order intake. At the end of 2019, Vestas had service agreements in the order backlog with expected future contractual revenue of EUR 17.8bn, an increase of EUR 3.5bn compared to 2018. At the end of the year, Vestas had a total of 96 GW under service across 69 countries.

Offshore – Key highlights 2019*

Revenue

EUR 1,435m

Net profit

EUR 6m

Order backlog

2,870 MW

Accounted for as a joint venture in Vestas, MHI Vestas Offshore Wind A/S generated a net profit of EUR 6m. The solid order backlog, provides a good foundation for the future activity level, and positions the joint venture well to capture the opportunities of an expected increase in offshore wind power installations.

* The information reflects the amounts presented in the financial statements of MHI Vestas Offshore Wind A/S (and not Vestas' share of those amounts) for the period 1 January - 31 December 2019.

Financial performance

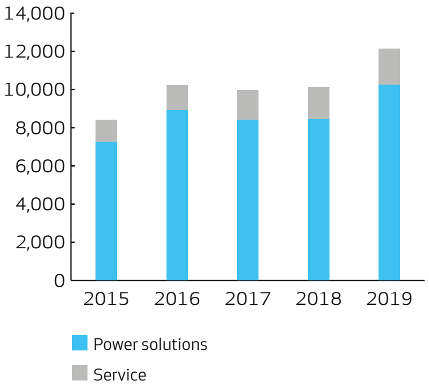
Income statement

Result for the year

Revenue

Revenue in 2019 amounted to EUR 12,147m, an increase of 20 percent compared to 2018, and hence Vestas closed the year with a revenue in the high end of the guidance range of EUR 11.0bn-12.25bn. Compared to 2018, revenue included a positive impact of approx. EUR 200m from foreign exchange rates effects.

Revenue
mEUR



+44%
In just four years, Vestas has managed to increase revenue by 44 percent – from EUR 8,423m in 2015 to EUR 12,147m in 2019.

The regions Europe, Middle East, and Africa (EMEA) and Americas accounted for 43 percent and 45 percent of the revenue, respectively, which is roughly the same distribution as seen the previous years.

Regional distribution of revenue
mEUR

	2019	2018
Europe, Middle East, and Africa	5,442	4,310
Americas	5,259	4,444
Asia Pacific	1,446	1,380
Total	**12,147**	**10,134**

Gross profit

Gross profit in 2019 amounted to EUR 1,761m, corresponding to a gross margin of 14.5 percent, a 1.6 percentage point decrease relative to 2018. The gross margin decrease was driven by lower average project margins in the Power solutions segment, which primarily reflected increased costs for tariffs and transport, overall tightness in the supply chain as well as some higher ramp-up costs and warranty provisions related to introduction of new products. This was partly offset by improved Service profitability as well as a reversal of write-downs on inventory of EUR 120m related to the sale of 80 percent shares in subsidiaries that own three wind power plants in Romania.

Research and development costs

Research and development costs recognised in the income statement amounted to EUR 268m, compared to EUR 229m in 2018. The total research and development expenditure prior to capitalisation and amortisation increased by 14 percent to EUR 372m in 2019 (2018: EUR 325m), due to development activities as part of bringing new technology to the market including introduction of new product variants and service solution offerings.

Distribution costs

Distribution costs amounted to EUR 222m in 2019 (2018: EUR 189m). The increase was mainly due to additional depreciation in the supply chain area for transport equipment driven by new blade types and high activity.

Administration costs

Administration costs amounted to EUR 267m (2018: EUR 254m) and constituted 2.2 percent of revenue in 2019, a decline of 0.3 percentage points compared to 2018.

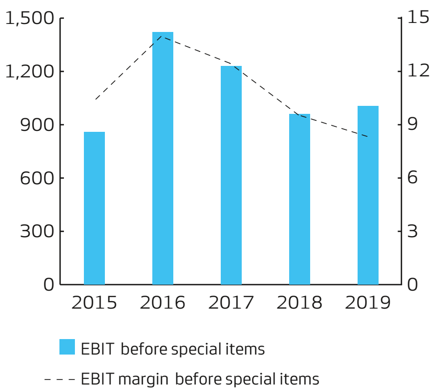
Depreciation, amortisation, and impairment

Overall depreciation, amortisation, and impairment amounted to EUR 546m before special items in 2019 (2018: EUR 435m). The increase was primarily a result of recent years' higher capitalisation of costs related to the development and introduction of new technologies and product variants, including transport equipment.

Operating profit (EBIT)

EBIT before special items amounted to EUR 1,004m in 2019 (2018: EUR 959m), equivalent to an EBIT margin of 8.3 percent before special items, which is within the guidance range of 8-9 percent. The 1.2 percentage point decrease in EBIT margin before special items compared to 2018 was mainly driven by the lower gross profit margin as well as higher capacity costs.

Operating profit (EBIT) before special items
mEUR · Percent



EBIT of EUR 1bn
The EBIT in 2019 constitutes an increase of 11 percent compared to the level in 2015, achieved despite an increasingly competitive environment.

Income from investments in joint ventures

Income from investments in joint ventures amounted to a profit of EUR 3m in 2019 (2018: EUR 40m). The profit in 2019 derives mainly from Vestas' share of the result in MHI Vestas Offshore Wind on a standalone basis.

Net financial items

Financial items for 2019 amounted to negative EUR 98m (2018: EUR (51)m) and comprised interests, fees, and currency related items. The negative deviation year on year was mainly driven by adverse developments in various currencies, particularly in the emerging markets.

Income tax

Income tax amounted to EUR 209m, equivalent to an effective tax rate of 23 percent (2018: 25 percent). The change in effective tax rate was due to the non-taxable gain from reversal of write-downs on inventory of EUR 120m in third quarter of 2019.

Profit for the year

Profit for the year amounted to EUR 700m in 2019 (2018: EUR 683m). The increase compared to the year before was mainly a result of higher revenue and a lower effective tax rate.

As the targets for bonus payout were achieved in 2019, a global bonus of EUR 107m will be distributed (cash effect 2020). There was no bonus payout for 2018.

Profitability ratios

Earnings per share amounted to EUR 3.57 in 2019, an increase of EUR 0.16 compared to 2018, mainly driven by a higher net profit, supplemented by share buy-backs executed in the fourth quarter.

Return on capital employed (ROCE) was 19.7 percent in 2019, a decline compared to 20.4 percent in 2018. The negative development can be attributed to an increase in total equity.

Return on equity was 22.1 percent in 2019 (2018: 22.6), a decrease of 0.5 percentage points, which can also be attributed to a higher equity balance relative to increased earnings.

Warranty provisions

Warranty provisions in 2019 amounted to EUR 291m, equivalent to a warranty ratio of 2.4 percent of revenue in the year which was 0.8 percentage points above the ratio in 2018. The increased warranty provisions are a consequence of a steep delivery ramp-up and the acceleration of new product introductions, which require additional rework and repairs on new blade variants.

Working capital and cash flow

Net working capital

Net working capital amounted to a net liability of EUR 1.6bn as at 31 December 2019, which was EUR 0.4bn below net liability at the end of 2018. During 2019, the level was negatively impacted by build-up of inventory for deliveries in 2020 and increased trade receivables as a result of record-high revenue in the fourth quarter of 2019. These effects were partly offset by higher down- and milestone payments from customers and trade payables towards suppliers.

Cash flow from operating activities

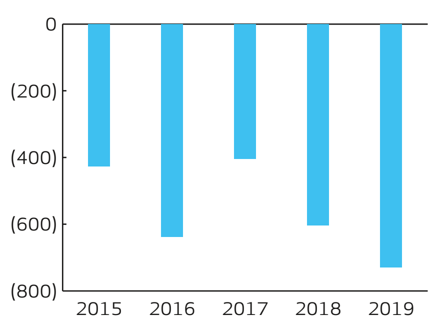
Cash flow from operating activities was EUR 823m in 2019, which is a decrease of 19 percent compared to last year. The decrease was mainly driven by the mentioned negative development in net working capital during 2019, particularly with a very high release of net working capital in the fourth quarter of 2018, not fully matched in 2019.

Cash flow from investing activities

Cash flow from investing activities amounted to net outflow of EUR 729m, compared to the guidance of approx. EUR 800m. This is excluding the acquisition of SoWiTec Group GmbH (SoWiTec), any investments in marketable securities, and short-term financial investments. The EUR 126m increase in the net investment level compared to 2018 was driven by investments in technology-related development as well as investments in blade moulds, transport equipment and tools to cater for high activity and introduction of new technology and product offerings.

Net investments

mEUR



Investing in the future

From 2015 to 2019 Vestas has increased its investments to develop the next generation of wind turbines, while scaling its business to a new level.

Free cash flow

The free cash flow, excluding the acquisition of SoWiTec, any investments in marketable securities, and short-term financial investments, amounted to positive EUR 94m (2018: EUR 418m).

Acquisitions

SoWiTec

In the third quarter of 2019, Vestas acquired 25.1 percent of the share capital of SoWiTec to support Vestas' co-development strategy and to improve hybrid offerings. Vestas has the option to acquire 100 percent of the share capital and consequently, SoWiTec has been fully consolidated in Vestas' consolidated financial statements.

Capital structure and financing items

Equity and solvency ratio

As at 31 December 2019, total equity amounted to EUR 3,345m, an increase from the year before of EUR 3,104m, which can be attributed to a positive net result.

As at 31 December 2019, the solvency ratio was 23.3 percent, which is a decline of 2.8 percentage points from the end of 2018, mainly as a result of higher total assets driven by build-up of inventory and trade receivables. To a lesser degree, the solvency ratio was impacted by changes to accounting policies as per 1 January 2019. These changes include capitalisation of operating lease contracts as per implementation of IFRS 16, and implementation of IFRIC 23, clarifying the accounting practice for uncertain tax positions. Combined, the impact from these changes was a decrease in equity of EUR 43m and an increase in total assets of EUR 255m, corresponding to a negative impact of 0.9 percentage points to the solvency ratio as at 1 January 2019.

To adjust Vestas' capital structure and to meet the obligations arising from share-based incentive programmes to employees, in 2019, Vestas repurchased 2,302,859 shares, corresponding to EUR 201m, under a share buy-back programme executed during the months of November and December.

The strength of the balance sheet, combined with the results achieved in 2019, has led the Board of Directors to recommend a dividend of DKK 7.93 (EUR 1.06) per share equivalent to 30.0 percent of the net result for the year after tax.

Net interest-bearing position and cash position

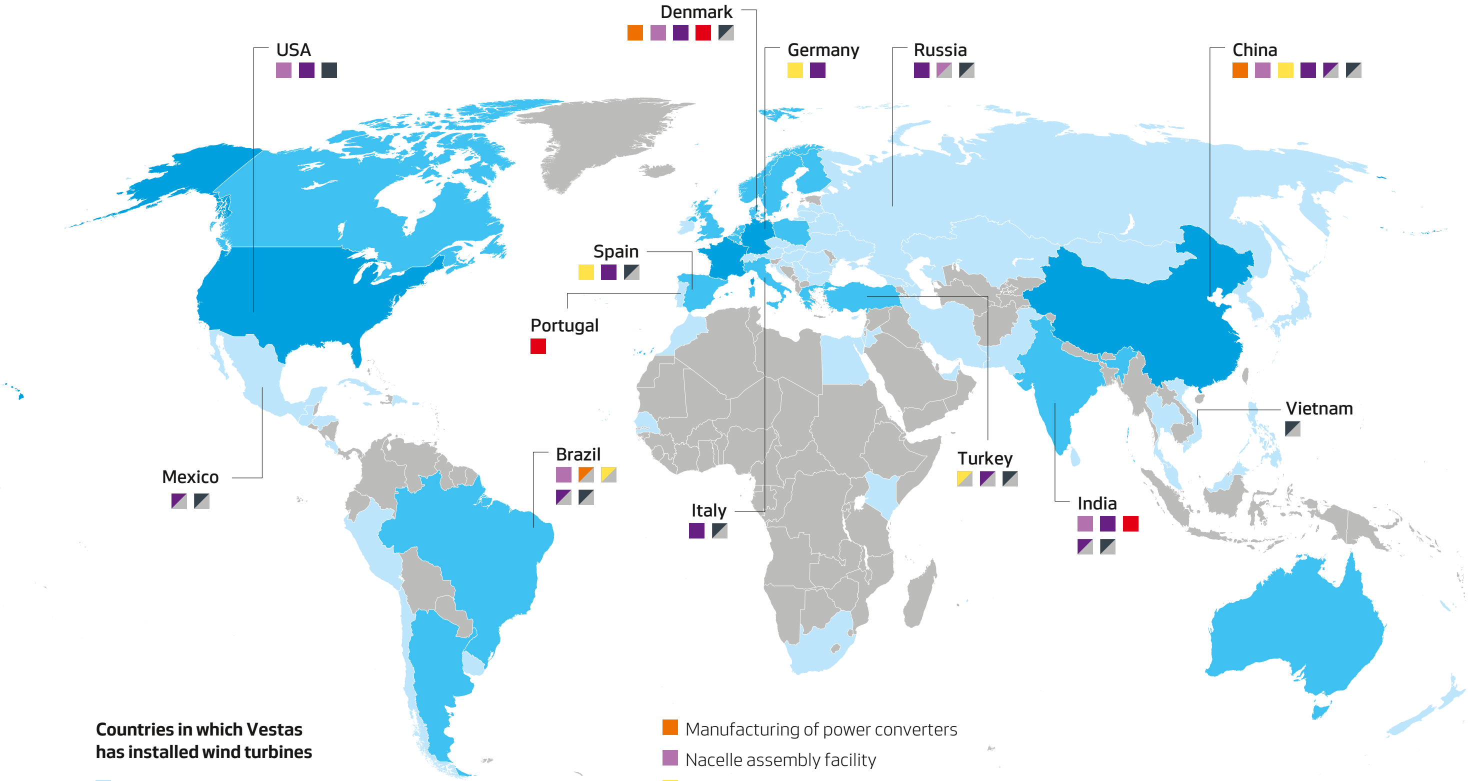
As at 31 December 2019, Vestas' net interest-bearing position was positive of EUR 2,452m, a decline of EUR 594m compared to 2018. This development was primarily a result of distributing cash to shareholders through dividend and share buy-back programme in excess of the free cash flow generated in the year, and as well a reflection of lease liabilities in financial debt of EUR 198m from the implementation of IFRS 16 Leases as per 1 January 2019.

Cash and cash equivalents amounted to EUR 2,888m as at 31 December 2019 (2018: EUR 2,918m).

The ratio net interest-bearing debt/EBITDA was (1.6) as at 31 December 2019 (2018: (2.2)). This adverse development was driven by the decline in net interest-bearing position supplemented by higher operating profit (EBITDA). The ratio remains well below the capital structure target of a net interest-bearing debt/EBITDA ratio below 1x.

Power solutions

Global footprint



Countries in which Vestas has installed wind turbines

- 1-999 MW
- 1,000-4,999 MW
- 5,000 MW and above

- Manufacturing of power converters
- Nacelle assembly facility
- Generator manufacturing facility
- Blades manufacturing facility
- Tower manufacturing facility
- Research and development facility

- A full box indicates Vestas facility
- A half full box indicates Vestas partnership

	Americas	Europe, Middle East, and Africa	Asia Pacific
Revenue	EUR 4,626m	EUR 4,397m	EUR 1,253m
Order intake – firm and unconditional orders	10,269 MW	6,001 MW	1,607 MW
Deliveries	5,839 MW	5,319 MW	1,726 MW
Order backlog – firm and unconditional orders	10,593 MW	7,891 MW	2,490 MW
Installed wind turbines in	9 countries	25 countries	8 countries

Financial performance

Result for the period

In 2019, revenue from Power solutions, Vestas' onshore wind energy segment, amounted to EUR 10,276m (2018: EUR 8,465m). This was primarily driven by high activity levels in Americas, and particularly in the USA.

EBIT before special items from Power solutions amounted to EUR 742m, a 1.6 percentage point decrease compared to 2018. Consequently, the EBIT margin before special items was 7.2 percent (2018: 8.9 percent). This decline was primarily driven by increased costs related to tariffs and transport, general tightness in the supply chain, as well as ramp-up costs and warranty provisions related to introduction of new products. This was partly offset by reversal of write-downs on inventory of EUR 120m related to the sale of 80 percent shares in subsidiaries that own three wind power plants in Romania.

Order intake

In 2019, onshore wind turbine order intake amounted to a record 17,877 MW, a 26 percent increase from 2018. The trend with increasing order intake thereby continues, underpinning the strong demand for wind power and Vestas' wind power solutions globally. The order intake in 2019 corresponded to EUR 13.8bn (2018: EUR 10.6bn) and resulted in an average selling price of EUR 0.77m per MW.

Europe, Middle East, and Africa accounted for 34 percent of the order intake, and the region continues to be important for Vestas, with countries such as Finland, France, and Germany as largest contributors. In the region, the order intake was driven by 21 countries highlighting the highly diversified demand.

Americas represented more than 50 percent of the order intake, with the USA and Brazil as the most important markets. Thereby, the region continues its trend of increasing annual order intake for the fourth year in a row.

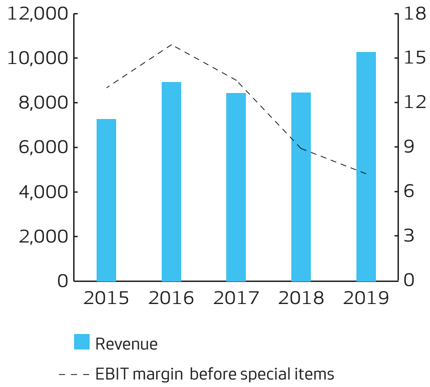
The Asia Pacific region accounted for 9 percent of the total firm and unconditional orders with Australia as the largest single contributor.

Order backlog

At the end of the year, the wind turbine order backlog amounted to 20,974 MW, equalling EUR 16.0bn. This resulted in an average price per MW in the order backlog of EUR 0.76. Compared to last year, the order backlog in MW increased by 34 percent from the strong order intake in 2019.

Revenue and EBIT margin before special items

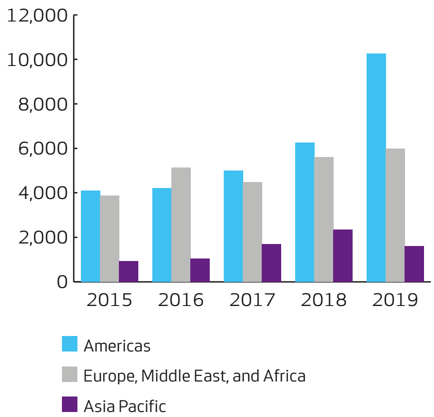
mEUR · Percent



+41%
In 2019, Power solutions generated revenue of EUR 10.3bn, an increase of EUR 3.0bn from 2015.

Order intake

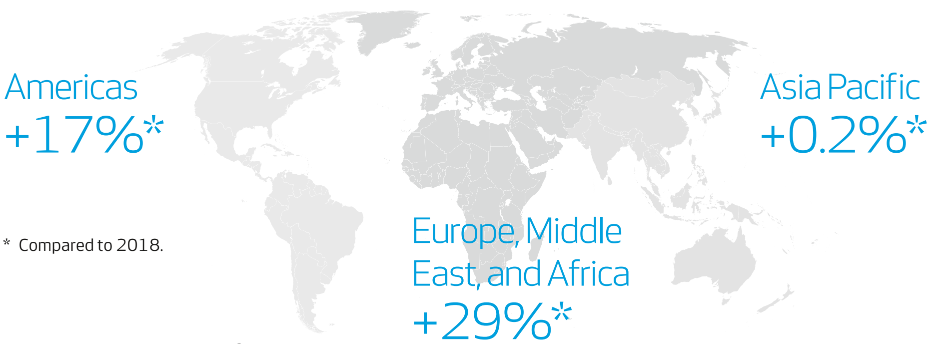
MW



+100%
In 2019, Vestas secured an order intake of 17,877 MW from its customers, which constitutes an increase of 100 percent from 2015.

Onshore deliveries in 2019 – to more than 40 countries

MW



* Compared to 2018.

Americas

USA	4,379
Argentina	502
Canada	410
Mexico	395
Dominican Republic	58
Bolivia	41
Chile	29
Panama	24
El Salvador	1
Total	**5,839**

Europe, Middle East, and Africa

Sweden	995	Russia	151	Kazakhstan	52
France	710	Senegal	128	Netherlands	45
Spain	597	Finland	126	Ireland	29
Norway	470	Austria	121	Czech Republic	20
Germany	445	United Kingdom	114	Denmark	17
Italy	322	Belgium	79	Kenya	3
Ukraine	319	Poland	76	South Africa	3
Greece	184	Serbia	72		
Romania	171	Jordan	70	**Total**	**5,319**

Asia Pacific

Australia	666
China	515
India	401
Thailand	47
Vietnam	33
Sri Lanka	26
Taiwan	25
New Zealand	13
Total	**1,726**

Global trends in the onshore wind power market

The global market for wind energy is facing strong demand and the volume of annual installed onshore wind power capacity is expected to have increased to 60 GW in 2019 (2018: 46 GW).[1] This represents an increase of 35 percent compared to 2018 and is expected to be supported by all major regions. The region Europe, Middle East, and Africa was driven by increased installation levels in Scandinavia and Spain, while Latin America was primarily represented by Mexico and Argentina. Installations in Asia Pacific were primarily driven by Australia and China. In the USA, projects previously qualified for the full Production Tax Credit (PTC) create strong activity levels in the country.

By the end of 2019, the window to qualify new projects for the PTC was extended. This allows customers to qualify projects for 60 percent of the original PTC value until the end of 2020 and is expected to create a solid demand for installations until the end of 2024.[1]

Competitiveness of wind power continues to improve

With the broad introduction of auctions across most markets globally, renewable energy, and especially wind power, has established itself as the cheapest source in many markets when it comes to generating electricity. In fact, wind power and solar PV have now developed to be the most competitive sources of electricity generation in more than two-thirds of the world.[2]

As for wind power specifically, in 2014, the list of countries having wind power as the most competitive source of electricity included only Uruguay, Denmark, and Germany. In 2019, it includes important electricity markets such as the USA, India, China, Brazil, and many more.[2]

This development serves as the largest driver for a healthy demand situation in the wind power industry and at the same time forms the basis for a strong outlook in the future.

Developments in Power solutions during the year

During the year, Vestas has seen the market for onshore wind energy maturing even further. As wind power becomes more competitive, new customers such as corporates and financial institutions are entering the market; technology has been further developed with the introduction of a new modular platform, and Vestas' global manufacturing and supply chain has been made more lean and scalable to cater for higher demand.

The market for wind power solutions continues to develop

In the Power solutions segment, Vestas leverages its legacy and current position as the global leader in wind power measured on scale, market reach, innovation, and global footprint to serve customers' needs globally. This position is used to expand the reach of wind energy and develop, sell, and deliver superior onshore wind power plant solutions. These solutions ensure enhanced performance for both owners of wind power plants and operators of broader electricity systems.

Increasing market complexity

As the competitiveness of wind power improves, Vestas' customers are also getting more advanced. Multiple avenues to secure off-take of electricity are entering the stage, such as fixed Power Purchase Agreements (PPAs) in auctions, dealing directly with corporations as end customers, or simply supplying produced electricity into the grid at merchant terms – or even a combination of all three. This increased complexity reemphasises the importance of optimising the wind power solution at each and every site, and Vestas' experience and technology lead becomes ever more important to constantly maximise the value of customers' investments.

As an example, Vestas saw a number of projects in 2019 with customers relying fully on the merchant terms of the electricity market. This includes wind power projects in Denmark, the UK, Italy, Finland, and Australia, and showcases wind power as commercially viable without any direct support, utilising Vestas' industry-leading technology and ability to maximise site-specific output.

In addition, customers are securing PPAs directly with corporates as a supplement to purchase agreements secured through large-scale tenders and auctions. In 2019, it is expected that close to 20 GW of all onshore wind power projects have been with a corporate company as the off-taker of electricity; and with corporations committing to a larger share of renewable energy in their operations, this proves an interesting opportunity for the wind power industry.[3] As examples, Vestas secured orders from large corporations in Brazil, Mexico, and Finland; the latter wind park supplying clean and reliable energy directly to the operations of Google.

Repowering

Favourable wind sites and improved economics of onshore wind energy present an attractive opportunity for Vestas and its customers once the installed wind turbine reaches the end of its lifecycle. The market for repowering is expected to provide the wind power industry with more stability, but is still in an early stage, and is mainly centred around Europe and the USA.

The volume from repowering projects outside Europe and the USA is likely to increase beyond 2020. Interestingly, repowering orders are projected to come as an addition to new wind power installations as the need for new electricity generation capacity grows and will support a continuous high level of activity in more mature markets.[1]

Expanding commercial capabilities through development

The maturing of wind energy is also unlocking growth opportunities in new markets and customer segments for Vestas. To grasp these opportunities and increase the capability to partner with customers, in 2019, Vestas acquired a minority stake in SoWiTec Group GmbH, a leading sustainable energy developer with a broad portfolio of renewable projects. This acquisition strengthens Vestas' co-development portfolio and improves the offerings to customers in strategic markets such as Latin America, Asia, and other markets where Vestas' extensive experience can make projects materialise through local knowledge.

S factor

Vestas will become

carbon neutral

by 2030 and reduce CO_2 emissions in the supply chain by

45 %

as part of the commitment to the Science Based Targets initiative

1) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. 25 November 2019.
2) Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.
3) Source: Bloomberg New Energy Finance: Corporate PPA Deal Tracker. 29 November 2019.

Further, in 2019, Vestas took over RES America Developments Inc. (RES)'s share in Roaring Fork Wind, LLC, a co-development joint venture between Vestas' wholly owned subsidiary Steelhead Americas, and RES. Vestas took over RES' stake as well as a development pipeline of 1.4 GW.

Vestas continues to work with key partners on the development of solutions such as co-development that address a wind park's full value chain to maximise return on investment and profitability. By doing so, Vestas provides solutions for its customers and creates new revenue opportunities.

Manufacturing and supply chain capabilities

Increasing annual global installations of wind turbines and a continuously strong demand is raising the importance of a lean and scalable manufacturing and supply chain setup. In addition, complexities in terms of trade tariffs between various countries result in additional transportation needs, as suboptimal sourcing opportunities suddenly become the most feasible option. Within this context, the unmatched globality of Vestas' manufacturing and supply chain footprint is of utmost importance. For more information regarding the impact and mitigation of trade barriers, see Risk management, page 053.

Ramping up for higher activity levels and new products

While managing additional supply chain complexities, during 2019, Vestas ramped up its manufacturing and supply chain for a higher activity level. The capacity of produced and shipped wind turbines consequently increased to 13 GW (2018: 11 GW). The largest part of the produced and shipped wind turbines comprised the upgraded variant of the 4 MW platform, the V136-4.2 MW™ turbine, and highlights the requirement of a fast ramp-up of new turbines.

Toward the end of the year, preparations for the production of the V150-4.2 MW™ turbine began in order to deliver on the strong order intake received during the year. For further information on risks associated with higher volumes and faster product cycles, see Risk management, page 053.

Optimising the global manufacturing and supply chain footprint

During 2019, Vestas continued the optimisation of its manufacturing footprint to support the increase of volumes and new products in regions and countries that offer strong growth, see the illustration on page 020.

Vestas expanded its own capacity in several parts of the world. In India, Vestas will establish a new nacelle and hub assembly factory in Chennai in the state of Tamil Nadu, as announced in July 2019. The new factory, which is expected to be operational by the end of 2020, will combine Vestas' two existing facilities in the state of Tamil Nadu, creating an expanded, optimised, and scalable production hub with four times as many local manufacturing jobs in the state.

To be locally present in markets with high activity levels, Vestas has started production of its V150-4.2MW™ turbine in Brazil, in the state of Ceará, where the production of 2 MW nacelles is also located. In June 2019, Vestas signed a Memorandum of Understanding in Russia regarding localisation of equipment for the Russian sustainable energy market, including supply chain optimisation and local manufacturing of wind turbine components.

Ambition for procurement and future partners to the value chain

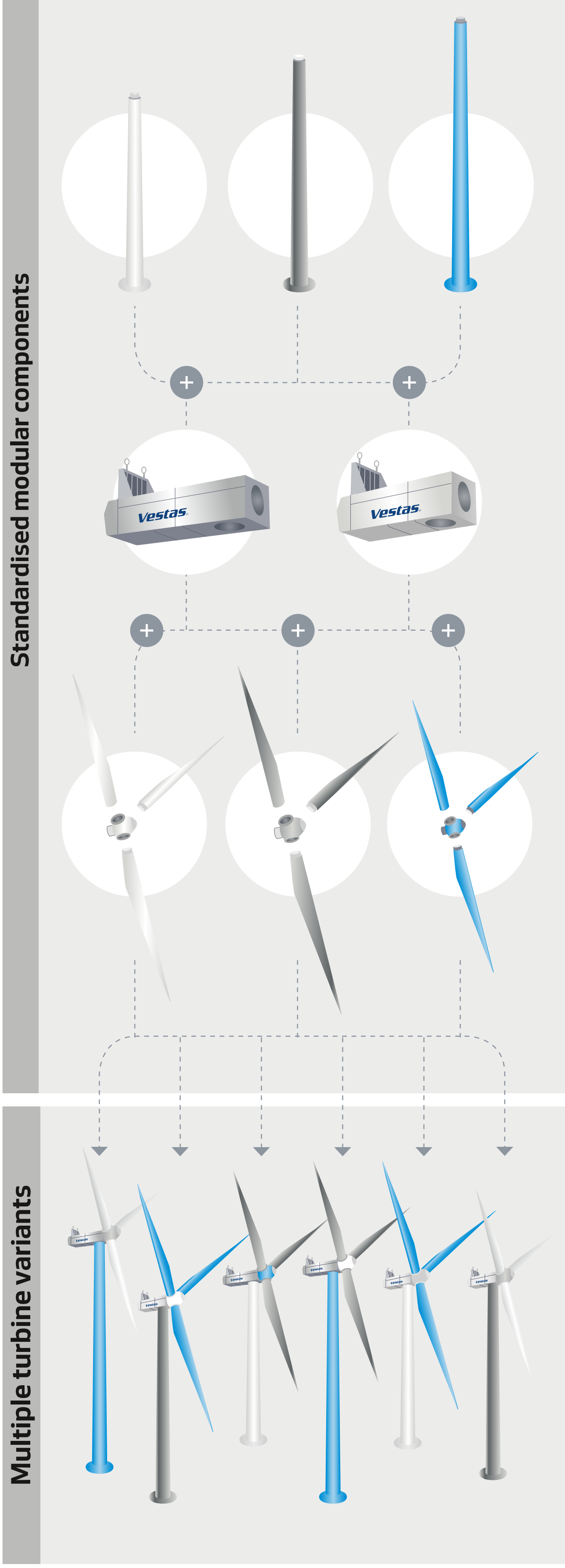
Vestas is not only investing in its own size and manufacturing capabilities, but as well in the scale of the full value chain.

Through partnerships with suppliers on blade manufacturing, Vestas is able to execute a higher activity level while at the same time complying with local content requirements.

In 2019, approx. 40 percent of the blade production was outsourced, this to three different suppliers across five different markets. This adds to the flexibility and cost effectiveness of Vestas' manufacturing footprint in all regions and further supports local content in important markets. In Brazil, Vestas works closely together with wind turbine blade manufacturer Aeris Energy to support local manufacturing, and

Introducing modularity

– combining standard modules into new products increases product variety



through an extensive partnership, TPI Composites, Inc. is manufacturing Vestas blades in important markets like Mexico, Turkey, India, and China. Further, Vestas has expanded its collaboration with Shanghai Aeolon Wind Energy Technology Development Co., Ltd. to produce V136 blades while ramping up production of V150 blades in China towards 2020.

Going forward, Vestas aims to continue close partnerships with external suppliers to secure efficiency and flexibility of its full manufacturing and supply chain.

A leap in new technology

Vestas has been at the frontier of wind energy for 40 years, introducing market-leading wind energy solutions that have driven down the cost of energy and taken wind energy from niche to mainstream. In January 2019, Vestas introduced the EnVentus™ wind turbine platform, which represents another significant step forward in the continuous efforts to lower the levelised cost of energy and accelerate the global transition to a more sustainable energy mix.

As Vestas' first onshore platform introduction since 2011, EnVentus™ combines proven technology and system designs from Vestas' 2 MW and 4 MW platforms, and the 9 MW offshore platform with advanced modularity, building a foundation that reliably and efficiently lowers the cost of energy. Modularity is a fundamental change in how products are developed, sourced, manufactured, serviced, and upgraded, and all based on a new structural architecture providing multiple increasing benefits to Vestas and its customers and shareholders for many years to come.

Similar to all other OEMs in the wind power industry, Vestas' conventional approach to product development offered limited synergies between products. Any design change to a turbine variant caused corresponding design changes in other parts of the turbine, as well as changes to processes, standards, tools, training, and servicing – all of which increased required costs and time. With increased market complexity and consequently shorter product lifecycles, this represents an unsustainable balance between cost of development and value creation.

In a rapidly developing market where each stage of a product lifecycle – from product design, procurement and manufacturing, transportation, and installation to operations, service and power plant upgrades – in general becomes shorter, the development of new and more efficient solutions results in an unsustainable balance. To keep up with the pace of innovation, while maintaining the same high level of robustness required by the wind energy market, Vestas embarked on the journey of introducing full modularity in all stages of the product lifecycle.

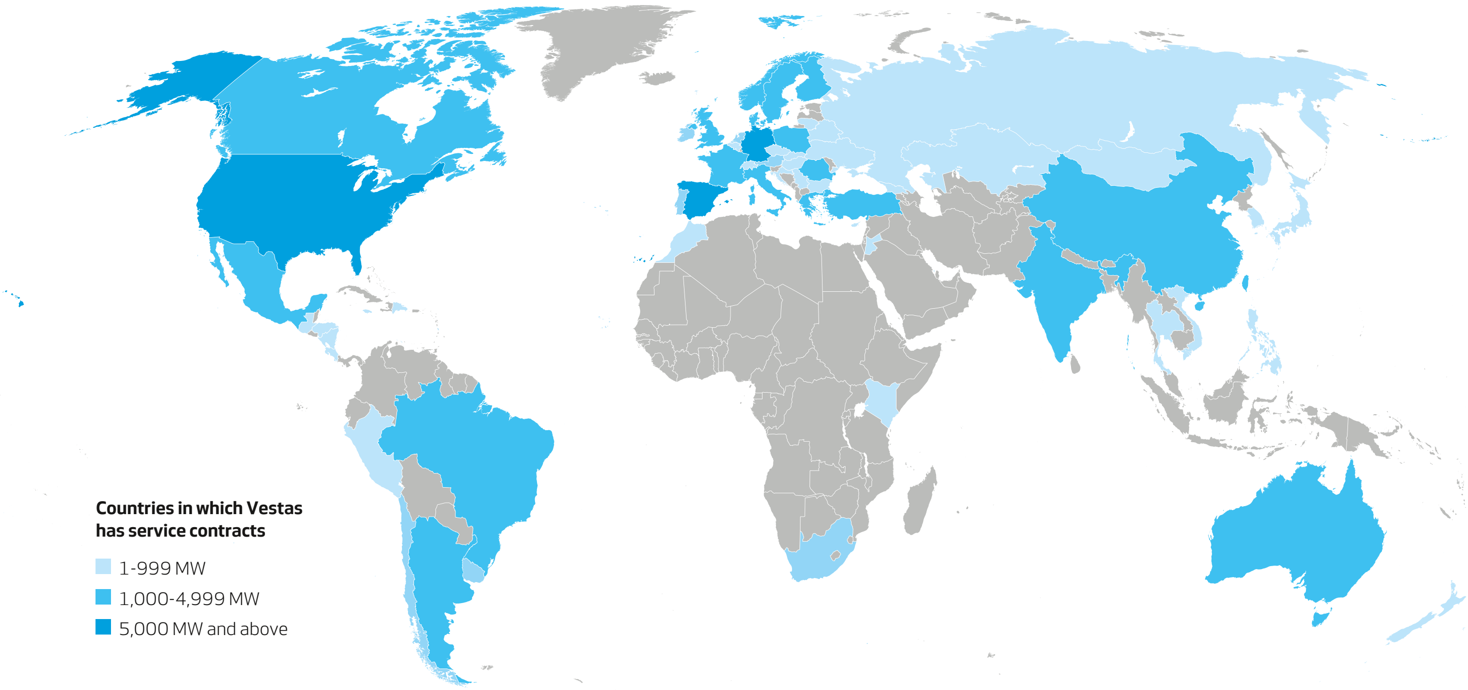
A modular architecture breaks down wind turbines into individual modules, with each module delivering a specific function such as wind capture or electrical conversion, and each contributing to the ultimate purpose of a wind turbine. Each module is based on a defined technology concept, design rules, value chain processes and standard interfaces to connect with adjacent modules. Going forward, product development will therefore take place at module level to meet customer needs while complying with the defined architecture. Mainly within blades and nacelles, this modularisation will reduce the number of unique components across the variety of the EnVentus™ platform as 60 percent of components are identical regardless of the combination of modules. On the current product portfolio comprising the 2 MW and 4 MW platform, there are only 20 percent of components that are identical across the different turbine variants. To maximise the value creation from this modularisation, towers will increasingly become site-specific, though still leverage the modularised interface and internals needed to generate multiple variants.

While it is Vestas' unmatched scale, global presence, and industry-leading database that make this modular setup possible in the first place, it allows Vestas to continuously lead industry innovation going forward. Examining modularity through the lens of the product lifecycle, benefits emerging from the increased synergies across products include: Acceleration of time to market, maintaining quality of new products, simplified process from order to installation, maintaining power curve certainty, and maintaining service and upgrade reliability.


Vestas

Service

Global footprint



	Americas	Europe, Middle East, and Africa	Asia Pacific
Revenue	EUR 633m	EUR 1,045m	EUR 193m
Share of the region's total revenue	12%	19%	13%
Under service	37,223 MW	48,425 MW	10,663 MW
Expected contractual revenue of order backlog	EUR 6,660m	EUR 9,447m	EUR 1,657m
Provides service in	18 countries	40 countries	11 countries

Financial performance

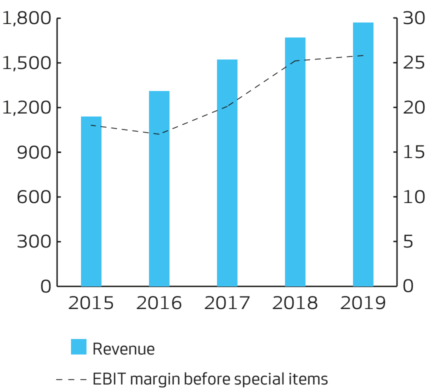
Result for the period

In 2019, the onshore Service business generated revenue of EUR 1,871m, which equals a year-on-year growth rate of 12 percent (11 percent excluding impacts from currency translation). The revenue in the Service business continues to be positively impacted by an increasing fleet of installed wind turbines.

Profitability in the Service business continues to be strong, and in 2019, the EBIT margin increased to 25.8 percent (2018: 25.2 percent). This development was primarily driven by reliable performance of wind turbines under service contracts as well as efficient cost management and Vestas' industry-leading global scale.

Revenue and EBIT margin before special items

mEUR · Percent



Continuous growth

64 percent revenue growth since 2015 with an EBIT margin leap of 8 percentage points.

Order backlog

At the end of 2019, Vestas had onshore service agreements in the order backlog with an expected future contractual revenue of EUR 17.8bn, which is an increase of EUR 3.5bn compared to 2018. This provides the service business with strong visibility and the ability to continue the reduction of the cost of maintenance for wind turbines.

Global trends in the onshore wind power service market

A strong growth in onshore wind power installations continues to fuel the growth in the global wind power service market. In 2019, the cumulative installed capacity is expected to have grown 11 percent to 600 GW.[1)]

This growth offers both promising opportunities and challenges as the market becomes more mature but at the same time requires greater stability and predictability for wind power as an energy source as it penetrates a larger part of the overall energy mix. Within this context, service of wind turbines plays a crucial role and scale will continue to be critical for service providers. To constantly provide customers with the right value proposition as the focus on life cycle cost of wind power increases, Vestas continues to improve its service capabilities.

Digital transformation

As the digital transformation continues, having the right digital platform has never been more important in order to deliver predictable and cost-efficient solutions, both of which are of high value for customers and grid operators.

With the increasing amount of renewable energy in the system, grid operators must address the challenge of balancing supply and demand from intermittent energy generation. One way of meeting this challenge is to use advanced forecasting tools to provide predictability in renewable energy generation in order to keep the grid stable. Secondly, having the right digital platform is ever important in order to deliver more efficient service and maintenance operations and increased energy production that matches the offtake in the grid.

Developments in Service during the year

The global service business combines advanced digital capabilities with unique operational and technical insights. In its Service division, Vestas is investing in a future, increasingly digitised operating model, which will transform the way the workforce operates individually and as a team. This will make Vestas' commercial and operational activities even more globally aligned, efficient, and transparent. The simplified processes, automatic tools, and improved planning will increase workforce efficiency in the field as well as improve both employee and customer satisfaction. The end-to-end scope of the programme and global implementation footprint means that Vestas will benefit from its scale along the full service value chain and realise benefits across the value chain. The programme is an important step when it comes to cost-out opportunities as well as enhancing its customer offerings in the Service business.

Vestas offers its customers a range of service solutions covering all areas of the wind power service business: maintenance partnering, parts & repair offerings, fleet optimisation solutions, and digital solutions to help customers optimise the output of wind power projects.

Vestas' four-leg service portfolio

The four-leg service portfolio contributes to increasing performance and lowering the cost of energy for customers' wind power plants and positioning Vestas as the one-stop shop for lifetime plant maintenance. Vestas works closely with its customers to tailor service packages to meet site-specific wind power plant requirements. Responding to Vestas customers' evolving demands, Vestas offers a new generation of flexible fleet optimisation capabilities such as advanced plant and data management, diagnostics, and forecasting.

E factor

The cost of electricity from wind power is expected to decline

50%

towards 2050* and beat the running costs of

coal and gas

in important markets like the USA and China in 2030

* Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.

1) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. 25 November 2019.

Vestas wind power service concepts

Vestas provides a number of tailored Active Output Management® packages. Whatever the needs related to a specific onshore project, there will be one to suit the customer.

AOM 1000
Maximum flexibility
The customer gains access to all of Vestas' capabilities, available on a time and material basis.

AOM 2000
Reduced risk
Sustained turbine performance through regular preventative maintenance, with all components available on a time and material basis, and a selection of optional add-ons.

AOM 3000
Shared risk
A complete package with a flat fee, and main components on a time and material basis. The customer's risk profile is shared with Vestas. Once the initial contract has expired, AOM 3000 enables replacement with a model for greater risk sharing.

AOM 4000
Maximized uptime
Everything a turbine requires, including main components and materials. This option includes a time-based availability guarantee of up to 97 percent uptime. The customer can also use the new Vestas Performance Manager software, ensuring complete transparency at all times.

AOM 5000
Move wind from hour to power
AOM's all-inclusive, comprehensive energy-based option. Energy-based availability guarantee maximizes output by carrying out service and maintenance only during low-wind periods. Guarantee based on 97 percent energy-based availability, moving the availability measure from hour to power. The customer can also use Vestas' Performance Manager software, ensuring complete transparency at all times.

Maintenance partnering
The maintenance partnering based on the Active Output Management® (AOM) service concept remains the core of Vestas' portfolio. With ample opportunities to further increase efficiency in the service of onshore wind turbines, the concept of full-scope service offerings remains critical in order for the customers to realise the lowest possible cost of onshore wind energy.

AOM 2000-5000* signed with new wind turbine orders
Percent of MW service order intake

	2019	2018
AOM 2000	0.0	0.7
AOM 3000	7.0	6.9
AOM 4000	27.2	32.8
AOM 5000	65.8	59.6

* AOM 1000 not included as it conceptually registers as pay-as-you-go services on demand.

For yet another year, demand remained high for service contracts with a comprehensive scope. Further, Vestas has observed an extended duration both when signing new contracts and within the service order backlog. In fact, in 2019, the average length of full-scope contracts signed was 18 years, while the average duration of the backlog was unchanged from the year before at eight years.

This development is a result of Vestas' continued capabilities to guarantee a certain performance of its wind turbines during their lifetime and is to a large extent driven by strong analytical skills utilising a vast repository of data.

Parts & repair
Vestas offers an extensive range of parts & repair services for Vestas and multibrand turbine platforms. The Parts Services provide access to over 60,000 items available through customer service, via Vestas' online eCommerce platform, or through one of the Active Material Management programmes. The Repair Services provide customers with a fleetwide one-stop shop for value added services that range from advanced inspections and asset management programmes, to uptower and downtower repair and exchange of major components and blades.

Fleet optimisation
As wind technology matures, turbines already in operation can be upgraded to yield more energy and thereby improve an existing wind power plant's output, thus improving the customers' business case. Improvements of the production efficiency of a wind power plant can be carried out through site-specific optimisation of operational parameters, implementation of intelligent software algorithms, and enhanced aerodynamic add-ons.

As an example, in 2019, Vestas upgraded various wind farms in Australia consisting of V90-3.0 MW™ and V117-3.3 MW™ turbines. This fleet optimisation deal included controller upgrades for better operational use of data, enabling of power modes, extended cut-out wind speeds as well as aerodynamic upgrades. Altogether, this improved the power curve and boosted annual energy production from the turbines by approx. 3 percent.

Digital solutions

With the acquisition of Utopus Insights, Inc. in 2018, Vestas embarked on a digital journey to orchestrate the future of energy as the global energy sector is transforming. Together with Utopus Insights, Vestas offers customers a suite of best-in-class analytics applications across energy sources that support the digitalisation of renewable energy assets and energy systems as well as addresses well-known challenges such as predictive maintenance, forecasting, and power plant optimisation.

A key milestone in this journey was the introduction of Scipher, an advanced energy analytics platform. This data platform enables a broad range of digital solutions by harvesting, deciphering and processing complex, vast amounts of data. Scipher thereby secures high standards in the accuracy of production forecasting, output optimisation and orchestration of energy portfolios in a cost-effective manner, which again leads to grid stability. Vestas and Utopus Insights offer customers digital solutions that provide a visualisation of performance insights (Scipher.Vx), hyper-local weather forecasts to predict energy generation (Scipher.Fx), and advanced predictive maintenance, enabled through artificial intelligence (Scipher.Rx).

During 2019, Vestas announced Australia to be the first country to leverage the wind energy forecasting offerings of the Scipher.Fx product. In collaboration with the Australian Renewable Energy Agency, the solution will improve upon the Australian Wind Energy Forecasting System's five-minute forecast and improve weather forecasting precision from 16 km^2 to 1 km^2. The Scipher.Fx products will be deployed and piloted at several Australian wind farms consisting of Vestas wind turbines and follows the introduction of the Scipher.Vx products already introduced to the market in 2018.

Multibrand service solutions

Vestas' journey of increasing its multibrand capabilities continues. The maintenance packages can be put together to specifically support long-term service and provide the customer with crucial lifetime extensions for old or legacy turbine technologies.

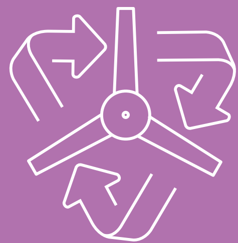
S factor

Approx. 85 percent of a Vestas wind turbine is

recyclable

– by 2040 this will be

100 %



Including all the major turbine brands, Vestas has multibrand service deals across more than 347 sites in 20 countries. Leveraging scale and efficiencies from Vestas turbines under service, Vestas is able to raise the performance on most sites for a variety of different turbine models.

During 2019, Vestas has signed several multibrand contracts across all major regions including the USA, and several markets in Europe and Asia Pacific. Further, Vestas made its multibrand market entry in Denmark.

Scipher

Scalable, secure, and flexible energy analytics platform for data ingestion and curation.

To maximise value, digital solutions are developed to leverage a customer's progress on their analytics evolution divided into three broad categories:

Scipher Vx | Visualization

Intuitive, interactive, and customisable energy asset data visualisation and performance monitoring

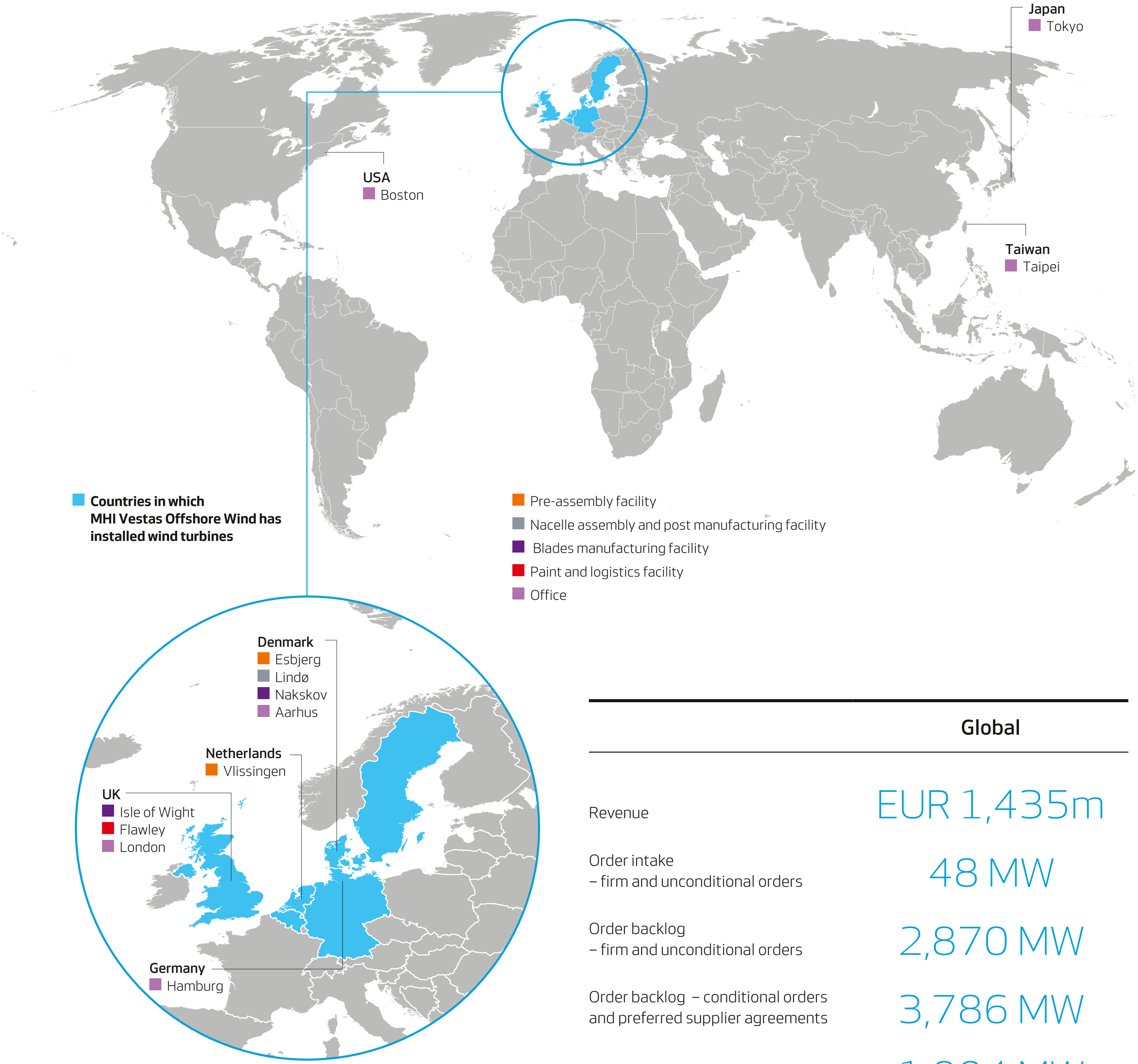
Scipher Rx | Maintenance

State-of the-art predictive analytics that enables proactive asset maintenance

Scipher Fx | Forecasting

Hyperlocal renewable energy forecasting powered by advanced energy-specialised weather forecasting

Global footprint



	Global
Revenue	EUR 1,435m
Order intake – firm and unconditional orders	48 MW
Order backlog – firm and unconditional orders	2,870 MW
Order backlog – conditional orders and preferred supplier agreements	3,786 MW
Total installations	1,004 MW

Financial performance

MHI Vestas Offshore Wind A/S (MHI Vestas Offshore Wind) was founded in 2014 as a 50:50 joint venture between Mitsubishi Heavy Industries, Ltd. and Vestas Wind Systems A/S.

MHI Vestas Offshore Wind expects to double its revenue over a four-year period from a base of its completed financial year 2017/18, while continuously improving profitability. In addition, the ambition is to build a leading offshore service business from the growing installed base.

Result for the period

Compared to 2018, the joint venture's revenue in 2019 increased by 29 percent to EUR 1.4bn. The revenue in 2019 was driven by deliveries to the projects Horns Reef 3 wind park in Denmark, Norther in Belgium, and Deutsche Bucht in Germany. Revenue from the project Norther was fully recognised in the second quarter of 2019 and the Horns Reef 3 wind park was fully recognised in the fourth quarter of 2019.

Net profit in the joint venture amounted to EUR 6m (2018: EUR 26m). Year on year, the EBIT performance was improving, but this was more than offset by additional non-operational costs related to a delayed project and adjustment of the tax position.

Order intake

MHI Vestas Offshore Wind signed a firm order in April 2019 with Spanish developer and construction company Cobra Group, part of the ACS Group, to provide five V164-9.5 MW™ turbines for the Kincardine floating offshore wind project, 48 MW. Furthermore, MHI Vestas Offshore Wind has during 2019 been selected preferred supplier to several offshore wind parks.

Order backlog

As at 31 December 2019, the wind turbine order backlog amounted to 2,870 MW (2018: 3,838 MW).

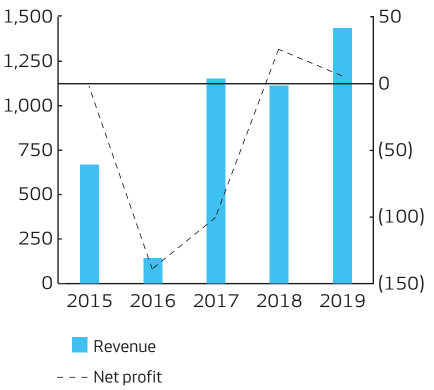
Accounting

The joint venture is accounted for using the equity method, and Vestas' share of MHI Vestas Offshore Wind's overall net result for the year is recognised in the income statement as "Income from investments in joint ventures and associates". For Vestas, the investment amounted to a positive contribution of EUR 3m in 2019 (2018: EUR 39m). 2018 was positively impacted by the delivery of one offshore project utilising Vestas' V112-3.45 MW™ wind turbines.

For further information about the investment in MHI Vestas Offshore Wind, see note 3.4 to the Consolidated financial statements, page 078.

Revenue and net profit

mEUR



Scaling up
While net profit has remained positive, the joint venture has increased its revenue significantly since 2016.

E factor

8%
of the world's generated electricity is from renewable energy; in 2050 this number is expected to be close to
50%
– half of which from wind power*

* Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.

Global trends in the offshore wind power market

The global installed base of offshore wind energy is expected to have increased to 29 GW by the end of 2019, compared to 22 GW the year before.[1] This represents an increase of 30 percent. Over the next four years, the annual installation growth is expected to average 10-15 percent.[2]

Unlike the onshore wind power market, production of offshore wind turbines is centred around few but large manufacturers which makes the growth outlook for the industry even more compelling. Both the capital and the project cycle are also longer in the offshore wind power market which lead to a longer horizon when investing to be competitive and serve customer needs in the future.

Traditional markets are increasing their commitment to the offshore wind power industry to reach ambitious climate targets, and new markets, buoyed by the affordability, scale, and proximity to load centres, expects offshore wind power deployment to play a crucial role in the markets' clean energy transition.

Developments in the joint venture during the year

Continued strong offerings in established markets

In September 2019, the UK announced the results of the latest Contracts for Difference (CfD) Allocation Round 3. The Dogger Bank, Sofia, Seagreen, and Forthwind (demo) projects will deliver 5.4 GW of installations to the UK's energy mix between 2022 and 2025. The clearing price for the auction was GBP 41.6 per MWh for 2024/25 projects and GBP 39.6 per MWh for 2023/24 projects.[3]

Soon after the CfD auction, MHI Vestas Offshore Wind announced a preferred supplier agreement with Seagreen Wind Energy Limited for up to 114 units.

In Germany, a conditional agreement was signed with Parkwind for the supply of 27 wind turbines to Arcadis Ost 1 in the Baltic Sea. The

1) Source: Wood Mackenzie: Global Wind Power Market Outlook Update, Q3 2019. 16 September 2019.
2) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. 25 November 2019.
3) Source: Department iof Business, Energy & Industrial Strategy: Contracts for Difference (CfD) Allocation Round 3, results. October 2019.

project will be the first to feature the V174-9.5 MW™ turbine. The joint venture also signed a preferred supplier agreement for the Baltic Eagle project (476 MW) in German waters in the Baltic Sea. The project will consist of 52 units of the V174-9.5 MW™ turbine, becoming the first V174 project.

MHI Vestas Offshore Wind was one of the first companies in the world to have their wind turbine on floating foundations and the joint venture is continuing to be a leader of this pioneering technology. In April 2019, the joint venture signed a contract for the world's largest floating offshore wind park. The Kincardine Offshore Wind Park, located 15 km southeast of Aberdeen Bay in Scotland, will consist of five units of the V164-9.5 MW™ wind turbine. The company also signed two preferred supplier agreements for floating offshore wind power projects in France: the Groix & Belle-Ile project (V164-9.5 MW™) and the Eoliennes Flottantes du golfe du Lion project (V164-10.0 MW™).

Expansion to new markets

Early market engagement in Taiwan, Japan, and the USA have provided the basis for MHI Vestas Offshore Wind's expansion in to new markets.

By 2030, USA is expected to have installed close to 20 GW, Japan close to 10 GW, and Taiwan more than 10 GW of offshore wind power.[4)]

New markets are still building the framework for developers and OEMs alike, with local content requirements, price and permitting among the topics being addressed over the past year. MHI Vestas Offshore Wind is working closely with authorities to demonstrate the economic value and job creation that offshore wind brings to a new market.

MHI Vestas Offshore Wind has three preferred supplier agreements this far in Taiwan:

- Project: Zone 27
  Customer: Copenhagen Infrastructure Partners
  Size: 100 MW (2021) and 452 MW (2023)
- Project: Xi Dao
  Customer: Copenhagen Infrastructure Partners
  Size: 48 MW (2024)
- Project: Zone 29
  Customer: Group China Steel Corporation
  Size: 300 MW (2024)

In November 2019, MHI Vestas Offshore Wind announced that it had secured a preferred supplier agreement for the Hibikinada Offshore Wind Farm in Japan totalling 220 MW, marking its entrance to an exciting future market with the V174-9.5 MW™ wind turbine.

Operational excellence

The first offshore installation of the V164 wind turbine was at Burbo Bank Extension in 2016. Since then, 270 V164 turbines have been installed offshore. The 200th V164 was installed at the Norther project in Belgium in February 2019, just nine months after the 100th turbine was installed at Borkum Riffgrund II in Germany. The increased speed of installation not only reflects the increasing volume in the market, it also echoes the maturity of MHI Vestas Offshore Wind processes and project capabilities after years of experience in delivering offshore wind projects.

As evidence to this operational progress, the V164 offshore wind turbine can now be installed and commissioned in half the time it took only three years ago and in the same time it took to install and commission the much smaller 3 MW turbines 10 years ago.

Projects fully or partially installed during 2019 include:

- Norther (370 MW), Belgium
- WindFloat Atlantic (25 MW), Portugal
- Deutsche Bucht (269 MW), Germany
- Northwester 2 (224 MW), Belgium

4) Source: Bloomberg New Energy Finance: Offshore Wind Market Outlook. December 2019.

Building a service organisation

MHI Vestas Wind Offshore has increased its focus on generating more value from its service business. During 2019, the company established a new service sales organisation with the sole purpose of working closer with customers to create a service portfolio that meets an ever-increasing variety of business needs. Consequently, MHI Vestas Offshore Wind now has more than 13 years average duration on service contracts on the offshore wind power projects, excl. 1 GW of launch projects.

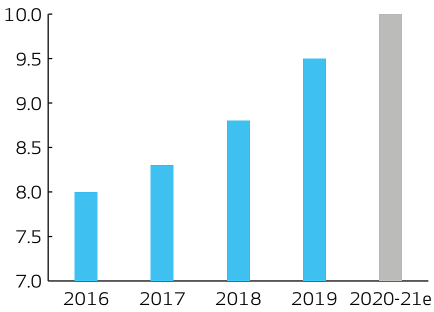
By building a balanced contract portfolio, the company aims to increase the number of long-term service contracts, create a modular portfolio of service products, deliver more value through aftersales upgrades and ensure that turbines remain part of the MHI Vestas Offshore Wind service fleet.

Technology

The company continues to increase the performance of the V164 platform with the introduction in 2019 of a 174 meter rotor and increased nominal power up to 10 MW.

Since its inception, the V164 platform has become a reliable workhorse for the offshore wind power industry and remains the most powerful commercially installed wind turbine on the market.

Development of MW rating in installations
MW



10 MW rating
Installed initially in 2016 with a rating of 8 MW, the V164 turbine will be the first to break into double-digit rating in 2020/21.

Manufacturing

The offshore wind power industry is seeing an increasing demand for the generation of in-market economic value in emerging markets and core markets, with many governments expecting to see rising job numbers with the increasing volume targets. MHI Vestas Offshore Wind is looking to expand its supply chain on a regional basis.

Today, the company's manufacturing footprint consists of:

- A nacelle assembly facility at the Port of Lindø, Denmark,
- two blades manufacturing facilities at the Isle of Wight in the UK and in Nakskov, Denmark, respectively, and
- a pre-assembly facility at the Port of Esbjerg, Denmark.

During 2019, the company announced a series of Memorandums of Understanding for the manufacturing of various components in Taiwan, and an intention to increase its manufacturing presence in Scotland. These investment announcements are contingent on specific volume requirements being met in each region.

Safety

MHI Vestas Offshore Wind highly values its employees. Therefore, health and safety are consistently given highest priority to provide and maintain a safe and secure workplace for all employees.

MHI Vestas Offshore Wind is committed to:

- continuous improvement in occupational health and safety and
- giving employees the training and information they need to manage risks in their own work areas.

The continued company growth in the financial year 2018/19 combined with a steadily increasing activity level, is making an increased focus on safety paramount in all areas of the MHI Vestas Offshore Wind organisation. Consequently, additional efforts are put into preparing risk assessments for design, work instructions, and processes in the entire value chain.

Having faced a steady increasing activity level throughout the financial year 2018/19, MHI Vestas Offshore Wind has managed to keep the rate of lost time injuries at 0.89 against a target of 1.5 per one million working hours.

To further improve the safety performance and drive down the injury rate, MHI Vestas Offshore Wind will continue to dedicate high attention to the human factor. In addition to the Safety Awareness training programme and Safety Dialogue continuity, the Health, Safety and Environment department will on an ongoing basis launch several local and area targeted campaigns throughout the entire organisation to anchor the MHI Vestas Offshore Wind safety message and awareness in all areas of the business.

Sustainability

Highlights

	2019	2018	2017	2016	2015
SOCIAL AND ENVIRONMENTAL KEY FIGURES					
OCCUPATIONAL HEALTH & SAFETY					
Total recordable injuries (number)	213	210	243	303	335
– of which lost time injuries (number)	67	80	92	82	56
– of which fatal injuries (number)	1	0	1	0	1
CONSUMPTION OF RESOURCES					
Consumption of energy (GWh)	638	614	569	567	516
– of which renewable energy (GWh) [1]	258	211	204	215	199
– of which renewable electricity (GWh) [1]	227	178	175	186	173
Consumption of fresh water (1,000 m^3)	473	470	454	428	427
WASTE DISPOSAL					
Volume of waste (1,000 tonnes)	85	81	71	75	67
– of which collected for recycling (1,000 tonnes)	43	42	39	37	33
EMISSIONS					
Direct emissions of CO_2 (1,000 tonnes)	71	69	60	58	49
Indirect emissions of CO_2 (1,000 tonnes) [1]	38	61	70	66	67
LOCAL COMMUNITY					
Environmental accidents (number)	0	0	0	0	0
Breaches of internal inspection conditions (number)	0	0	0	1	0
EMPLOYEES					
Average number of employees	24,964	24,221	22,504	21,625	18,986
Number of employees at the end of the period	25,542	24,648	23,303	21,824	20,507
SOCIAL AND ENVIRONMENTAL INDICATORS					
OCCUPATIONAL HEALTH & SAFETY					
Incidence of total recordable injuries per one million working hours	3.9	4.0	5.3	6.9	8.7
Incidence of lost time injuries per one million working hours	1.2	1.5	2.0	1.9	1.5
Absence due to illness among hourly-paid employees (%)	2.0	2.1	2.3	2.2	1.9
Absence due to illness among salaried employees (%)	1.0	1.1	1.2	1.2	1.1
PRODUCTS					
CO_2 savings over the lifetime of the MW produced and shipped (million tonnes of CO_2)	322	275	317	281	224
UTILISATION OF RESOURCES					
Renewable energy (%) [1]	40	34	36	38	39
Renewable electricity for own activities (%) [1]	82	68	66	70	68
EMPLOYEES					
Women in Board of Directors [2] and Executive Management at the end of the period (%)	23	15	23	23	23
Women in leadership positions at the end of the period (%) [3]	19	19	19	19	18

1) Calculation changed to the effect that non-renewable electricity is no longer compensated with Vestas-owned wind power plants.
2) Only Board members elected by the general meeting are included.
3) Employees in leadership positions comprise managers, specialists, project managers, and above.

Sustainability at Vestas

By the end of 2019, Vestas has installed more than 113 GW of sustainable energy solutions across 81 countries on six continents, enough capacity to discplace 151 million tonnes of CO_2 emissions every year,[1)] and the company has a responsibility to keep growing and expanding energy access.

Compared to other means of generating electricity, the carbon footprint of Vestas wind turbines remains low, see the illustration "Carbon footprint compared" on page 039. However, Vestas' vision to be the Global Leader in Sustainable Energy Solutions means going beyond delivering sustainable solutions – it means expecting and requiring sustainability in everything Vestas does and taking full responsibility for the company's social and environmental footprint. In doing so, Vestas will embark on the next steps of its sustainability journey.

As renewable energy is prioritised globally and Vestas enters and operates in increasingly more emerging markets, non-technical risks such as community impacts can present challenges. To address these risks, Vestas prioritises focusing on building and maintaining the social license to operate, in collaboration with local communities, local authorities, customers and stakeholders. Vestas' investments in community development support its social license to operate methodology, where education, training and jobs to local community members impacted by the projects Vestas participates in are key focus areas.

Employee and contractor occupational injuries are naturally, a continual area of focus for Vestas. Already, significant reductions in injury rates have been achieved, because of the extent to which Vestas has prioritised this challenge. Going forward, Vestas will continue to work proactively to reduce injury rates.

While the Vestas risk management process is always spread across the entire life cycle of a Vestas product or service, this process begins with supplier selection and management. Vestas continues its commitment to minimising the risk of practices that directly contravene the Business Partner Code of Conduct and the Employee Code of Conduct.

Combined with additional information about Vestas' sustainability initiatives in Vestas' Sustainability Report 2019, this Annual report constitutes Vestas' Communication on Progress (COP) pursuant to its UN Global Compact membership. Vestas applies the option stipulated in section 99a of the Danish Financial Statements Act – concerning the statutory duty of large enterprises to report non-financial information by referring to the COP report.

The Vestas Sustainability Strategy

Customers should only have and require sustainable energy solutions from a partner, for whom sustainability is an integrated part of the manufacturing, sourcing, and whole life cycle of the product. Only by ramping up its efforts on sustainability can Vestas truly become the global leader in sustainable energy solutions. Vestas' Sustainability Strategy – Sustainability in everything we do – has four key goals that contribute to the achievement of Vestas' corporate strategy:

- To become a carbon-neutral company by 2030 – without using any carbon offsets
- To produce zero-waste wind turbines by 2040
- To become the safest, most inclusive, and socially responsible workplace in the energy industry
- To lead the transition towards a world powered by sustainable energy

S factor

Vestas' **113 GW** of installed wind turbines is enough to displace

151 million

tonnes of CO_2 **every year**, equivalent to the emissions from burning 112 million tonnes of coal*

* Source: International Energy Agency (IEA): Data and statistics. 2017.

The introduction of the sustainability strategy allows the company to lead and set an example in its industry and beyond.

To become a carbon-neutral company by 2030 – without using any carbon offsets

On 16 April 2019, Vestas announced its signature to the Science Based Targets (SBT) initiative. By committing to the creation of an SBT, Vestas is required to align the carbon footprint of its entire value chain with the reductions needed to prevent global temperatures from exceeding 1.5 °C above pre-industrial temperatures[2)].

Combined with the work of Vestas to achieve its SBT commitment, the goal of becoming a carbon-neutral company will require Vestas to further reduce its CO_2 emissions in scope 1 and 2[3)] (Vestas' own operations) by 55 percent by 2025 and 100 percent by 2030. Vestas has chosen to do so without using any carbon offsets. Vestas will furthermore reduce CO_2 emissions in scope 3[3)] (in the supply chain) by 45 percent per MWh generated by 2030.

For a start, Vestas will be reducing its carbon footprint by phasing out fossil fuel-powered benefit cars. Starting in 2020, an updated benefit car programme will be introduced, only offering plug-in hybrids and electric vehicles. Based on a three-year replacement cycle and a rapid acceleration of the available electric models coming to market, Vestas will only have zero-emission company cars by January 2025.

1) Source: International Energy Agency (IEA): Data and statistics. 2017.
2) Source: Science Based Targets: What is a Science Based Target? (online article). 2019.
3) The Greenhouse Gas Protocol categorises direct and indirect emissions into three broad scopes: Scope 1: Direct GHG emissions occur from sources that are owned or controlled by the company, for example, emissions from combustion in owned or controlled boilers, furnaces, vehicles, etc.; emissions from chemical production in owned or controlled process equipment. Scope 2: Indirect greenhouse gas emissions from consumption of purchased electricity, heat or steam. Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities not covered in Scope 2, outsourced activities, waste disposal, etc. Source: Science Based Targets initiative (2019) Frequently Asked Questions. Available from: https://sciencebasedtargets.org/faq

The Vestas Sustainability Strategy: Sustainability in everything we do

STRATEGIC THEMES	GOAL	KPI	INITIATIVES	MEDIUM-TERM TARGET (2025)	LONG-TERM TARGET (2030)
CARBON FOOTPRINT	**To become a carbon-neutral company by 2030, without using any carbon offsets**	Gram CO_2/kWh	• Reducing emissions in Vestas' operations • Reducing emissions in the supply chain	Reduce absolute carbon emissions in scope 1 and 2 by 55 percent by 2025 compared to 2018, without using any carbon offsets	Reduce absolute carbon emissions in scope 1 and 2 by 100 percent - by 2030, compared to 2018, without using any carbon offsets Reduce carbon emissions in scope 3 by 45 percent per MWh generated, by 2030
CIRCULARITY	**To produce zero-waste wind turbines by 2040**	Percent recyclability by weight	Increasing blade and hub recyclability	Increase blade and hub recyclability to 50 percent, by 2025	Increase blade and hub recyclability to 55 percent, by 2030
VESTAS EMPLOYEES	**To be the safest, most inclusive and socially responsible workplace in the energy industry**	Per one million working hours	Reducing total recordable injuries	Reduce rate of total recordable injuries to 1.5, by 2025	Reduce rate of total recordable injuries to 0.6 by 2030
		Percent	Increasing number of women in leadership positions*	25 percent women in leadership positions by 2025	30 percent women in leadership positions by 2030
		Percent	increasing women in Vestas Wind Systems A/S' Board of Directors	37.5 percent women in Board of Directors by 2021	
		Percent	Expanding access to inclusive leadership and unconscious bias training	Inclusive leadership and unconscious bias training mandatory part of all talent and leadership training by 2021	Inclusive leadership and unconscious bias training mandatory part of all talent and leadership training
ENERGY TRANSITION	**To lead the transition towards a world powered by sustainable energy**	**Commitments:** • To take a leading role in driving electrification and decarbonisation beyond the power sector • To team up with sustainability leaders to drive change • To support our partners in their journey to become more sustainable			

* 'Employees in leadership positions' comprise managers, specialists, project managers, and above.

During 2020, Vestas will establish pilot programmes with electric service vans in several regions with the aim of all new service vans being zero-emission from 2025. Vestas will also explore further steps to be taken to further reduce heating- and transport-related CO_2 emissions from its operations. More initiatives are to be developed over time.

Furthermore, reducing CO_2 emissions in the supply chain will be achieved in two ways. One will be through the effort of Vestas' main suppliers reducing their emissions and for this purpose Vestas will actively seek sustainability partnerships with its suppliers. The other will come via the way Vestas designs its products.

To produce zero-waste wind turbines by 2040

Vestas is, as the first turbine manufacturer, committed to zero-waste wind turbines, meaning running a value chain that generates no waste materials. This will be achieved by developing and implementing a new waste management strategy, introducing a circular economy approach in the different phases of the value chain: design, production, service, and end-of-life. The strategy will be presented within the next two years. As a first step, Vestas aims to increase blade and hub recyclability to 55 percent by 2030, leading to zero-waste wind turbines by 2040. More initiatives are to be developed over time.

To be the safest, most inclusive and socially responsible workplace in the energy industry[4)]

The frequency of injuries must continue to fall, and Vestas has therefore set a target of reducing the rate of total recordable injuries to 1.5 by 2025 and to 0.6 by 2030. To achieve these targets, Vestas will be rolling out several new initiatives, including a reevaluation of the manufacturing processes to improve ergonomics and automation, and new projects involving predictive analytics and augmented reality to improve construction and service site safety.

4) The safety parameter (becoming the safest workplace in the energy industry) will be benchmarked against the "Occupational Health & Safety" category in the Dow Jones Sustainability Index, comparing Vestas' performance to that of customers and competitors reporting to the index. The degree of diversity and inclusion will be measured benchmarking against the Refinitiv Index, likewise comparing Vestas' performance to that of customers and competitors, reporting to the index.

To ensure leadership in the global industry of sustainable energy solution providers, Vestas must also improve on its performance on female representation in Vestas leadership positions and the Board of Directors. As a first step, medium- and long-term targets for increasing the number of women in leadership positions have therefore been set at 25 percent by 2025 and 30 percent by 2030. Inclusive leadership and unconscious bias training will be expanded within the company as part of this third sustainability strategy ambition. For more information about initiatives to promote diversity, see Vestas people, page 043.

To lead the transition towards a world powered by sustainable energy

This goal is a commitment that Vestas will take a leading role in driving decarbonisation and electrification beyond the power sector. Doing so requires sustainability leaders to team up and implement change fast.

At New York Climate Week on 23-29 September 2019, Vestas' participation in the Getting to Zero Coalition was announced. The Coalition represents senior leaders within the maritime, energy, infrastructure, and finance sectors, leading a push for decarbonising international shipping. The participation of Vestas in this coalition demonstrates how Vestas is already working to collaborate and drive de-carbonisation beyond the power sector.

On 9 September 2019, Vestas was also announced as the Principal Partner of the Mercedes-Benz EQ Formula E Team, Formula E being a motorsport championship using only electric cars. Under the tagline "Powered by Vestas", this long-term partnership provides further substantiation of Vestas' ongoing efforts to partner and drive change on sustainability: In this case, by bringing the power of sport and the power of sustainable energy together. Both examples demonstrate how Vestas is already working hard to drive electrification beyond the power sector.

The Vestas sustainability strategy aims to make sustainability a part of everything the company does. Vestas must lead on sustainability, as it does in the field of sustainable energy solutions.

Sustainability performance

Sustainability governance

Vestas is signatory to international initiatives in the UN Global Compact (UNGC) and the World Economic Forum's Partnering Against Corruption Initiative. These global commitments are reflected in the way that the company works. The Vestas Employee Code of Conduct and Business Partner Code of Conduct outline the rules and principles by which Vestas expects its employees and business partners to behave: Core to this expectation is to conduct business with high integrity. Supporting Vestas' commitment to health, safety and the environment, Vestas operations are also built on global certificates for the following three standards: ISO 9001 for Quality, ISO 14001 for Environment, and OHSAS 18001 for Health and Safety.

Human rights

Vestas recognises its responsibility to respect human rights as set out in the UN Guiding Principles on Business and Human Rights. As part of the company's continuous efforts to improve in this area, in December 2019, Vestas updated its Human Rights Policy Statement to reflect both changing external expectations and internal updates. This Statement outlines Vestas' commitment to respect all human rights and includes the company's expectations towards its business partners.

In extension of the corporate-wide Human Rights Impact Assessment conducted in 2018, Vestas has been actively working in 2019 with the key recommendations to address its most salient human rights impacts. One of the areas with focus is collaborating on a cross-functional level to strengthen the risk evaluation of suppliers and review the onboarding process. This work will be continued in an effort to continuously improve the responsible supply chain programme.

Business ethics

Vestas understands that building an effective business ethics programme requires continuous focus on both strengthening policies and procedures, in addition to fostering a compliance culture. In 2019, Vestas strengthened its anti-bribery and corruption programme by restructuring it and ensuring alignment with the derived regional programmes (anchored in the Sales Business Units). Further, cross-regional coordination was strengthened via the Vestas compliance network's bi-monthly meetings and continued focus on activities addressing both risk mitigation and prevention efforts, such as training and awareness. Engaging cross-regionally on compliance issues has brought many benefits in, for example, sharing knowledge and developing a robust compliance culture, which is anchored in a strong policy foundation.

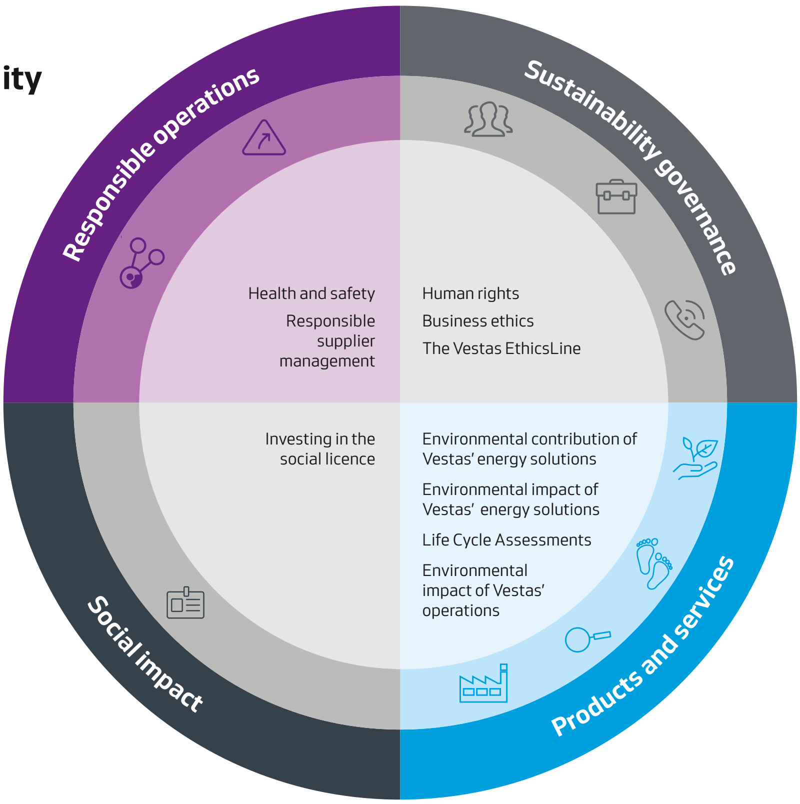
In 2019, Vestas prioritised work with internal business ethics culture and behaviour. Towards the end of the year, a global internal awareness campaign was launched towards salaried employees with the objective of increasing awareness on company business ethics policies and procedures. The campaign focused specifically on managers as important change agents in building the Vestas compliance culture and enabling the conversation on this topic within their teams. This global campaign is an important pillar in Vestas' compliance programme, moving compliance beyond formal policies and procedures towards strengthening the company's compliance culture overall, which Vestas will continue working with in 2020.

EthicsLine

In support of its governance, since 2007 Vestas has used the whistleblower hotline "EthicsLine". EthicsLine is deployed to ensure that compliance violations are always brought forward and dealt with accordingly. It is mandatory for managers to report Code of Conduct compliance violations in EthicsLine, and employees are strongly encouraged to report compliance violations to their managers, or directly through EthicsLine. The system supporting EthicsLine reports is hosted by an independent company.

The substantiated cases closed in 2019 (incl. cases originating from 2018 but closed in 2019) have led to disciplinary actions incl. 25 warnings and 26 dismissals.

Areas of focus in Vestas' sustainability reporting



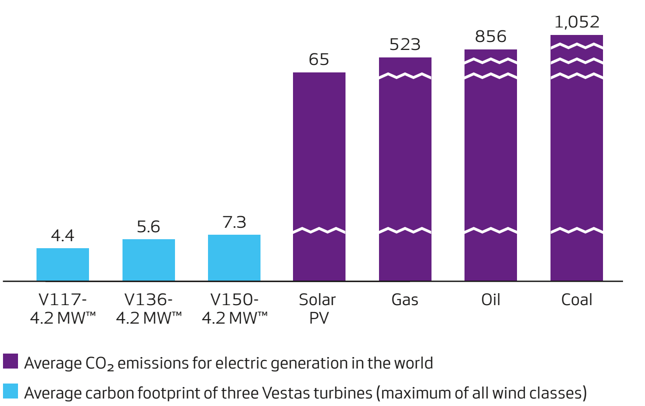
EthicsLine cases
Number

	2019	2018	2017	2016	2015
Questions submitted to EthicsLine	2	8	14	8	4
Compliance cases reported	224	165	105	103	87
– hereof substantiated	44	42	31	19	21
– hereof non-substantiated	145	92	74	68	53
Cases under investigation end of year	35	31	19	16	13

Products and services
The environmental contribution of Vestas' sustainable energy solutions
In 2019, the CO_2 savings over a lifetime for the 13 GW of turbines produced and shipped by Vestas amounted to 322 million tonnes – an increase of 17 percent compared to 2018 due to a significant increase in MW produced and shipped.

Environmental impacts of Vestas' sustainable energy solutions
Critically to Vestas, the approx. 4-8 grams of CO_2 emitted per kWh for a Vestas wind turbine is minimal in comparison to the world average for electricity generation of 485 grams.

Carbon footprint compared
Grams of CO_2 per KWh



Source: thinkstep GmbH: GaBi Databases 2019 Edition. 14 February 2019.

Vestas Life Cycle Assessments: 2020 targets
From 2010, Vestas has used two essential parameters to assess the environmental impact of Vestas wind turbines; product carbon footprint and product waste. The targets established to do so are informed by the Life Cycle Assessments (LCAs) that measure the 'cradle to grave' environmental impacts of Vestas' products and activities through the lifetime of a wind power plant.[1)]

In 2019, Vestas met and exceeded its newest 2020 target[2)] of a 10 percent reduction in product carbon footprint from a 2017 baseline, with the LCAs of the 4 MW platform documenting a 27 percent reduction.[3)] The reduction was achieved through increased power production and optimisation of the turbines to reduce material requirements per kWh delivered. Since 2010, Vestas has reported product improvement being measured as grams CO_2 per kWh. However, with the goal of becoming a carbon-neutral company by 2030, going forward, Vestas will instead report annually on the CO_2 reductions of its entire operations and supply-chain, using 2019 as baseline year. Furthermore, Vestas will report annually on the performance of the new target of reducing CO_2 emissions in the supply chain by 45 percent per MWh generated by 2030, using 2019 as baseline year. The performance is calculated based on the MW turbines produced and shipped in the calendar year.

On product waste, as Vestas had met and significantly exceeded its original 2020 target already in 2017[4)], a new target was set of a 7 percent reduction versus a baseline in 2017. Although improvement was achieved by the end of 2019, Vestas did not meet this new ambitious target, however achieved a 4.5 percent reduction.[5)]

In line with Vestas' new sustainability strategy, a target has been set to achieve 50 percent recyclability (by weight) of the wind turbine rotor by 2025, compared to a baseline of 44 percent. The rotor consists of the turbine hub and blades and the target to produce zero-waste wind turbines by 2040 aims to address the largest non-recyclable components in the turbine. For towers, the current 96 percent recyclability will be maintained and for nacelles the aim is to increase recyclability from 89 percent to 90 percent by 2025.

The composite materials of the blades comprise the largest component yet to be made recyclable. To address this issue, Vestas continued in 2019 to participate in the DreamWind project (Designing Recyclable Advanced Materials for Wind Energy) that aims to develop new sustainable composite materials for blades.

Environmental impact of Vestas' operations
The LCAs reveal that Vestas' operations typically account for 5-10 percent of the carbon footprint of a wind turbine through its entire life cycle.

For Vestas' activities, performance is reported in terms of inputs of resources and outputs of CO_2 emissions and waste. Total energy consumption, mainly from Vestas' manufacturing and service activities increased in 2019 to 638 GWh (2018: 614 GWh).

For the service business, the energy consumption and waste generation increased relatively less than the increase in activity levels. The water consumption however, increased more than the activity level.

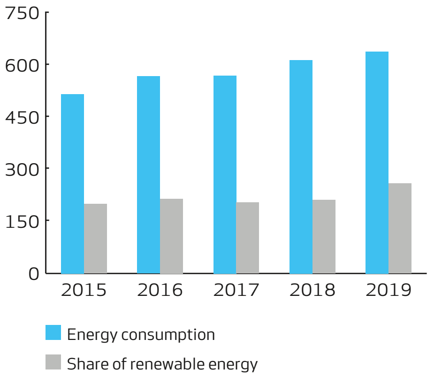
In manufacturing, the energy consumption and waste generation increased relatively more than the production level. Water consumption increased in line with the increase in production. It should be noted that overall environmental performance of the manufacturing facilities varies globally and depends largely on turbine variants and as well the frequency of introduction of new turbine variants.

Vestas is committed to increase the carbon efficiency and reduce the carbon emissions in all Vestas' operations. The principal demonstration of this commitment is the introduction of the Vestas Sustainability Strategy ambition; to become a carbon-neutral company by 2030, and the initiative to start transitioning the service vehicle fleet to vehicles fuelled by renewable energy, as 50 percent of the non-renewable energy consumption in Vestas' operations stems from Service.

As a member of RE100, Vestas remains committed to sourcing 100 percent of its electricity from renewable sources. Since 2013, this has been achieved partly by purchasing renewable electricity and certificates for renewable energy, and partly by compensating for the consumption of non-renewable electricity with Vestas-owned wind power plants.

1) 99.9 percent of MW delivered by Vestas are covered by LCAs based on ISO 14040/44.
2) A previous 2020 target of a 5 percent reduction against a 2015 baseline was already met in 2017, and hence a new target – of 10 percent versus the 2017 baseline – was set.
3) Baseline is the LCA performed on the 4 MW platform which accounts for turbine performance in all wind classes: V117-4.2 MW™ (IEC1B, 10 m/s), V136-4.2 MW™ (IEC2B, 8.5 m/s), and V150-4.2 MW™ (IEC3B, 7.5 m/s).
4) The original target was a 3 percent reduction versus a 2015 baseline, and in 2017 Vestas had made a 12.5 percent reduction.
5) The results were based on the ISO LCA reports published in July 2017 for the V112-3.45 MW™ (IEC1a), V126-3.45 MW™ (IEC2a), and V136-3.45 MW™ (IEC3a).

Energy consumption and share of renewable energy
1,000 MWh



30%
From 2015 to 2019, total energy consumption increased 24 percent while the share of renewable energy increased 30 percent.

In 2019, Vestas' share of renewable electricity increased from 68 percent to 82 percent, enabled by purchase of more renewable electricity. The increase in renewable electricity acquired led Vestas' share of renewable energy to increase from 34 percent in 2018 to 40 percent in 2019. Vestas has decided no longer to use compensation for non-renewable electricity. If Vestas were to have included compensation, the share of renewable electricity would have been 100 percent (2018: 100 percent) while the share of renewable energy would have been 48 percent (2018: 48 percent).

Social impact
Investing in the social license
Vestas understands the importance of investing in the social license to operate – both to build project bankability, and to create value for communities via community development opportunities. Reducing the risk of community opposition to wind parks is a key component to building bankable wind farm projects, particularly in challenging markets worldwide. As a wind turbine supplier and Engineering, Procurement and Construction contractor, Vestas holds a unique position to support project developers and financiers in realising a renewable energy project that can be successfully delivered on time and on budget. This is achieved by proactively working with community engagement and in development activities on the ground.

Vestas has developed its own social due diligence methodology - based on recognised international principles that include the International Finance Corporation's Environmental and Social Performance Standards. The methodology is used to identify social risks and impacts associated with wind parks, and to outline preventative or mitigating actions.

A core component in Vestas' approach to building and maintaining the social license to operate is the company's investments in local community development initiatives. Initiatives of this kind from 2019 include:

- In Senegal, job creation is a priority. In collaboration with Vestas' contractors, the EPC wind power project Taiba has succeeded in creating 873 positions at peak times during construction. 33 percent of jobs were given to host communities, 61 percent of jobs were given to Senegalese workers, and 8 percent were expatriate positions. Vestas was also actively involved in community development projects. These projects included upgrading dirt roads, constructing public toilets, and building a public square. Vestas has also initiated the donation of stoves to 500 households to reduce the use of firewood and charcoal.
- In Tamaulipas, Mexico, Vestas partnered with its customer AES, a local university, and NGO 500RPM, to build a 350 W wind turbine. It was installed in the local rural school Lic. Fermín Legorreta. 36 students from the Technical University Victoria and the Technical School CBTIS 271 were trained by the NGO to produce the turbine for installation. Focus was placed on strengthening the technical skills of the students; providing 64 hours of training and promoting general knowledge about renewable energy. The entire school will benefit from the renewable energy supplied, which will also improve the school's energy consumption efficiency for at least 15 years.

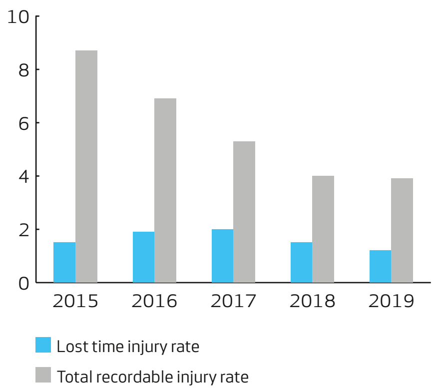
Responsible operations
Health and safety
In 2019, Vestas reduced the incidence of lost time injuries per one million work hours from 1.5 to 1.2. The incidence of total recordable injuries in 2019 of 3.9 per one million working hours constitutes a reduction from the year before, however is above the target of max. 3.6.

Vestas is placing focus on incidents with high potential for serious injury or fatality: Such incidents are prioritised and immediately acted upon to ensure any potential risk to life is eliminated. Thereafter, subsequent control mechanisms follow up to ensure that no reoccurrence will take place.

Despite this focus, two tragic incidents occurred in 2019. A Vestas employee and a subcontractor employee both suffered fatal injuries. Full investigations have been conducted and action plans based on investigation findings are being implemented.

In addition to ensuring safe working conditions, Vestas has three behavioural safety programmes that the organisational units are implementing stepwise; from basic awareness training and safety walks by managers, to peer-to-peer feedback loops supporting safe behaviour.

Incidence of injuries
Per one million working hours



A decrease of 55%
Vestas has managed to reduce the rate of total recordable injuries since 2015 from 8.7 to 3.9. The target for 2020 is a max. rate of 3.1.

Responsible supplier management
With its increased commitment towards partnerships all around the world, Vestas is able to grow globally, and steadily increase its scale, not only size. The extended use of suppliers makes it all the more important that a selection procedure and regular evaluation is in place to ensure that suppliers not only live up to product quality standards, but also comply with Vestas' Business Partner Code of Conduct.

Vestas performs screening of suppliers on compliance with the Code of Conduct through the standards in its supplier assessment tool. In 2019, Vestas performed 2,943 business partner screenings assuring that its business partners live up to the requirements. In 2019, monthly supplier scorecards have officially been rolled out to 159 key suppliers with significant focus on safety and other sustainability aspects. The suppliers' scorecard performance and agreed development activities are evaluated as part of monthly performance dialogue meetings.

In 2019, 157 new suppliers were assessed onsite globally by Vestas on quality and sustainability parameters. Of these, 117 were approved, five were rejected, and 35 are under investigation. Furthermore, 15 onsite audit assessments of suppliers' compliance with the Code of Conduct were executed by Vestas globally.

Vestas' contribution to the UN Sustainable Development Goals in 2019

SDG	GOAL	VESTAS' CONTRIBUTIONS
7 AFFORDABLE AND CLEAN ENERGY	Ensure access to affordable, reliable, sustainable and modern energy for all	• By the end of 2019, the company has collaborated with its closest stakeholders to install more than 71,400 wind turbines in 81 countries, across six regions. • Vestas remains at the forefront of the transition towards affordable and clean energy – delivering between 30 and 50 units of energy back to society for every unit needed in the life cycle of a Vestas wind turbine.
13 CLIMATE ACTION	Take urgent action to combat climate change and its impacts	• By the end of 2019, Vestas has cut its own product carbon footprint by a total of 27 percent. • With 113 GW of installed wind energy, Vestas and its stakeholders have also disrupted the emission of 1.3 billion tonnes of CO_2 along the way.
12 RESPONSIBLE CONSUMPTION AND PRODUCTION	Ensure sustainable consumption and production patterns	• In its electricity consumption, Vestas has in 2019 sourced 82 percent of its electricity from renewable sources.
17 PARTNERSHIPS FOR THE GOALS	Strengthen the means of implementation and revitalize the global partner-ship for sustainable development	• The announced participation of Vestas in the Getting to Zero Coalition, and its role as the Principal Partner of the Mercedes-Benz EQ Formula E Team, exemplifies the commitment of Vestas in 2019 to take a leading role in promoting electrification of the transport sector. • Vestas has increased its focus on local partnerships to strengthen its CSR approach, and has in 2019 directly collaborated with eight NGOs globally, with emphasis on activities in India, Mexico, and Senegal.
4 QUALITY EDUCATION	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	• In 2019, Vestas focused on the education and training of local stakeholders in a number of nations, including Mexico. One of the initiatives was to train students in Tamaulipas to build a 350 W turbine to understand the technology, and to benefit from renewable energy and a higher electricity capacity in the local area. • Vestas prioritises attracting and training new talent, and – as an example – completed a two-year Graduate Programme in 2019, which onboarded five male and six female graduates from seven different nationalities and located in eight different locations in their first year at Vestas. Nine out of the 11 Graduates continued employment in other positions.
8 DECENT WORK AND ECONOMIC GROWTH	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	• In 2019, Vestas continued its work to reduce the lost time injury rate per one million hours worked, achieving an overall reduction of 20 percent. • In 2019, Vestas worked to reduce the total recordable injury rate – but missed the target of 3.6 total recordable injuries per one million hours worked. The rate at the end of 2019 was 3.9.

Notes to Sustainability Highlights

Basis for preparation of the statement

General reporting standards

The below description of accounting policies of social and environmental performance refers to the social and environmental key figures and indicators presented on page 034.

All Vestas' wholly owned companies are covered by the report. Newly established companies are included from the time of production start and for acquired companies from the time when coming under Vestas' control. Companies are excluded from the reporting from the time when they leave Vestas' control.

Defining materiality

Vestas bases its materiality assessment on an analysis of significant economic, environmental, and social impacts of Vestas' activities. The analysis is based on internal priorities as well as experience from dialogue with and direct involvement of customers, investors, policy makers, employees and media. The result of the analysis is incorporated in Vestas' COP.

Vestas has previously selected a number of social and environmental key figures that are relevant to understand Vestas' development, results and financial position. These key figures have been maintained after the materiality assessment. The status of the key figures is monitored closely and for relevant key indicators, specific targets have been defined.

Change in accounting policies

The calculation of indirect CO_2 emissions has been adjusted to follow criteria for setting Science Based Targets for reducing CO_2 emissions in the value chain.

The calculation of renewable electricity and energy has been changed to the effect that the consumption of non-renewable electricity is no longer compensated with Vestas-owned wind farms.

Social performance

Occupational health and safety

Occupational health and safety is measured for all activities under the organisational structure. Lost time injuries of all employees are stated on the basis of registration of incidents that have caused at least one workday of absence after the day of the injury. Total recordable injuries include lost time injuries, restricted work injuries and medical treatment injuries.

Injuries and working hours for externally supervised employees are also included. The incidence of injuries is defined as the number of lost time injuries including fatalities per one million working hours. The number of working hours is measured on the basis of daily time cards registered in the payroll system for hourly-paid employees and prescribed working hours for salaried employees. For externally supervised employees, the injuries are reported by Vestas, and working hours are reported by the external suppliers.

Absence due to illness does not include absence caused by lost time injuries, maternity leave and child's illness leave. Absence due to illness is measured by means of registrations in the payroll system based on daily time cards for hourly-paid employees and absence records for salaried employees, respectively.

Employees

The number of employees is calculated as the number of full time equivalents (FTE) with a direct contract with Vestas. Employee information is determined on the basis of extracts from the company's ordinary registration systems with specification of nationality, gender and leadership position. Employee indicators are calculated based on head counts.

Environmental performance

Energy consumption, water consumption, waste generation and CO_2 emission are reported on the basis of significance. All production facilities are included as well as larger offices, warehouses and other facilities ensuring a comprehensive and sufficient statement of these environmental aspects.

Utilisation of resources

Electricity, gas and district heating are measured on the basis of quantities consumed according to direct meter readings per site including related administration. Consumption of electricity comprises electricity purchased externally and consumption of production from own wind turbines. Oil for heating is stated on the basis of external purchases adjusted for inventories at the beginning and at the end of the period. Fuel for transport has been recognised on the basis of supplier statements. Electricity from renewable energy sources is calculated on the basis of supplier statements. Only 100 percent renewable electricity is counted as renewable electricity.

Renewable energy is energy generated from natural resources, which are all naturally replenished – such as wind, sunlight, water and geothermal heat. Nuclear power is not considered to be renewable energy.

The consumption of water is stated as measured consumption of fresh water. Cooling water from streams, rivers, lakes, etc. that is solely used for cooling and released to the stream after use without further contamination than a higher temperature, is not included.

Waste disposal

Waste is stated on the basis of weight slips received from the waste recipients for deliveries affected in the accounting period, apart from a few types of waste and non-significant volumes which are estimated on the basis of subscription arrangement and load. Waste disposal is based on supplier statements.

Emissions of CO_2

Direct emission of CO_2 is calculated on the basis of determined amounts of fuel for own transport and the direct consumption of oil and gas, with the usage of standard factors published by the UK Department for Environment, Food & Rural Affairs. Indirect emission of CO_2 from consumption of electricity outside Europe is calculated , with the usage of national grid emissions factors published by International Energy Agency. Indirect CO_2 emission from consumption of electricity in Europe is calculated with residual mix emission factors from Association of Issuing Bodies. Indirect CO_2 emission from district heating is calculated with the usage of emission factor from the UK Department for Environment, Food & Rural Affairs.

Local community

Environmental accidents are accidental releases of substance and chemicals which are considered by Vestas to have a significant impact on the environment. Breaches of internal inspection conditions are stated as the conditions for which measurements are required, and where measurements show breaches of stated conditions.

Products

CO_2 savings from the produced and shipped MW are calculated on the basis of a capacity factor of 30 percent of the produced and shipped MW, an expected lifetime of 20 years of the produced and shipped MW, and the latest updated standard factor from the International Energy Agency of average CO_2 emission for electricity in the world, at present 485 grams of CO_2 per kWh.

Vestas people

Leadership, employees, and values

Vestas' purpose is anchored in the passion to make the world a better place and contribute to a sustainable future for the planet. Vestas' more than 25,000 passionate employees are the company's foundation and most important asset, and it is therefore pivotal to constantly develop and sustain a culture that allows everyone to thrive and reach their full potential.

Values and leadership behaviours

For Vestas to achieve its vision of becoming the global leader in sustainable energy solutions, it is key for the company to have the right foundation of organisational values and leadership behaviour. Therefore, Vestas placed an increased emphasis on values and leadership in 2019, as well as the role of leadership in anchoring the values in the company culture.

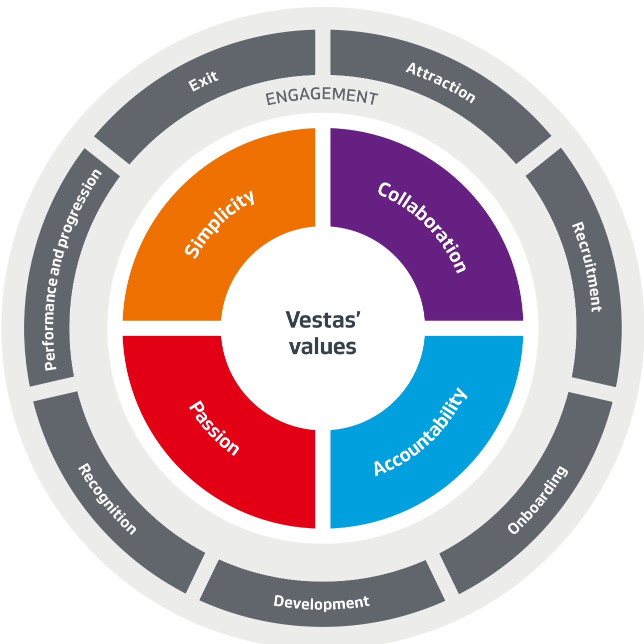
In 2019, a fourth corporate value was introduced to supplement the existing values of accountability, collaboration, and simplicity. The new corporate value, 'passion', is the dedication, commitment, and energy from the employees that go into leading Vestas and the execution of the company's vision. At the same time, the wording of the existing values was clarified to be more actionable on an individual and team level.

Furthermore, Vestas established a value-based leadership culture in 2019 – grounded in existing processes and platforms. Values also serve as the foundation for this and are included in all employee and talent activities and programmes, such as Diversity & Inclusion, Vestas Graduate Programme, and Vestas Executive Leadership Programme, and are also an agenda topic at any executive meetings and forums.

Employee life cycle

Vestas utilises a life cycle approach to employment, focused on the various phases employees go through while working at the company. From attraction to onboarding to development to exit, see illustration below, Vestas offers opportunities to ensure engagement, professional development, recognition, and a smooth and respectful exit.

Employee life cycle



Vestas' employee performance process, the Continuous Performance and Development process (CPD), is a key tool in the employee lifecycle and in ensuring that Vestas sustains a talented, agile and cost-effective organisation. The CPD focuses on performance management, performance calibration, and employee development, facilitating a continuous, real-time feedback culture that supports Vestas' leaders and employees in their everyday work life.

Furthermore, Vestas conducts an annual employee survey to measure employee engagement and satisfaction, exploring how Vestas employees feel about their daily lives in and around the workplace. The 2019 employee survey was conducted in September, with a strong response rate of 93 percent. The overall satisfaction and motivation score was 71, which is the same level as 2018's. Through the annual employee survey, Vestas ensures attention to specific areas of importance. In 2019, safety, corporate values, and diversity and inclusion were among the areas with special attention to create awareness and foster progress.

In 2019, the performance matrix was simplified by replacing the old 5-point scale with a 3-point rating scale. Additionally, business results and behaviour are now weighted equally in performance evaluations, using Vestas' corporate values as the foundation.

Talent management

Vestas' annual performance calibration also identifies the organisation's top talents. Talent management in Vestas focuses on the development and deployment of high-potential employees to ensure that the organisation has the right people at the right time in the right positions, and that they are equipped with strategically important competences. Vestas sets clear expectations for its key positions and strategic capabilities, making it possible to match current and potential talents with business needs and the company's long-term outlook.

To succeed with these efforts, Vestas conducts a range of in-house talent programmes:

- Vestas Graduate Programme is a two-year international programme aimed at talented young professionals aspiring to hold key positions at Vestas. Participants work on two different assignments throughout the programme, with a progressive increase in challenge and responsibility.
- Regional Talent Programme is a programme for regional talents intended to secure adequate succession and build a strong talent pipeline. Regional talents are identified during the People Review process via a leader's nomination of the employee as part of the performance evaluation. During the 18-month programme, the selected talents go through various development activities to prepare them for the future.
- Rising Executives Programme focuses on developing talents with extraordinarily high potential who consistently demonstrate ability, engagement and aspiration – and of course high performance in both behaviours and results. Over a two-year period, participants are challenged with tailored talent development opportunities and learning activities in order to prepare them to become Vestas' next leaders.
- Vestas Executive Leadership Programme is intended to develop and enhance executives' strategic capabilities. The programme consists of three modules within a period of nine months, and participants are selected from amongst Vestas' current leaders.

Diversity and inclusion

In 2019, Vestas amplified its efforts to create and sustain an environment that actively embraces diversity and inclusion in all Vestas contexts. Initiatives to promote diversity in all aspects – across gender, age, culture, ethnicity, physical abilities, political and religious beliefs, and sexual orientation – start at entry level and shape all layers of the organisation. Vestas has put inclusion firmly on the agenda with the third ambition in the company's newly-released sustainability strategy: to become the safest, most inclusive, and socially responsible workplace in the energy industry. Read more about the sustainability strategy on page 035.

As part of the sustainability strategy, workforce gender balance is also a key focus area for Vestas. Overall, 13.9 percent of Vestas' employees at the end of 2019 were women, including factory workers and technicians. The level of female representation in leadership positions was 19 percent at the end of 2019, below the targets of 25 percent by 2025 and 30 percent by 2030. These include a number of different positions from specialists, project managers, manager level and above. Diversity and inclusion efforts target every step of Vestas' employee lifecycle, intended to help attract, recruit, and develop a sustainable and diverse talent pipeline. In 2019, 17 percent of the Executive Management team were women, which rose to 29 percent in January 2020 with the addition of People & Culture to the Executive Management team, announced in December 2019.

While Vestas' sustainability strategy addresses the representation of women in leadership positions with a concrete target, the strategy also sets a target for inclusive leadership and unconscious bias training. By 2021, this will be part of all talent and leadership training programmes. In 2019, unconscious bias training was introduced for all People and Culture (HR) employees at Vestas. Furthermore, a specific form of "blind spot" training was provided to all Vestas people leaders in the North America region, designed to assist people in identifying barriers to becoming a more inclusive leader.

E factor

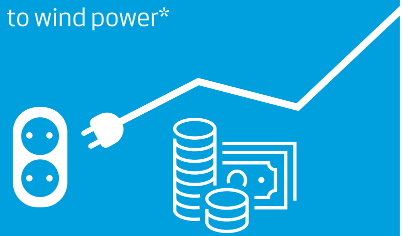
Towards 2050, the electricity consumption is expected to grow

62 %

and require USD 13.3 trillion of new investments –

USD 5.3 trillion

to wind power*



* Source: Bloomberg New Energy Finance: New Energy Outlook 2019. June 2019.

Moreover, alongside 14 other Nordic companies, Vestas participated in the Nordic CEO group Workstream in 2019, focusing exclusively on the topic of diversity and inclusion. The group – called "Nordic CEOs for a Sustainable Future", is an alliance of Nordic business leaders collaborating to tackle sustainability challenges.

Governance

Vestas on the capital markets

Vestas' share

Vestas Wind Systems A/S' total share capital is divided into 199 million shares. In 2019, the Vestas share was the second most traded share on the Nasdaq Copenhagen stock exchange with an average daily turnover of DKK 353m.

The Vestas share price ended the year at DKK 673.20, equal to a market capitalisation of DKK 134bn. The share price increased by 37 percent, compared to the end of 2018. This was better than the general trend in the OMX Copenhagen 25 (OMXC25) index, which increased by 25 percent in 2019.

Basic data

Stock exchange	Nasdaq Copenhagen
Stock exchange quotation	1998
ISIN code	DK0010268606
Ticker symbol	VWS
Share capital	198,901,963
Capital distribution*	
- International shareholders	135,599,242 shares (68%)
- Danish shareholders	54,954,443 shares (28%)
- Vestas Wind Systems A/S	3,559,449 shares (2%)
- Shareholders not registered by name	4,788,829 shares (2%)
Nominal denomination	DKK 1
Number of shares	198,901,963
Share classes	One share class
Voting rights	One share carries one vote
Free float	100 percent free float
Trading lot (minimum)	None, one share is tradable
Share price, end of year	DKK 673.20
Number of registered shareholders**, end of year	126,778

* No shareholders have, in accordance with the EU Transparency Directive and the Danish Capital Markets Law, reported a shareholding of 5 percent or more of the total share capital in Vestas. See note 6.3 in the parent company financial statements page 122.
** Shareholders registered by name, including custodian banks.

Green Corporate Eurobond

In 2015, Vestas issued a EUR 500m Green Corporate Eurobond at a fixed interest rate of 2.75 percent to finance its corporate purposes. The bond is listed on the Luxembourg Stock Exchange's regulated market and will mature on 11 March 2022.

The green bond benefits from a second-party opinion provided by the certification institute DNV GL. The bond allows Vestas to diversify and optimise its funding structure.

The book value of the bond was EUR 498m with a corresponding fair value of EUR 526m as at 31 December 2019. For further information about the bond, see notes 4.5 and 4.7 to the Consolidated financial statements, pages 085 and 092.

Financial management

Vestas' management continuously monitors to which extent the company's capital structure, including equity and other financial resources, is reasonable in consideration of Vestas' operations and the stakeholders' interests, see Capital structure strategy, page 015.

Authorisations granted to the Board

According to article 3 of the Articles of Association, the Board of Directors of Vestas Wind Systems A/S (the Board) is authorised to increase the company's share capital in one or more issues of new shares up to a nominal value of DKK 21,549,694 (21,549,694 shares). The authorisation is valid until 1 April 2023.

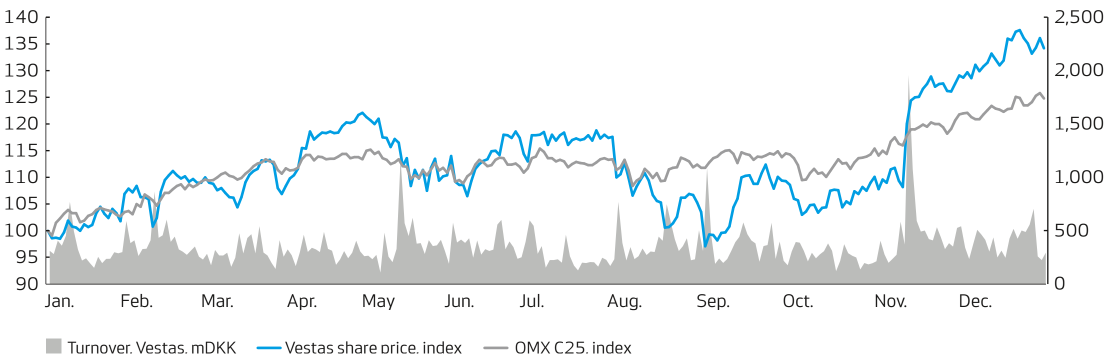
At the Annual General Meeting in 2019, the shareholders authorised the Board to let the company acquire treasury shares in the period until 31 December 2020 equal to 10 percent of the share capital at the time of the authorisation, provided that the nominal value of the company's total holding of treasury shares at no time exceeds 10 percent of the company's share capital at the time of the authorisation.

Distribution to shareholders

The Board has a general intention to make annual distributions to the shareholders, but the first priority is to maintain a strong and efficient balance sheet and to reinvest capital back into the business to be able to develop sustainable energy solutions that will support the corporate strategy.

Share price index and trading in the Vestas share in 2019

mDKK · Index



+37%
The Vestas share price outperformed the OMXC25 index and ended the year at DKK 673.20 – an increase of 37 percent, compared to 2018.

The Board's general intention is to recommend a dividend of 25-30 percent of the year's net result after tax, which will be paid out following the approval by the annual general meeting.

Dividend

On 3 April 2019, the shareholders approved a dividend of DKK 7.44 per share to be paid out for the financial year 2018. This was equivalent to a dividend percentage of 30.0 percent measured against the net profit for the year.

For the sixth time in a row, the Board proposes dividend payment – a dividend of DKK 7.93 (approx. EUR 1.06) per share equivalent to 30.0 percent of the net result for the financial year 2019 after tax.

Distribution to shareholders

	2019	2018
Dividend per share (DKK)	7.93*	7.44
Dividend per share (EUR), approx.	1.06*	1.00
Dividend (EURm)**	211*	205
Payout ratio (%)	30.0*	30.0
Share buy-back (EURm)	201	402

* Based on recommended dividend.
** Based on issued shares as at 31 December.

Share buy-back programme 2019

On 7 November 2019, the Board initiated a share buy-back programme.[1] The main purpose of the programme was to adjust the company's capital structure and, secondly, to meet the obligations arising from share-based incentive programmes to employees of Vestas. It was completed on 20 December 2019. Under the programme, Vestas has bought back shares for an amount of DKK 1.5bn (EUR 201m).

Share capital reduction

On 7 May 2019, the company reduced its share capital by a nominal value of DKK 6.7m. The capital reduction was carried out through the cancellation of 6,794,040 treasury shares in accordance with the resolution passed at the Annual General Meeting on 3 April 2019.

At Vestas' Annual General Meeting in 2020, a resolution will be proposed that 1,977,848 shares out of Vestas' holding of 3.6 million treasury shares be cancelled.

Holding of treasury shares

Number

Treasury shares as at 31 December 2018	8,418,860
Reduction of the share capital	(6,794,040)
Bought under the share buy-back programme	2,302,859
Exercised share options and performance shares	368,230
Total holding of treasury shares as at 31 December 2019	3,559,449

Open dialogue with the capital markets

Vestas aims to be visible and accessible to existing and potential shareholders and bond holders, the financial community, and other stakeholders with due consideration to legislative requirements and in order to promote transparency and to achieve a fair pricing of the Vestas share and the green corporate bond. That is why Executive Management and Investor Relations take great efforts to ensure that all investors with a significant holding of Vestas shares, bonds, and the financial community can meet with the company on a regular basis. There is a four-week silent period prior to the disclosure of any financial reports.

Being a listed company, Vestas must make every attempt to give all stakeholders a true and fair view of Vestas. Therefore, relevant information is disclosed in a manner which enables fast access and complete, correct and timely assessment of the information by the public. This has a high priority for the Board and is handled by Vestas' Disclosure Committee.

Analyst coverage

Vestas is currently covered by 26 sell-side equity analysts, amongst others from major global investment banks, who regularly publish research reports on Vestas to their clients. A list of these analysts and consensus estimates can be found at Vestas' corporate website, together with comprehensive information about the Vestas share, the green bond, financial reports, and other investor-related information.

1) The programme was implemented in accordance with Article 5 of Regulation No. 596/2014 of the European Parliament and of the Council of 16 April 2014 on market abuse (MAR) and the Commission's delegated regulation (EU) 2016/1052 of 8 March 2016 (the "Safe Harbour" rules).

Corporate governance

Corporate governance principles

To the Board of Directors of Vestas Wind Systems A/S (the Board), corporate governance is a constant process to support value creation and accountable management, and thus to contribute to the long-term success of Vestas.

The Board believes that having an open and transparent corporate governance supports a company in being directed and monitored in a responsible manner – and in management focusing on creating value. In addition, it provides a fair view of Vestas to the world with timely, reliable, accurate, and up-to-date information which fosters the confidence of the financial markets, investors, business partners, customers, employees, and the public in general.

In light of the challenges Vestas faces in a market characterised by competition, changing market mechanisms, ongoing consolidation, and ever-increasing quality requirements, a clear and well-considered management and communication strategy is of special importance.

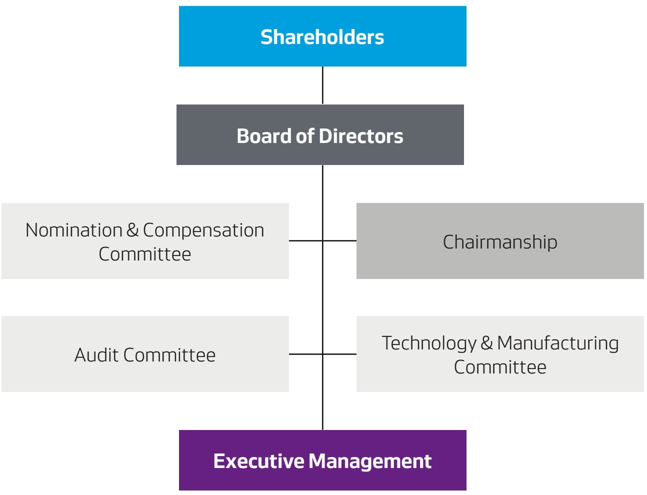
In 2019, the evaluation of the guidelines and processes included a review of the company's business model, strategy, business processes, goals, organisation, capital position, stakeholder relations, and risks as well as the exercise of the necessary internal controls.

For more information on financial reporting risks and control activities, see Vestas' Statutory Report on Corporate Governance at the corporate website.

Governance structure

The fundamental element of Vestas Wind Systems A/S' corporate governance system is its two-tier management structure with a clear, transparent, and effective separation between the Board's and Executive Management's responsibilities and tasks in connection with the management of the company's affairs, with no one serving as a member of both. Documents related to policies, regulations, and governing principles, which Vestas adheres to, are available at the corporate website.

Vestas' management structure



Shareholders

Shareholders have ultimate authority over the company and exercise their rights of co-administration and supervision at general meetings, which usually take place within the first four months of the business year. All shareholders are, with a few formal requirements, entitled to submit proposals for, attend, vote, and speak at general meetings, ref. articles 4 and 6 of the Articles of association.

S factor

3,771 school children, **148** female entrepreneurs, and **1,126** villagers, benefitted from Vestas' CSR initiatives in 2019

in India alone

In 2019, the Annual General Meeting took place in April and the minutes of meeting are available at the corporate website.

Shareholder rights

The right of a shareholder to attend a general meeting and to vote is determined by holding of shares at the record date.

Shareholders who wish to attend a general meeting must notify Vestas of their attendance no later than three days before the general meeting in question.

Vestas has a single class of shares, and no shares carry any special rights. Each share carries one vote. Proposals put to the vote are adopted by a simple majority of votes, unless the Danish Companies Act or the Articles of association prescribe special rules regarding the adoption. Amendments to the Articles of association, dissolution, demerger, and merger, which under Danish law must be passed by the general meeting, can only be passed by a majority of no less than two-thirds of all votes cast and of the voting capital represented at the general meeting unless otherwise prescribed by the Danish Companies Act.

An overview of the votes cast at the Annual General Meeting in April 2019 is available at the corporate website.

The company's auditor

Vestas' annual report is audited by an independent external audit firm appointed annually by the shareholders at the Annual General Meeting. Retiring auditors are eligible for re-election.

The auditor is obligated to act in the interest of the shareholders, as well as the public.

The Board maintains a regular dialogue with the auditor. However, it is the responsibility of the Audit Committee to make arrangements for the necessary exchange of information.

In 2019, the external auditor participated in one meeting with the Board and in six meetings with the Audit Committee. For The independent auditor's report and the Independent assurance report on the Sustainability Highlights 2019, see pages 111 and 114.

Appointment of the auditor
PricewaterhouseCoopers has been the auditor of the listed company, Vestas Wind Systems A/S, since 1998.

The last public call to tender was made to all auditors for the audit of the 2009 consolidated financial statement, in line with the EU regulation 537/2014 of 16 April 2014. Based on the results of the tendering process, the Audit Committee recommended to the Board that it proposed PricewaterhouseCoopers for election in 2010. After completing the tendering process, PricewaterhouseCoopers can therefore be proposed for election at the Annual General Meeting as Vestas' auditor without further tendering processes up to and including the financial year 2023.

In April 2019, the Annual General Meeting re-elected PricewaterhouseCoopers as Vestas' external auditor for the financial year 2019.

Policy for audit and non-audit services
One area of particular focus in corporate governance is the independence of the auditor. Vestas' auditor may be used, within certain parameters, for certain non-audit services, and may often be the preferable choice due to business knowledge, confidentiality, and cost considerations.

Vestas has a policy for non-audit services ensuring that the additional services do not impair the auditor's independence or objectivity. The Audit Committee is responsible for the development and maintenance of this policy.

During 2019, audit and non-audit services provided by Vestas' auditor globally totalled EUR 6m, for more details about the audit fee see note 6.1 in the Consolidated financial statements, page 100.

Internal audit
Once a year, the Audit Committee assesses the need for an internal audit function. In 2019, the committee found that it was not necessary to establish such internal audit function.

Board of Directors
Pursuant to the company's Articles of association, Vestas is managed by a Board composed of five to ten members elected by the general meeting and a number of representatives elected by the employees.

Composition and election of the Board
Board members elected by the general meeting may be recommended for election by the shareholders or by the Board, and they serve for a one-year term and may be re-elected. The board members elected by employees serve for a statutory four-year term.

When proposing candidates for board membership, the Board seeks to ensure that it is possible for the general meeting to elect a continuing Board that:

- is able to act independently of special interests;
- represents a balance between continuity and renewal;
- matches the company's situation;
- is knowledgeable of the industry and has the business and financial competencies necessary to ensure that the Board can perform its duties in the best way possible; and,
- reflects the competencies and experience required in order to manage a company with shares registered for trade on a stock exchange and fulfil its obligations as a listed company.

In April 2019, the Annual General Meeting re-elected Bert Nordberg, Carsten Bjerg, Henrik Andersen, Jens Hesselberg Lund, and Lars Josefsson as members of the Board and Bruce Grant, Eva Berneke, and Helle Thorning-Schmidt were elected as new members. After the Annual General Meeting, the Board held a statutory board meeting. At the meeting, Bert Nordberg was re-elected as Chairman of the Board and Lars Josefsson was re-elected as Deputy Chairman of the Board.

Henrik Andersen stepped down from the Board in August 2019, as he took up the position as Group President & CEO of Vestas Wind Systems A/S.

						Meeting participation in 2019*					
							Board committees				
	Born	Nationality	First elected	Term	Independence	Board	Audit	Nomination & Compens.	Technology & Manufact.	Share trading in 2019	Number of shares end 2019**
Number of meetings in 2019						11	5	6	4		
Elected by shareholders											
Bert Nordberg	1956	Swedish	2012	2020	Yes	11/11	2/2	6/6		-4,600 +4,600	14,600
Bruce Grant	1959	American	2019	2020	Yes	8/9			3/3	0	0
Carsten Bjerg	1959	Danish	2011	2020	Yes	10/11	5/5		4/4	0	4,019
Eva Berneke	1969	Danish	2019	2020	Yes	9/9		3/3		0	1,000
Helle Thorning-Schmidt	1966	Danish	2019	2020	Yes	9/9		4/4		0	0
Henrik Andersen***	1967	Danish	2013	-	-	6/6	3/3	3/3		-	-
Jens Hesselberg Lund	1969	Danish	2018	2020	Yes	11/11	5/5			0	4,000
Lars Josefsson	1953	Swedish	2012	2020	Yes	11/11		6/6	4/4	0	3,500
Elected by employees											
Kim Hvid Thomsen	1963	Danish	1996	2024	No	11/11			1/1	-650	3,060
Michael Lisbjerg	1974	Danish	2008	2024	No	11/11				0	834
Peter Lindholst	1971	Danish	2016	2024	No	11/11				0	570
Sussie Dvinge Agerbo	1970	Danish	2005	2024	No	11/11				0	800

* The first figure represents attendance and the second figure the possible number of meetings. In cases where a board member was appointed or stepped down during the year, only meetings in that member's active Board period are shown.
** The mentioned number of shares includes both own and related parties' total shareholdings.
*** Henrik Andersen stepped down from the Board in August 2019.

In November 2019, the election of employee representatives took place and all four members were re-elected.

As at 31 December 2019, the Board consisted of 11 members, seven of whom were elected by shareholders and four by the employees in Denmark.

The Board's responsibility

The Board is responsible for the overall operation of Vestas and, through the independent oversight of management, accountable to shareholders for the performance of the business. It also deals with the overall and strategic management of the company, including:

- appointing the Executive Management;
- laying down guidelines for and exercising control of the work performed by Executive Management;
- ensuring responsible organisation of the company's business;
- defining the company's business concept and strategy;
- ensuring satisfactory financial organisation and reporting;
- ensuring the necessary procedures for risk management and internal controls; and
- ensuring that an adequate capital contingency programme is in place at all times.

In cooperation with Executive Management, the Board establishes and approves overall policies, procedures and controls in key areas, not least in relation to financial reporting. This requires a well-defined organisational structure, unambiguous reporting lines, authorisation and certification procedures, and adequate segregation of duties.

Board committees

The purpose of Vestas' board committees is to prepare decisions and recommendations for consideration and approval by the entire Board. The committees are not authorised to make independent decisions; instead they report and make recommendations to the entire Board. Vestas has established three permanent board committees and all members of the committees are elected by the Board from among its members. Information about the members of each committee, charters, and an overview of their activities in 2019 are available at the corporate website.

Duties of the board committees

The Audit Committee – supports the Board in assessments and controls relating to auditing, accounting policies, systems of internal controls, financial reporting, procedures for handling complaints regarding accounting and auditing, the need for an internal audit function, and Vestas' ethics and anticorruption programmes.

The Nomination & Compensation Committee – supports the Board in evaluation of the performance and achievement of the Board and Executive Management and overall staff-related topics, including assessment of remuneration.

The Technology & Manufacturing Committee – assists the Board in assessing technological matters, IPR strategy, and product development plans. The committee also supports the Board in matters concerning production, monitors and evaluates the short- and long-term manufacturing footprint, evaluates sustainability performance, and gives support to various forums within technology and manufacturing.

Assessment of the work performed by the Board

Once a year, the Board evaluates its working methods, the results of its work, and the skills of its members, including whether each board member participates actively in board discussions and contributes with independent judgement.

In October and November 2019, the three board committees evaluated their performance for 2019. The evaluations were conducted as an open dialogue among the members of the committees and facilitated internally by the chairmen. An evaluation form was made available to guide the members of the committees in their preparation and to make sure that all relevant issues were touched upon in connection with the evaluations. The assessment included an evaluation of: the working climate and cooperation, competence, board work, and role of the chairman. The self-assessment revealed a good collaboration in each of the committees and between the committees and the Executive Management. The same procedure was used when the Board conducted its self-assessment in 2019.

The evaluations revealed good performance by the Board and by the board committees as well as the collaboration between the Board and the Executive Management. The evaluations did not result in any significant changes.

The results of the assessments are used by the Nomination & Compensation Committee when they propose nomination of members to the Board and to the board committees.

Remuneration

The remuneration of the Board is approved each year at the annual general meeting. The Remuneration report 2019 is available at the corporate website.

Fiduciary positions

The members of the Board have informed the company of the following competencies and fiduciary positions in Danish and foreign-listed and non-listed companies and organisations.

Name and title	Fiduciary positions and positions of trust	Special competencies
Bert Nordberg Professional board member · Chairman of the Board · Chairman of the Nomination & Compensation Committee · Member of the Audit Committee	Chairman of the boards of Sigma Connectivity AB and TDC A/S. Member of the boards of Essity AB[1)], Saab Group AB[1)], and Svenska Cellulosa Aktiebolaget SCA[1)].	Restructuring, services and infra-structure business; several years of international business experience; development market knowledge.
Lars Josefsson Independent consultant · Member of the Board · Chairman of the Technology & Manufacturing Committee · Member of the Nomination & Compensation Committee	Chairman of the board of TimeZynk AB. Member of the boards of Holmen AB, Metso Oyj, and Ouman Oy.	In-depth knowledge of managing international companies including research and development, technology and production.
Bruce Grant Executive Chairman, Applied Value LLC (USA) · Member of the Board · Member of the Technology & Manufacturing Committee	Chairman of the boards of Applied Invest LLC, Applied VenCap LLC, and Human Care Corporation. Deputy chairman of the board of CosmosID, Inc. Member of the boards of RiverMeadow LLC and Swedish-American Chamber of Commerce, Inc. Chairman of the board of Hand in Hand International.	In-depth knowledge of strategy and turn-around implementation in the renewable industry and large, global industrial companies. Expert on sourcing in the steel market and in-depth knowledge of the US market.
Carsten Bjerg Professional board member · Member of the Board · Member of the Technology & Manufacturing Committee · Member of the Audit Committee	Chairman of the boards of Hydrema Holding ApS, Bogballe A/S, and Bogballe Investment A/S (DK), Ellepot A/S, and Ellegaard Investment I ApS, Guldager A/S and CapHold Guldager ApS, Robco Engineering A/S and Robco Engineering Investment A/S, Arminox A/S and Arminox Investment A/S, Bjerringbro-Silkeborg EliteHåndbold A/S - and PCH Engineering A/S and PCH Investment A/S. Deputy chairman of the board of Rockwool International A/S1. Member of the boards of Agrometer A/S, Agrometer Investment A/S, Dansk Smede- og Maskinteknik A/S and IBP H ApS - and TCM Group A/S[1)], and TMK A/S.	In-depth knowledge of managing an international group including thorough knowledge of R&D, manufacturing, and strategic management.
Eva Merete Søfelde Berneke CEO, KMD A/S · Member of the Board · Member of the Nomination & Compensation Committee	Chairman of the board of Charlie Tango A/S. Deputy chairman of the board of Edlund A/S. Member of the boards of Danmarks Nationalbank, Ecole Polytechnique, KMD Venture A/S, and LEGO A/S. Member of the board of Technical University of Denmark.	In-depth knowledge of corporate management, including knowledge of strategy execution, management of a listed company, digitalisation, and IT.
Helle Thorning-Schmidt Professional board member · Member of the Board · Member of the Nomination & Compensation Committee	Member of the boards of Carsoe Group A/S and SafeLane Global Limited. Member of the boards of European Council on Foreign Relations, Schwab Foundation for Social Entrepreneurship, and Islamic Development Bank. Member of the advisory boards of 21st Century Council – The Bergguen Institute, Algebris Research & Policy Forum, Atlantic Council, Trustee of International Crisis Group, and US Council of Foreign Relations.	In-depth knowledge of governmental affairs and political environments as well as strategic management of international and political organisations.
Jens Hesselberg Lund Group CFO, DSV Panalpina A/S [1)] · Member of the Board · Chairman of the Audit Committee [2)]	Chairman of the boards of eleven subsidiaries of the DSV Panalpina Group. Deputy chairman of nine subsidiaries of the DSV Panalpina Group. Member of the board of The Danish Chamber of Commerce.	In-depth knowledge of accounting, finance and capital markets and management of an international and listed company.
Kim Hvid Thomsen HR Business Partner, People & Culture, Vestas Wind Systems A/S · Member of the Board [3)]		Knowledge of production processes and human resources, etc. of Vestas.
Michael Abildgaard Lisbjerg Skilled Worker - Production and Shop Steward, Vestas Manufacturing A/S · Member of the Board [3)]	Deputy chairman of the boards of DM Skjern-Ringkøbing P/S and DMSR af 24. oktober 2016 ApS.	Knowledge of production processes and human resources, etc. of Vestas.
Peter Lindholst Vice President, Concept Development, Power Solutions, Vestas Wind Systems A/S · Member of the Board [3)]		Knowledge of wind turbine design and innovation, and experience from Vestas in managing R&D activities in an international set-up.
Sussie Dvinge Agerbo Management Assistant, Technology & Service Solutions, Vestas Wind Systems A/S · Member of the Board [3)]		In-depth knowledge of project management and organisational structures including human resources and staff development.

1) Company listed on a stock exchange.
2) Fulfils the demand for qualifications within financial accounting as set out in the Danish Auditors' Act.
3) Elected by the Vestas employees.

CONTENTS
IN BRIEF
WHO WE ARE
STRATEGY AND AMBITIONS
GROUP PERFORMANCE
SUSTAINABILITY
VESTAS PEOPLE
GOVERNANCE
CONSOLIDATED FINANCIAL STATEMENTS
STATEMENTS
VESTAS WIND SYSTEMS A/S

Members of the Executive Management from left: Anders Vedel (CTO), Juan Araluce (CSO, Sales), Marika Fredriksson (CFO), Henrik Andersen (CEO), Kerstin Knapp (CPCO), Tommy Rahbek Nielsen (COO), and Christian Venderby (CSO, Service).

Executive Management

The Board appoints the Executive Management of Vestas Wind Systems A/S, amongst which the Board furthermore appoints a Chief Executive Officer as the leader and responsible of the day-to-day work of the Executive Management.

Moreover, the Board lays down the distribution of competences among the members of the Executive Management. Executive Management is gathered at least once a month and often more frequently.

On 3 April 2019, the Board announced that, going forward, only the Group President & CEO and the Executive Vice President & CFO will be registered as executives with the Danish Business Authority.

On 1 August 2019, Anders Runevad stepped down as Group President & CEO of Vestas and Henrik Andersen was appointed new Group President & CEO.

Three more changes to Executive Management were announced in 2019. On 14 August, Christian Venderby was promoted to Executive Vice President of Service and member of Executive Management. On 5 December, a further extension of Executive Management was made with newly appointed Executive Vice President of People & Culture, Kerstin Knapp, was announced, with effect from 10 January 2020. At the same time, the appointment of Tommy Rahbek Nielsen was communicated as interim Executive Vice President of Manufacturing & Global Procurement, replacing the retiring Jean-Marc Lechêne at the turn of the year.

Executive Management's responsibilities

Executive Management is responsible for the day-to-day management of the company, observing the guidelines and recommendations issued by the Board. Executive Management is also responsible for presenting proposals for the company's overall objectives, strategies, and action plans as well as proposals for the overall operating, investment, financing, and liquidity budgets to the Board. Furthermore, they monitor compliance with relevant legislation and other financial reporting regulations and provisions.

Executive Management also strives to be visible globally to all Vestas' stakeholders; customers, shareholders, partners and suppliers, leaders, and colleagues, demonstrating the company's values and conveying its vision and strategy.

Vestas' operating model

Vestas' organisation is structured around six functional areas, representing all key disciplines of the company and all employees:

- Sales headed by Juan Araluce (CSO Sales)
- Finance, headed by Marika Fredriksson (CFO)
- Service, headed by Christian Venderby (CSO Service)
- People & Culture, headed by Kerstin Knapp (CPCO)
- Manufacturing & Global Procurement, headed by Tommy Rahbek Nielsen (COO)[1)]
- Technology, headed by Anders Vedel (CTO)

These functional areas are headed by members of the Executive Management, who ensure the well-functioning of Vestas as well as its' overall performance.

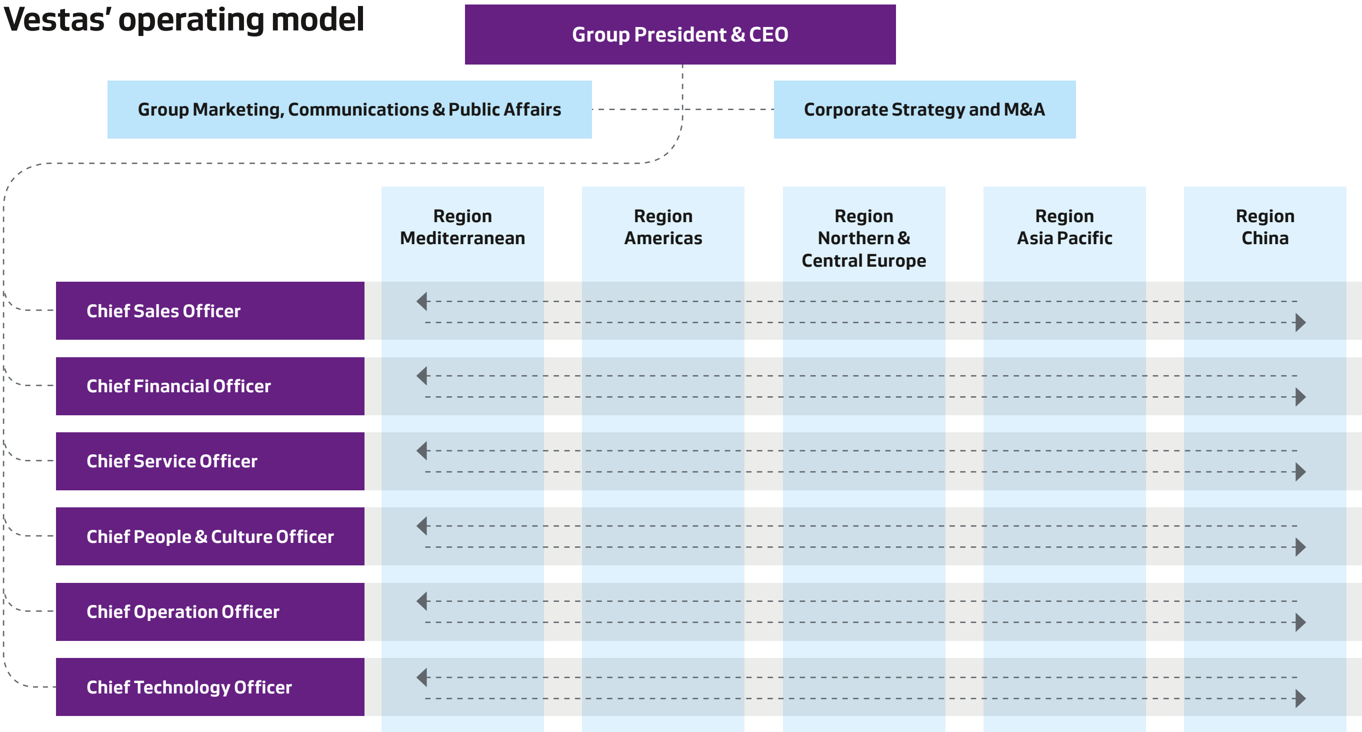
As a structurally lean organisation, Vestas has offices in more than 30 countries and five strong regional sales business units in Northern & Central Europe, the Americas, the Mediterranean, Asia Pacific, and China.

Registered members of the Executive Management

Name and position	Born	Nationality	Appointment	Fiduciary positions and positions of trust
Henrik Andersen Group President & CEO	1967	Danish	2019	Member of the board of H. Lundbeck A/S. Chairman of the audit committee of H. Lundbeck A/S. Member of the investment committee of Maj Invest Equity 4 & 5 K/S.
Marika Fredriksson Executive Vice President & CFO	1963	Swedish	2013	Member of the boards of Sandvik AB and SSAB. Chairman of the audit committee of SSAB.

1) As at 1 January 2020, Tommy Rahbek Nielsen stepped in as interim Executive Vice President of Manufacturing & Global Procurement, following the retirement of Jean-Marc Lechêne.

Vestas' operating model



Members of the Executive Management of Vestas

The operating model has two dimensions:

- Regional focus on implementing and living Vestas' strategy (the execution muscle of a global company like Vestas)
- Functional global leadership securing global alignment and best practices to be shared and implemented to the benefit of one enterprise thinking

Assessment of the work of the Executive Management
The Nomination & Compensation Committee has the responsibility of conducting an annual evaluation of the contributions and results of the individual members of the Executive Management, of the combined Executive Management; and of the cooperation between the Board and the Executive Management.

The result of the assessment conducted in 2019 revealed good collaboration between the Board and Executive Management.

Remuneration
The remuneration of Executive Management is determined by the Board. The Remuneration report 2019 is available at the corporate website.

Statutory report on corporate governance
Pursuant to section 107b of the Danish Financial Statements Act and clause 4.3 of "Rules for Issuers of Shares – Nasdaq Copenhagen", listed companies shall give a statement on how they address the recommendations on corporate governance issued by the Danish Committee on Corporate Governance. The recommendations of the report specify that the circumstances of each company will govern the extent to which the recommendations are complied with or not, as the key issue is to create transparency in corporate governance matters.

Vestas' statutory report, which is part of the annual report, is available at vestas.com/investor/corporate_governance#!statutoryreports. Vestas follows all recommendations of the Danish Corporate Governance recommendations with the exception of two recommendations, which Vestas partly complies with.

Statutory report on gender distribution
As required in section 99b of the Danish Financial Statements Act, Vestas has a policy to offer all employees equal opportunities and aims for a more equal distribution of gender among employees in leadership positions.

The statutory report is a part of the annual report, and is available at vestas.com/investor/corporate_governanceorporate_governance#!statutoryreports.

Statutory report on corporate social responsibility
Combined with Vestas' annual report, the Sustainability Report constitutes Vestas' Communication on Progress (COP) under the UN Global Compact. In this way, Vestas applies the option stipulated in section 99a of the Danish Financial Statements Act concerning the statutory duty of large enterprises to report nonfinancial information by referring to the COP report.

The Sustainability Report is available at vestas.com/investor/corporate_governance.

Transactions with related parties
A related party transaction is defined as any transaction, direct or indirect, between Vestas or any of its subsidiaries and/or affiliates and a related party.

According to Vestas' Policy for Transactions with Related Parties, a related party transaction having a value of more than the lowest of 10 percent of Vestas' total assets and 25 percent of Vestas operating profit/loss shall be published on Vestas website.

For 2019, the threshold corresponds to a value of EUR 230m.

During the year, there were no significant transactions between Vestas and members of the Board or of the Executive Management, their close family members, or companies in which these persons have significant influence.

In 2019, Vestas had no significant transactions with its associates and joint ventures.

Remuneration report
Vestas' report on remuneration of the Board of Directors of Vestas Wind Systems A/S and the members of the Executive Management who are registered as executives with the Danish Business Authority is available at the corporate website.

Risk management

Risk management at Vestas provides a transparent portfolio view on Vestas' strategic and operational risk position and direction with the aim to assess and adjust the risk exposure.

Being a multinational company and global leader in wind energy, Vestas is exposed to a variety of risks in its daily business. To protect and create shareholder value and achieve its strategic objectives, the broad spectrum of risks needs to be managed, including operational risks relating to the design and manufacturing of wind turbines, execution risks stemming from the transportation, installation, and servicing of wind turbines, and risks of a macroeconomic and regulatory nature. Vestas strives to actively ensure that such risks are understood, monitored, and managed, to warrant a minimal negative impact on the realisation of Vestas' strategic and financial ambitions.

Risk management is an integral part of the decision making in Vestas and is supported by its corporate Enterprise Risk Management (ERM) framework. The ERM framework is a holistic, consistent, and continuous approach to managing Vestas' risk exposure and covers risks across the entire organisation.

ERM is not only about identification, evaluation, and management of the individual risks, but also about communication and providing the necessary foundation for making business decisions.

Governance

At Vestas, risk management is the responsibility of everyone, and all parts of the organisation work with risk management as part of the daily operations. Vestas works systematically with risks and follows a plan for the year – the ERM annual wheel – according to which each region, corporate function and selected support functions, identifies, assesses, prioritises, and reports on relevant risks on a quarterly basis in accordance with the ERM framework.

The assessment of the potential financial and/or non-financial impact is done by using Vestas' risk criteria and the identified risks are mapped as either being short-term, medium-term, or of a strategic nature.

- **Short-term risks** typically have financial impact within the current year and are thus often related to execution and single events.
- **Medium-term risks** have a time horizon of one to three years and are often characterised as emerging risks.
- **Strategic risks** are linked to the execution of Vestas' strategy, and to the operational business.

All risks are consolidated by Global Risk Management and signed off by relevant risk owners throughout the organisation. Each quarter, key risks are presented and discussed in the Risk Committee, including the status and exposure of those risks in order to support decisions on mitigating actions. The Risk Committee currently consists of all members of Executive Management, with the exception of the Group President & CEO, and is chaired by the Executive Vice President & CFO.

On a quarterly basis, the key risks and mitigations are presented to the Group President & CEO on an Executive Management meeting with the participation of the Group Senior Vice President & Head of Strategy. Semi-annually, the risks are reported to the Audit Committee as well as the Board of Directors.

Financial risks, including risks related to currency, interest rate, tax, credit, and commodity exposures are addressed in the notes to the Consolidated financial statements, see page 061.

Enterprise Risk Management annual wheel

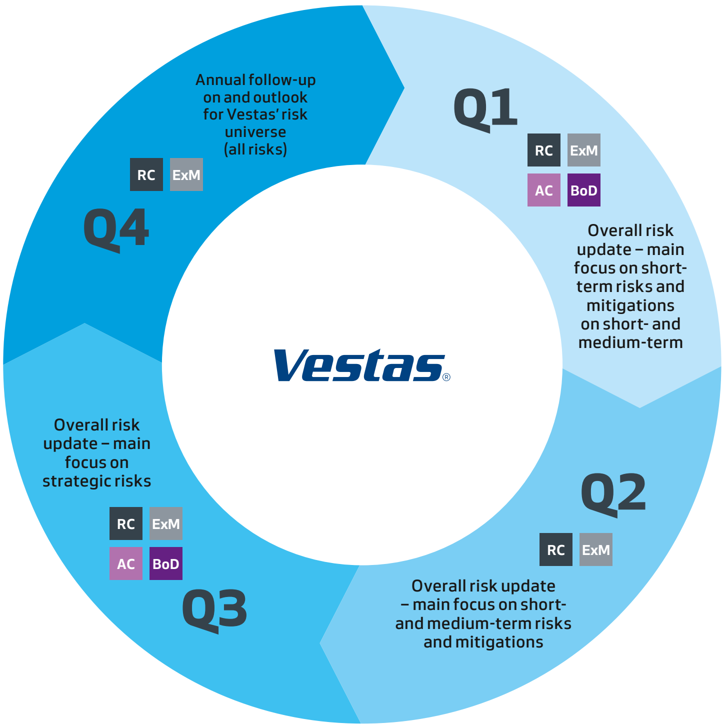
The purpose of the annual wheel is to illustrate the frequency of the Risk Committee meetings and higher level reporting on ERM in Vestas. The sequence of the annual wheel is repeated throughout the organisation.

RC Risk Committee

ExM Executive Management

AC Audit Committee

BoD Board of Directors



Main risks

The five key risks for Vestas based on their potential impact and probability identified in 2019 are shown below.

Adapting to markets with greater complexity

Description

Several of the markets in which Vestas is exploring business opportunities have characteristics, that differ from the more mature markets in Europe and the USA. Some of the main risk areas to be understood and addressed are:

- Security in relation to employees and subcontractors
- Impacts to local communities near construction of wind farms
- Corruption in the country or sector
- Sanctions and export control according to international law
- Protection of intellectual property rights

Impact

The adverse impacts relating to risks in complex markets are many and different but amongst others, adverse reputational impact or legal implications may occur if risks are not mitigated.

Risks relating to intellectual property rights may impact competitiveness, lead to adverse claims or limit freedom to operate.

Mitigation

To prevent and mitigate potential risks within these areas, Vestas uses a stage gate-based process to systematically evaluate and adapt the product and project offering during the contracting, construction, and servicing phases of a project.

Trade barriers

Description

During 2019, the imposition of tariffs on trade goods and commodities on a global level has risen. Vestas has a global supply chain, and is naturally not immune to this development, due to the large amount of steel and high number of materials and components that wind turbines consist of.

Impact

Prices of both domestically sourced material and imported components are expected to go up due to the imposition of tariffs and an increased uncertainty regarding the international development of tariff levels. Increased prices of materials and components lead to higher costs for wind turbine manufacturing and could lead to higher energy costs.

Mitigation

Vestas continuously works to minimise the impact from existing and potential tariffs by leveraging its global footprint, procurement options as well as the entire value chain. With details changing daily, Vestas continues to monitor and explore multiple avenues of mitigating the impacts.

Execution of high volumes

Description

Vestas is manufacturing, delivering, and installing significant volumes of wind turbines. A significant proportion of deliveries are typically concentrated in the second half of the year, especially driven by the phase out of the Production Tax Credit in the USA. Some of the main risks lie within ramp-up of manufacturing internally in Vestas as well as with Vestas' vendors, including constraints on sourcing of materials, components, and transportation. Extreme weather conditions in the fourth quarter in the Northern hemisphere, can impact Vestas' ability to execute commitments on time.

Impact

Financial impact expressed as costs related to liquidated damages and budget overrun is an evident potential impact. Utilisation of Vestas' manufacturing footprint and the flexibility it provides may expose Vestas to exchange rate fluctuations. Maintaining quality levels in a high-volume scenario is a challenge and poses a risk for Vestas.

Mitigation

In the contracting phase, Vestas works to ensure a certain flexibility in delivery schedules to mitigate delay impacts on the revenue stream. Vestas has a continuous high internal focus on execution in every part of the organisation and the value chain Vestas operates within.

Cyber risks

Description
Vestas' dependence on its commercial, technical, and operational IT infrastructure is significant and hence, Vestas is exposed to potential loss or harm relating to this.

Impact
Risks include financial loss and theft of intellectual property rights or personal data, which may result in monetary losses in the form of lost business opportunities or fines and penalties from authorities.

Malicious hacking activities can in addition harm the infrastructure and create physical loss of property and consequential difficulties for Vestas to meet its contractual obligations.

Mitigation
Vestas works systematically to educate its organisation in methods to address exposure and is continuously working on improving the technical ability to protect against, detect, and respond to any attempts to enter its commercial, technical, or operational IT infrastructure.

Increased complexity leading to faster product cycles

Description
The competitive landscape has in the past few years driven wind turbine manufacturers towards increased agility when it comes to introduction of new technology. The fact that wind energy in many markets today is unsubsidised and competes with fossil technologies, demands lower cost of energy from the wind turbine manufacturers (OEMs) and the speed of changes requires the OEMs to react faster than in the past. Shorter product development cycles and faster production ramp-up provide challenges and risks for Vestas. The OEMs are offering new technologies at an earlier stage in the design and market introduction phases compared to just a few years ago and this puts new demands on the organisation throughout the value chain.

Impact
Shorter introduction cycles can lead to uncertainty in product costs in the early introduction phase. Delays in product certifications also constitutes a risk with shorter cycles.

Furthermore, shorter development cycles pose an increasing need for investments for wind turbine manufacturers.

Mitigation
It has been Vestas' strategy to achieve shorter design and product introduction cycles by introducing the modular wind turbine platform, EnVentus™. This enables a larger product variety utilising the same basic design and a limited number of major components. Enhanced design and virtual testing tools are applied. Flexibility in Vestas' manufacturing footprint, hereunder the engagement of trusted external vendors on a global scale, is also a mitigant.

Consolidated financial statements

Income statement 1 January – 31 December

mEUR	Note	2019	2018
Revenue	1.1, 1.2	12,147	10,134
Production costs	1.3, 1.4, 2.2	(10,386)	(8,503)
Gross profit		**1,761**	**1,631**
Research and development costs	1.3, 1.4	(268)	(229)
Distribution costs	1.3, 1.4	(222)	(189)
Administration costs	1.3, 1.4	(267)	(254)
Operating profit (EBIT) before special items		**1,004**	**959**
Special items	1.4, 1.6	-	(38)
Operating profit (EBIT)		**1,004**	**921**
Income/(loss) from investments in joint ventures and associates	3.5	3	40
Financial income	4.3	40	17
Financial costs	4.3	(138)	(68)
Profit before tax		**909**	**910**
Income tax	5.1	(209)	(227)
Profit for the year		**700**	**683**
Profit is attributable to:			
Owners of Vestas Wind Systems A/S		704	684
Non-controlling interests		(4)	(1)
Earnings per share (EPS)	4.2		
Earnings per share (EUR)		3.57	3.41
Earnings per share (EUR), diluted		3.55	3.39

Statement of comprehensive income 1 January - 31 December

mEUR	Note	2019	2018
Profit for the year		**700**	**683**
Other comprehensive income			
Items that may be subsequently reclassified to the income statement:			
Exchange rate adjustments relating to foreign entities		27	(1)
Exchange rate adjustments relating to foreign entities transferred to the income statement		(8)	-
Fair value adjustments of derivative financial instruments	4.8	(23)	21
Gain/(loss) on derivative financial instruments transferred to the income statement	4.8	(50)	(49)
Exchange rate adjustments relating to joint ventures and associates	3.5	1	(0)
Share of fair value adjustments of derivatives financial instruments of joint ventures and associates	3.5	(58)	(1)
Share of fair value adjustments of derivative financial instruments transferred to the income statement of joint ventures and associates	3.5	1	0
Tax on fair value adjustments that may be subsequently reclassified to the income statement		18	5
Other comprehensive income after tax		**(92)**	**(25)**
Total comprehensive income		**608**	**658**

Balance sheet 31 December

Assets

mEUR	Note	2019	2018
Intangible assets	3.1, 3.4	1,208	1,096
Property, plant and equipment	3.2, 3.3	1,671	1,318
Investments in joint ventures and associates	3.5	169	233
Other investments	4.5	65	35
Tax receivables	5.1	156	98
Deferred tax	5.2	324	281
Other receivables	2.5, 4.5	85	79
Financial investments	4.5	211	204
Total non-current assets		**3,889**	**3,344**
Inventories	2.2	4,098	2,987
Trade receivables	4.5, 4.6	1,460	967
Contract assets	2.3, 4.5	528	330
Contract costs	2.4	418	328
Tax receivables	5.1	125	88
Other receivables	2.5, 4.5	752	515
Financial investments	4.5	173	422
Cash and cash equivalents	4.4, 4.5	2,888	2,918
Total current assets		**10,442**	**8,555**
Total assets		**14,331**	**11,899**

Liabilities

mEUR	Note	2019	2018
Share capital	4.1	27	28
Other reserves		(67)	22
Retained earnings		3,333	3,042
Equity attributable to Vestas		3,293	3,092
Non-controlling interests		52	12
Total equity		**3,345**	**3,104**
Provisions	3.6	459	491
Deferred tax	5.2	147	120
Financial debts	3.3, 4.5, 4.6	661	498
Tax payables	5.1	296	212
Other liabilities	2.6, 4.5	76	69
Total non-current liabilities		**1,639**	**1,390**
Financial debts	3.3, 4.5, 4.6	159	-
Contract liabilities	2.3	5,020	4,202
Trade payables	4.5	3,119	2,417
Provisions	3.6	221	126
Tax payables	5.1	128	112
Other liabilities	2.6, 4.5	700	548
Total current liabilities		**9,347**	**7,405**
Total liabilities		**10,986**	**8,795**
Total equity and liabilities		**14,331**	**11,899**

Statement of changes in equity 1 January – 31 December

		Reserves						
mEUR	**Share capital**	**Translation reserve**	**Cash flow hedging reserve**	**Other reserves**	**Total reserves**	**Retained earnings**	**Non-controlling interest**	**Total**
Equity as at 1 January 2019	**28**	**(22)**	**47**	**(3)**	**22**	**3,042**	**12**	**3,104**
Effect of initially applying IFRIC 23	-	-	-	-	-	(43)	-	(43)
Adjusted equity as at 1 January 2019	**28**	**(22)**	**47**	**(3)**	**22**	**2,999**	**12**	**3,061**
Profit for the year	-	-	-	-	-	704	(4)	700
Other comprehensive income for the year	-	18	(55)	(56)	(93)	-	1	(92)
Total comprehensive income for the year		18	(55)	(56)	(93)	704	(3)	608
Transfer of cash flow hedge reserve to the initial carrying amount of hedged items	-	-	4	-	4	-	-	4
Transactions with owners:								
Transactions with non-controlling interests	-	-	-	-	-	-	-	-
Reduction of share capital [1]	(1)	-	-	-	-	1	-	-
Dividends distributed	-	-	-	-	-	(205)	-	(205)
Dividends distributed related to treasury shares	-	-	-	-	-	8	-	8
Acquisitions of treasury shares	-	-	-	-	-	(201)	-	(201)
Acquisition of minorities interest	-	-	-	-	-	-	43	43
Share-based payment	-	-	-	-	-	25	-	25
Tax on equity transactions	-	-	-	-	-	2	-	2
Total transactions with owners	(1)	-	-	-	-	(370)	43	(328)
Equity as at 31 December 2019	**27**	**(4)**	**(4)**	**(59)**	**(67)**	**3,333**	**52**	**3,345**

1) During 2019, the share capital was reduced by 6,794,040 shares of DKK 1.00, due to cancellation of treasury shares. Ref. note 4.1 for changes on share capital in the period 2015-2019.

A dividend of DKK 7.93 (EUR 1.06) per share, corresponding to EUR 211m in total, is proposed for the financial year 2019. The proposed dividends are included in retained earnings. Dividends of EUR 197m, net of treasury shares, have been paid in 2019 relating to the financial year 2018.

Ref. to the parent company's statement of changes in equity on page 117 for information about which reserves are available for distribution. For proposed distribution of profit, ref. to note 4.1.

		Reserves						
mEUR	**Share capital**	**Translation reserve**	**Cash flow hedging reserve**	**Other reserves**	**Total reserves**	**Retained earnings**	**Non-controlling interest**	**Total**
Equity as at 1 January 2018	**29**	**(21)**	**60**	**(2)**	**37**	**3,046**	**-**	**3,112**
Impact on change in accounting policy (IFRS 15)	-	-	-	-	-	(54)	-	(54)
Adjusted equity as at 1 January 2018	**29**	**(21)**	**60**	**(2)**	**37**	**2,992**	-	**3,058**
Profit for the year	-	-	-	-	-	684	(1)	683
Other comprehensive income for the year	-	(1)	(23)	(1)	(25)	-	-	(25)
Total comprehensive income for the year	-	(1)	(23)	(1)	(25)	684	(1)	658
Transfer of cash flow hedge reserve to the initial carrying amount of hedged items	-	-	10	-	10	-	-	10
Transactions with owners:								
Transactions with non-controlling interests	-	-	-	-	-	-	13	13
Reduction of share capital [1]	(1)	-	-	-	-	1	-	-
Dividends distributed	-	-	-	-	-	(267)	-	(267)
Dividends distributed related to treasury shares	-	-	-	-	-	17	-	17
Acquisitions of treasury shares	-	-	-	-	-	(402)	-	(402)
Share-based payment	-	-	-	-	-	18	-	18
Tax on equity transactions	-	-	-	-	-	(1)	-	(1)
Total transactions with owners	(1)	-	-	-	-	(634)	13	(622)
Equity as at 31 December 2018	**28**	**(22)**	**47**	**(3)**	**22**	**3,042**	**12**	**3,104**

Dividends of EUR 250m, net of treasury shares, were paid in 2018 relating to the financial year 2017.

Statement of cash flows 1 January – 31 December

mEUR	Note	2019	2018
Profit for the year		700	683
Adjustments for non-cash transactions	6.5	831	716
Interest received		27	13
Interest paid		(47)	(27)
Income tax paid	5.1	(251)	(195)
Cash flow from operating activities before change in net working capital		1,260	1,190
Change in net working capital	2.1	(437)	(169)
Cash flow from operating activities		**823**	**1,021**
Purchase of intangible assets	3.1	(325)	(295)
Purchase of property, plant and equipment	3.2	(451)	(312)
Disposal of property, plant and equipment		4	8
Disposal of other financial assets		2	-
Proceeds from investment in joint venture	3.5	52	10
Additions of shares in joint ventures and associates	3.5	(11)	(14)
Cash flow from investing activities before acquisition of subsidiaries and financial investments		**(729)**	**(603)**
Free cash flow before acquisition of subsidiaries and financial investments		**94**	**418**
Acquisition of subsidiaries, net of cash	6.4	(3)	(65)
Purchase of financial investments		(303)	(422)
Disposal of financial investments		544	-
Cash flow from investing activities		**(491)**	**(1,090)**
Free cash flow		**332**	**(69)**
Acquisition of treasury shares		(201)	(402)
Dividends paid		(197)	(250)
Payment of lease liabilities	3.3	(61)	-
Proceeds from borrowings	4.5	100	-
Payment of financial debt		(8)	-
Transactions with non-controlling interest		-	13
Cash flow from financing activities		**(367)**	**(639)**
Net increase in cash and cash equivalents		**(35)**	**(708)**
Cash and cash equivalents as at 1 January		2,918	3,653
Exchange rate adjustments on cash and cash equivalents		5	(27)
Cash and cash equivalents as at 31 December	4.4	**2,888**	**2,918**

Overview of notes

1. Result for the year

1.1 Segment information

Reportable segments
Vestas operates in the two business segments, Power solutions and Service.

Segments	Power solutions	Service
Primary activity	The Power solutions segment contains sale of wind power plants, wind turbines, development sites, etc.	The Service segment contains sale of service contracts, spare parts and related activities.

Vestas accounting policies
The reportable segments are determined based on Vestas' management structures and the consequent reporting to the Chief Operating Decision Maker, which is defined as the Executive Management. The total external revenue is derived from the two operating and reportable segments and comprise sale of wind turbines and associated service activities, respectively Power solutions and Service. Certain income and costs relating to Vestas functions, investing activities, tax, special items, etc. are managed on Vestas level. These items are not included in the reportable segments, and therefore, presented as 'Not allocated'.

The measure of revenue, costs and EBIT included in the segment reporting are the same as those used in the consolidated financial statements. No segment information is provided to CODM on a regular basis for assets and liabilities and the measures below EBIT.

Income and costs included in profit for the year are allocated to the extent that they can be directly or indirectly attributed to the segments on a reliable basis. Costs allocated as either directly or indirectly attributable comprise production costs, R&D costs, distribution costs, and administration costs.

The income and costs allocated, including depreciation and amortisation, as indirectly attributable to the segments, are allocated by means of allocation keys determined on the basis of the utilisation of key resources in the segment.

2019 **mEUR**	**Power solutions**	**Service**	**Not allocated**	**Total**
Revenue	10,276	1,871	-	12,147
Total revenue	**10,276**	**1,871**	**-**	**12,147**
Total costs	**(9,534)**	**(1,389)**	**(220)**	**(11,143)**
Operating profit (EBIT) before special items	**742**	**482**	**(220)**	**1,004**
Special items				-
Operating profit (EBIT)				**1,004**
Income/(loss) from investments in joint ventures and associates, ref. note 3.5			3	3
Financial income			40	40
Financial costs			(138)	(138)
Profit before tax				**909**
Amortisation and depreciation included in total costs, ref. note 1.4	(429)	(65)	(52)	(546)
Investments in joint ventures and associates, ref. note 3.5				169

During 2019, reversal of write-downs on inventory of EUR 120m related to development and construction activities in prior years has been recognised and consequently positively impacted the Power solution EBIT.

1.1 Segment information (continued)

2018 mEUR	Power solutions	Service	Not allocated	Total
Revenue	8,465	1,669	-	10,134
Total revenue	**8,465**	**1,669**	**-**	**10,134**
Total costs	**(7,711)**	**(1,248)**	**(216)**	**(9,175)**
Operating profit (EBIT) before special items	**754**	**421**	**(216)**	**959**
Special items, ref. note 1.6				**(38)**
Operating profit (EBIT)				**921**
Income/(loss) from investments in joint ventures and associates, ref. note 3.5			40	40
Financial income			17	17
Financial costs			(68)	(68)
Profit before tax				**910**
Amortisation and depreciation included in total costs, ref. note 1.4	(348)	(35)	(43)	(426)
Investments in joint ventures and associates, ref. note 3.5				233

During 2018, impairment losses of EUR 6m related to patents impacted the Power solution segment. Impairment losses of EUR 23m and provision for severance and closure costs of EUR 15m related to the León assembly factory in Spain have been recognised in special items where impact is not allocated, ref. note 1.4 and 1.6.

Revenue specified by country

mEUR	2019	2018
USA	3,871	2,589
Denmark	394	291
Other countries	7,882	7,254
Total	**12,147**	**10,134**

Revenue is broken down based on geographical supply point.

Revenue specified by country comprises all countries with revenue that accounts for more than 10 percent of Vestas' total revenue and revenue in Denmark.

Intangible assets and property, plant and equipment specified by country

mEUR	2019	2018
Denmark	1,434	1,181
USA	590	557
Other countries	855	676
Total	**2,879**	**2,414**

Intangible assets and property, plant and equipment are broken down geographically based on the physical location of the assets.

The intangible assets and property, plant and equipment in all other countries did not individually exceed 10 percent of total intangible assets and property, plant and equipment.

1.2 Revenue

Vestas accounting policies

Revenue is measured based on the consideration specified in a contract with a customer. Vestas recognises revenue when it transfers control over a product or service to a customer.

Revenue recognition

Revenue comprises sale of wind turbines and wind power plants, after-sales service, and sale of spare parts. The following is a description of the principal activities from which Vestas generates its revenue.

Supply-only projects

Revenue from the sale of individual wind turbines based on standard solutions is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. Vestas recognises revenue at a point in time, when control is transferred to the customer, and the consideration agreed is expected to be received. Control is generally deemed to be transferred upon delivery of the components in accordance with the agreed delivery plan.

Supply-and-installation projects

Revenue from sale of wind power plants based on standard solutions with alternative use is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. Vestas recognises revenue when control of the fully operational turbine is transferred to the customer, and the consideration agreed is expected to be received. Control is deemed to be transferred at the point in time when the turbine is fully operational.

Turnkey projects

Revenue from contracts to deliver wind power plants with a high degree of customisation are recognised over time as the wind power plants are constructed based on the stage of completion of the individual contracts. Where the profit from a contract cannot be estimated reliably, revenue is only recognised equalling the cost incurred to the extent that it is probable that the costs will be recovered.

Service sales

Revenue from service sales, comprising services and maintenance agreements as well as extended warranties regarding wind turbines and wind power plants sold, are recognised over the term of the agreement as the services are provided. Spare parts sales are recognised at a point in time when control has been transferred to the customer, and provided that consideration agreed is expected to be received.

Transaction price

The transaction price for sale of wind turbines and wind power plants normally includes a fixed consideration. The transaction price for service contracts includes a fixed consideration and often a variable consideration. The estimated amount of variable consideration will be included in the transaction price only to the extent that a significant reversal in revenue recognised is highly unlikely to occur when the uncertainty associated with the variable consideration is subsequently resolved.

All wind turbines and wind power plant contracts include a standard warranty clause. For further details on warranty, ref. note 3.6 Provisions.

Key accounting estimates and judgements

Estimate regarding recognition of contract elements

Management performs significant accounting estimates in connection with determining the appropriate income recognition of contract elements. In certain situations, Supply-only projects contain elements that in nature are associated with a high degree of estimations regarding allocation of consideration under a contract to elements already delivered and elements to be delivered in the future. Management has assessed that the project specific margin is a fair estimate of a reasonable margin used to allocate consideration under a contract to the contract elements.

Judgement regarding method for recognition of revenue from Supply-and-installation contracts

Management applies judgement when determining whether revenue from Supply-and-installations contracts shall be recognised at a point in time or over time.

Management has determined that Supply-and-installation projects based on standard solutions have an alternative use. Consequently, revenue of such contract is recognised at the point in time when the turbine is fully operational and control is transferred to the customer.

For certain projects, Vestas agrees to delivery of wind power plants based on non-standard solutions to the customer. Management assesses whether such non-standard solutions have an alternative use. The judgements made takes into consideration technology used, the degree of customisation, and remoteness of the wind power plant. Revenue from sale of non-standard solutions, which are judged to have no alternative use is recognised over time (percentage-of-completion) and form an insignificant part of revenue from Supply-and installation contracts.

The number of projects with no alternative use is increasing, including projects with customised towers. Vestas expects this to be significant from 2020.

Estimates of stage of completion

Vestas applies the percentage-of-completion method in accounting for service contracts and certain wind power plants, in general projects with a high degree of customisation. This method is considered to best show the progression of the projects. The use of the percentage-of-completion method requires Management to determine the stage of completion by reference to the contract costs incurred for work performed to date in proportion to the estimated total contract costs (cost-to-cost method). Based on the estimated stage of completion, a respective portion of the consideration is recognised.

1.2 Revenue (continued)

Recognition of revenue and operational highlights

Operational highlights	Timeline	Revenue recognition
Order backlog The value of future contracts at the end of period. Combined backlog comprises firm **order intake** from Power solutions and Service, less deliveries made under Power solutions and less Service performance.		
Order intake An order is included as order intake when firm and unconditional.	**Order intake**	
	Manufacturing **Transport**	
	Delivery according to contract	**Supply-only** Revenue is recognised at **a point in time** when control is transferred to the customer. This point in time occurs upon delivery of the components in accordance with the agreed delivery plan.
Deliveries Deliveries for the Power solution segment are included as deliveries, and deducted from the wind turbine order backlog, when the related revenue is recognised.	**Construction**	**Turnkey projects** Revenue is recognised **over time** as the wind power plant is constructed based on the stage of completion of the individual contracts.
	Operational turbine	**Supply-and-installation** Revenue is recognised at **a point in time**, when control of the turbine is transferred to the customer. This point in time occurs when Vestas has proven a fully operational turbine.
Service performance Sales from Service agreements are deducted from Service backlog simultaneously as revenue is recognised over the term of the agreement.	**Operating wind farm**	**Service** Service contracts are normally recognised **over time** as the services are provided over the term of the agreement. Spare parts sales are recognised at a point in time when control has been transferred to the customer.

1.2 Revenue (continued)

Disaggregation of revenue
In the following section, revenue is disaggregated by sale of projects and sale of service, by primary geographical market, major contract types and timing of revenue recognition.

	Power solutions		Service		Total	
mEUR	**2019**	**2018**	**2019**	**2018**	**2019**	**2018**
Timing of revenue recognition						
Products and services transferred at a point in time	8,629	7,174	308	304	8,937	7,478
Products and services transferred over time	1,647	1,291	1,563	1,365	3,210	2,656
Total	**10,276**	**8,465**	**1,871**	**1,669**	**12,147**	**10,134**
Revenue from contract types						
Supply-only	4,200	2,413	-	-	4,200	2,413
Supply-and-installation	4,879	5,256	-	-	4,879	5,256
Turnkey (EPC)	1,197	796	-	-	1,197	796
Service	-	-	1,871	1,669	1,871	1,669
Total	**10,276**	**8,465**	**1,871**	**1,669**	**12,147**	**10,134**
Primary geographical markets						
EMEA	4,397	3,354	1,045	956	5,442	4,310
Americas	4,626	3,903	633	541	5,259	4,444
Asia Pacific	1,253	1,208	193	172	1,446	1,380
Total	**10,276**	**8,465**	**1,871**	**1,669**	**12,147**	**10,134**

Transaction price allocated to the remaining sales contracts (Order backlog)
The following table includes revenue expected to be recognised in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the financial year.

bnEUR	**2019**	**2018**
Order backlog - wind turbines	16.0	11.9
Order backlog - Service	17.8	14.3
Total	**33.8**	**26.2**

All consideration from contracts with customers is included in the amounts presented above.

At the end of 2019, the average remaining duration in the service order backlog was approx. eight years (2018: seven years), with a range up to 30 years (2018: 30 years). For the Power solutions segment, projects are normally expected to be delivered within 1-3 years (2018: 1-3 years).

It should be emphasised that Vestas' accounting policies only allow the recognition of revenue when the control has passed to the customer, either at a point in time or over time. Disruptions in production and challenges in relation to shipment of wind turbines and installation hereof, for example bad weather, lack of grid connections, and similar matters, may thus cause delays that could affect the timing of the satisfaction of the future performance obligations within the backlog.

Furthermore, it should be emphasised that the order backlog is forward-looking in nature an a subset of Vestas' potential future revenue.

1.3 Costs

Vestas accounting policies

Production costs
Production costs, including warranty costs, comprise the costs incurred to achieve revenue for the year. Costs consist of raw materials, consumables, direct labour costs, and indirect costs such as salaries, rental and lease costs as well as depreciation of production facilities.

Furthermore, provisions for loss-making construction contracts are included in production costs.

Research and development costs
Research and development costs primarily comprise employee costs, internal and external costs related to innovation and new technologies, as well as amortisation, depreciation and impairment losses on capitalised development costs.

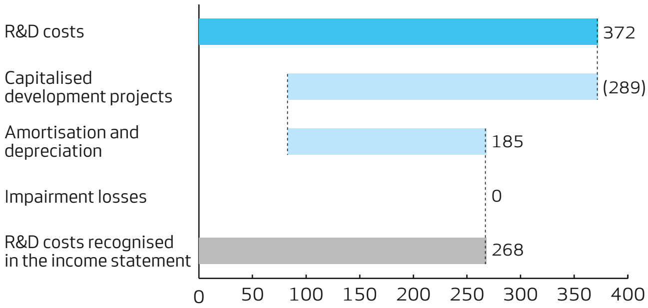
Distribution costs
Distribution costs comprise costs incurred for the sale and distribution of products, etc. sold during the year. Also included are costs relating to employees and depreciation.

Administration costs
Administration costs comprise costs incurred during the year for management and administration of Vestas and includes costs for administrative staff, management, office premises, office costs, and depreciation.

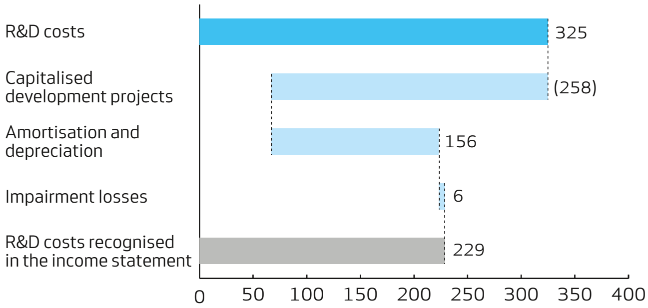
1.3 Costs (continued)

Research and development costs

Research and development costs 2019
mEUR



Research and development costs 2018
mEUR



Staff costs

mEUR	2019	2018
Staff costs are specified as follows:		
Wages and salaries, etc.	1,322	1,157
Share-based payment, ref. note 6.2	25	18
Pension schemes, defined contribution schemes	63	58
Other social security costs	189	173
	1,599	**1,406**
Average number of employees	24,964	24,221
Number of employees as at 31 December	25,541	24,648

Key management personnel is defined as Executive Management, and disclosures are provided below.

mEUR	2019	2018
Attributable to:		
Board of Directors		
Board remuneration	1	1
	1	**1**
Executive Management		
Wages and bonus	9	5
Share-based payment	9	5
Social security costs	0	0
	18	**10**

The Board of Directors and Executive Management are not covered by any pension schemes. In the event of change in control, members of the Executive Management do not receive any additional compensation. Wages and bonus to Executive Management in 2019 include bonus and impact from changes of members in Executive Management.

In 2019, share-based payment, wages and bonus to the registered Directors amounted to EUR 12m (2018: EUR 10m).

1.4 Amortisation, depreciation and impairment

2019 mEUR	Production costs	Research and development costs	Distribution costs	Administration costs	Special items	Total
Amortisation, intangible assets, ref. note 3.1	15	159	1	37	-	212
Depreciation, property, plant and equipment, ref. note 3.2	234	26	57	17	-	334
Total	**249**	**185**	**58**	**54**	**-**	**546**

2018 mEUR	Production costs	Research and development costs	Distribution costs	Administration costs	Special items	Total
Amortisation, intangible assets, ref. note 3.1	16	133	-	31	-	180
Depreciation, property, plant and equipment, ref. note 3.2	187	23	23	13	-	246
Impairment losses, intangible assets, ref. note 3.1	-	6	-	1	-	7
Impairment losses, property, plant and equipment, ref. note 3.2	2	-	-	-	23	25
Total	**205**	**162**	**23**	**45**	**23**	**458**

1.5 Government grants

Vestas accounting policies
Government grants comprise grants for investments, research and development projects, etc. Grants are recognised when there is reasonable certainty that they will be received.

Grants for investments and capitalised development projects are offset against the cost of the assets to which the grants relate. Other grants are recognised in development costs in the income statement so as to offset the cost for which they compensate.

Vestas has received government grants of which EUR 6m (2018: EUR 1m) has been offset against incurred cost and EUR 1m (2018: EUR 3m) against non-current assets.

1.6 Special items

Vestas accounting policies
Special items comprise significant unusual and/or infrequently occurring items that are not attributable to Vestas' normal operations. Special items comprise income and costs related to significant organisational restructuring and significant adjustments to production capacity and the product programme. The costs include the write-down of intangible and tangible assets as well as provisions for re-organisations and any reversal/adjustments thereof.

Key accounting judgement
Classification
The use of special items entails management judgement in the separation from other items in the income statement. In connection with the use of special items, it is crucial that they are of a significantly unusual and/or infrequently occurring nature that are not attributable to Vestas' normal operations, as such classification highlights to users of financial statements the items to which the least attention should be given when understanding current and future performance.

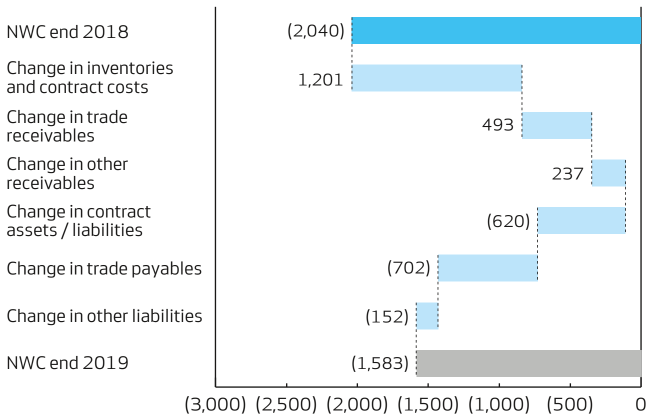
No special items have been recognised during 2019.

mEUR	2019	2018
Impairment loss on property, plant and equipment	-	(23)
Staff costs	-	(15)
Special Items	**-**	**(38)**

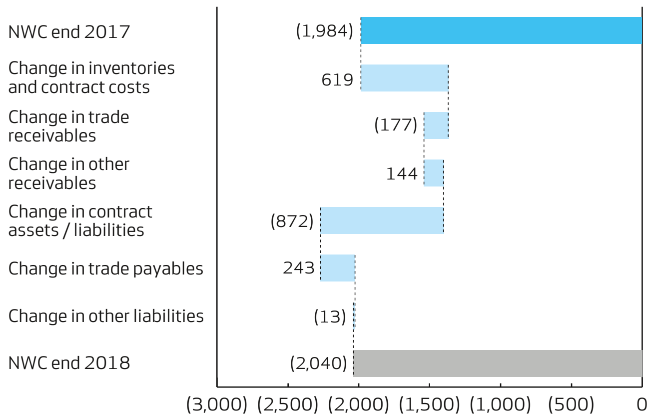
2. Working capital

2.1 Change in net working capital

NWC change 2019
mEUR



NWC change 2018
mEUR



Included in the change in net working capital (NWC) are non-cash adjustments and exchange rate adjustments with a total amount of EUR 20m (2018: EUR (225)m). Consequently, the cash flow impact of change in NWC is EUR (437)m (2018: EUR (169)m).

Vestas is facilitating a supply chain financing program funded by credit institutions. Use of this programme by suppliers takes place in the ordinary course of business and it fulfills the criteria as trade payables in the balance sheet with a total amount of EUR 293m (2018: EUR 32m).

2.2 Inventories

Vestas accounting policies
Inventories are measured at the lower of cost, using the weighted average method, and net realisable value (NRV).

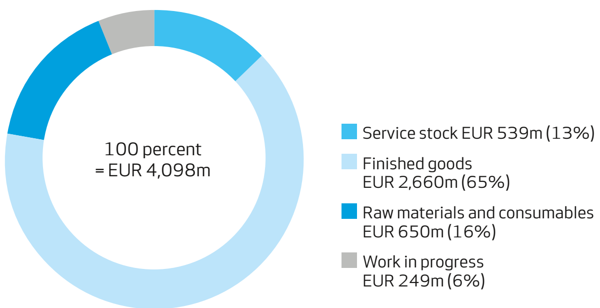
The cost of raw materials and service stock comprise purchase price of materials, consumables, duties, and transportation costs.

The cost of work in progress and finished goods comprises the cost of raw materials, consumables, direct labour, and indirect production costs. Indirect production costs comprise materials and labour costs as well as maintenance and depreciation of the machinery, factory buildings, and equipment used in the manufacturing process together with costs of factory administration and management.

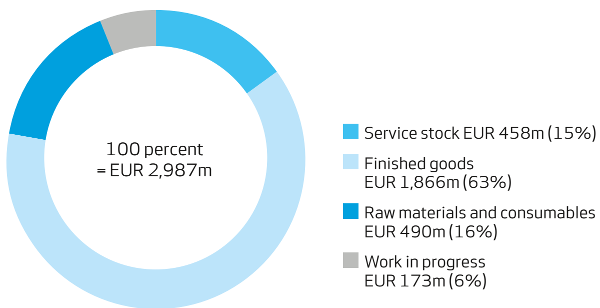
The NRV of inventories is measured at sales price less costs of completion and selling costs. NRV is determined taking into account marketability, obsolescence, and development in the expected selling price.

Key accounting estimate
Estimate of net realisable value
Vestas estimates the net realisable value at the amount at which inventories are expected to be sold. Inventories are written down to net realisable value when the cost of inventories is estimated to be non-recoverable due to obsolescence, damage or declining selling prices. Estimates are used when accounting for or measuring inventory provisions, and these estimates depend upon subjective and complex judgements about certain circumstances, taking into account fluctuations in prices, excess quantities, condition of the inventory, nature of the inventory, and the estimated variable costs necessary to make the sale.

Inventories 2019
mEUR and percent



Inventories 2018
mEUR and percent



2.2 Inventories (continued)

mEUR	2019	2018
Inventories consumed		
Inventories consumed for the year, which are included in production costs	6,456	5,104
Write-downs of inventories		
Write-downs of inventories in the year	28	22
Utilised write-downs in the year	(9)	(20)
Reversal of write-downs in the year[1)]	(145)	(1)

1) The reversal of write-downs in the year are due to goods previously written down being used or sold at or above original cost.

Reversal of write-downs in 2019 was impacted by EUR 120m related to the sale of 80 percent shares in subsidiaries that own three wind power plants in Romania.

2.3 Contract balances

Vestas accounting policies
Contract assets/liabilities comprise agreements to deliver wind power plants based on non-standard solutions (supply-and-installation projects over time) and wind power plants with a high degree of customisation (turnkey projects), as well as service and maintenances agreements. Contract liabilities also comprise prepayments from customers for supply-only and supply-and-installation projects ordered but not yet delivered.

Vestas receives payments from customers based on a billing schedule, as established in the contracts and generally represents Vestas' engagements. Contract assets relates to Vestas' conditional right to consideration for Vestas' completed performance under the contract. Accounts receivable are recognised when the right to consideration becomes unconditional. Contract liability relates to payments received in advance of performance under the contract. Contract liabilities are recognised as revenue as (or when) Vestas performs under the contract.

Contract assets/liabilities are measured at the selling price of the work performed based on the stage of completion less progress billing and expected losses.

The stage of completion is measured as the proportion at the costs on the contract incurred relatively to the estimated total costs on the contract. Where it is probable that total costs will exceed total revenues from a contract, the expected loss is recognised immediately as a cost and a provision.

The value of self-constructed components is recognised as contract assets/liabilities upon installation of the components to the specific wind power plant's construction site.

If the selling price of the work performed exceeds progress billings and expected losses it is recognised as an asset. If interim billings and expected losses exceed the selling price it is recognised as a liability.

Costs relating to sales work and the pursuing of contracts are recognised in the income statement as incurred, if the costs are not incremental.

Contract balances
The following table provides information about contract assets and contract liabilities from contracts with customers.

mEUR	Contract assets	Contract liabilities
1 January 2019	**330**	**4,202**
Revenue recognised that was included in the contract liability balance at the beginning of the period	-	(3,096)
Increases as a result of changes in the measure of progress and other adjustments	365	-
Payments received, excluding amounts recognised as revenue during the period (prepayments)	-	3,888
Transfers from contract assets recognised at the beginning of the period to receivables	(164)	-
Exchange rate adjustments	(3)	26
31 December 2019	**528**	**5,020**
Contract assets and liabilities comprise the following:		
Construction contract in progress (turnkey)	74	513
Service contracts	450	683
Supply-only contracts	-	1,668
Supply-and-installation contracts	4	2,156

2.3 Contract balances (continued)

mEUR	Contract assets	Contract liabilities
1 January 2018	**186**	**3,082**
Revenue recognised that was included in the contract liability balance at the beginning of the period	-	(2,330)
Increases as a result of changes in the measure of progress and other adjustments	231	-
Payments received, excluding amounts recognised as revenue during the period (prepayments)	-	3,431
Transfers from contract assets recognised at the beginning of the period to receivables	(89)	-
Exchange rate adjustments	2	19
31 December 2018	**330**	**4,202**
Contract assets and liabilities comprise the following:		
Construction contract in progress (turnkey)	3	239
Service contracts	323	674
Supply-only contracts	-	1,642
Supply-and-installation contracts	4	1,647

2.4 Contract costs

Vestas accounting policies
Costs incurred for supply-only and supply-and-installation projects in fulfilling the contracts with customers that are directly associated with the contract, comprising installation cost and transportation cost, are recognised as an asset (contract costs), if those costs are expected to be recoverable.

Contract costs

mEUR	2019	2018
Asset recognised from costs to fulfill a contract[1)]	418	328
Total Contract costs	**418**	**328**

1) Costs incurred in fulfilling contracts with customers are recoverable, as the costs are directly related to the contract.

Capitalised costs as a result of fulfilling sales contracts are recognised as part of production cost in the income statement, when related revenues are recognised. In 2019, EUR 740m (2018: EUR 549m) was recognised.

2.5 Other receivables

Vestas accounting policies
Other receivables are measured at amortised cost or net realisable value equivalent to nominal value less allowances for doubtful receivables, whichever is lower.

Prepayments recognised as assets comprise prepaid expenses and are measured at cost.

Key accounting judgement
Estimate of allowance for doubtful VAT receivables
Management makes allowance for doubtful VAT receivables in anticipation of estimated future receipt of payments. If certain circumstances result in lack of receipt of payments, an additional allowance could be required. When evaluating the adequacy of the allowance for doubtful VAT receivables, Management analyses the nature of the individual VAT receivables and takes into account any relevant historical information that is applicable to the specific circumstance.

mEUR	2019	2018
Prepayments	135	74
Supplier claims	17	15
VAT[1)]	274	220
Derivative financial instruments	182	166
Other receivables[2)]	229	119
	837	**594**
Specified as follows:		
0–1 year	752	515
> 1 year	85	79
	837	**594**

1) Includes provisions against VAT receivables of EUR 49m as at 31 December 2019 (2018: EUR 77m).
2) Other receivables mainly comprise interest receivables, indirect taxes and financial receivables.

2.6 Other liabilities

Vestas accounting policies
Other liabilities are measured at amortised cost.

Obligations relating to defined contribution plans, where Vestas continuously makes fixed pension contributions to independent pension funds, are recognised in the income statement in the period to which they relate. Any contributions outstanding are recognised in the balance sheet under other liabilities.

mEUR	2019	2018
Staff costs	272	153
Taxes and duties	218	239
Derivative financial instruments	184	123
Other liabilities	102	102
	776	**617**
Specified as follows:		
0-1 year	700	548
> 1 year	76	69
	776	**617**

3. Other operating assets and liabilities

3.1 Intangible assets

Vestas accounting policies

Goodwill

Goodwill is initially recognised in the balance sheet as described in business combinations, ref. note 6.4. Subsequently, goodwill is measured at this value less accumulated impairment losses. Goodwill is not amortised.

The carrying amount of goodwill has been allocated to Vestas' operating segments; Power solutions and Service. Identification of operating segments is based on management structure and internal financial reporting.

The carrying amount of goodwill is tested at least annually for impairment, together with the other non-current assets of the operating segment to which goodwill has been allocated. If the recoverable amount is lower than the carrying amount of the operating segment, goodwill is written down to its lower recoverable amount in the income statement.

The recoverable amount is usually calculated as the net present value of expected future net cash flows from the operating segments to which the goodwill has been allocated. Alternatively, the recoverable amount is calculated as fair value less costs to sell. Impairment losses on goodwill are recognised in the income statement, either in production costs, research and development costs, distribution costs or administration costs.

Impairment losses on goodwill are not reversed.

Development projects

Projects for the development and testing of new wind turbines are recognised as intangible assets when they are clearly defined, identifiable, and for which technical feasibility, sufficient resources and a potential future market or application in the enterprise can be demonstrated. In addition, it is the intention with these projects to manufacture, market or use the project for future commercial purposes. This applies if cost can be measured reliably and sufficient certainty exists that future earnings or the net selling price can cover production costs, distribution costs, and administration costs as well as research and development costs. At Vestas this is underpinned by a gate process, where these judgements are made at specific gates. Other development costs not qualifying for capitalization are recognised in the income statement as research and development costs.

Capitalised development costs are measured at cost less accumulated amortisation and impairment losses. Development costs comprise salaries, amortisation and other costs attributable to Vestas' development activities.

Following completion of the development work, development projects are amortised on a straight-line basis over their estimated useful lives. The amortisation period is two to five years. The basis of amortisation is calculated net of any impairment losses.

The carrying amount of development projects in progress is tested for impairment at least annually, and where the carrying amount exceeds the net present value of the future net cash flows expected to be generated by the development project, the project is written down to its recoverable amount in the income statement. Finished development projects are tested for impairment if there is indication of impairment from the annual review.

Patents and licences included in development projects are measured at cost less accumulated amortisation and impairment losses. Patents and licences are amortised over the patent period or term of agreement, the life of the development project or the estimated useful life, whichever is shorter. The basis of amortisation is calculated net of any impairment losses.

Software

Acquired software licences and internally developed software is measured at cost less accumulated amortisation and impairment losses. Cost includes both direct internal and external costs. Software is amortised on a straight-line basis over three to five years. The basis of amortisation is calculated net of any impairment losses.

Other intangible assets

Customer relationship, knowhow, and trademarks with a finite useful life acquired from third parties, either separately or as part of the business combination, are capitalised at cost and amortised over their remaining useful lives. Other intangible assets that are not Customer relationship, knowhow, or trademarks are measured at cost less amortisation and impairment losses.

2019 **mEUR**	**Goodwill**	**Completed development projects**	**Software**	**Other intangible assets**	**Development projects in progress**	**Total**
Cost as at 1 January	482	1,627	370	88	277	2,844
Exchange rate adjustments	2	1	-	-	(2)	1
Additions	-	-	2	4	319	325
Additions from business combination	5	-	-	-	-	5
Transfers	-	255	86	(18)	(333)	(10)
Cost as at 31 December	**489**	**1,883**	**458**	**74**	**261**	**3,165**
Amortisation and impairment losses as at 1 January	103	1,357	252	36	-	1,748
Exchange rate adjustments	-	-	-	1	-	1
Amortisation for the year	-	152	49	11	-	212
Transfers	-	-	-	(4)	-	(4)
Amortisation and impairment losses as at 31 December	**103**	**1,509**	**301**	**44**	**-**	**1,957**
Carrying amount as at 31 December	**386**	**374**	**157**	**30**	**261**	**1,208**
Internally generated assets included above	-	374	111	-	261	746
Amortisation period		2–5 years	3–5 years	3–7 years		

3.1 Intangible assets (continued)

2018 mEUR	Goodwill	Completed development projects	Software	Other intangible assets	Projects in progress	Total
Cost as at 1 January	407	1,535	307	74	144	2,467
Exchange rate adjustments	5	(6)	(1)	1	-	(1)
Additions	-	-	2	-	293	295
Additions from business combination	70	-		13		83
Transfers	-	98	62	-	(160)	-
Cost as at 31 December	**482**	**1,627**	**370**	**88**	**277**	**2,844**
Amortisation and impairment losses as at 1 January	103	1,226	212	25	-	1,566
Exchange rate adjustments	-	(4)	(1)	-	-	(5)
Amortisation for the year	-	129	40	11	-	180
Impairment losses for the year	-	6	1	-	-	7
Amortisation and impairment losses as at 31 December	**103**	**1,357**	**252**	**36**	**-**	**1,748**
Carrying amount as at 31 December	**379**	**270**	**118**	**52**	**277**	**1,096**
Internally generated assets included above	-	270	83	-	277	630
Amortisation period		2–5 years	3–5 years	3–7 years		

3.2 Property, plant and equipment

Vestas accounting policies
Land and buildings, plant and machinery as well as other fixtures and fittings, tools and equipment are measured at cost less accumulated depreciation and impairment losses.

Cost comprises the cost of acquisition and costs directly related to the acquisition up until the time when the asset is ready for use. In the case of construction of own assets, cost comprises direct and indirect costs for materials, components, sub-suppliers, and labour. Estimated costs for dismantling and disposing of the asset and for re-establishment are added to cost to the extent that they are recognised as a provision. Where individual components of an item of property, plant and equipment have different useful lives, the cost of the item is broken down into separate components which are depreciated separately.

Subsequent costs, e.g. in connection with the replacement of components of an item of property, plant and equipment, are recognised in the carrying amount of the asset in question when it is probable that the costs incurred will result in future economic benefits to Vestas. The carrying amount of the replaced components is derecognised in the balance sheet and recognised as costs in the income statement. All other costs incurred for ordinary repairs and maintenance are recognised in the income statement as incurred.

Installations capitalised as land and buildings which are related to leased assets are depreciated over the term of the related lease contract. Such lease contracts range with a lease term from 10 to 20 years.

Depreciation is calculated on a straight-line basis over the expected useful lives of the assets, which are:

Buildings (including installations)........10–40 years
Plant and machinery........3–10 years
Other fixtures and fittings, tools and equipment........3–5 years
Right-of-use assets........2-20 years
Land is not depreciated.

The basis of depreciation is calculated taking into account the residual value of the asset less any impairment losses. The residual value is determined at the time of acquisition and is reassessed annually. Where the residual value exceeds the carrying amount of the asset, depreciation is discontinued.

The depreciation periods are determined based on estimates of the expected useful lives and future residual value of the assets. The estimates are based on historical experience. A reassessment is made once a year to ascertain that the depreciation basis reflects the expected life and future residual values of the assets.

If the depreciation period or the residual value has changed, the effect on depreciation is recognised prospectively as a change in accounting estimate.

Depreciation is recognised in the income statement as either production costs, research and development costs, distribution costs or administration costs to the extent that depreciation is not included in the cost of assets of own construction.

The carrying amounts of non-current assets are reviewed on an annual basis to determine whether there is any indication of impairment. If so, the recoverable amount of the asset is calculated. The recoverable amount is the higher of the fair value of the asset less estimated costs to sell and value in use.

Value in use is calculated as the net present value of expected future net cash flows from the asset or a group of assets.

An impairment loss is recognised where the carrying amount of an asset exceeds its recoverable amount.

Impairment losses are reversed only to the extent of changes in the assumptions and estimates underlying the impairment calculation.

Impairment losses are reversed only to the extent that the new carrying amount of the asset does not exceed the carrying amount of the asset after depreciation/amortisation had the asset not been impaired.

3.2 Property, plant and equipment (continued)

2019 mEUR	Land and buildings	Plant and machinery	Other fixtures and fittings, tools and equipment	Property, plant and equipment in progress	Right-of-use assets	Total
Cost as at 1 January	1,205	915	1,206	130	-	3,456
Initial application of IFRS 16, ref. note 7.3	-	-	-	-	208	208
Adjusted cost as at 1 January	1,205	915	1,206	130	208	3,664
Adjustments to opening balances/previous year	-	-	2	-	-	2
Exchange rate adjustments	13	4	7	2	-	26
Additions	6	27	171	245	66	515
Disposals	(49)	(65)	(72)	-	(19)	(205)
Transfers	27	155	37	(238)	10	(9)
Cost as at 31 December	**1,202**	**1,036**	**1,351**	**139**	**265**	**3,993**
Depreciation and impairment losses as at 1 January	543	657	938	-	-	2,138
Exchange rate adjustments	6	4	6	-	-	16
Depreciation for the year	45	94	130	-	65	334
Transfers	-	-	-	-	4	4
Reversal of depreciation of disposals in the year	(45)	(57)	(68)	-	-	(170)
Depreciation and impairment losses as at 31 December	**549**	**698**	**1,006**	**-**	**69**	**2,322**
Carrying amount as at 31 December	**653**	**338**	**345**	**139**	**196**	**1,671**
Depreciation period	10–40 years	3–10 years	3–5 years		2–20 years	

2018 mEUR	Land and buildings	Plant and machinery	Other fixtures and fittings, tools and equipment	Property, plant and equipment in progress	Right-of-use assets	Total
Cost as at 1 January	1,211	802	1,053	73	-	3,139
Exchange rate adjustments	15	3	10	-	-	28
Additions	9	60	130	133	-	332
Disposals	(39)	(2)	(2)	-	-	(43)
Transfers	9	52	15	(76)	-	-
Cost as at 31 December	**1,205**	**915**	**1,206**	**130**	-	**3,456**
Depreciation and impairment losses as at 1 January	507	554	831	-	-	1,892
Exchange rate adjustments	3	3	9	-	-	15
Depreciation for the year	47	99	100	-	-	246
Impairment losses for the year	23	2	-	-	-	25
Reversal of depreciation of disposals in the year	(37)	(1)	(2)	-	-	(40)
Depreciation and impairment losses as at 31 December	**543**	**657**	**938**	**-**	-	**2,138**
Carrying amount as at 31 December	**662**	**258**	**268**	**130**	-	**1,318**
Depreciation period	10–40 years	3–10 years	3–5 years		2–20 years	

3.3 Leases

Vestas accounting policies

Vestas as Lessee

Vestas assesses whether a contract is or contains a lease at inception of the contract. Vestas recognises right-of-use assets and corresponding lease liabilities at the lease commencement date, except for short-term leases and leases of low value. For these leases, Vestas normally recognises the lease payments as an operating expense on a straight-line basis over the term of the lease.

The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liabilities adjusted for any lease payments made at or before the commencement date, plus any initial costs incurred.

The right-of-use assets are subsequently measured at cost less accumulated depreciation and impairment losses. The right-of-use assets are from the commencement date depreciated over the shorter period of lease term and useful life of the underlying asset. The estimated useful lives of right-of-use assets are determined on the same basis as those of property and equipment. In addition, the right-of-use assets are periodically reduced by impairment losses, if any, and adjusted in accordance with lease liabilities.

The lease liabilities are initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, Vestas' incremental borrowing rate. Generally, Vestas uses its incremental borrowing rate taking into account the specific countries.

Lease payments included in the measurement of the lease liabilities comprise the following:
- fixed payments;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- the exercise price of a purchase option if Vestas is reasonably certain to exercise the options; and
- amounts expected to be payable under residual value guarantees.

The lease liabilities are subsequently measured at amortised cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the estimate of the amount expected to be payable under a residual value guarantee, or if Vestas changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liabilities are remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use assets, or is recorded in profit or loss if the carrying amount of the right-of-use assets has been reduced to zero.

mEUR	Property	Vehicles	Equipment	Total
Right-of-use assets as at 1 January 2019	**137**	**41**	**30**	**208**
Depreciation charge for the year including transfers	(33)	(24)	(12)	(69)
Addition of right-of-use assets for the year including transfers	29	36	11	76
Disposal of right-of-use assets for the year	(1)	(3)	(15)	(19)
Right-of-use assets as at 31 December 2019	**132**	**50**	**14**	**196**

Vestas leases several assets including properties, vehicles and equipment. Rental contracts are typically made for fixed periods of 1 to 10 years but may have extension options. Lease terms are negotiated on an individual basis and contain different terms and conditions including payment terms, terminations rights, index-regulations, maintenance, deposits and guarantees etc.

Lease liabilities

Lease liabilities are included in Financial debts which amounted to EUR 198m as at 31 December 2019. The lease liabilities included in financial debts can be specified as follows:

Maturity analysis - contractual undiscounted cash flow

mEUR	2019
Less than one year	65
One to five years	112
More than five years	37
Total undiscounted lease liabilities as at 31 December	**214**
Lease liabilities included in the statement of financial position as at 31 December	**198**
Current	58
Non-current	140

Some property leases contain variable payment terms that are linked to an index e.g. a consumer price index. Overall the variable payments constitute less than 1 percent of Vestas' entire lease payments.

Extension and termination options may be included in leases. These terms are used to maximise operational flexibility in terms of managing contracts.

Total lease expenses recognised in the income statement

mEUR	2019
Interest expense on lease liabilities	7
Variable lease payments not included in the measurement of lease liabilities	0
Expenses relating to short-term leases and leases of low-value	35

3.3 Leases (continued)

Total leases recognised in the statement of cash flows

mEUR	2019
Short-term leases and leases of low value	35
Payment of lease liability including interest	68
Total cash outflow for leases	**103**

3.4 Impairment

Valuation of goodwill
As at 30 September 2019, Management performed the annual impairment tests of the carrying amount of goodwill. No basis for impairment was found for 2019 (2018: EUR 0m). In the impairment tests, the carrying amount of the assets are compared to the discounted value of future expected cash flows.

The annual tests of goodwill were performed on the two operating segments: Power solutions and Service, these being the lowest level of cash-generating units as defined by Management.

The main part of the carrying amount of goodwill in Vestas arose in connection with the acquisition of NEG Micon A/S in 2004, and the goodwill is allocated to Vestas' two operating segments Power solutions (EUR 180m) and Service (EUR 35m). In relation to the acquisition of UpWind Solutions, Inc. in 2015, Vestas has recognised goodwill of EUR 40m, which is allocated to the Service segment. In relation to the acquisition of Availon GmbH in 2016, Vestas has recognised goodwill of EUR 56m, which is allocated to the Service segment.

In 2018, Vestas acquired Utopus Insights, Inc. and recognised goodwill of EUR 70m, which was allocated to the Service segment. With the acquisition of SoWiTec Group GmbH in 2019, Vestas has recognised goodwill of EUR 5m, which is allocated to the Power solutions segment, ref. note 6.4.

Assumptions underpinning impairment test of goodwill
Budgets and business plans for the next three years are based on Vestas' investments in progress and contracted investments, and the risks relating to the key parameters have been assessed and incorporated in the expected future cash flows underpinning the impairment test of goodwill. In addition, the budgets and business plans are based on management's expectations of the current market conditions and future growth expectations. Projections for year four and onwards are based on general market expectations and risks. More specifically, the following main information is used in determining revenue, EBIT and capital expenditure.

Power solutions	Service
Power solution order backlog of EUR 16.0bn as at 31 December 2019	Service order backlog of EUR 17.8bn as at 31 December 2019
Expectations on changing market environment, including future market prices and future development in cost reductions	Expectations on changing market environment, including future market prices and future development in cost reductions
Expectations on future orders received, among other things based on expected market share of the global market outlook	Expectations on continuing servicing the existing installed base of wind turbines as well as future service contracts received, among other things based on expected market share of the global market for all major wind turbine technologies
Expectations on continuing developments in mature and emerging markets including result from development through acquisition of SoWiTec	Capture full potential and accelerate profitable growth strategy from acquisition of UpWind Solution, Inc., Availon GmbH and Utopus Insight, Inc.
Expectations on support schemes in both mature and emerging markets	Growth supported by market developments and organic growth

Recoverable amount
The terminal value beyond the projections is determined taking into account general growth expectations for the segments in question. Long-term growth rate has been estimated at 2 percent.

The table below specifies the key parameters used in the impairment model:

	2019			2018		
	Discount rate before tax (%)	Growth rate in terminal period (%)	Carrying amount of goodwill (mEUR)	Discount rate before tax (%)	Growth rate in terminal period (%)	Carrying amount of goodwill (mEUR)
Power solutions	9.8	2	185	10.0	2	180
Service	9.8	2	201	10.0	2	199

3.5 Investments in joint ventures and associates

Vestas accounting policies
Entities over which Vestas has significant influence, but not control or joint control are recognised as associates. A joint venture is an arrangement in which Vestas has joint control. Joint ventures and associates are accounted for using the equity method. Under the equity method, interests in joint ventures and associates are initially recognised at cost and adjusted thereafter to recognise Vestas' share of the post-acquisition profits or losses and movements in other comprehensive income. When Vestas' share of losses in a joint venture and associate equals or exceeds its interests in the joint ventures and associates (which includes any long-term interests that, in substance, form part of Vestas' net investment in the joint ventures and associates), the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the joint ventures and associates.

Timing in revenue recognition may be different between Vestas and joint ventures and associates where Vestas recognises revenue when control of the wind turbines have been transferred to joint ventures and associates but joint ventures and associates do not recognise revenue until they have transferred the risk of the same wind turbines to the end customer. Such timing difference results in 50 percent of Vestas' profit from wind turbines delivered being eliminated in the net result from joint ventures and associates, until joint ventures and associates have recognised their revenue. This timing difference may vary between quarters and year end but will even out over time.

Unrealised gains on transactions between Vestas and its joint ventures and associates are eliminated to the extent of Vestas' interest in the joint ventures and associates. Unrealised losses are also eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of the joint ventures and associates have been changed where necessary to ensure consistency with the policies adopted by Vestas.

The amounts recognised in the balance sheet are as follows:

mEUR	2019	2018
Investments in joint ventures	112	189
Investments in associates	57	44
Carrying amount as at 31 December	**169**	**233**

The amounts recognised in the income statement are as follows:

mEUR	2019	2018
Joint ventures	5	40
Associates	(2)	-
Income/(loss) from investments in joint ventures and associates	**3**	**40**

The proportionate share of the results of investments accounted for using the equity method after tax and elimination of the proportionate share of intercompany profits/losses is recognised in the consolidated income statement.

Investments in joint ventures and associates

	Joint ventures		Associates	
mEUR	**2019**	**2018**	**2019**	**2018**
Cost as at 1 January	290	282	45	2
Additions	64	8	24	43
Disposals	(94)	-	-	-
Carrying amount at 31 December	**260**	**290**	**69**	**45**
Value adjustments as at 1 January	(101)	(133)	(1)	(1)
Proceeds from sale of projects	(68)	(10)	-	-
Share of profit/(loss)	5	40	(2)	-
Share of other comprehensive income	(46)	(1)	(9)	-
Effect of exchange rate adjustment	(1)	3	-	-
Disposals	63	-	-	-
Value adjustments as at 31 December	**(148)**	**(101)**	**(12)**	**(1)**
Carrying amount as at 31 December	**112**	**189**	**57**	**44**

3.5 Investments in joint ventures and associates (continued)

The joint ventures and associates listed below are material to Vestas and have share capital consisting solely of ordinary shares, which are held directly by Vestas.

Name of entity	Place of business	% of ownership	Measurement method	Investment type
MHI Vestas Offshore Wind A/S	Aarhus, Denmark	50	Equity	Joint venture
Blakilden Fäbodberget Holding AB	Solna, Sweden	40	Equity	Associate

MHI Vestas Offshore Wind A/S
In Vestas' share of profit from the joint venture, income resulting from the sale of wind turbines to the joint venture is recognised in Vestas' financial statements only to the extent that the joint venture has sold the wind turbines to unrelated parties. The share of profit from the joint venture on a standalone basis amounts to EUR 3m (2018: EUR 13m). MHI Vestas Offshore Wind A/S (MVOW) is a private company and there is no quoted market prices available for its shares.

The carrying amount of the investment in MVOW is mainly comprised of the development project of the 8 MW platform. With reference to page 031, MVOW's order backlog amounts to 2,870 MW. Order intake in 2019 has been limited. The valuation of MVOW assumes order intake for revenue recognition in the periods 2023-2026 which has not yet been secured. Any change to such future expectation on future performance may in nature result in impairment of the carrying amount of the investment in MVOW.

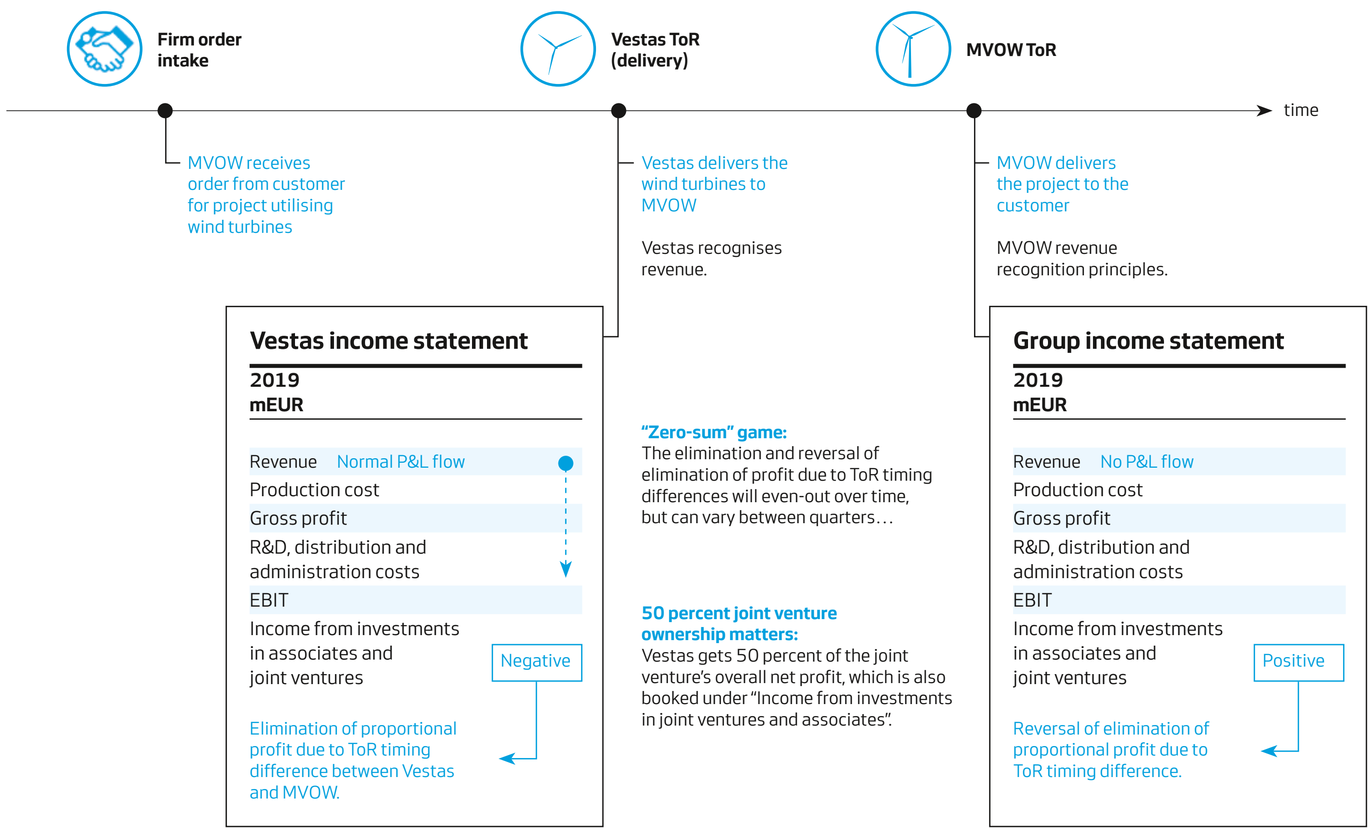
Other joint ventures and associates
In January 2019, Vestas has entered into a strategic co-development partnership with Tenaska Missouri Matrix Wind Holdings, LLC (Tenaska) forming the shared ownership of 30 percent (owned by Vestas) and 70 percent (owned by Tenaska) in Kings Point Wind Holdings, LLC and North Fork Ridge Wind Holdings, LLC with equal voting rights. Vestas contributed EUR 13m into each joint venture.

In April 2019, Vestas has contributed EUR 27m into a strategic co-development partnership with APEX Clean Energy Holdings, LLC (APEX) forming the equally shared ownership in Neosho Ridge Wind JV, LLC.

In December 2019, Vestas has acquired the counterpart interest in Roaring Fork Wind, LLC increasing the ownership to 100 percent. The acquisition was recognised in the financial statements as purchase of assets.

Illustrative example of how income statement is impacted by MHI Vestas Offshore Wind A/S (MVOW)

Transfer of risk (ToR) timing differences between Vestas and MVOW may result in fluctuations in income statements annually, which will even-out over time.
The 50 percent ownership structure is what matters in the long-run.



3.5 Investments in joint ventures and associates (continued)

Commitments and contingent liabilities in respect of joint ventures
Ref. to note 3.7 Contingent assets and liabilities for significant commitments and/or contingent assets and liabilities relating to Vestas' interest in the joint ventures.

Summarised financial information for joint ventures and associates
Set out below is the summarised financial information for joint ventures and associates which are accounted for using the equity method. The information below reflect the amounts presented in the financial statements of the joint ventures (and not Vestas' share of those amounts) material to Vestas. Other joint ventures and associates that are individually and aggregated immaterial to Vestas, have not been included in the summarised financial information.

Summarised balance sheet

	Joint venture, 50 percent		Associate, 40 percent	
	MHI Vestas Offshore Wind A/S		Blakliden Fäbodberget Holding AB	
mEUR	**2019**	**2018**	**2019**	**2018**
Current				
Cash and cash equivalents	84	204	3	3
Other current assets (excluding cash)	1,052	933	0	6
Total current assets	1,136	1,137	3	9
Other current liabilities (including trade and other payables and provisions)	(1,480)	(1,355)	(38)	(10)
Total current liabilities	(1,480)	(1,355)	(38)	(10)
Non-current				
Total non-current assets	651	492	81	31
Total non-current liabilities	(159)	(38)	(75)	(32)
Net assets	**148**	**236**	**(29)**	**(2)**

Summarised statement of comprehensive income

	Joint venture, 50 percent		Associate, 40 percent	
	MHI Vestas Offshore Wind A/S		Blakliden Fäbodberget Holding AB	
mEUR	**2019**	**2018**	**2019**	**2018**
Revenue	1,435	1,112	-	-
Depreciation and amortisation	(124)	(93)	-	-
Interest income	-	-	-	-
Interest cost	(2)	-	(4)	-
Profit before tax	25	(13)	(5)	(2)
Income tax	(19)	39	0	0
Post-tax profit from continuing operations	6	26	(5)	(2)
Other comprehensive income	(94)	(2)	(22)	-
Total comprehensive income	**(88)**	**24**	**(27)**	**(2)**

Reconciliation of summarised financial information
Reconciliation of the summarised financial information presented to the carrying amount of its interest in the joint ventures and associates.

	Joint venture, 50 percent		Associate, 40 percent	
	MHI Vestas Offshore Wind A/S		Blakliden Fäbodberget Holding AB	
mEUR	**2019**	**2018**	**2019**	**2018**
Opening net assets as at 1 January	236	212	(2)	0
Profit/(loss) for the year	6	26	(5)	(2)
Other comprehensive income	(94)	(2)	(22)	-
Closing net assets	**148**	**236**	**(29)**	**(2)**
Interest in joint venture and associate (ownership of net assets)	74	118	(12)	(1)
Re-assessment of milestone payments, gain consideration and other adjustments	(3)	(3)	47	44
Carrying value	**71**	**115**	**35**	**43**

3.6 Provisions

Vestas accounting policies
Provisions are recognised when as a consequence of a past event Vestas has a legal or constructive obligation and it is probable that there will be an outflow of Vestas' financial resources to settle the obligation.

Provisions are measured at management's best estimate of the costs required to settle the obligation. Discounting is applied where relevant.

Vestas accrues for the estimated cost of the warranty upon recognition of the sale of the product. The costs are estimated based on actual historical costs incurred and on estimated future costs related to current sales, and are updated periodically. Actual warranty costs are charged against the provision for warranty.

Restructuring costs are recognised as liabilities when a detailed, formal restructuring plan has been announced to those affected no later than the balance sheet date.

A provision for loss-making contracts is made where the expected benefits to Vestas from the contract are lower than the unavoidable costs of meeting obligations under the contract. Loss making construction contracts in progress are, however, recognised in construction contracts in progress.

Provision for legal disputes are recognised where a legal or constructive obligation has been incurred as a result of past events and it is possible that there will be an outflow of resources that can be reliably estimated. In this case, Vestas arrives at an estimate on the basis of an evaluation of the most likely outcome. Disputes for which no reliable estimate can be made are disclosed as contingent liabilities, ref. note 3.7.

Key accounting estimates
Provisions for warranties
The product warranties, which in the great majority of cases includes component defects and functional errors and agreed financial losses suffered by the customer in connection with unplanned suspension of operations, are usually granted for a two-year period from legal transfer of the wind turbine. In certain cases, a warranty of up to five years is provided. For the customer, the specific warranty period and the specific warranty terms are part of the basis of the individual contract.

Warranty provisions include only standard warranty, whereas services purchased in addition to the standard warranty are included in the service contracts.

In addition to the above, provisions are made for upgrades of wind turbines sold due to serial defects, etc. Such provisions will also include wind turbines sold in prior years, but where serial defects, etc. are identified later. Moreover, it should be emphasised that the complexity of some of the serial defects, etc. identified may lead to adjustments of previous estimates, upwards as well as downwards, in light of factual information about population size, costs of repair and the timing of such repairs.

It is estimated that 20-25 percent of the warranty provisions made for the year relate to adjustments of previous years' estimates of provisions for serial defects, etc. Included in this, is the cost of upgrades of wind turbines sold in the previous year, commercial settlements and proactive upgrading as well as new information about the serial type faults in question.

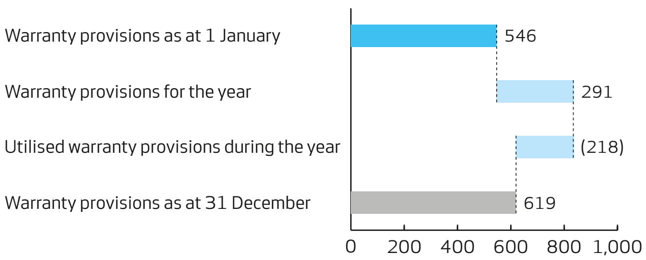
Total warranty provisions of EUR 291m have been made in 2019 (2018: EUR 161m), corresponding to 2.4 percent (2018: 1.6 percent) of Vestas' revenue.

Management assesses the likely outcome of pending and future negotiations with sub-suppliers for compensation. Compensation from sub-suppliers may be recognised only when it is virtually certain that we will receive compensation from the sub-suppliers.

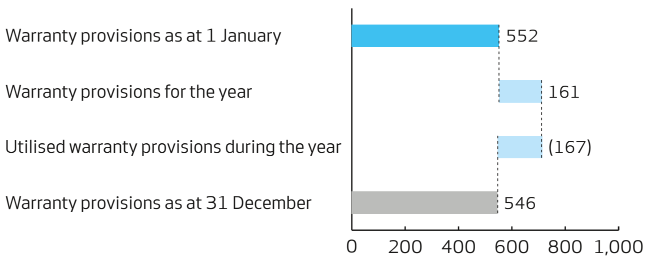
The carrying amount of warranty provisions was EUR 619m as at 31 December 2019 (2018: EUR 546m).

mEUR	2019	2018
Non-current provisions		
Warranty provisions	405	431
Other provisions	54	60
	459	**491**
Current provisions		
Warranty provisions	214	115
Other provisions	7	11
	221	**126**
Total provisions	**680**	**617**

Warranty provisions 2019
mEUR



Warranty provisions 2018
mEUR



3.6 Provisions (continued)

mEUR	2019	2018
The warranty provisions are expected to be consumed as follows:		
0–1 year	214	115
>1 year	405	431
	619	**546**

In line with accounting policies, potential product warranties are recognised as warranty provisions when revenue from the sale of wind turbines and wind power plants is recognised.

Product risks
Lack of reliability in several of Vestas' products has previously led to major warranty provisions. In recent years, Vestas has invested significant resources in improving the products and increasing their reliability to mitigate major warranty provisions. This work comprises design, production, installation, and continuous maintenance.

The goal of these initiatives is to reduce Vestas' warranty costs, to secure customer returns, to increase the competitiveness of the products, and to improve customer earnings.

OTHER PROVISIONS		
Other provisions as at 1 January	71	65
Exchange rate adjustments	0	(4)
Other provisions for the year	8	50
Utilised other provisions during the year	(9)	(16)
Reversed other provisions during the year	(9)	(24)
Other provisions as at 31 December	**61**	**71**

Other provisions consist of various types of provisions, including provisions for legal disputes and provisions for onerous service contracts.

Other provisions are expected to be payable as follows:		
0–1 year	7	11
> 1 year	54	60
	61	**71**

3.7 Contingent assets, liabilities, and contractual obligations

Guarantees and indemnities
Vestas provides guarantees and indemnities for bank and bonding facilities to third parties on behalf of joint ventures with a notional amount of EUR 394m (2018: EUR 436m). In addition, Vestas provides indemnities to third parties on behalf of joint ventures related to project supplies and warranty obligations to customers, with a notional amount of EUR 4,445m (2018: EUR 4,451m). No guarantees have been utilised during 2019 or in previous years and none of the indemnities are expected at the balance sheet date to be utilised.

Contingent liabilities
On 31 July 2017, General Electric (GE) filed a complaint against Vestas Wind System A/S and Vestas-American Wind Technology, Inc. (Vestas) in the US federal court in Los Angeles, California. With reference to the press release of 25 June 2019, Vestas and GE have reached an amicable settlement of all disputes related to multiple patent infringement claims in the U.S., resulting in the discontinuation of the case pending in the U.S. District Court for the Central District of California as well as all other pending proceedings related to the patents-in-suit. With this settlement, any past infringements of the patents-in-suit are fully released. In addition, the settlement includes a cross-license to the patents-in-suit and their family members, as well as a confidential payment from Vestas to GE. The cross-license applies globally to the parties' and their affiliates' respective onshore and offshore wind power businesses and ensures that they can use the technology covered by such patents. The financial impact of the settlement is reflected in these financial statements.

Vestas has entered into binding contracts concerning purchase of property, plant and equipment to be delivered in 2020 and future periods at a value of EUR 43m (2018: EUR 68m).

Vestas is involved in some other litigation proceedings. However, it is management's opinion that settlement or continuation of these proceedings will not have a material effect on the financial position of the Group.

Ref. note. 5.2 concerning contingent liabilities on transfer pricing.

Contingent assets
Vestas has made supplier claims for faulty deliveries. However, it is management's opinion that settlement of these are not virtually certain, and therefore not recognised in the financial position of Vestas, except for supplier claims accounted for as other receivables, ref. note 2.5.

4. Capital structure and financing items

4.1 Share capital

Vestas accounting policies
Treasury shares
Treasury shares are deducted from the share capital upon cancellation at their nominal value of DKK 1.00 per share. Differences between this amount and the amount paid to acquire or received for sale of treasury shares are deducted directly in equity.

Dividend
A proposed dividend is recognised as a liability at the time of adoption at the Annual General Meeting (declaration date). The proposed dividend for the year is included in retained earnings.

For the financial year 2019, the Board of Directors of Vestas Wind Systems A/S (the Board) proposes to distribute a dividend of DKK 7.93 (EUR 1.06) per share, corresponding to total EUR 211m. Dividends of EUR 197m, net of treasury shares, have been paid in 2019, relating to the financial year 2018.

Share capital

	2019	2018
The share capital comprises 198,901,963 shares of DKK 1.00		
Number of shares as at 1 January	205,696,003	215,496,947
Cancellation	(6,794,040)	(9,800,944)
Number of shares as at 31 December	**198,901,963**	**205,696,003**
Shares outstanding	195,342,514	197,277,143
Treasury shares	3,559,449	8,418,860
Number of shares as at 31 December	**198,901,963**	**205,696,003**

During 2016, there was reduction of share capital by DKK 2,529,786 nominally by cancelling 2,529,786 shares from Vestas' holding of treasury shares. During 2017 there was a reduction of share capital by DKK 6,047,780 nominally by cancelling 6,047,780 shares from Vestas' holding of treasury shares. During 2018 there was a reduction of share capital by DKK 9,800,944 nominally by cancelling 9,800,944 shares from Vestas' holding of treasury shares. During 2019, there was a reduction of share capital by DKK 6,974,040 nominally by cancelling 6,794,040 shares from Vestas' holding of treasury shares. Except for these four transactions, the share capital has not changed in the period 2015-2019.

All shares rank equally.

Treasury shares

	2019 Number of shares / Nominal value (DKK)	2018 Number of shares / Nominal value (DKK)	2019 % of share capital	2018 % of share capital
Treasury shares as at 1 January	8,418,860	11,843,929	4.2	5.8
Purchases	2,302,859	6,962,324	1.2	3.4
Cancellation	(6,794,040)	(9,800,944)	(3.4)	(4.8)
Vested treasury shares	(368,230)	(586,449)	(0.2)	(0.3)
Treasury shares as at 31 December	**3,559,449**	**8,418,860**	**1.8**	**4.1**

Pursuant to the Annual General Meeting on 3 April 2019, Vestas Wind Systems A/S adopted the proposal to reduce Vestas' share capital by nominally DKK 6,794,040 by cancelling 6,794,040 shares from Vestas' holding of treasury shares. The reduction of the share capital was completed and registered on 7 May 2019.

Further, pursuant to authorisation granted to the Board by the Annual General Meeting on 3 April 2019, which authorised Vestas to acquire treasury shares at a nominal value not exceeding 10 percent of the share capital at the time of authorisation, Vestas initiated a share buy-back programme on 7 November 2019. It was completed on 20 December 2019.

The purpose of the share buyback programme was to adjust Vestas' share capital and to meet obligations arising from the share based incentive programmes to employees of Vestas.

At Vestas' Annual General Meeting in 2020, a resolution will be proposed that 1,977,848 shares out of Vestas' holding of 3.6m treasury shares should be cancelled.

4.1 Share capital (continued)

Vestas Wind Systems A/S has acquired treasury shares as follows:

	2019	2018
Average share price, purchases (DKK)	651	431
Purchase amount (mEUR)	201	402

Treasury shares are acquired to cover issues of shares under Vestas' incentive programmes or as part of its capital structure strategy.

The share capital has been fully paid.

Net proposed cash distribution to shareholders

mEUR	2019	2018
Dividend [1]	207	197

1) Dividend excluding treasury shares.

4.2 Earnings per share

	2019	2018
Profit for the year (mEUR) - owners of Vestas Wind Systems A/S	**704**	**683**
Weighted average number of ordinary shares	201,259,458	208,989,763
Weighted average number of treasury shares	(3,883,307)	(8,374,233)
Weighted average number of ordinary shares outstanding	197,376,151	200,615,530
Dilutive effect of restricted performance shares	791,145	905,560
Average number of shares outstanding including restricted performance shares	**198,167,296**	**201,521,090**
Earnings per share, EPS (EUR)	3.57	3.41
Earnings per shares, diluted, EPS-D (EUR)	3.55	3.39

4.3 Financial items

Group accounting policies
Financial items comprise interest income and costs, realised and unrealised foreign exchange gains and losses, gains and losses related to derivatives used to hedge assets and liabilities and ineffective part of derivatives used to hedge future cash flows.

Financial income

mEUR	2019	2018
Interest income	39	15
Hedging instruments	1	1
Other financial income	0	1
	40	**17**

Financial costs

mEUR	2019	2018
Interest costs	40	22
Interest on lease liabilities	7	-
Foreign exchange losses	75	30
Other financial costs	16	16
	138	**68**

CONTENTS
IN BRIEF
WHO WE ARE
STRATEGY AND AMBITIONS
GROUP PERFORMANCE
SUSTAINABILITY
VESTAS PEOPLE
GOVERNANCE
CONSOLIDATED FINANCIAL STATEMENTS
STATEMENTS
VESTAS WIND SYSTEMS A/S

4.4 Cash and cash equivalents

mEUR	2019	2018
Cash and cash equivalents without disposal restrictions	2,864	2,886
Cash and cash equivalents with disposal restrictions	24	32
Cash and cash equivalents as at 31 December	**2,888**	**2,918**

Cash and cash equivalents included in Vestas' cash management comprise cash on hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value, and bank overdrafts.

Cash and cash equivalents with disposal restrictions are included in day-to-day cash management and fulfills the criteria as cash and cash equivalents. Cash with disposal restrictions include cash pledged to guarantee providers as security for guarantee obligations in order to obtain lower commission rates and thereby obtain yield pick up on Vestas' cash holdings.

4.5 Financial assets and liabilities

Carrying amounts of Vestas' financial assets and liabilities are presented below according to their nature.

					Categories of financial instruments		
2019 mEUR	**Note**	**Total carrying amount in the balance sheet**	**Carrying amount non-financial instruments**	**Carrying amount financial instruments**	**Fair value - hedging instruments**	**Fair value through profit or loss**	**Amortised cost**
Financial assets, non-current and current							
Other investments [1)]		65	-	65	-	51	14
Financial investments [2)]		384	-	384	-	100	284
Foreign currency derivatives [3)]		179	-	179	179	-	-
Commodity derivatives [3)]		3	-	3	3	-	-
Other receivables		655	513	142	-	-	142
Other receivables and derivative financial instruments	2.5	837	513	324	182	-	142
Trade receivables	4.7	1,460	-	1,460	-	-	1,460
Contract assets	2.3, 4.7	528	-	528	-	-	528
Cash and cash equivalents	4.5	2,888	-	2,888	-	-	2,888
Total financial assets, non-current and current		**6,162**	**513**	**5,649**	**182**	**151**	**5,316**
Financial liabilities, non-current and current							
Financial debts [4)]		820	-	820	-	-	820
Foreign currency derivatives [3)]		185	-	185	184	1	-
Other liabilities		591	492	99	-	-	99
Other liabilities and derivative financial instruments	2.6	776	492	284	184	1	99
Trade payables		3,101	-	3,101	-	-	3,101
Contingent consideration		18	-	18	-	18	-
Total financial liabilities, non-current and current		**4,715**	**492**	**4,223**	**184**	**19**	**4,020**

1) Other investments include investments in non-listed equity shares and rental deposits. The equity investments were irrevocably designated at fair value through profit and loss.
2) Financial investments comprise marketable securities managed on a fair value basis with a continuously observation of their performance and short-term deposits.
3) Foreign currency and commodity derivatives, designated as cash flow hedges to hedge highly probable forecast sales and purchases are measured at fair value as hedging instruments. Foreign currency forward contracts also comprise fair value hedges of firm commitments.
4) Financial debts comprise the green corporate eurobond with a fixed interest rate of 2.75 percent (EUR 498m), SoWiTec bond with a fixed interest rate of 6.75 percent (EUR 15m), leasing liabilities (EUR 198m) and other credit facilities (EUR 109m).

4.5 Financial assets and liabilities (continued)

Carrying amounts of Vestas' financial assets and liabilities are presented below according to their nature.

2018 mEUR	Note	Total carrying amount in the balance sheet	Carrying amount non-financial instruments	Carrying amount financial instruments	Categories of financial instruments Fair value - hedging instruments	 Fair value through profit or loss	 Amortised cost
Financial assets, non-current and current							
Other investments [1]		35	-	35	-	23	12
Financial investments [2]		626	-	626	-	204	422
Foreign currency derivatives [3]		166	-	166	166	-	-
Commodity derivatives [3]		-	-	-	-	-	-
Other receivables		428	326	102	-	-	102
Other receivables and derivative financial instruments	2.5	594	326	268	166	-	102
Trade receivables	4.7	967	-	967	-	-	967
Contract assets	2.3, 4.7	330	-	330	-	-	330
Cash and cash equivalents	4.5	2,918	-	2,918	-	-	2,918
Total financial assets, non-current and current		**5,470**	**326**	**5,144**	**166**	**227**	**4,751**
Financial liabilities, non-current and current							
Financial debts [4]		498	-	498	-	-	498
Foreign currency derivatives [3]		121	-	121	119	2	-
Commodity derivatives [3]		2	-	2	2	-	-
Other liabilities		494	251	243	-	-	243
Other liabilities and derivative financial instruments	2.6	617	251	366	121	2	243
Trade payables		2,403	-	2,403	-	-	2,403
Contingent consideration		14	-	14	-	14	-
Total financial liabilities, non-current and current		**3,532**	**251**	**3,281**	**121**	**16**	**3,144**

1) Other investments include investments in non-listed equity shares. These investments were irrevocably designated at fair value through profit and loss.
2) Financial investments comprise marketable securities managed on a fair value basis with a continuously observation of their performance. and short-term deposits.
3) Foreign currency and commodity derivatives, designated as cash flow hedges to hedge highly probable forecast sales and purchases are measured at fair value as hedging instruments. Foreign currency forward contracts also comprise fair value hedges of firm commitments.
4) Financial debts comprise the green corporate eurobond with a fixed interest rate of 2.75 percent and maturity in March 2022.

Carrying amount of Vestas' financial debt and movement in 2019 are presented below.

mEUR	Lease liabilities	Issued bonds	Credit facilities	Total
Balances as at 1 January 2019 [1]	-	498	-	498
Impact on change in accounting policy (IFRS 16)	208	-	-	208
Adjusted balances as at 1 January 2019	208	498	-	706
Addition from business combination	-	15	19	34
Additions including transfers	72	-		72
Proceeds from borrowings	-	-	100	100
Payments	(61)		(8)	(69)
Lease liabilities terminated	(19)	-	-	(19)
Exchange rate adjustments	(2)	-	(2)	(4)
Balances as at 31 December 2019	**198**	**513**	**109**	**820**

1) Financial debt at 1 January 2018 amounted to EUR 497m and was related to issued bond.

4.6 Financial risk management

Vestas' policy for managing financial risks

Managing financial risks are an inherent part of Vestas' operating activities through its international operations. Vestas is exposed to a number of financial risks, why the monitoring and control of financial risks is important for Vestas. Management has assessed the following as Vestas' key financial risks.

Financial risk	How Vestas manages the risk
Liquidity risk	Availability of committed credit lines and borrowing facilities
Credit risk	Diversification of bank exposure, credit limits and guarantees
Market risk, foreign exchange	Currency forward contracts and currency swaps
Market risk, interest risk	Fixed interest loans
Market risk, commodity price	Fixed price agreements with suppliers and financial commodity contracts

The financial risks are managed centrally and the overall objectives and policies for Vestas' financial risk management are outlined in the Treasury Policy. The Treasury Policy is approved by the Board, and revised on a continuous basis to adapt to the changing financial risks and market situation.

The Treasury Policy sets the limits for the various financial risks as well as Vestas policy of only hedging commercial exposures and not entering into any speculative transactions.

For information on Vestas' financial and capital structure strategy, please ref. to page 015.

Liquidity risks

Vestas manages its liquidity risks according to the Treasury Policy and ensures to have sufficient financial resources to service its financial obligations. Financial resources are managed through a combination of cash on bank account and money market deposits, committed credit facilities, and highly rated marketable securities. The liquidity is managed and optimised centrally by using cash pools and in-house bank solutions.

Vestas' main credit facility, a EUR 1,150m revolving credit facility, was refinanced in June 2017. The facility has a five-year duration with an option, at the lenders' discretion, to extend the maturity one additional year at a time. The facility was extended in 2018 and 2019. It has a sublimit of EUR 550m for cash drawings, while the total of EUR 1,150m is available for guarantees. The revolving credit facility is subject to a change of control clause resulting in repayment of the credit facility in the event of change in control. The revolving credit facility is subject to covenants and no breaches have been encountered throughout the year.

Vestas' liquidity position and available credit facilities are shown below.

mEUR	Note	2019	2018
Liquidity position			
Financial investments	4.6	384	626
Cash and cash equivalents	4.5	2,888	2,918
Credit facilities			
Main credit facility		550	550
Other credit facilities		-	13
Total available financial resources		**3,822**	**4,107**

4.6 Financial risk management (continued)

The following table details Vestas's contractual maturities of financial assets and liabilities including interests at the reporting date as Vestas manage liquidity risks on a net basis.

2019 mEUR	Note	Carrying amount financial instruments	Contractual cash flows Total	0-1 year	1-2 years	>2 years
Financial assets, non-current and current						
Other investments		65	65	-	-	65
Financial investments		384	412	174	113	125
Foreign currency derivatives		179	179	151	28	-
Commodity derivatives		3	3	3	-	-
Other receivables		142	142	112	25	5
Other receivables and derivative financial instruments		324	324	266	53	5
Trade receivables		1,460	1,460	1,460	-	-
Contract assets		528	528	528	-	-
Cash and cash equivalents		2,888	2,888	2,888	-	-
Total financial assets, non-current and current		**5,649**	**5,677**	**5,316**	**166**	**195**
Financial liabilities, non-current and current						
Financial debts		820	883	181	62	640
Foreign currency derivatives		185	185	154	31	0
Commodity derivatives		-	-	-	-	-
Other liabilities		99	107	59	-	48
Other liabilities and derivative financial instruments		284	292	213	31	48
Trade payables		3,101	3,101	3,101	-	-
Contingent consideration		18	18	-	18	-
Financial guarantee contracts [1]	3.7	-	4,839	4,839	-	-
Total financial liabilities, non-current and current		**4,223**	**9,133**	**8,334**	**111**	**688**

1) Financial guarantee contracts comprise the maximum amounts Vestas would have to settle if the guaranteed amount is claimed by the counterparty. Based on management expectations, it is assessed highly likely that the amount will not be payable as of the end of the reporting period.

2018 mEUR	Note	Carrying amount financial instruments	Contractual cash flows Total	0-1 year	1-2 years	>2 years
Financial assets, non-current and current						
Other investments		35	35	-	-	35
Financial investments		626	648	425	9	214
Foreign currency derivatives		166	166	134	30	2
Commodity derivatives		-	-	-	-	-
Other receivables		102	102	55	47	-
Other receivables and derivative financial instruments		268	268	189	77	2
Trade receivables		967	967	967	-	-
Contract assets		330	330	330	-	-
Cash and cash equivalents		2,918	2,918	2,918	-	-
Total financial assets, non-current and current		**5,144**	**5,166**	**4,829**	**86**	**251**
Financial liabilities, non-current and current						
Financial debts		498	556	14	14	528
Foreign currency derivatives		121	121	100	19	2
Commodity derivatives		2	2	2	0	-
Other liabilities		243	243	195	1	47
Other liabilities and derivative financial instruments		366	366	297	20	49
Trade payables		2,403	2,403	2,403	-	-
Contingent consideration		14	14	-	-	14
Financial guarantee contracts [1)]	3.7	-	4,887	4,887	-	-
Total financial liabilities, non-current and current		**3,281**	**8,226**	**7,601**	**34**	**591**

1) Financial guarantee contracts comprise the maximum amounts Vestas would have to settle if the guaranteed amount is claimed by the counterparty. Based on management expectations, it is assessed highly likely that the amount will not be payable as of the end of the reporting period.

Credit risks
Vestas ensures that the credit risks are managed according to the Treasury Policy. Vestas is exposed to credit risks arising from cash and cash equivalents, including money market deposits and money market funds, investments in marketable securities, derivative financial instruments, and trade and other receivables. The Treasury Policy sets forth limits for the credit risk exposure based on the counterparty's credit rating for financial institution counterparties and mitigating actions for other counterparties.

As at 31 December 2019, Vestas considers the maximum credit risk to financial institution counterparties to be EUR 3,303m (2018: EUR 3,556m). The total credit risk is considered to be EUR 5,489m (2018: EUR 4,955m).

Trade receivables and contract assets
Trade receivables are mainly with counterparties within the energy sector. The credit risk is among other things dependent on the development within this sector and the country in which the individual customer operates.

Upon signing a contract for individual wind turbines and wind power plants with a customer, a prepayment is received. The remaining contract amounts are usually based on instalments during different stages of the project.

Payment terms for service contracts with customers are usually based on equal instalments over the duration of the contract. Payments are typically due one month after issuance of the invoice. Vestas does not expect to have any contracts where the period between the transfer of the promised goods or services to the customer and payment by the customer exceeds one year. Therefore, Vestas does not adjust any of the transaction prices for the time value of money.

Trade receivables from customers are grouped based on loss patterns in assessing expected credit losses. Contract assets are grouped with trade receivables as these relate to unbilled work in progress with same credit risk as trade receivables. An allowance matrix based on past due dates is used in measuring expected lifetime credit losses, where current and forward-looking information including geographical risk, the level of security obtained and an individual assessment has been applied together with historical loss rates.

The past due analysis and determined write-downs of Vestas' trade receivables and contracts assets are set out in the following tables.

mEUR	2019	2018
Not overdue	1,709	1,135
0-60 days overdue	184	101
61-120 days overdue	33	22
121-180 days overdue	28	14
More than 180 days overdue	66	50
Gross trade receivables and contract assets	2,020	1,322
Write-downs as at 31 December	(32)	(25)
Net trade receivables and contract assets as of 31 December	**1,988**	**1,297**

mEUR	2019	2018
Write-downs as at 1 January	(25)	(40)
Reversal of write-downs	9	33
Write-downs realised	0	0
Write-downs in the year	(16)	(18)
Write-downs as at 31 December	**(32)**	**(25)**

As of 31 December 2019, Vestas' trade receivables and contract assets divided on geographical areas can be specified as follows: 31 percent in Northern and Central Europe, 28 percent in Southern Europe and South America, 25 percent in North America and 10 percent in the Asia Pacific area and 5 percent in China.

No single customer accounts for more than 10 percent of Vestas' total trade receivables as of 31 December 2019 (2018: 0 percent).

The commercial credit risk relating to the outstanding trade receivables balance as at 31 December was mitigated by EUR 254m (2018: EUR 225m) received as security. Historically, Vestas has not incurred significant losses on trade receivables.

Financial instruments and cash deposits

Group Treasury manages balances with financial institutions and the associated credit risk in accordance with Vestas' Treasury Policy assessing the individual counterparty's credit rating.

90 percent of Vestas' exposure towards financial institutions are with counterparties with a credit rating in the range of A to AAA.

Vestas has entered into ISDA agreements with all financial institution counterparties used for trading derivative financial instruments under which Vestas has a right to set-off should certain credit events occur, which means that Vestas' actual credit risk is limited to the net assets per counterparty.

The following table details financial assets and liabilities which are subject to netting in case of certain credit events.

2019 mEUR	Note	Carrying amount balance sheet	Netting agreements not offset in the balance sheet	Net amount
Foreign currency derivatives	4.6	179	(127)	52
Financial assets		**179**	**(127)**	**52**
Foreign currency derivatives	4.6	185	(127)	58
Financial liabilities		**185**	**(127)**	**58**

2018 mEUR	Note	Carrying amount balance sheet	Netting agreements not offset in the balance sheet	Net amount
Foreign currency derivatives	4.6	166	(99)	67
Financial assets		**166**	**(99)**	**67**
Foreign currency derivatives	4.6	121	(99)	22
Financial liabilities		**121**	**(99)**	**22**

4.6 Financial risk management (continued)

Market risks

Vestas is exposed to various market risks with the main risks comprising foreign currency risks, interest rate risks and commodity price risks. All market risks are managed in accordance with the Treasury Policy.

Foreign currency risks

The international business activities of Vestas involve foreign currency risks, meaning that Vestas's income statement, balance sheet and cash flows are exposed to foreign currency risks. The foreign currency exposures arise primarily from purchases of materials and sale of wind turbines and service agreements where these transactions are not made in the functional currency of the entity making the transaction.

Vestas' objective when managing foreign currency risks is to reduce the short-term fluctuations in the income statement and to increase the predictability of the financial results.

The foreign currency risks are reduced by purchasing and producing in local markets and by hedging the exposure in each individual currency according to the Treasury Policy.

Vestas hedges foreign currency exposures related to its wind turbine order backlog. It is Vestas' aim to hedge between 80 percent and 100 percent of the consolidated committed exposure. For committed exposure with duration of more than 18 months, hedging is done based on a roll over strategy. Vestas furthermore has the aim to hedge between 90 percent and 100 percent of all transaction exposures.

Vestas distinguishes between entities in restricted and un-restricted countries, when determining the level of exposure to be hedged. Foreign currency risks related to long-term investments and the service business are not hedged based on an overall risk, liquidity and cost perspective.

Foreign currency exposures are primarily hedged through foreign currency forward contracts and foreign currency swaps. Vestas hedge strategy is to centralise foreign currency exposure in Vestas Wind Systems A/S through internal contracts and trade the net currency exposures in the market.

The majority of Vestas's sales are in USD and EUR. The EUR exchange rate risk is regarded as low in Danish entities due to Denmark's fixed exchange rate policy towards EUR. EUR sales outside Europe are limited. Vestas largest currency exposure relates to USD due to the significant business activity in the Americas region. The nature of the project business changes the foreign currency risk picture towards specific currencies from one year to another, depending on the geographical areas in which Vestas has activity. In 2019 the company experienced a substantial increase in USD exposure due to high order intake. The order backlog in Americas amounted to 10,593 MW as at 31 December 2019, compared to 6,038 MW as at 31 December 2018. The committed USD exposure amounted to EUR (67)m after hedging as at 31 December 2019.

The sensitivity analysis below shows the gain/(loss) on net profit for the year and other comprehensive income of a 10 percent increase in the most significant currencies towards EUR. The analysis includes the impact from cash flow hedging instruments on equity before tax but does not comprise the impact from the hedged exposures such as future purchases or sales since these are not recognised in the balance sheet. If the hedged exposures were included the impact from hedge instruments would be offset in their entirety. The below analysis is based on the assumption that all other variables, interest rates in particular, remain constant.

2019 mEUR	Change	Effect on profit/ (loss) before tax	Effect on equity before tax
USD	10%	(9)	(74)
SEK	10%	(2)	(80)
NOK	10%	1	(92)
GBP	10%	(3)	(22)
CNY	10%	(6)	137

2018 mEUR	Change	Effect on profit/ (loss) before tax	Effect on equity before tax
USD	10%	(9)	(98)
SEK	10%	(12)	(132)
NOK	10%	0	(106)
GBP	10%	19	(23)
CNY	10%	(6)	126

Interest rate risks

Vestas ensures that the interest rate risk is managed according to the Treasury Policy. Interest rate risk relates to cash flows from interest-bearing short-term investments in cash and cash equivalents as well as from marketable securities with floating interest rate as well as outstanding interest-bearing debt with floating interest rates.

Vestas has no significant outstanding interest-bearing debt with floating interest, why fluctuations in the market interest rates will not have a significant impact on Vestas.

Commodity price risks

Commodity price risks in Vestas mainly relate to global market fluctuations in prices of raw materials such as copper and steel, which are used directly or indirectly in the production of wind turbines. The commodity price risk can be divided into a direct exposure and an indirect exposure, where the direct exposure is related to purchase of the raw material while the indirect exposure arises from the purchase of a component where the price is linked to raw material prices. The risk is managed in accordance with the Treasury Policy and mainly managed through the procurement process through fixed price agreements with suppliers. Furthermore, Vestas mitigates the commodity exposure by entering into forward contracts to a limited extent.

4.7 Fair value hierarchy

Financial instruments measured at fair value are categorised into the following levels of the fair value hierarchy:

Level 1: Observable market prices for identical instruments.
Level 2: Valuation techniques primarily based on observable prices or traded prices for comparable instruments.
Level 3: Valuation techniques primarily based on unobservable prices.

The table below sets out the carrying amounts and fair values of Vestas' financial instruments in the different levels of the fair value hierarchy. Financial instruments as trade receivables, trade payables and deposits where the carrying amount is a reasonable approximation of the fair value are not disclosed.

2019		Carrying	Fair value			
mEUR	Valuation technique	amount	Total	Level 1	Level 2	Level 3
Other investments [2]	Market prices/Discounted cash flow	51	51	-	42	9
Financial investments	Market prices	100	100	100	-	-
Renewable energy certificates (RECs) [3]		0	0	-	-	0
Foreign currency derivatives [1]	Forward pricing and swap models	179	179	-	179	-
Commodity derivatives [1]	Forward pricing	3	3	-	3	-
Other receivables and derivative financial instruments		182	182	-	182	0
Financial assets		**333**	**333**	**100**	**224**	**9**
Financial debts [5]	Market prices	513	542	542	-	-
Foreign currency derivatives [1]	Forward pricing and swap models	185	185	-	185	-
Other liabilities and derivative financial instruments		185	185	-	185	-
Contingent consideration [4]	Discounted cash flow	18	18	-	-	18
Financial liabilities		**716**	**745**	**542**	**185**	**18**

2018		Carrying	Fair value			
mEUR	Valuation technique	amount	Total	Level 1	Level 2	Level 3
Other investments [2]	Discounted cash flow	23	23	-	-	23
Financial investments	Market prices	204	204	204	-	-
Renewable energy certificates (RECs) [3]		0	0	-	-	0
Foreign currency derivatives [1]	Forward pricing and swap models	166	166	-	166	-
Commodity derivatives [1]	Forward pricing	-	-	-	-	-
Other receivables and derivative financial instruments		166	166	-	166	0
Financial assets		**393**	**393**	**204**	**166**	**23**
Financial debts	Market prices	498	525	525	-	-
Foreign currency derivatives [1]	Forward pricing and swap models	121	121	-	121	-
Commodity derivatives [1]	Forward pricing	2	2	-	2	-
Other liabilities and derivative financial instruments		123	123	-	123	0
Contingent consideration [4]	Discounted cash flow	14	14	-	-	14
Financial liabilities		**635**	**662**	**525**	**123**	**14**

1) Foreign currency contracts and embedded derivatives are measured as Level 2, as the fair value can be established directly based on exchange rates published and interest rate curves and prices specified at the balance sheet date.
2) Other investments in non-listed equity shares are measured at fair value based on Level 2 and 3 input. The level 2 investment is based on recent observable trades between independent parties, why the investment has moved from Level 3 in 2018 to Level 2 in 2019. There have been no new financial investments or disposals in 2019.

4.7 Fair value hierarchy (continued)

3) Vestas has a commitment in the USA to purchase Renewable Energy Certificates (RECs) in 2022 and 10 years beyond based on production of MW in this period at a fixed price. It has been assessed that the contract qualifies as a financial instrument. The fair value measurement is based on level 3 input. The maximum nominal commitment under the contract is estimated at EUR 45m (2018: EUR 44m). Currently RECs are trading at a higher price than the Group's agreed purchase price given current supply/demand conditions. Given the uncertainties underpinning the future market for selling RECs, Management has determined that the best evidence of fair value for the RECs is the transaction price. Consequently, the net fair value of the contract has been measured at EUR 0. Had the estimated market price of the RECs been USD 25.46/MWh (2018: USD 23.25/MWh) in average, the contract would have had a positive value of EUR 61m (2018: EUR 46m) as at 31 December 2019. Had the estimated market price of the RECs been USD 0 (2018: USD 0), the contract would have had a negative value of EUR 39m (2018: EUR 35m) as at 31 December 2019.
4) The contingent consideration from the purchase of Utopus Insights, Inc. is based on revenue for a 3-year discounting period with a discount rate of 13.1 percent. The fair value is based on scenarios with a high probability of full earn-out payment. An increase in the discount rate would result in a lower fair value.
5) Financial debts comprise the green corporate eurobond with a fixed interest rate of 2.75 percent (EUR 498m), SoWiTec bond with a fixed interest rate of 6.75 percent (EUR 15m). Both are valued based on observable market prices for identical instruments.

4.8 Hedge accounting

Risks which were managed by derivative financial instruments in 2019 comprise foreign currency risk and commodity price risk.

Hedging of risks with derivative financial instruments are made with a ratio of 1:1. Any ineffectiveness arising from hedging of foreign currency risks and commodity risks are recognised in financial items. Recognised sources of ineffectiveness are mainly derived from differences in the timing of the cash flows of the hedged items and hedging instruments and changes to the forecasted amount of cash flows of hedged items.

Foreign currency risk
Derivative financial instruments considered as cash flow hedges are designated hedges of forecasted sales and purchases. Cash flow hedges are measured at fair value with changes in the effective part of any gain or loss recognised in other comprehensive income. Any ineffective portions of the cash flow hedges are recognised in the income statement as financial items. Gains or losses on cash flow hedges are upon realisation of the hedged item transferred from the equity hedging reserve into the initial carrying amount of the hedged item.

Firm commitments in foreign currency are designated as fair value hedges and measured with changes in fair value in the income statement as financial items.

In some sales agreements, a foreign currency element is incorporated. In cases where the sales currency is not closely related to the functional currency nor a commonly used currency in the country in which the sales takes place, the foreign currency element is treated as an embedded financial derivative. The embedded financial derivative is designated as a cash flow hedge and included as forward contracts in the tables below.

Commodity price risk
As a part of the turbine production Vestas directly or indirectly purchases raw materials such as copper and steel on an ongoing basis. Due to volatility in the commodity prices, Vestas enters into commodity forward contracts for forecasted purchases.

Vestas held at 31 December 2019 the following derivative financial instruments with the net contract notional amounts for each instrument comprising future purchases and (sales) of foreign currencies:

2019 mEUR	Contract notional amount	Expected recognition		
		2020	2021	After 2021
Foreign currency risk				
Cash flow hedges	**(2,678)**	**(2,268)**	**(374)**	**(36)**
USD	(1,201)	(1,372)	171	-
NOK	(926)	(737)	(189)	-
SEK	(777)	(384)	(357)	(36)
CNY	1,424	1,136	288	-
Other	(1,198)	(911)	(287)	-
Fair value hedges	**(451)**	**(451)**	**(16)**	**16**
USD	(298)	(298)	-	-
NOK	38	38	-	-
SEK	(8)	(8)	-	-
CNY	4	4	-	-
Other	(187)	(187)	(16)	16
Commodity price risk				
Cash flow hedges	**58**	**58**	**-**	**-**
Copper	53	53	-	-
Steel	5	5	-	-
Total	**(3,071)**	**(2,661)**	**(390)**	**(20)**

4.8 Hedge accounting (continued)

2018 mEUR	Contract notional amount	Expected recognition 2019	2020	After 2020
Foreign currency risk				
Cash flow hedges	**(2,885)**	**(1,968)**	**(634)**	**(283)**
USD	(1,056)	(927)	(150)	21
NOK	(1,046)	(412)	(525)	(109)
GBP	(42)	(40)	(2)	0
CNY	1,293	822	368	103
Other	(2,034)	(1,411)	(325)	(298)
Fair value hedges	**(213)**	**(213)**	**-**	**-**
USD	193	193	-	-
NOK	88	88	-	-
GBP	(62)	(62)	-	-
CNY	(58)	(58)	-	-
Other	(374)	(374)	-	-
Commodity price risk				
Cash flow hedges	**51**	**21**	**16**	**14**
Copper	33	21	12	-
Steel	18	-	4	14
Total	**(3,047)**	**(2,160)**	**(618)**	**(269)**

In the table below the effect from hedging instruments on the balance sheet is shown:

2019 mEUR	Carrying amount of hedging instruments: Assets	Carrying amount of hedging instruments: Liabilities	Contract notional amount	Line item in the statement of financial position	Change in fair value
Foreign currency risk					
Cash flow hedges	170	184	(2,678)	Other receivables, Other payables	(28)
Fair value hedges	9	1	(451)	Other receivables, Other payables	(29)
Commodity price risk					
Cash flow hedges	3	-	58	Other receivables, Other payables	5
Total	**182**	**185**	**(3,071)**		**(52)**

In the table below the effect from hedged items on the balance sheet is shown:

2019 mEUR	Carrying amount of the hedged item: Assets	Carrying amount of the hedged item: Liabilities	Change in fair value used for measuring ineffectiveness	Cash flow hedge reserve
Foreign currency risk				
Highly probable forecasted sales and purchases			(28)	(6)
Firm commitments [1)]	2,884	2,494	(29)	
Commodity price risk				
Commodity purchases			5	2
Total	**2,884**	**2,494**	**(52)**	**(4)**

1) Firm commitments comprise financial instruments related to intra-group positions in a currency different from the functional currency. The intra-group positions are included in the hedged firm commitments above, but are eliminated in the consolidated statements and therefore cannot be disclosed as a line item in the statement of financial position.

4.8 Hedge accounting (continued)

The impact from hedge accounting in profit or loss and other comprehensive income is shown below for the year.

2019 mEUR	Total hedging gain/(loss) recognised in OCI	Ineffectiveness recognised in profit or loss	Line item in the statement of profit or loss	Amount reclassified from OCI to profit or loss	Line in the statement of profit or loss
Foreign currency risk					
Cash flow hedges, forward contracts	(28)	0	Financial items	(50)	Revenue
				0	Production costs
Commodity price risk					
Cash flow hedges, forward contracts	5	-		-	
Total	**(23)**	**0**		**(50)**	

In the table below the effect from hedging instruments on the balance sheet is shown:

2018 mEUR	Carrying amount of hedging instruments		Contract notional amount	Line item in the statement of financial position	Change in fair value
	Assets	Liabilities			
Foreign currency risk					
Cash flow hedges	165	107	(2,885)	Other receivables, Other payables	31
Fair value hedges	1	12	(213)	Other receivables, Other payables	(23)
Commodity price risk					
Cash flow hedges	-	2	51	Other receivables, Other payables	(5)
Total	**166**	**121**	**(3,047)**		**3**

In the table below the effect from hedged items on the balance sheet is shown:

2018 mEUR	Carrying amount of the hedged item		Change in fair value used for measuring ineffectiveness	Cash flow hedge reserve
	Assets	Liabilities		
Foreign currency risk				
Highly probable forecasted sales and purchases			26	49
Firm commitments [1)]	2,823	2,618	(23)	
Commodity price risk				
Commodity purchases			(5)	(2)
Total	**2,823**	**2,618**	**(2)**	**47**

1) Firm commitments comprise financial instruments related to intra-group positions in a currency different from the functional currency. The intra-group positions are included in the hedged firm commitments above, but are eliminated in the consolidated statements and therefore cannot be disclosed as a line item in the statement of financial position.

The impact from hedge accounting in profit or loss and other comprehensive income is shown below for the year.

2018 mEUR	Total hedging gain/(loss) recognised in OCI	Ineffectiveness recognised in profit or loss	Line item in the statement of profit or loss	Amount reclassified from OCI to profit or loss	Line in the statement of profit or loss
Foreign currency risk					
Cash flow hedges, forward contracts	26	5	Financial items	(28)	Revenue
				(21)	Production costs
Commodity price risk					
Cash flow hedges, forward contracts	(5)	-		-	
Total	**21**	**5**		**(49)**	

4.8 Hedge accounting (continued)

Ineffectiveness in 2018 amounted to a loss of EUR 5m recognised in the income statement.

The risk categories recognised in the cash flow hedge reserve is reconciled in the table below with items impacting other comprehensive income for the period.

Cash flow hedge reserve **mEUR**	**2019**	**2018**
Carrying amount as at 1 January	47	60
Changes in fair value:		
Foreign currency risk, cash flow hedges	(28)	26
Commodity price risk, cash flow hedges	5	(5)
Amount reclassified to profit or loss:		
Foreign currency risk, cash flow hedges	(50)	(49)
Commodity price risk, cash flow hedges	-	-
Amount transferred to the initial carrying amount of non-financial items:		
Foreign currency risk, cash flow hedges of inventory purchases	(1)	12
Foreign currency risk, cash flow hedges of received prepayments from customers	6	1
Commodity price risk, cash flow hedges of inventory	-	-
Tax effect	17	2
Carrying amount as at 31 December	**(4)**	**47**

5. Tax

5.1 Income tax

Vestas accounting policies
Tax for the year consists of current tax and deferred tax for the year including adjustments to previous years and changes in provision for uncertain tax positions. The tax attributable to the profit for the year is recognised in the income statement, whereas the tax attributable to equity transactions is recognised directly in equity. The tax expense relating to items recognised in other comprehensive income is recognised in other comprehensive income.

Following developments in ongoing tax disputes primarily related to transfer pricing cases, uncertain tax positions are presented individually as part of deferred tax assets, non-current tax receivables or non-current tax payables.

Current tax liabilities and receivables are recognised in the balance sheet at the amounts calculated on the taxable income for the year adjusted for tax on taxable incomes for prior years and for taxes paid on account.

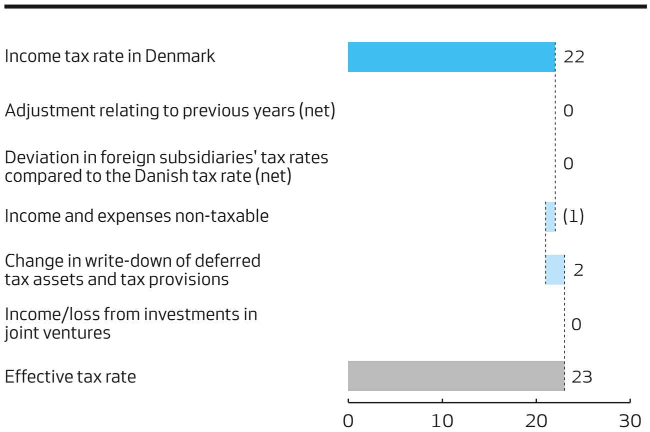
Key accounting estimates
Income taxes and uncertain tax position
Vestas continuously wants to be a compliant corporate tax citizen in collaboration with Vestas' operations and stakeholders and to support shareholder interest and its reputation. To ensure compliance, national and international tax laws as well as the OECD Guidelines are acknowledged and followed throughout the world.

Vestas is subject to income taxes around the world and therefore recognises that significant estimate is required in determining the worldwide accrual for income taxes, deferred income tax assets and liabilities and provision for uncertain tax positions.

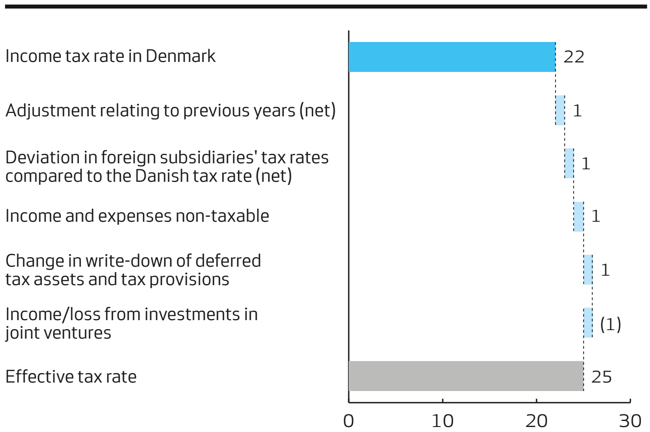
The global business implies that Vestas may be subject to disputes on allocation of profits between different jurisdictions. Management judgement is applied to assess the expected outcome of such tax disputes which is provided for in provision for uncertain tax positions. Management believes that provisions made for uncertain tax positions not yet settled with local tax authorities at year end is adequate. However, the actual obligation may deviate and is dependent on the result of litigations and settlements with the relevant tax authorities.

mEUR	2019	2018
Current tax on profit for the year	228	225
Deferred tax on profit for the year	(24)	(4)
Tax on profit for the year	204	221
Change in income tax rate	3	-
Adjustments relating to previous years (net)	2	7
Income tax for the year recognised in the income statement, expense	**209**	**228**
Deferred tax on other comprehensive income for the year	(18)	(5)
Tax recognised in other comprehensive income, expense/(income)	**(18)**	**(5)**
Deferred tax on equity transactions	(2)	4
Tax recognised in equity	**(2)**	**4**
Total income taxes for the year, expense	**189**	**227**

Computation of effective tax rate 2019
percent



Computation of effective tax rate 2018
percent



5.1 Income tax (continued)

mEUR	2019	2018
Income tax as at 1 January, net assets/(liabilities)	(138)	(170)
Exchange rate adjustments	(3)	2
Income tax for the year	(228)	(225)
Adjustments relating to previous years	14	(12)
IFRIC 23 effect	(43)	-
IFRS 15 impact	-	19
Settlements against VAT receivables	4	53
Income tax paid in the year	251	195
Income tax as at 31 December, net assets/(liabilities)	**(143)**	**(138)**
Receivables specified as follows:		
0-1 year	125	88
> 1 year	156	98
Income tax receivables	**281**	**186**
Liabilities specified as follows:		
0-1 year	(128)	(112)
> 1 year	(296)	(212)
Income tax liabilities	**(424)**	**(324)**

5.2 Deferred tax

Vestas accounting policies

Deferred tax is measured using the balance sheet liability method in respect of all temporary differences between the carrying amount and the tax base of assets and liabilities. Deferred tax is, however, not recognised in respect of temporary differences on initial recognition of goodwill and other items, apart from business acquisitions, where temporary differences have arisen at the time of acquisition without affecting the profit for the year or the taxable income. In cases where the computation of the tax base may be made according to different tax rules, deferred tax is measured on the basis of management's intended use of the asset and settlement of the liability, respectively.

Deferred tax assets, including the tax base of tax loss carry-forwards, are recognised in other non-current assets at the value at which the asset is expected to be realised, either by elimination of tax on future earnings or by set-off against deferred tax liabilities within the same legal tax entity and jurisdiction.

Deferred tax assets are reviewed on an annual basis and are only recognised when it is probable that they will be utilised in future periods.

Adjustments are made to deferred tax to take account of the elimination of unrealised inter-company profits and losses.

Deferred tax is measured on the basis of the tax rules and tax rates of the respective countries that will be effective when the deferred tax is expected to crystallise as current tax based on the legislation at the balance sheet date. Changes to deferred tax due to changes to tax rates are recognised in the income statement except for items recognised directly in equity.

Key accounting estimates

Valuation of deferred tax assets

Vestas recognises deferred tax assets, including the tax value of tax loss carry-forwards, where Management assesses that the tax assets may be utilised in the foreseeable future for set-off against positive taxable income. The assessment is made on an annual basis and is based on the budgets and business plans for future years, including planned business initiatives. Key parameters are expected revenue and EBIT development considering expected allocation of future taxable income based on the transfer pricing policy in place. Due to the uncertainties relating to allocation of profits Management has limited the forecast period used to determine the utilisation to three years.

Of the total tax loss carry-forwards, EUR 18m (2018: EUR 17m) is expected to be realised within 12 months, and EUR 23m (2018: EUR 22m) is expected to be realised later than 12 months after the balance sheet date.

The assessment in 2019 resulted in the additional write-downs of deferred tax assets by EUR 15m (2018: EUR 41m reversal of write-downs) primarily due to significant increase in volume in markets with significant accounting to tax differences and uncertainty on utilisation of tax assets.

As at 31 December 2019, the value of recognised deferred tax assets amounted to EUR 324m (2018: EUR 281m), of which EUR 41m (2018: EUR 39m) relates to tax loss carry-forwards. The value of non-recognised tax assets totals EUR 76m (2018: EUR 61m), of which EUR 76m (2018: EUR 61m) relating to write-downs that are not expected to be utilised in the foreseeable future.

5.2 Deferred tax (continued)

mEUR	2019	2018
Deferred tax as at 1 January, net assets	161	157
Exchange rate adjustments	(9)	(3)
Deferred tax on profit for the year	24	4
Adjustment relating to previous years	(16)	5
Changes in income tax rate	(3)	-
Deferred tax on equity transactions	2	(4)
Acquisitions as part of business combinations	-	(3)
Tax on other comprehensive income	18	5
Deferred tax as at 31 December, net assets	**177**	**161**
Deferred tax assets specified as follows:		
Tax value of tax loss carry-forwards (net)	41	39
Intangible assets	(1)	(1)
Property, plant and equipment	(38)	(19)
Current assets	208	172
Provisions	79	112
Write-down of tax assets	(76)	(61)
Other [1)]	111	39
Deferred tax assets	**324**	**281**
Deferred tax provisions specified as follows:		
Tax value of tax loss carry-forwards (net)	(1)	-
Intangible assets	165	146
Property, plant and equipment	10	(7)
Current assets	15	18
Provisions	(28)	(33)
Other	(14)	(4)
Deferred tax provisions	**147**	**120**

1) Other mainly relates to deferred revenue and share-based payment.

No provision is made for deferred tax regarding undistributed earnings in subsidiaries, as Vestas controls the release of the obligation.

Deferred tax recognised on tax losses is mainly in jurisdictions where there are expiry limits. Out of total tax losses recognised EUR 20m (2018: EUR 25m) are subject to expiry limits. Following Vestas' transfer pricing policy, these losses are expected to be utilised within the foreseeable future.

Of the total deferred tax relating to tax loss carry-forwards written down, EUR 0m (2018: EUR 0m) relates to Denmark. The recognised loss carry-forward relating to Denmark amounts to EUR 0m (2018: EUR 0m).

As many other multinational businesses, Vestas recognises the increased focus on the transfer pricing and the consequent allocation of profits to the relevant countries. Even though the Vestas' subsidiaries pay corporate tax in the countries in which they operate, Vestas is still part of a number of tax audits on different locations. Some of these disputes concern significant amounts and uncertainties. Vestas believes that the provisions made for uncertain tax positions not yet settled with the local tax authorities is adequate. However, the actual obligation may differ and is subject to the result of the litigations and settlements with the relevant tax authorities.

6. Other disclosures

6.1 Audit fees

mEUR	2019	2018
Audit:		
PricewaterhouseCoopers	3	3
Total audit	**3**	**3**
Non-audit services: 1)		
PricewaterhouseCoopers		
Assurance engagements	0	0
Tax assistance	1	1
Other services	2	0
Total non-audit services	**3**	**1**
Total	**6**	**4**

1) The following ratios have been calculated in accordance with guidelines provided by certain advisors to illustrate the level of non-audit services compared to audit related services provided by Vestas' auditor. Non-audit services / (Audit fees, Assurance engagements, Tax compliance and preparation fees) is 81 percent (2018: 16 percent). Excluding significant one-time capital structure events the ratio is 14 percent (2018: 10 percent).

Vestas' auditors can be used, within certain parameters, for certain non-audit services and may often be the preferable choice due to business knowledge, confidentiality, and cost considerations. Vestas has a policy for non-audit services ensuring that the provision of non-audit services to Vestas does not impair the auditors' independence or objectivity. The Audit Committee is responsible for the development and maintenance of this policy and monitors compliance.

Fee for other services than statutory audit services rendered by PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab (PwC Denmark) to Vestas amounts to EUR 2m and consists mainly of M&A activities, tax compliance, tax advisory services and transfer pricing.

6.2 Management's incentive programmes

Vestas accounting policies
Vestas operates a number of share-based compensation schemes (restricted share programmes) under which it awards Vestas shares to members of the Executive Management and certain key employees in Vestas Wind Systems A/S or its subsidiaries.

The value of the services received in exchange for the issuance of shares is measured at the fair value of the shares.

Restricted shares issued to employees are measured at fair value at the time of granting and are recognised in staff expenses in the income statement over the vesting period. The opposite entry is recognised directly in equity.

On initial recognition of the restricted shares, the number of shares expected to vest is estimated. Subsequently, the estimate is revised so that the total expense recognised is based on the actual number of shares vested.

The fair value of restricted shares is determined based on Vestas quoted share price at grant adjusted for expected dividend payout (based on historic dividend payout ratio).

Restricted performance share programme
The purpose of the restricted performance shares is to ensure common goals for management, certain key employees, and shareholders.

The number of shares available for grant may be adjusted in the event of changes in Vestas' capital structure. Further, in the event of a change of control, merger, winding-up or demerger of Vestas, an accelerated grant may extraordinarily take place. In the event of certain transfers of activities or changes in ownership interests within Vestas, adjustment, replacement of the programme and/or settlement in cash of the programme entirely or partly may also take place.

In May 2019, the Board of Directors of Vestas Wind Systems A/S (the Board) launched a new restricted performance share programme. The share-based incentive programme follows the structure of the previous programme from 2018 and will still be based on restricted performance shares. The programme has a performance period of three years and a performance measurement based on financial key performance indicators as well as Vestas' market share as defined by the Board of Directors. 50 percent of the programme has a vesting period of three years and remaining 50 percent a vesting period of five years.

The terms and conditions governing the restricted performance share programme are as follows:

- Only participants employed by Vestas at the time of announcement of the programme or later in the financial year are eligible for participation in the restricted performance share programme.
- The number of restricted performance shares available for distribution depends on Vestas' performance as per table below.
- Depending on the performance, the total number of shares to be granted will range between 0 percent and 150 percent of the target level and is determined by Vestas' performance in the financial year.

6.2 Management's incentive programmes (continued)

	2019	2018	2017	2016	2015	2014
Year awarded:	Maj 2019	April 2018	May 2017	April 2016	April 2015	March 2014
Performance year [1]:	2019-2021	2018-2020	2017-2019	2016-2018	2015-2017	2014
Vesting conditions (KPIs):	EPS, ROCE, Market share	EPS, ROCE, Market share	EPS, ROCE, Market share	EPS, ROCE, Market share	EPS, ROCE, Market share	EBIT margin, Free cash flow, Business area specific KPIs
Vesting years:	2022/2024	2021/2023	2020/2022	2019/2021	2018/2020	2017/2019

1) Performance years defined as Vestas' financial year.

In 2019, the total number of shares issued amounts to 308,071 shares with a fair value of EUR 24m (out of which 119,215 shares with a fair value of EUR 9m were issued to the Executive Management). The fair value calculated is based on share price at measurement, close of Nasdaq Copenhagen on 13 May 2019, EUR 76.

Number of restricted performance shares	Executive Management pcs	Other executives pcs	Total pcs
Outstanding as at 1 January 2019	**398,284**	**862,032**	**1,260,316**
Adjusted [1]	(66,209)	198,870	132,661
Awards issued	119,215	188,856	308,071
Vested	(136,530)	(231,700)	(368,230)
Cancelled	(39,950)	(97,309)	(137,259)
Outstanding as at 31 December 2019	**274,810**	**920,749**	**1,195,559**
Outstanding as at 1 January 2018	**520,957**	**1,173,502**	**1,694,459**
Adjusted [1]	(26,094)	(56,296)	(82,390)
Awards issued	70,233	177,856	248,089
Vested	(166,812)	(419,032)	(585,844)
Cancelled	-	(13,998)	(13,998)
Outstanding as at 31 December 2018	**398,284**	**862,032**	**1,260,316**

1) Adjustments due to final calculation of entitlement based on performance in prior year. Allocation of performance shares for the 2017-2019, 2018-2020 and 2019-2021 performance programmes will be adjusted based on the level of target achievement in the measurement period. Change in Executive Management shares is included in the adjustment.

An employee elected member of the Board, had 1,732 restricted shares outstanding as at 31 December 2019 (2018: 1,320).

Ref. note 1.3 for the total expense recognised in the Income statement for share options and restricted performance shares (share-based payment) granted to Executive Management and other executives.

6.3 Related party transactions

Vestas Wind Systems A/S has no shareholders with controlling influence.

Related parties are considered to be the Board and the Executive Management of the Vestas Wind Systems A/S together with their immediate families. Related parties also include entities which are controlled or jointly controlled by the aforementioned individuals.

Transactions with the Board and Executive Management
Transactions with the Executive Management only consist of normal management remuneration, ref. note 1.3 and the transactions mentioned below.

Transactions with the Board and Executive Management in the year comprise the following:

Mr Anders Vedel has full and partly ownerships of wind turbines for which he has a service contract with Vestas. These transactions take place at arm's length and in total amounted to EUR 0.1m in 2019 (2018: EUR 0.2m). The outstanding amount of purchases as at 31 December 2019 amounted to EUR 0.0m (2018 EUR 0.0m).

There have been no other transactions with members of the Board of Directors and the Executive Management during the year.

With the exception of the board members elected by the employees, no members of the Board of Directors have been employed by Vestas in 2019.

Transactions with joint ventures and associates
Vestas has had the following material transaction with joint ventures and associates:

mEUR	2019	2018
Joint ventures		
Revenue for the period	206	157
Proceeds from sale of projects	68	10
Receivables as at 31 December	63	59
Prepayments balance as at 31 December	122	0
Associates		
Payable capital contribution as at 31 December	40	37

Proceeds from sale of projects include sale of projects of EUR 52m to Roaring Fork Wind, LLC from 1 January 2019 until 6 December 2019 Vestas acquired 100 percent of Roaring Fork Wind, LCC as of 6 December 2019.

6.4 Business combinations

Vestas accounting policies
Newly acquired or newly founded subsidiaries are recognised from the date of obtaining control. Upon acquisition of subsidiaries, the acquisition method is applied.

Cost is stated as the fair value of the assets transferred, obligations undertaken and shares issued. Cost includes the fair value of any earn-outs.

Expenses related to the acquisition are recognised in the income statement in the period in which they are incurred. Identifiable assets, liabilities and contingent liabilities (net assets) relating to the entity acquired are recognised at the fair value at the date of acquisition calculated in accordance with Vestas accounting policies.

In connection with every acquisition, goodwill and a non-controlling interest (minority) are recognised according to one of the following methods:

1) Goodwill relating to the entity acquired comprises a positive difference, if any, between the total fair value of the entity acquired and the fair value of the total net assets for accounting purposes. The non-controlling interest is recognised at the share of the total fair value of the entity acquired (full goodwill).
2) Goodwill relating to the entity acquired comprises a positive difference, if any, between the cost and the fair value of Vestas' share of the net assets for accounting purposes of the acquired enterprise at the date of acquisition. The non-controlling interest is recognised at the proportionate share of the net assets acquired (proportionate goodwill).

Goodwill is recognised in intangible assets. It is not amortised, but reviewed for impairment once a year and also if events or changes in circumstances indicate that the carrying value may be impaired. If impairment is established, the goodwill is written down to its lower recoverable amount.

Sold or liquidated entities are recognised up to the date of disposal. Any gain or loss compared to the carrying amount at the date of disposal is recognised in the income statement to the extent the control of the subsidiary is also transferred.

6.4 Business combinations (continued)

Acquisition of SoWiTec
On 11 April 2019, Vestas announced the acquisition of 25.1 percent of the share capital of SoWiTec Group GmbH (SoWiTec), with the option of acquiring 100 percent of the share capital. The acquisition supports Vestas' position as global leader in wind power plant solutions and increases its ability to offer full-scope wind power plant solutions including development services. As of 1 July 2019, the transaction passed regulatory approval, and Vestas has thereby obtained the ability to exercise control of SoWiTec as of this date.

The goodwill of EUR 5m arising from the acquisition is attributable to combining SoWiTec's and Vestas' development capabilities, strengthening Vestas' development portfolio. None of the goodwill recognised is expected to be deductible for income tax purpose.

The following table summarises the considerations paid for SoWiTec, the fair value of assets acquired and liabilities assumed at the acquisition date.

mEUR	SoWiTec
Cash	6
Capital contribution	14
Total consideration transferred	**20**

The acquisition price for SoWiTec is EUR 20m on equity value basis. The consideration has been partly paid in cash and partly through a capital contribution from readily available sources.

mEUR	SoWiTec
Property, plant & equipment	2
Other equity investments	5
Inventory	58
Trade receivables	5
Other receivables	8
Cash	17
Financial debts	(34)
Trade payables	(1)
Other liabilities	(2)
Total identifiable net assets	**58**
Non-controlling interest	(43)
Goodwill	5
Purchase price	**20**

Acquisition-related costs of EUR 1m have been charged to Administration costs in the consolidated income statement for the year.

The fair value of the acquired identifiable net asset of EUR 58m is provisional pending final valuations for those assets. The non-controlling interest in SoWiTec, an unlisted company, was measured based on its proportionate share of the total identifiable net assets at the acquisition date.

The revenue included in the consolidated income statement since 1 July 2019 contributed by SoWiTec was EUR 14m. SoWiTec also contributed a loss after tax of EUR 3m over the same period.

Had SoWiTec's financial statements been consolidated with Vestas' financial statements from 1 January 2019, Vestas' consolidated income statement would have been impacted with revenue of EUR 17m and loss after tax of approx. EUR 7m.

The revenue, costs, and EBIT from SoWiTec are allocated to the Power solutions segment.

6.5 Non-cash transactions

mEUR	2019	2018
Amortisation, impairment and depreciation for the year of intangible assets and property, plant and equipment	546	458
Share of (profit)/loss from investments in joint ventures and associates	(3)	(40)
Warranty provisions in the year (net)	73	(6)
Other provisions in the year	(10)	9
Interest income	(39)	(15)
Interest expenses	47	22
Income tax for the year	209	227
Cost of share-based payments	25	18
Gains from property, plant and equipment	1	(6)
Other adjustments for non-cash transactions	(18)	49
	831	**716**

6.6 Legal entities[1]

Name and country	Ownership (%)
Parent company	
Vestas Wind Systems A/S, Denmark	100
Production units	
Vestas Nacelles America, Inc., USA	100
Vestas Towers America, Inc., USA	100
Vestas Blades America, Inc., USA	100
Vestas Manufacturing A/S, Denmark	100
Vestas Blades Deutschland GmbH, Germany	100
WPT Nord GmbH, Germany	100
Vestas Blades Italia S.r.l., Italy	100
Vestas Wind Technology (China) Co. Ltd., China	100
Vestas Manufacturing Spain S.L.U., Spain	100
Vestas Control Systems Spain S.L.U., Spain	100
Vestas Nacelles Deutschland GmbH, Germany	100
Vestas Manufacturing RUS OOO, Russia	51
Sales and service units	
Vestas Americas A/S, Denmark	100
Vestas America Holding Inc., USA	100
Vestas - American Wind Technology Inc., USA	100
Vestas - Canadian Wind Technology Inc., USA	100
Vestas - Portland HQ LLC, USA	100
Vestas Upwind Solutions Inc., USA	100
Availon Inc., USA	100
Steelhead Americas, LLC, USA	100
Steelhead Wind 1 LLC, USA	100
Steelhead Wind 2 LLC, USA	100
Steelhead Wind 2a LLC, USA	100
Vestas Asia Pacific A/S , Denmark	100
Vestas Asia Pacific Wind Technology Pte. Ltd., Singapore	100
Vestas - Australian Wind Technology Pty. Ltd., Australia	100
Vestas Korea Wind Technology Ltd., South Korea	100
Vestas New Zealand Wind Technology Ltd., New Zealand	100
Vestas Taiwan Ltd., Taiwan	100
Vestas Wind Technology (Beijing) Co. Ltd., China	100
Vestas Wind Technology India Pvt Limited, India	100
Vestas Japan Co. Ltd., Japan	100
Vestas Wind Technology Pakistan (Private) Limited, Pakistan	100
Vestas Wind Technology (Thailand) Ltd., Thailand	100
Vestas Wind Technology Vietnam LLC, Vietnam	100
Vestas Mongolia LLC, Mongolia	100
Vestas Central Europe A/S, Denmark	100
Vestas Deutschland GmbH, Germany	100
Vestas Services GmbH, Germany	100
Vestas Benelux B.V., The Netherlands	100
Vestas Österreich GmbH, Austria	100
Vestas Czech Republic s.r.o., Czech Republic	100
Vestas Hungary Kft., Hungary	100
Vestas Bulgaria EOOD, Bulgaria	100
Vestas CEU Romania S.R.L, Romania	100
Vestas Central Europe-Zagreb d.o.o, Croatia	100
Vestas Slovakia spol S.r.o., Slovakia	100
Vestas RUS LLC, Russia	100

Name and country	Ownership (%)
Sales and service units, continued	
Vestas Eastern Africa Ltd., Kenya	100
Vestas Southern Africa Pty. Ltd., South Africa	80
Vestas Ukraine LLC, Ukraine	100
Vestas Central Europe d.o.o. Beograd, Serbia	100
Vestas Belgium SA, Belgium	100
Vestas Georgia LLC, Georgia	100
Availon Holding GmbH, Germany	100
Availon GmbH, Germany	100
Vestas Mediterranean A/S, Denmark	100
Vestas Italia S.r.l., Italy	100
Vestas Hellas Wind Technology S.A., Greece	100
Vestas Eólica S.A., Spain	100
Vestas France SAS, France	100
Vestas WTG Mexico S.A. de C.V., Mexico	100
Vestas Mexicana del Viento S.A. de C.V., Mexico	100
Vestas do Brasil Energia Eolica Ltda., Brazil	100
Vestas Argentina S.A., Argentina	100
Vestas Chile Turbinas Eólica Limitada Santiago, Chile	100
Vestas Rüzgar Enerjisi Sistemleri Sanayi ve Ticaret Ltd. Sirketi, Turkey	100
Vestas Turbinas Eólicas de Uruguay S.A., Uruguay	100
Vestas MED (Cyprus) Ltd., Cyprus	100
Vestas Nicaragua SA, Nicaragua	100
Vestas CV Limitada, The Republic of Cape Verde	100
Vestas Wind Systems Dominican Republic S.R.L., Dominican Republic	100
Vestas Peru S.A.C., Peru	100
Vestas Middle East S.L.U., Spain	100
Vestas Costa Rica S.A., Costa Rica	100
Vestas Moroc SARLAV, Casablanca, Morocco	100
Vestas Jamaica Wind Technology Ltd., Jamaica	100
Vestas Guatemala, Guatemala	100
Availon LDA Portugal, Portugal	100
Availon Iberia S.L., Spain	100
Vestas Northern Europe A/S, Denmark	100
Vestas - Celtic Wind Technology Ltd., United Kingdom[2]	100
Vestas Northern Europe AB, Sweden	100
Vestas Poland Sp.z.o.o., Poland	100
Vestas Ireland Ltd., Ireland	100
Vestas Norway AS, Norway	100
Vestas Finland Oy, Finland	100
Vestas Mediterranean A/S Sucursal, Bolivia	100
UpWind Solutions Canada, Ltd., Canada	100
Vestas Kazakhstan LLP, Kazakhstan	100
Vestas Overseas Panamá S.A., Panama	100
Vestas Portugal, LDA, Portugal	100
Vestas Senegal S.A.R.L.U, Senegal	100
Vestas Wind Lanka (PVT) Ltd., Sri Lanka	100
Vestas Kompozit Kanat Sanayi Ve Ticaret Anonim Şirketi Şirketi, Turkey	100
UpWind Holdings, LLC, United States	100
Utopus Insights, Inc., United States	100
NEG Micon UK Ltd., United Kingdom	100
NEG Micon Australia Pty. Ltd., Australia	100

1) Companies of immaterial significance have been left out of the overview.
2) Vestas Celtic Wind Technology Ltd (CN: SC 216807) and Vestas Technology UK Ltd (CN: 2883652), a wholly owned subsidiary of Vestas Wind Systems A/S, is claiming exemption from audit pursuant to sections 479A to 479C of the Companies Act 2006.

6.6 Legal entities[1] (continued)

Name and country	Ownership (%)
Sales and service units, continued	
Vestas Honduras, S.A. De C.V., Honduras	100
Vestas Colombia S.A.S, Colombia	100
Vestas Saudi Arabia Limited Co., Saudi Arabia	100
Vestas El Salvador, S.A. De C.V., El Salvador	100
Roaring Fork Wind, LLC, USA	100
Other subsidiaries	
Vestas Wind Systems (China) Co. Ltd., China	100
Vestas Switzerland AG, Switzerland	100
Vestas Services Philippines Inc., Philippines	100
Vestas India Holding A/S, Denmark	100
Wind Power Invest A/S, Denmark	100
Vestas Technology (UK) Limited, United Kingdom [2]	100
Vestas Technology R&D Singapore Pte. Ltd., Singapore	100
Vestas Technology R&D Chennai Pte. Ltd., India	100
Vestas Technology R&D (Beijing) Co. Ltd., China	100
Vestas Shared Service (Spain), S.L.U., Spain	100
GREP Svenska AB, Sweden	100
Vestas BCP Philippines Inc., Philippines	100
Vestas Shared Service A/S, Denmark	100
Vestas Service Delivery Center - Szczecin sp Z.o.o., Poland	100
Vestas Cantabria Prototype SL	100
SoWiTec Group GmbH	25
Joint ventures	
MHI Vestas Offshore Wind A/S, Denmark	50
Emerging Markets Power (Holdings) Limited, Ireland	50
Airpower Windfarms Private Ltd.	50
North Fork Ridge Wind Holdings LLC	30
Kings Point Wind Holdings LLC	30
Neosho Ridge Wind LLC	50
Associates	
Blakliden Fäbodberget Holding AB, Sweden	40
Ewind SRL	20

1) Companies of immaterial significance have been left out of the overview.
2) Vestas Celtic Wind Technology Ltd (CN: SC 216807) and Vestas Technology UK Ltd (CN: 2883652), a wholly owned subsidiary of Vestas Wind Systems A/S, is claiming exemption from audit pursuant to sections 479A to 479C of the Companies Act 2006.

7. Basis for preparation

7.1 General accounting policies

The annual report of Vestas Wind Systems A/S comprises the Consolidated financial statements of Vestas Wind Systems A/S and its subsidiaries and separate financial statements of the parent company, Vestas Wind Systems A/S.

The Consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the EU and the additional Danish disclosure requirements for listed companies, the Danish Statutory Order on Adoption of IFRS issued pursuant to the Danish Financial Statements Act.

Basis of preparation
The Consolidated financial statements have been prepared under the historical cost method, except for the derivative financial instruments and marketable securities, which are measured at fair value and non-current assets held for sale, which are measured at the lower of carrying amount and fair value less costs to sell.

The accounting policies remain unchanged for the Consolidated financial statements compared to 2018, except from the impact of IFRS 16, ref. note 7.3.

The Consolidated financial statements are presented in million Euro.

This note describes the general accounting policies. Other accounting policies are described in the separate notes to the Consolidated financial statements.

Materiality in the financial reporting
For the preparation of the Consolidated financial statements, Vestas discloses the information required according to IFRS, unless such information is deemed immaterial or irrelevant.

A judgement is made of whether more detailed specifications are necessary in the presentation of Vestas' assets, liabilities, financial position, and results. All judgements are made with due consideration of legislation and the Consolidated financial statements as a whole presenting a true and fair view.

Consolidated financial statements
The Consolidated financial statements comprise Vestas Wind Systems A/S (the parent company) and the subsidiaries over which Vestas Wind Systems A/S exercises control. Vestas Wind Systems A/S and its subsidiaries together are referred to as the Group.

Joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor. Vestas has assessed the nature of its joint arrangements and determined them to be joint ventures.

An overview of Vestas legal entities is provided on pages 103-104.

The Consolidated financial statements are prepared from the Financial statements of the parent company and subsidiaries by combining accounting items of a uniform nature, with subsequent elimination of intercompany income and expenses, shareholdings, intercompany balances and dividends as well as unrealised profits and losses on transactions between consolidated entities.

The Consolidated financial statements are based on financial statements prepared under the accounting policies of Vestas.

Translation policies
Functional currency and presentation currency
Assets, liabilities and transactions of each of the reporting entities of Vestas are measured in the currency of the primary economic environment in which the entity operates (the functional currency). Transactions in currencies other than the functional currency are transactions in foreign currencies. The functional currency of the parent company is Danish kroner (DKK); however, due to Vestas' international relations, the Consolidated financial statements are presented in Euro (EUR).

Translation into presentation currency
The balance sheet is translated into the presentation currency at the Euro rate at the balance sheet date. In the income statement the transaction date rates are based on average rates for the individual months to the extent that this does not materially distort the presentation of the underlying transactions.

Translation of transactions and amounts
Transactions in foreign currencies are initially translated into the functional currency at the exchange rates at the dates of transaction. Exchange adjustments arising due to differences between the transaction date rates and the rates at the dates of payment are recognised as financial income or financial costs in the income statement. Receivables, payables and other monetary items in foreign currencies not settled at the balance sheet date are translated at the exchange rates at the balance sheet date. Exchange adjustments arising due to differences between the rates at the balance sheet date and the transaction date rates are recognised as financial income or financial costs in the income statement.

Translation of Vestas entities
On recognition in the Consolidated financial statements of foreign entities with a functional currency that differs from the presentation currency of Vestas, income statements are translated at transaction date rates, and balance sheet items are translated at the exchange rates at the balance sheet date. The transaction date rates are based on average rates for the individual months to the extent that this does not materially distort the presentation of the underlying transaction. Exchange adjustments arising on the translation of the opening equity of foreign entities at exchange rates at the balance sheet date and on the translation of income statements from transaction date rates to exchange rates at the balance sheet date are recognised in other comprehensive income.

Exchange adjustments of balances with foreign entities that are treated as part of the total net investment in the entity in question are recognised in other comprehensive income in the consolidated financial statements.

On recognition in the Consolidated financial statements of investments accounted for using the equity method with functional currencies that differ from the presentation currency of Vestas, the shares of results for the year are translated at average exchange rates, and the shares of equity including goodwill are translated at the exchange rates at the balance sheet date. Exchange adjustments arising on the translation of the share of the opening equity of foreign investments accounted for using the equity method at exchange rates at the balance sheet date and on the translation of the share of results for the year from average exchange rates to exchange rates at the balance sheet date are recognised in other comprehensive income.

On full or partial disposal of foreign entities, resulting in a loss of control or on repayment of balances treated as part of the net investment, the share of the accumulated exchange adjustments recognised in other comprehensive income, is recognised in the income statement at the same time as any profit or loss on the disposal.

Income statement
Financial investments
Financial investments consist of interest-bearing investments which do not meet the definition for cash and cash equivalents. On initial recognition financial investments are recognised in the balance sheet at fair value. Subsequently assets held within the business model hold to collect is re-measured at amortised cost and assets hold to sell is remeasured at fair value through profit or loss. Any changes in the fair values of financial investments remeasured at fair value is recognised in the income statement as financial items.

Equity
Translation reserve
The translation reserve in the Consolidated financial statements comprises exchange rate adjustments arising on the translation of the financial statements of foreign entities from their functional currencies into the presentation currency of Vestas (EUR).
Upon full or part realisation of the net investment in foreign entities, exchange adjustments are recognised in the income statement.

Cash flow hedging reserve
The cash flow hedging reserve in the Consolidated financial statements comprises gains and losses on fair value adjustments of forward exchange contracts concerning future transactions as well as hedging in connection with commodities.

Cash flow statement
The cash flow statement shows Vestas' cash flows for the year, broken down by operating, investing and financing activities, changes for the year in cash and cash equivalents as well as Vestas' cash and cash equivalents at the beginning

7.1 General accounting policies (continued)

and end of the year. Cash flows relating to acquired entities are recognised from the date of acquisition. Cash flows relating to entities disposed of are recognised until the date of disposal.

Cash flows from operating activities

Cash flows from operating activities are calculated as the net profit/loss for the year adjusted for non-cash operating items such as depreciation, amortisation and impairment losses, provisions, changes in working capital, interest received and paid and income tax paid. Working capital comprises current assets less short-term debt, which does not include current bank loans.

Cash flows from investing activities

Cash flows from investing activities comprise cash flows from business acquisitions and disposals and from acquisitions and disposals of intangible assets, property, plant and equipment as well as other non-current assets. The cash flow effect of business acquisitions and sales is shown separately. The establishment of leases is treated as non-cash transactions.

Cash flows from financing activities

Cash flows from financing activities comprise changes to the amount or composition of Vestas' share capital and related expenses as well as the raising of loans, repayment of interest-bearing debt, repayment of lease liabilities, acquisition and sale of treasury shares together with distribution of dividends to shareholders.

7.2 Key accounting estimates and judgements

When preparing the Consolidated financial statements of Vestas, Management makes a number of accounting estimates and assumptions, which form the basis of recognition and measurement of Vestas' assets and liabilities. Vestas' accounting policies are described in detail in the notes to the Consolidated financial statements.

Critical judgements and estimates

The calculation of the carrying amounts of certain assets and liabilities requires judgements, estimates and assumptions relating to future events.

The estimates and assumptions made are based on experience and other factors that management considers reasonable in the circumstances, but that are inherently uncertain and unpredictable. The assumptions may be incomplete or inaccurate and unexpected events or circumstances may arise. Furthermore, the company is subject to risks and uncertainties which may result in actual amounts deviating from these estimates. Main risks of Vestas have been described on pages 053-055 of the Management report, and in the individual notes to the consolidated financial statements.

It may be necessary to change estimates made previously due to changes in the assumptions on which the previous estimates were based or due to new knowledge or subsequent events.

The areas involving a high degree of judgement and estimation that are significant to the Consolidated financial statements are described in more detail in the related notes.

Vestas accounting policies	Critical accounting judgements and estimates	Note	Page
Revenue	Estimate regarding recognition of contract elements	1.2	064
	Judgement regarding method for recognition of revenue from Supply-and-installation contracts	1.2	064
	Estimate of stage of completion	1.2	064
Special items	Judgement regarding classification in the income statement	1.6	068
Provisions	Estimates for warranty provisions	3.6	081
Income tax	Estimates included in income tax assessment and uncertain tax position	5.1	097
Deferred tax	Estimate of deferred tax assets valuation	5.2	098
Inventories	Estimates of net realisable value	2.2	069
Other receivables	Estimates of allowance for doubtful VAT receivables	2.5	071

7.3 Changes in accounting policies and disclosures

Impact of new accounting standards
Vestas has implemented all new or amended accounting standards and interpretations as adopted by the EU and applicable for the 2019 financial year, including:

- Annual improvements to IFRSs 2015-2017 (effective date 1 January 2019)
- IFRS 16, Leases (effective date 1 January 2019)
- IFRIC 23, Uncertainty over Income Tax Treatment (effective date 1 January 2019)

None of the amended accounting standards and interpretations in the Annual Improvements to IFRSs 2014-2016 resulted in any significant changes to the accounting policies for Vestas or had significant impact on recognition, measurement or disclosures in the consolidated financial statements in 2018. Management does not anticipate any significant impact on future periods from the adoption of these new or amended accounting standards and interpretations.

IFRS 16, Leases
IFRS 16 has been implemented in Vestas' consolidated financial statements for the financial year beginning on 1 January 2019. Vestas has applied IFRS 16 using the modified retrospective approach, under which the cumulative effect of initial application is recognised in retained earnings at 1 January 2019. Consequently, 2018 comparative figures are reported according to IAS 17 (Leases) and IFRIC 4 (Determining whether an arrangement contains a lease) and are not restated to reflect the numbers according to IFRS 16. There has not been any cumulative effect of initial application.

IFRS 16 replaces IAS 17 and changes the accounting treatment of lease contracts that were previously treated as operating lease contracts. The change in lease accounting requires capitalisation of operating lease contracts as right-of-use assets under property, plant and equipment with a related lease liability in liabilities.

IFRS 16 impact on financial statements
On transition to IFRS 16, Vestas recognised EUR 208m of right-of-use assets and lease liabilities. Vestas used the practical expedients not to recognise right-of-use assets and liabilities for leases less than 12 months of lease term, when applying IFRS 16 to leases previously classified as operating leases under IAS 17. The lease liabilities were measured at the present value of the remaining lease payments, discounted using Vestas's incremental borrowing rate as at 1 January 2019. The weighted average incremental borrowing rate applied to these lease liabilities was 3.10 percent on 1 January 2019. Right-of-use assets are calculated at transition date and equal to the lease liabilities, adjusted by the amount of any prepaid or accrued lease payments. Vestas has elected not to capitalise low-value assets and short-term lease contracts with a lease term of 12 month or less.

Vestas leases properties, vehicles and equipment. Lease contracts are typically made for fixed periods but may have extension options included in the lease term. Lease terms are negotiated on an individual basis and contain different terms and conditions including payment terms, terminations rights, maintenance, deposits and guarantees etc. Some property leases contain variable payments terms that are linked to an index e.g. a consumer price index. Overall the variable payments constitute less than 1 percent of Vestas entire lease payments.

mEUR	
Operating lease commitment as disclosed in annual report as at 31 December 2018	227
Discounted using the incremental borrowing rate as at 1 January 2019	209
Recognition exception for short-term leases and leases of low-value assets	(20)
Extension and termination options reasonably certain to be exercised	12
Variable lease payments based on an index	7
Lease liabilities recognised as at 1 January 2019	**208**

Right-of-use assets amounts to EUR 196m as at 31 December 2019. Lease liabilities are included in Financial debts. The lease liabilities included in financial debts as at 31 December 2019 can be specified as following:

mEUR	2019
Lease liabilities - Current	58
Lease liabilities - Non-current	140

Interest related to the lease liabilities and depreciation related to the right-of-use assets are recognised in income statement and amounts to:

mEUR	2019
Depreciation for right of use assets recognised in income statement	65
Interest on lease liabilities recognised in income statement	7

IFRIC 23, Uncertainty over Income Tax Treatment
As of 1 January 2019, Vestas adopted the interpretation IFRIC 23 which clarifies the accounting treatment for uncertainties in income taxes as a part of the application of IAS 12. Vestas has applied the modified retrospective method with the cumulative effect recognised as an adjustment to the opening balance of retained earnings.

The interpretation specifically addresses whether an entity considers each uncertain tax treatment separately or together with one or more other uncertain tax treatments. The approach that better predicts the resolution of the uncertainty is followed, and uncertain tax positions are measured at the most likely outcome.

With the application of IFRIC 23 a net impact has been recognised in the opening equity of EUR 43m. Non-current tax receivables and tax payables have been impacted with an increase of EUR 47m and EUR 90m accordingly.

7.4 Financial definitions

FINANCIAL HIGHLIGHTS

Investments: Investments equal 'Cash flow from investing activities'.

Capital employed: Capital Employed is the sum of (carrying value) total equity and interest-bearing debt.

Net working capital (NWC): Inventories, trade and other receivables, contract assets, contract cost, less trade and other payables and contract liabilities.

Free cash flow: Cash flow from operating activities less cash flow from investing activities.

Free cash flow before acquisitions of subsidiaries and financial investments: Cash flow from operating activities less cash flow from investing activities before acquisition of subsidiaries, any investments in marketable securities and short-term financial investments.

Net interest bearing debt: Net interest bearing debt is the sum of cash and cash equivalents and financial investments less financial debts.

FINANCIAL RATIOS

Gross margin (%): Gross profit/loss as a percentage of revenue.

EBITDA margin: Operating profit before amortisation, depreciation and impairment as a percentage of revenue.

EBIT margin: Operating profit as a percentage of revenue.

Net interest-bearing debt/EBITDA: Net interest-bearing debt divided by operating profit before amortization, depreciation, impairment and special items.

Return of Capital Employed (ROCE) (%): Operating profit/loss (EBIT) before special items adjusted for tax (effective tax rate) as a percentage of average capital employed calculated as a 12-month average.

Solvency ratio (%): Equity at year-end divided by total assets.

Return on equity (%): Profit/loss after tax for the year divided by average equity.

SHARE RATIOS

Earnings per share (EPS): Profit/loss for the year divided by the average number of shares outstanding.

Dividend per share: Dividend multiplied by the nominal value of the share.

Payout ratio: Total dividend distribution divided by profit/loss for the year.

OPERATIONAL HIGHLIGHTS

Order intake: Orders are included as order intake when an order becomes effective, meaning when the contract becomes firm and unconditional.

Deliveries (MW): Deliveries for the Power solution segment are included as deliveries, and deducted from the wind turbines backlog, when the related revenue is recognised.

Sales from turnkey projects are deducted from the wind turbines backlog simultaneously as the customer has taken delivery of the wind turbines under the term of the contract.

Order backlog: The value of future contracts end of period.

OTHER DEFINITIONS

Full-time equivalent (FTE): Employees on the Vestas' payroll are counted and reported as Vestas employees.

TERMINOLOGY USED IN ACCOUNTING POLICIES

IFRS: International Financial Reporting Standards

IAS: International Accounting Standards

IASB: International Accounting Standards Board

IFRIC/SIC: International Financial Reporting Interpretations Committee/Standing Interpretations Committee

Statements

Management's statement

The Executive Management and Board of Directors have today considered and adopted the annual report of Vestas Wind Systems A/S for the financial year 2019.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the EU and additional requirements in the Danish Financial Statements Act. The financial statements of Vestas Wind Systems A/S have been prepared in accordance with the Danish Financial Statements Act. The management report is also prepared in accordance with the Danish disclosure requirements for listed companies.

In our opinion, the consolidated financial statements and the financial statements give a true and fair view of the financial position of Vestas and Parent Company as at 31 December 2019 and of the results of Vestas' and Parent Company's operations and consolidated cash flows for the financial year 1 January to 31 December 2019.

In our opinion, the management report includes a fair review of the development in the operations and financial circumstances of Vestas and Parent Company, of the results for the year and of the financial position of vestas and Parent Company as well as a description of the most significant risks and elements of uncertainty facing Vestas and Parent Company.

In our opinion, the social and environmental statements have been prepared in accordance with the accounting policies applied. They give a fair review of Vestas' social and environment performance.

We recommend that the Annual General Meeting approve the annual report.

Aarhus, 5 February 2020

Executive Management

Henrik Andersen
Group President & CEO

Marika Fredriksson
Executive Vice President & CFO

Board of Directors

Bert Nordberg
Chairman

Lars Josefsson
Deputy chairman

Carsten Bjerg

Helle Thorning-Schmidt

Bruce Harvey Grant

Eva Merete Søfelde Berneke

Jens Hesselberg Lund

Kim Hvid Thomsen

Michael Abildgaard Lisbjerg

Sussie Dvinge Agerbo

Peter Lindholst

The independent auditor's report

To the Shareholders of Vestas Wind Systems A/S

Our opinion

In our opinion, the Consolidated Financial Statements give a true and fair view of the Group's financial position at 31 December 2019 and of the results of the Group's operations and cash flows for the financial year 1 January to 31 December 2019 in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

Moreover, in our opinion, the Parent Company Financial Statements give a true and fair view of the Parent Company's financial position at 31 December 2019 and of the results of the Parent Company's operations for the financial year 1 January to 31 December 2019 in accordance with the Danish Financial Statements Act.

Our opinion is consistent with our Auditor's Long-form Report to the Audit Committee and the Board of Directors.

What we have audited

The Consolidated Financial Statements and the Parent Company Financial Statements of Vestas Wind Systems A/S for the financial year 1 January to 31 December 2019 comprise income statement, balance sheet, statement of changes in equity and notes, including summary of significant accounting policies for the Group as well as for the Parent Company, and statement of comprehensive income and statement of cash flows for the Group. Collectively referred to as the "Financial Statements".

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) and the additional requirements applicable in Denmark. Our responsibilities under those standards and requirements are further described in the Auditor's responsibilities for the audit of the Financial Statements section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the additional requirements applicable in Denmark. We have also fulfilled our other ethical responsibilities in accordance with the IESBA Code.

To the best of our knowledge and belief, prohibited non-audit services referred to in Article 5(1) of Regulation (EU) No 537/2014 were not provided.

Appointment

We were first appointed auditors of Vestas Wind Systems A/S on 5 May 1999 for the financial year 1999. We have been reappointed annually by shareholder resolution for a total period of uninterrupted engagement of 21 years including the financial year 2019.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the Financial Statements for 2019. These matters were addressed in the context of our audit of the Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Revenue recognition	
Recognition of the Group's revenue is complex due to several types of customer contracts utilised, including sale of wind turbines and wind power plants (supply-only, supply-and-installation and turnkey), service sales and sale of spare parts. We focused on this area as recognition of revenue involves significant judgement and estimates made by Management including, whether contracts contain multiple performance obligations which should be accounted for separately and the most appropriate method for recognition of revenue for identified performance obligations. This comprises allocation of consideration to the individual performance obligations of multi-element contracts as noted above, assessing whether performance obligations under supply-and-installation contracts are satisfied at a point in time or over time. Further, it comprises the point in time when transfer of control has occurred regarding sale of wind turbines (supply-only and supply-and-installation) and sale of spare parts, and assessing the degree of completion of project and service contracts, which are accounted for over time. Refer to note 1.2, note 2.3 and note 2.4.	We tested the relevant internal controls used to ensure the completeness, accuracy and timing of revenue recognised, including controls over the degree of completion of turnkey and service contracts at year-end. We read a sample of both project and service contracts to assess whether the method for recognition of revenue was relevant and consistent with IFRS 15, and had been applied consistently. We focused on contract classification, allocation of income and cost to the individual performance obligations and timing of transfer of control. Where a contract contained multiple elements, we considered Management's judgements as to whether they comprised performance obligations that should be accounted for separately, and, in such cases, challenged the judgements made in the allocation of the consideration to each performance obligation. We evaluated and challenged the significant judgements and estimates made by Management in applying Vestas' accounting policy to a sample of specific contracts and separable performance obligations of contracts, and we obtained evidence to support them, including details of contractual agreements, delivery records, cash receipts and project plans. For the contracts selected, we inspected original signed contracts and reconciled the revenue recognised to the underlying accounting records. We obtained a sample of Management's calculations of the degree of completion of turnkey and service contracts at year-end. We matched a sample of source data used in Management's calculation to supporting evidence, and evaluated the judgements applied. We also considered the historical outturns of estimates used in prior periods. We applied Computer Assisted Audit Techniques to establish, whether any revenue had been recognised where no corresponding accounts receivable or cash item had been recorded in the general ledger.

Key audit matter	How our audit addressed the key audit matter
Tax risks The Group operates in a complex multinational tax environment and the Group is part in tax cases with domestic and foreign tax authorities. At 31 December 2019, the Group has recognised provisions in respect of uncertain tax positions. Furthermore, the Group has recognised write-downs on deferred tax assets. We focused on this area as the amounts involved are material and as the valuation of the provision and deferred tax assets is associated with a high degree of estimates and judgement. Refer to note 5.1 and 5.2.	We evaluated relevant internal controls regarding completeness of records of uncertain tax positions and Management's procedure for estimating the provision for uncertain tax provisions and write-down of deferred tax assets. In understanding and evaluating Management's estimates and judgements, we considered the status of recent and current tax authority audits and enquiries, the outcome of previous claims, judgemental positions taken in tax returns and current estimates and developments in the tax environment. We used PwC local and international tax specialists to evaluate and challenge the adequacy of Management's key assumptions and read correspondence with tax authorities to assess Management's estimates. We evaluated the Group's model for valuation of deferred tax assets, including the forecasts used to estimate the expected future taxable income.
Warranty provisions The Group's product warranties primarily cover expected costs to repair or replace components with defects or functional errors and financial losses suffered by the Group's customers in connection with unplanned suspension of operations. Warranties are usually granted for a two-year period from legal transfer of the turbine, however, in certain cases, a warranty of up to five years is granted. Additionally, provisions are also made for turbines sold with contractually covered serial defects. We focused on this area as the completeness and valuation of the expected outcome of warranty provisions requires a high degree of Management judgement and the use of estimates giving rise to inherent uncertainty in the amounts recorded in the financial statements. Refer to note 3.6.	We tested the relevant internal controls regarding completeness of warranty provisions and how Management assesses valuation of provisions. We challenged the assumptions underlying the valuation of provisions by checking and corroborating the inputs used to calculate the provisions, including interviewing project managers, cost controllers and Management regarding individual cases. We assessed specific warranty provisions held for individual cases to evaluate whether the warranty provisions were sufficient to cover expected costs at year-end. Further, we assessed the level of historical warranty claims to assess whether the total warranty provisions held at year-end were sufficient to cover expected costs in light of known and expected cases and standard warranty periods provided.

Statement on Management's Review

Management is responsible for Management's Review.

Our opinion on the Financial Statements does not cover Management's Review, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the Financial Statements, our responsibility is to read Management's Review and, in doing so, consider whether Management's Review is materially inconsistent with the Financial Statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

Moreover, we considered whether Management's Review includes the disclosures required by the Danish Financial Statements Act.

Based on the work we have performed, in our view, Management's Review is in accordance with the Consolidated Financial Statements and the Parent Company Financial Statements and has been prepared in accordance with the requirements of the Danish Financial Statements Act. We did not identify any material misstatement in Management's Review.

Management's responsibilities for the Financial Statements

Management is responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act and for the preparation of parent company financial statements that give a true and fair view in accordance with the Danish Financial Statements Act, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, Management is responsible for assessing the Group's and the Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless Management either intends to liquidate the Group or the Parent Company or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the Financial Statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark will always detect a material misstatement when it exists. 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 Financial Statements.

As part of an audit in accordance with ISAs and the additional requirements applicable in Denmark, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the Financial Statements, 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 opinion. 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 control.
- Obtain an understanding of internal control relevant to the audit 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 the Group's and the Parent Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- 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 and the Parent Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the Financial Statements or, if such disclosures are inadequate, to modify our opinion. 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 or the Parent Company to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the Financial Statements, including the disclosures, and whether the Financial Statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the Consolidated Financial Statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

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.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the Financial Statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Hellerup, 5 February 2020

PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab
Company Reg. No.: 3377 1231

Claus Lindholm Jacobsen State Authorised Public Accountant mne23328	**Kim Tromholt** State Authorised Public Accountant mne33251

Independent assurance report on the Sustainability Highlights 2019

To the Stakeholders of Vestas Wind Systems A/S

Vestas Wind Systems A/S engaged us to provide limited assurance on the Sustainability Highlights stated in the Annual Report for the period 1 January to 31 December 2019.

Our conclusion

Based on the procedures we performed and the evidence we obtained, nothing came to our attention that causes us not to believe that the Sustainability Highlights as stated on page 34 in the Vestas Wind Systems A/S Annual Report 2019 are free of material misstatements and prepared, in all material respects, in accordance with the accounting policies (Notes to sustainability highlights) as stated on page 42 of the Annual Report 2019.

This conclusion is to be read in the context of what we say in the remainder of our report.

What we are assuring

The scope of our work was limited to assurance over the Sustainability Highlights as stated on page 34 in Vestas Wind Systems A/S' Annual Report 2019.

Professional standards applied and level of assurance

We performed a limited assurance engagement in accordance with International Standard on Assurance Engagements 3000 (Revised) 'Assurance Engagements other than Audits and Reviews of Historical Financial Information'. A limited assurance engagement is substantially less in scope than a reasonable assurance engagement in relation to both the risk assessment procedures, including an understanding of internal control, and the procedures performed in response to the assessed risks; consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our independence and quality control

We have complied with the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants, which includes independence and other ethical requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour. The firm applies International Standard on Quality Control 1 and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. Our work was carried out by an independent multidisciplinary team with experience in sustainability reporting and assurance.

Understanding reporting and measurement methodologies

Data and information in the Sustainability Highlights need to be read and understood together with the accounting policies (page 42 of Vestas Wind Systems A/S' Annual Report 2019), which Management is solely responsible for selecting and applying. The absence of a significant body of established practice on which to draw to evaluate and measure non-financial information allows for different, but acceptable, measurement techniques and can affect comparability between entities and over time.

Work performed

We are required to plan and perform our work in order to consider the risk of material misstatement of the data. In doing so and based on our professional judgement, we:

- Obtained an understanding of Vestas Wind Systems A/S' control environment and information systems relevant to quantification and reporting of social and environmental data, through inquiries;
- Conducted site visits in Denmark and Germany and conducted conference calls with the Blade factory in Russia to assess the completeness of social and environmental data sources, data collection methods, source data and relevant assumptions applicable to the sites;
- On a sample test basis agreed and reconciled reported data to underlying documentation for the large blade factories in India, Spain and China. The sites selected for testing were chosen taking into consideration their size and whether selected in prior periods;
- Conducted interviews and show-me meetings with Group functions to assess consolidation processes, use of company-wide systems and controls performed at Group level as well as test of social and environmental data prepared at Group level to underlying documentation;
- Conducted analytical review of the data and trend explanations submitted by all reporting entities for consolidation at Group level; and
- Evaluated the obtained evidence.

Management's responsibilities

Management of Vestas Wind Systems A/S is responsible for:

- Designing, implementing and maintaining internal controls over information relevant to the preparation of the Sustainability Highlights that are free from material misstatement, whether due to fraud or error;
- Establishing objective accounting principles for preparing data; and
- Measuring and reporting the Sustainability Highlights based on the accounting policies.

Our responsibility

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the Sustainability Highlights as stated on page 34 in the Annual Report 2019 are free from material misstatement, and are prepared, in all material respects, in accordance with the accounting policies;
- Forming an independent conclusion, based on the procedures we have performed and the evidence obtained; and
- Reporting our conclusion to the Stakeholders of Vestas Wind Systems A/S.

Hellerup, 5 February 2020

PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab
Company Reg. No.: 3377 1231

Claus Lindholm Jacobsen	Kim Tromholt
State Authorised	State Authorised
Public Accountant	Public Accountant
mne23328	mne33251

Financial statements for Vestas Wind Systems A/S

Income statement 1 January – 31 December

mEUR	Note	2019	2018
Revenue	1.1	1,432	1,376
Production costs	1.2	(733)	(533)
Gross profit		**699**	**843**
Administration costs	1.2	(213)	(162)
Operating profit (EBIT)		**486**	**681**
Income/loss from investments in subsidiaries	3.4	333	145
Income/loss from investments in associates including joint venture	3.4	3	39
Financial income	4.1	89	73
Financial costs	4.1	(113)	(110)
Profit before tax		**798**	**828**
Income tax	5.1	(114)	(160)
Profit for the year		**684**	**668**

mEUR	Note	2019	2018
Proposed distribution of profit:			
Reserve for net revaluation under the equity method		336	184
Retained earnings		137	279
Proposed dividends		211	205
Profit for the year		**684**	**668**

Balance sheet 31 December - Assets

mEUR	Note	2019	2018
Intangible assets	3.1	849	731
Property, plant, and equipment	3.2, 3.3	190	131
Investments in subsidiaries	3.4	2,625	2,447
Investments in associates including joint venture	3.4	72	116
Marketable securities		211	204
Other investments		4	4
Other receivables		68	104
Tax receivables		148	93
Total financial fixed assets		**3,128**	**2,968**
Total non-current assets		**4,167**	**3,830**
Inventories	2.1	104	93
Receivables from subsidiaries		6,187	2,709
Receivable from joint venture		12	7
Other receivables		206	286
Prepayments	3.5	13	13
Total receivables		**6,418**	**3,015**
Marketable securities		-	-
Cash and cash equivalents		2,388	2,475
Total current assets		**8,910**	**5,583**
Total assets		**13,077**	**9,413**

Balance sheet 31 December - Equity and liabilities

mEUR	Note	2019	2018
Share capital		27	28
Reserve for net revaluation under the equity method		429	297
Reserve for capitalised development cost		569	430
Dividend		211	205
Retained earnings		1,851	1,954
Total equity		**3,087**	**2,914**
Warranty provisions	3.6	617	545
Deferred tax	5.2	123	91
Total non-current provisions		**740**	**636**
Other liabilities		16	67
Financial debts	3.3,4.3	531	498
Total non-current debt		**547**	**565**
Total non-current liabilities		**1,287**	**1,201**
Financial debts	3.3,4.3	13	-
Trade payables		177	156
Payables to subsidiaries		8,268	4,758
Other liabilities		215	326
Tax payables		30	58
Total current liabilities		**8,703**	**5,298**
Total liabilities		**9,990**	**6,499**
Total equity and liabilities		**13,077**	**9,413**

Contingent assets and liabilities	3.7
Financial risks	4.2
Audit fees	6.1
Related party transactions	6.2
Ownership	6.3
General accounting policies	7.1

Statement of changes in equity 1 January – 31 December

2019 mEUR	Share capital	Reserve under the equity method	Reserve for capitalised development cost	Dividend	Retained earnings	Total
Equity as at 1 January	**28**	**297**	**430**	**205**	**1,954**	**2,914**
Effect of initially applying IFRIC 23	-	(104)	-	-	61	(43)
Adjusted equity as at 1 January	**28**	**193**	**430**	**205**	**2,015**	**2,871**
Exchange rate adjustments relating to foreign entities	-	18	-	-	(7)	11
Fair value adjustments of derivative financial instruments	-	(85)	-	-	5	(80)
Tax on fair value adjustments of derivative financial instruments	-	20	-	-	(1)	19
Fair value adjustments of derivative financial instruments, joint venture	-	(47)	-	-	-	(47)
Paid dividend	-	-	-	(197)	-	(197)
Paid dividend related to treasury stock	-	-	-	(8)	8	-
Proposed dividend	-	-	-	207	(207)	-
Proposed dividend related to treasury stock	-	-	-	4	(4)	-
Capitalised development cost	-	-	178	-	(178)	-
Tax on capitalised development cost	-	-	(39)	-	39	-
Acquisition of treasury shares	-	-	-	-	(201)	(201)
Sale of treasury shares	-	-	-	-	-	-
Share-based payments	-	(6)	-	-	31	25
Tax on share-based payments	-	-	-	-	2	2
Capital decrease	(1)	-	-	-	1	-
Profit for the year	-	336	-	-	348	684
Equity as at 31 December	**27**	**429**	**569**	**211**	**1,851**	**3,087**

Note 1 · Result for the year

1.1 · Revenue

Revenue in the parent company consists of sale of spare parts and royalty income from other Group companies.

1.2 · Costs

mEUR	2019	2018
Staff costs are specified as follows:		
Wages and salaries, etc.	264	228
Pension schemes	14	15
Other social security costs	2	2
	280	**245**
Average number of employees in Vestas Wind Systems A/S	2,109	2,162

For information regarding remuneration to the Board of Directors and to the Executive Management for the parent company ref. note 1.3 to the consolidated financial statements. Pension schemes in the parent company consist solely of defined contribution plans and the company does therefore not carry the actuarial risk or the investment risk. For management incentive programmes, ref. note 6.2 to the Consolidated financial statements.

Note 2 · Working capital

2.1 · Inventories

mEUR	2019	2018
Raw materials and consumables	101	91
Work in progress	3	2
	104	**93**

Inventories relate to the spare parts activity.

Note 3 · Other operating assets and liabilities

3.1 · Intangible assets

2019 mEUR	Goodwill	Completed development projects	Software	Other intangible assets	Development projects in progress	Total
Cost as at 1 January	75	1,623	357	14	277	2,346
Exchange rate adjustments	(1)	1	(2)	-	(1)	(3)
Additions	-	-	1	-	323	324
Disposals	-	-	-	-	(1)	(1)
Transfers	-	255	82	-	(337)	-
Cost as at 31 December	**74**	**1,879**	**438**	**14**	**261**	**2,666**
Amortisation as at 1 January	14	1,353	243	5	-	1,615
Exchange rate adjustments	-	-	(1)	-	-	(1)
Amortisation for the year	1	152	47	3	-	203
Impairment loss	-	-	-	-	-	-
Amortisation as at 31 December	**15**	**1,505**	**289**	**8**	**-**	**1,817**
Carrying amount as at 31 December	**59**	**374**	**149**	**6**	**261**	**849**
Amortisation period	5–20 years	2–5 years	3–5 years	3–7 years		

Included in software are internally completed IT projects amounting to EUR 111m as at 31 December 2019 (2018: EUR 83m).
For development projects in progress, ref. note 3.1 to the Consolidated financial statements.

Goodwill
Goodwill is included in the item "Goodwill" or in the item "Investments accounted for using the equity method" and is amortised over the estimated useful life determined on the basis of Management's experience with the individual business areas. Goodwill is amortised on a straight-line basis over the amortisation period, which is a maximum of 20 years, and is longest for entities acquired for strategic purposes with a long-term earnings profile.

3.2 · Property, plant, and equipment

2019 mEUR	Land and buildings	Plant and machinery	Other fixtures and fittings, tools, and equipment	Property, plant and equipment in progress	Right-of-use assets	Total
Cost as at 1 January	213	103	144	3	-	463
Initial application of IFRS 16, ref. note 7.1	-	-	-	-	48	48
Adjusted cost as at 1 January	213	103	144	3	48	511
Additions	2	1	29	16	11	59
Disposals	(13)	(13)	(1)	-	-	(27)
Transfers	-	4	-	(5)	-	(1)
Cost as at 31 December	**202**	**95**	**172**	**14**	**59**	**542**
Depreciation as at 1 January	141	76	115	-	-	332
Exchange rate adjustments	-	(2)	-	-	-	(2)
Depreciation for the year	9	10	16	-	14	49
Depreciations on disposals for the year	(13)	(13)	(1)	-	-	(27)
Depreciation as at 31 December	**137**	**71**	**130**	**-**	**14**	**352**
Carrying amount as at 31 December	**65**	**24**	**42**	**14**	**45**	**190**
Depreciation period	10–40 years	3–10 years	3–5 years		2–20 years	

3.3 · Leases

mEUR	Property	Vehicles	Equipment	Total
Right-of-use assets as at 1 January 2019	**42**	**5**	**1**	**48**
Depreciation charge for the year	(7)	(3)	(4)	(14)
Addition of right-of-use assets for the year	1	2	8	11
Right-of-use assets as at 31 December 2019	**36**	**4**	**5**	**45**

Vestas leases several assets including properties, vehicles and equipment. Rental contracts are typically made for fixed periods of 1 to 10 years but may have extension options. Lease terms are negotiated on an individual basis and contain different terms and conditions including payment terms, terminations rights, index-regulations, maintenance, deposits and guarantees etc.

Lease liabilities
Lease liabilities are included in Financial debts which amounts to EUR 46m as at 31 December 2019. The lease liabilities included in financial debts can be specified as following:

Maturity analysis - contractual undiscounted cash flow

mEUR	2019
Less than one year	14
One to five years	23
More than five years	11
Total undiscounted lease liabilities as at 31 December	**48**
Lease liabilities included in the statement of financial position as at 31 December	**46**
Current	13
Non-current	33

Some property leases contain variable payments terms that are linked to an index e.g. a consumer price index. Overall the variable payments constitute less than 1 percent of Vestas entire lease payments.

Extension and termination options may be included in leases. These terms are used to maximise operational flexibility in terms of managing contracts.

Total lease expenses recognised in the income statement

mEUR	2019
Interest expense on lease liabilities	1
Variable lease payments not included in the measurement of lease liabilities	0
Expenses relating to short-term leases and leases of low-value	5

3.4 · Investments in subsidiaries and associates including joint venture

Accounting policies
Investments in subsidiaries and associates including joint venture are recognised and measured in the financial statements of the parent company under the equity method.

On acquisition of subsidiaries and associates including joint venture, the difference between cost of acquisition and net asset value of the entity acquired is determined at the date of acquisition after the individual assets and liabilities having been adjusted to fair value (the acquisition method) and allowing for the recognition of any restructuring provisions relating to the entity acquired. Any remaining positive differences in connection with the acquisition of subsidiaries and associates including joint venture are included in the items "Investments in subsidiaries" and "Investments in associates including joint venture". The items "Income/(loss) from investments in subsidiaries" and "income/ (loss) from investments in associates including joint venture" in the income statement includes the proportionate share of the profit after tax less goodwill amortisation.

The items "Investments in subsidiaries" and "Investments in associates including joint venture" in the balance sheet includes the proportionate ownership share of the net asset value of the entities calculated under the accounting policies of the parent company with deduction or addition of unrealised intercompany profits or losses and with addition of any remaining value of the positive differences (goodwill).

Subsidiaries and associates including joint venture with a negative net assets value are measured at EUR 0, and any receivables from these are written down by the parent company's share of the negative net asset value, if impaired. Any legal or constructive obligation of the parent company to cover the negative balance of the subsidiaries and associates including joint venture is recognised as provisions.

The total net revaluation of investments in subsidiaries and associates including joint venture is transferred upon distribution of profit to "Reserve for net revaluation under the equity method" under equity.

Gains and losses on disposals or winding up of subsidiaries and associates including joint venture are calculated as the difference between the sales value or cost of winding up and the carrying amount of the net assets at the date of acquisition including goodwill and expected loss of disposal or winding up. The gains or losses are included in the income statement.

Investments in subsidiaries, joint venture, and associates

mEUR	2019	2018
Subsidiaries	2,625	2,447
Joint venture	71	115
Associates	1	1
Carrying amount as at 31 December	**2,697**	**2,563**

Income/(loss) from investments in subsidiaries, joint venture, and associates

mEUR	2019	2018
Subsidiaries	333	145
Joint venture	3	39
Associates	0	0
	336	**184**

Income from subsidiaries

mEUR	2019	2018
Share of profit in subsidiaries after tax	352	157
Amortisation of goodwill	(19)	(12)
	333	**145**

Income/(loss) from joint venture

mEUR	2019	2018
Share of profit(loss) in joint venture after tax	3	39
	3	**39**

Investments in subsidiaries

mEUR	2019	2018
Cost as at 1 January	2,063	2,040
Exchange rate adjustments	2	(5)
Additions	-	28
Cost as at 31 December	**2,065**	**2,063**
Value adjustments as at 1 January	384	282
Effect of initially applying IFRIC 23	(104)	-
Transition to IFRS 15 at 1 January	-	(65)
Exchange rate adjustments	18	12
Share of profit/loss for the year after tax	352	157
Changes in equity, share-based payment	(6)	(10)
Changes in equity, derivative financial instruments	(65)	20
Amortisation of goodwill	(19)	(12)
Value adjustments as at 31 December	**560**	**384**
Carrying amount as at 31 December	**2,625**	**2,447**
Remaining positive difference included in the above carrying amount as at 31 December	130	67

Investments in joint venture

mEUR	2019	2018
Cost as at 1 January	202	202
Cost as at 31 December	**202**	**202**
Value adjustments as at 1 January	(87)	(125)
Share of profit(loss) for the year after tax	3	39
Changes in equity	(47)	(1)
Value adjustments as at 31 December	**(131)**	**(87)**
Carrying amount as at 31 December	**71**	**115**

Ref. note 6.7 to the Consolidated financial statements for an overview of the legal entities within the Group.

The carrying amount of the investment in MVOW is mainly comprised of the development project of the 8 MW platform. With reference to page 031, MVOW's order backlog amounts to 2,870 MW. Order intake in 2019 has been limited. The valuation of MVOW assumes order intake for revenue recognition in the periods 2023-2026 which has not yet been secured. Any change to such future expectation on future performance may in nature result in impairment of the carrying amount of the investment in MVOW

3.5 · Prepayments

Prepayments comprise of prepaid software license, insurance, and rent.

3.6 · Provisions

Warranty provisions

mEUR	2019	2018
Warranty provisions as at 1 January	545	565
Warranty provisions for the year	289	161
Used warranty provisions for the year	(217)	(181)
Warranty provisions as at 31 December	**617**	**545**
The warranty provisions are expected to be consumed as follows:		
0–1 year	214	115
> 1 year	403	430
	617	**545**

In line with accounting policies, potential product warranties is recognised as warranty provisions when revenue from sale of wind turbines is recognised.

Product risks
Lack of reliability in several of Vestas' products has previously led to major warranty provisions. In recent years, Vestas has invested significant resources in improving the products and increasing their reliability. This work comprises design, production, installation, and continuous maintenance.

The goal of these initiatives is to reduce Vestas' warranty costs, to secure customer returns, to increase the competitiveness of the products, and to improve customer earnings.

3.7 · Contingent assets and liabilities, and contractual obligations

Vestas provides guarantees and indemnities for bank and bonding facilities to third parties on behalf of the joint venture MVOW with a notional amount of EUR 394m (2018: EUR 436m). In addition, Vestas provides indemnities to third parties on behalf of the joint venture related to project supplies and warranty obligations to customers, with a notional amount of EUR 4,445m (2018: EUR 4,405m). No guarantees have been utilised during 2019 or in previous years and none of the indemnities are expected at the balance sheet date to be utilised.

In addition, the company provides parent company guarantees and indemnities to third parties in connection with project supplies in subsidiaries, and their warranty obligations to customers. To secure guarantees issued by banks, the company has given securities in cash and cash equivalents with disposal restrictions, ref. note 4.4 to the Consolidated financial statements.

On 31 July 2017, General Electric (GE) filed a complaint against Vestas Wind System A/S and Vestas-American Wind Technology, Inc. (Vestas) in the US federal court in Los Angeles, California. With reference to the press release of 25 June 2019, Vestas and GE have reached an amicable settlement of all disputes related to multiple patent infringement claims in the U.S., resulting in the discontinuation of the case pending in the U.S. District Court for the Central District of California as well as all other pending proceedings related to the patents-in-suit. With this settlement, any past infringements of the patents-in-suit are fully released. In addition, the settlement includes a cross-license to the patents-in-suit and their family members, as well as a confidential payment from Vestas to GE. The cross-license applies globally to the parties' and their affiliates' respective onshore and offshore wind businesses and ensures that they can use the technology covered by such patents. The financial impact of the settlement is reflected in these financial statements.

Vestas has entered into binding contracts concerning purchase of property, plant and equipment to be delivered in 2020 and future periods at a value of EUR 6m (2018: EUR 0m). In addition, the company has a contractual commitment to pay on average EUR 4m annually until 2022 for the use of certain technology rights owned by a third party.

For pending lawsuits, ref. note 3.7 to the Consolidated financial statements. For disclosure of contingent assets, ref. note 3.7 to the Consolidated financial statements.

The company is jointly taxed with its Danish subsidiaries. As the administrative company for the subsidiaries included in the joint taxation, the company is liable for the tax obligations of the included subsidiaries.

Note 4 · Capital structure and financing items

4.1 · Financial items

mEUR	2019	2018
Financial income		
Interest income	15	6
Interest income from subsidiaries	73	66
Exchange rate adjustments	-	-
Financial instruments	1	-
Other financial income	-	1
	89	**73**
Financial costs		
Interest costs	20	15
Interest costs to subsidiaries	63	63
Interest on lease liabilities	1	-
Exchange rate adjustments	21	12
Financial instruments	-	11
Other financial costs	8	9
	113	**110**

4.2 · Financial risks

For the use of derivative financial instruments and risks and capital management ref. note 4.6 to the Consolidated financial statements.

4.3 · Financial liabilities

Financial debts

mEUR	2019	2018
Green corporate eurobond	498	498
Lease liabilities	46	
	544	**498**
Financial debts break down as follows:		
< 1 year	13	-
1–2 years	8	-
> 2 years	523	498
	544	**498**

Note 5 · Tax

5.1 · Income tax

mEUR	2019	2018
Current tax on profit for the year	30	91
Deferred tax on profit for the year	71	49
Foreign taxes	3	3
Adjustment related to previous years	10	17
Income tax for the year recognised in the income statement, (income)	**114**	**160**
Deferred tax on equity	(1)	(7)
Tax recognised in equity, expense/(income)	**(1)**	**(7)**
Total income taxes for the year, (income)	**113**	**153**

5.2 · Deferred tax

mEUR	2019	2018
Deferred tax as at 1 January, net liabilities	(91)	(33)
Deferred tax on profit for the year	(71)	(49)
Tax on entries in equity	1	7
Adjustment relating to previous years	38	(16)
Deferred tax as at 31 December, net liabilities	**(123)**	**(91)**

Note 6 · Other disclosures

6.1 · Audit fees

mEUR	2019	2018
Audit:		
PricewaterhouseCoopers	1	1
Total audit	**1**	**1**
Non-audit services:		
PricewaterhouseCoopers		
Assurance engagement	0	0
Tax assistance	1	0
Other services	1	0
Total non-audit services	**2**	**0**
Total	**3**	**1**

6.2 · Related party transactions

All transactions with related parties have been carried out at arm's length principle. Definition of related parties and concerning other transactions with related parties, ref. note 6.3 to the Consolidated financial statement.

6.3 · Ownership

The Company has no shareholders with more than 5 percentage of voting share capital.

Note 7 · Basis of preparation

7.1 · General accounting policies

The parent company financial statements have been prepared in accordance with the Danish Financial Statements Act (DK GAAP) applying to entities of reporting class D, as well as the requirements laid down by Nasdaq Copenhagen in respect of the financial reporting of companies listed on the stock exchange.

For adopted accounting policies see the notes to the Consolidated financial statements. The denomination of the items in the parent company's financial statements complies with the requirements under DK GAAP.

The accounting policies applied are unchanged from those applied in the previous year except for the impact of IFRS 16 leases.

Implementation of new standard
On 1 January 2019, Vestas adopted a new accounting standard IFRS 16 – Leases to align with accounting practice in the Group. Description of the accounting policy for leasing, ref. note 7.3 to the Consolidated financial statements.

The adoption of IFRS 16 has had an impact on recognition and measurement of the opening balance at 1 January 2019 to Property, plant and equipment of EUR 48m, Financial debts, non-current EUR 42m, Financial debts, current EUR 6m and equity of EUR 0m in the financial statement for Vestas Wind Systems A/S for 2019. Comparative figures are not restated.

Development cost
An amount equivalent to the capitalised development cost in the balance sheet incurred after 1 January 2016 is recognised in the category "Reserve for capitalised development cost" in the equity. The value of the reserve is reduced by the value of the depreciations.

Cash flow statement
Vestas Wind Systems A/S applies an exemption under DK GAAP whereby the parent company is not required to prepare a separate cash flow statement. See the Consolidated Cash Flow Statement on page 060.

Vestas Wind Systems A/S
Hedeager 42 . 8200 Aarhus N . Denmark
Tel: +45 9730 0000 . Fax: +45 9730 0001
vestas@vestas.com
vestas.com

Disclaimer and cautionary statement

This document contains forward-looking statements concerning Vestas' financial condition, results of operations and business. All statements other than statements of historical fact are, or may be deemed to be, forward-looking statements. Forward-looking statements are statements of future expectations that are based on management's current expectations and assumptions and involve known and unknown risks and uncertainties that could cause actual results, performance, or events to differ materially from those expressed or implied in these statements.

Forward-looking statements include, among other things, statements concerning Vestas' potential exposure to market risks and statements expressing management's expectations, beliefs, estimates, forecasts, projections and assumptions. A number of factors that affect Vestas' future operations and could cause Vestas' results to differ materially from those expressed in the forward-looking statements included in this document, include (without limitation): (a) changes in demand for Vestas' products; (b) currency and interest rate fluctuations; (c) loss of market share and industry competition; (d) environmental and physical risks, including adverse weather conditions; (e) legislative, fiscal, and regulatory developments, including changes in tax or accounting policies; (f) economic and financial market conditions in various countries and regions; (g) political risks, including the risks of expropriation and renegotiation of the terms of contracts with governmental entities, and delays or advancements in the approval of projects; (h) ability to enforce patents; (i) product development risks; (j) cost of commodities; (k) customer credit risks; (l) supply of components; and (m) customer created delays affecting product installation, grid connections and other revenue-recognition factors.

All forward-looking statements contained in this document are expressly qualified by the cautionary statements contained or referenced to in this statement. Undue reliance should not be placed on forward-looking statements. Additional factors that may affect future results are contained in Vestas' annual report for the year ended 31 December (available at www.vestas.com/investor) and these factors also should be considered. Each forward-looking statement speaks only as of the date of this document. Vestas does not undertake any obligation to publicly update or revise any forward-looking statement as a result of new information or future events other than as required by Danish law. In light of these risks, results could differ materially from those stated, implied or inferred from the forward-looking statements contained in this document.