



**Vestas**<sup>®</sup>

# Annual report 2018

1 January 2018 – 31 December 2018  
Vestas Wind Systems A/S  
Hedeager 42, 8200 Aarhus N, Denmark  
Company Reg. No.: 10403782

**Wind.** It means the world to us.<sup>™</sup>



# Contents

<b>003</b>	<b>In brief</b>
003	2018 at a glance
004	Letter from the Chairman & the CEO
005	Outlook
<b>006</b>	<b>Who we are</b>
<b>008</b>	<b>Strategy and ambitions</b>
008	Corporate strategy
011	Capital structure strategy
<b>012</b>	<b>Group performance</b>
012	Highlights
013	Financial performance
016	Power solutions
021	Service
024	Offshore
<b>027</b>	<b>Sustainability</b>
027	Highlights
028	Sustainability at Vestas
032	Accounting policies
<b>033</b>	<b>Governance</b>
033	Vestas on the capital markets
035	Corporate governance
046	Risk Management
<b>048</b>	<b>Consolidated financial statements</b>
049	Income statement
049	Statement of comprehensive income
050	Balance sheet
051	Statement of changes in equity
052	Statement of cash flows
053	Notes
<b>102</b>	<b>Statements</b>
102	Management's statement
103	The independent auditor's report
106	Independent assurance report
<b>107</b>	<b>Financial statements for Vestas Wind Systems A/S</b>

How to read this report – definitions:

## Vestas

"Vestas" is the entity covering the two business areas Power solutions and Service – as referred to in the chapter "Outlook" and "Capital structure strategy" and in the sections "Sustainability" 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

## 2018 at a glance



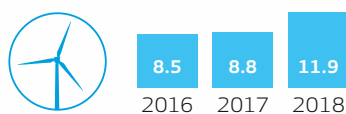
Vestas became the first company to install 100 GW of wind turbines.

### Highest order intake ever

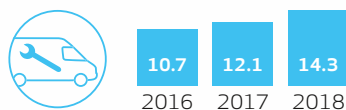
# 14.2 GW

### All-time high order backlog

Wind turbine (bnEUR)



Service (bnEUR)



### Largest offshore project ever

# 950 MW

MHI Vestas Offshore Wind received 950 MW order in the UK.

### Performance within guidance

	Realised	Guidance
Revenue (bnEUR)	10.1	10.0-10.5
EBIT margin before special items (%)	9.5	9.5-10.5
Total Investments* (mEUR)	603	approx. 600
Free cash flow* (mEUR)	418	approx. 400

\* Excl. any investments in marketable securities, short-term financial investments, and the acquisition of Utopus Insights, Inc.

### Service EBIT margin

# 25.2%

Strongest performance ever.

### Dividend

# EUR 205m

The Board recommends a dividend of DKK 7.44 per share be paid for the financial year 2018.

### Share buy-back programmes

# EUR 402m

Bought back 7.0m Vestas shares at a total value of EUR 402m.

### Acquisition of Utopus

Acquired Utopus Insights, Inc., a leading energy analytics and digital solution company.

### Reduction in injuries

Reduced the rate of total recordable injuries by 25 percent.

# Letter from the Chairman & the CEO

## Continued leadership

A remarkable 2018, where both Vestas and the industry reached new milestones, has come to an end and we have entered a new year that could set the industry's direction for the future. While Vestas continued to lead the industry on key parameters such as sales, profitability, and technology, the industry continued its transition towards more complex and market-based mechanisms. In the coming years, we must build on these achievements and adapt to the new reality in order to realise our vision as the Global Leader in Sustainable Energy Solutions and help create a world powered by sustainable energy.

Together with our customers and partners, we are leading the way in transforming renewable energy into mainstream energy, hereby removing hundreds of millions of tonnes of CO<sub>2</sub> from our atmosphere, and helping the world meet its growing energy needs sustainably.

## The 100 GW milestone

2018, was a year of many highlights. We broke our order record again; we entered into new markets; we introduced new technology solutions; expanded our footprint and ramped up manufacturing; and we took a leap within digitalisation with the acquisition of Utopus Insights. To us, the biggest highlight in 2018, which we are very proud of, was that we became the first company to install 100 GW of wind turbines when we completed the 250 MW Arbor Hill project in the USA for MidAmerican Energy Company.

Vestas pioneered wind energy 40 years ago and to install 100 GW in around 80 countries across six continents is something we should be proud of. The 100 GW has been made possible through our relentless commitment to design and deliver wind energy solutions all over the world. A commitment that everyone in Vestas has shown throughout the years. A well-deserved congratulation to everyone, past and present, who has helped Vestas reach this important milestone.

## Looking ahead

Today, wind energy has manifested itself as the cheapest source of electricity in many markets, which through increased efficiency has helped wind and solar reach 1,000 GW of installed capacity by 2018. This highlights the tremendous progress the industry has made in the last 40 years, but also why it is more important than ever that we continue to lead the industry.

With more than 101 GW of installed wind turbines, Vestas has installed around 20 percent of all wind capacity in the world, but with the next 1,000 GW of wind and solar expected to be installed by 2023, we need to remain focused on executing our commitments and priorities in the short term. By doing so, we sustain and strengthen the foundation that enables us to develop the sustainable energy solutions our customers and stakeholders need in the future.

From this foundation, we can strengthen our core within wind energy products, services, and solutions, and combine with other renewable technologies; build on our industry-leading wind and weather data to introduce new digital solutions; leverage our unique global reach, scope and size to enter and win new growth markets; as well as understand and work with new and existing customers to deliver best-in-class sustainable energy solutions.

The 100 GW milestone proves that we have the innovative spirit, the persistence, the boldness and the aspiration to solve big challenges, enabling us to be the global leader in sustainable energy today and in the future.

## Shareholder value is a top priority

Our financial performance in 2018, allowed us to continue returning value to our shareholders, as demonstrated by our dividend pay-out and completion of two share buy-back programmes. The ambition is to continue to provide value to our shareholders by balancing our capital resources for investments into innovating and industry leading sustainable energy solutions and as well returning excess cash through a combination of dividends and share buy-back programmes.

On that note, we want to thank all our stakeholders for your hard work and support in 2018, and we look forward to continuing our journey together.



“ Wind power has gone from niche to mainstream. The wind sector now needs to progress further to becoming a baseload energy source.”

**Bert Nordberg**  
Chairman of the Board of Directors



“ In a challenging year, Vestas once again manifested its leading position by delivering best-in-class results, profitability, and technology.”

**Anders Runevad**  
Group President & CEO

# Outlook

## Outlook 2019

Revenue is expected to range between EUR 10.75bn and 12.25bn, including service revenue, which is expected to grow by approx. 10 percent. Vestas expects to achieve an EBIT margin before special items of 8-10 percent with a service EBIT margin of approx. 24 percent.

Total investments<sup>1)</sup> are expected to amount to approx. EUR 700m in 2019.

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 2019. Further, movements in exchange rates from current levels may also impact Vestas' financial results for 2019.

## Outlook 2019

Revenue (bnEUR)	10.75-12.25
EBIT margin (%) before special items	8-10
Total investments <sup>1)</sup> (mEUR)	approx. 700

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

## Long-term financial ambitions

Vestas envisions market conditions, which in the long term will reflect wind power having achieved merchant levels in the vast majority of markets. The wind power industry is undergoing a transition towards a more mature, unsubsidised renewable energy industry. This transition leads to a highly competitive market, and will likely drive a further consolidation in the industry. Beyond the transition, a matured market for wind energy creates opportunities for Vestas to leverage and strengthen its leadership position.

Within this context, Vestas is able to present long-term financial ambitions that reflect its projection for market conditions and the presumed result of its strategy – including initiatives that are currently being undertaken.

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. Return on Capital Employed has replaced Return on Invested Capital.

## 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



# Who we are

We are the global partner in sustainable energy solutions. We design, manufacture, install, and service wind turbines across the globe – and, together with our offshore joint venture, we have installed more wind power than anyone else.

## Why wind energy?

The planet's energy mix is changing and the electricity demand is expected to increase by more than 40 percent in 2035 compared to 2017 due to population growth and electrification of transport, industrial processes as well as heating and cooling.<sup>1)</sup> Therefore the planet's sustainable development is a tremendous growth opportunity for the renewables industry.

The future is not a faraway place. It's as near as tomorrow and it will affect us all. As energy consumption soars, how will we meet the demand? Fossil fuels are a finite resource that will gradually disappear. The natural replacement is sweeping freely around the earth – the wind.

Here are five reasons why wind energy is a part of the future energy mix – and the future for our planet:

### Independent

An unlimited resource, enabling countries to increase self-sufficiency and reduce energy import dependency.

### Clean

Strong national commitments to reducing CO<sub>2</sub> emissions create a supportive environment for continued investment in renewables.

### Fast

One of the fastest ways to deploy new electricity capacity – infrastructure can be built quickly to match the country's need for electricity.

### Competitive

The levelised cost of wind power has decreased almost 50 percent since 2009.<sup>2)</sup>

### Predictable

The price of oil, natural gas, and other non-renewable materials can be volatile. But the price of wind power is predictable and stable – and free in every currency.

## That is why...

...Vestas' vision is to be the Global Leader in Sustainable Energy Solutions.

...Vestas' mission is to deliver best-in-class energy solutions for the benefit of our customers and the planet.

...Vestas, together with our employees, investors, suppliers, and customers, will bring renewable energy to the world – for the benefit of the world's population.

...Vestas' business model is built on three business areas – Power solutions, Service, and Offshore, – which enable us to execute our corporate strategy.

1) Source: Bloomberg New Energy Finance: New Energy Outlook 2018, June 2018.

2) Source: Bloomberg New Energy Finance: H2 2018 LCOE Update – Global, November 2018.

**Group business model**

**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.

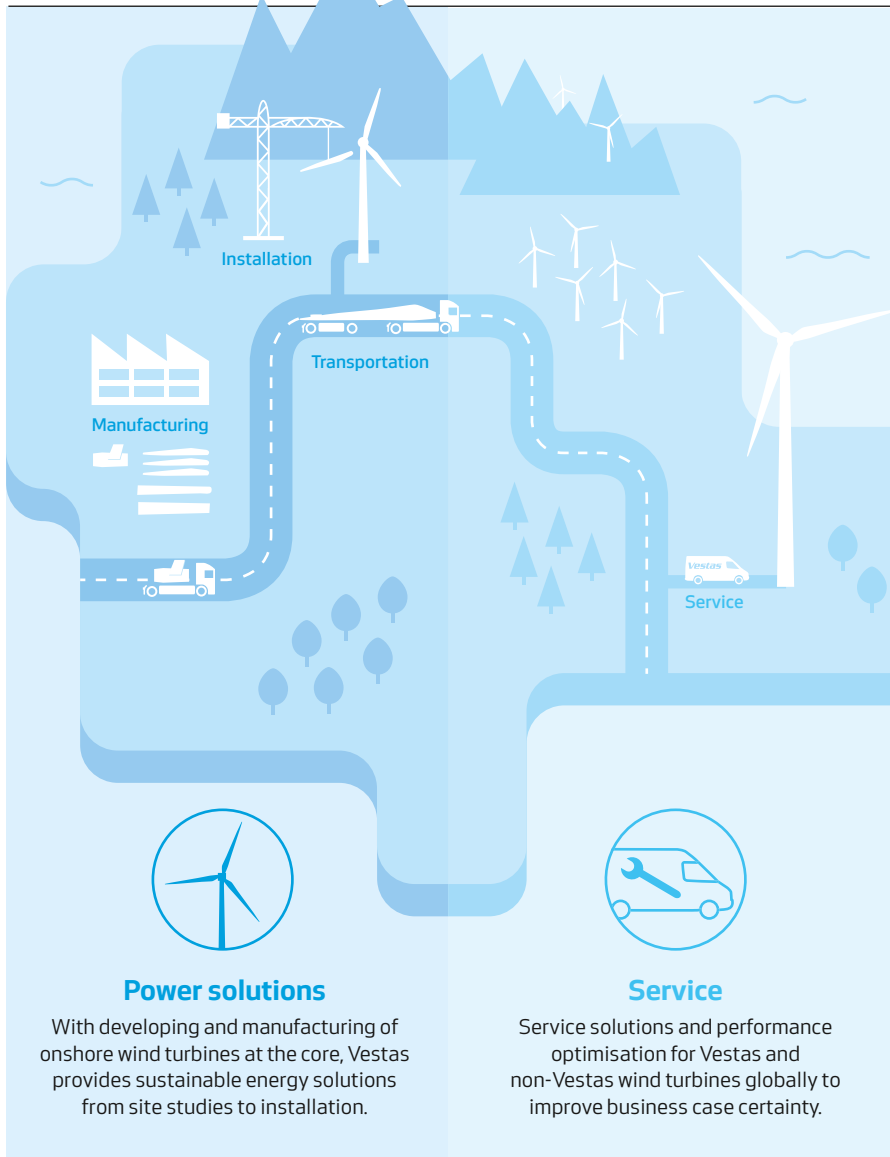
**Manufacturing capabilities**  
Our global manufacturing and supply chain capabilities secure high quality and efficiency.

**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.

**Key resources**

**Vestas**



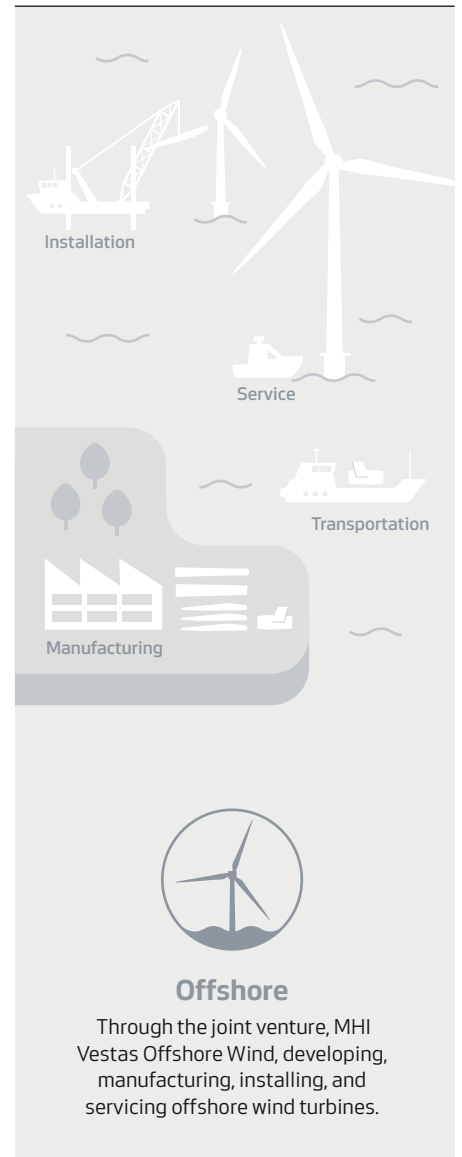
**Power solutions**

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.

**MHI Vestas Offshore Wind**



**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.

**CO<sub>2</sub> savings**  
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

Today, the world is faced with two primary energy challenges: meeting the growing global energy needs with clean and affordable energy and addressing climate change by making the existing energy system sustainable. As a consequence, the world has taken steps to fight climate change that make a 4°C warming of the planet much less likely than it was a decade ago.<sup>1)</sup> At the same time, renewables have become the cheapest source of electricity, making wind and solar the preferred source of new energy capacity. In fact, today's renewable energy solutions are at a scale and cost that can meet both the world's energy demand and bring the world to the 1.5°C warming scenario that will limit impact from climate change.<sup>2)</sup>

### Creating the energy system for future generations

Vestas has been and continues to be a cornerstone in making the world's energy mix sustainable and with growing global energy needs and the 1.5°C warming scenario far away, renewable energy's growth potential is enormous.

In this environment, Vestas wants to drive the necessary change of the existing energy system and create a sustainable energy system for future generations. By doing so, Vestas aspires to be the global leader in sustainable energy solutions and will develop and offer the sustainable energy solutions that can replace fossil energy and meet the growing electricity demand across the globe.

The planet's sustainable development is therefore both an integral part of Vestas' business and a tremendous growth opportunity for the renewables industry as energy demand increases. Compared to 2017, this demand is set to increase by more than 40 percent in 2035 due to population growth and electrification of transport, industrial processes as well as heating and cooling.<sup>3)</sup>

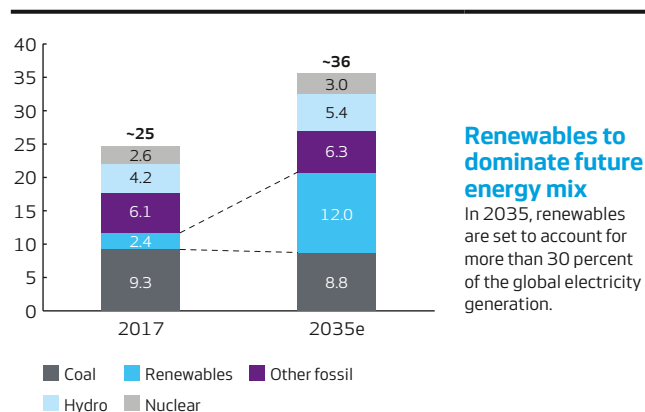
At the same time, more than 30 percent of all current electricity generation capacity is expected to be retired by 2040, which equals around 1,500 GW of coal, oil, gas, and nuclear plants alone.<sup>4)</sup> Moreover, renewables will grow from around 10 percent today to more than 30 percent of the world's electricity demand by 2035.<sup>3)</sup>

Due to renewables' progress, developing countries added more renewables than fossil fuels in 2017, highlighting renewables' competitiveness, and societal benefits.<sup>5)</sup> In total, Bloomberg New Energy Finance projects around USD 4.5tr to be invested in onshore and offshore wind energy up to 2050.<sup>6)</sup>

As such, Vestas' vision, Global Leader in Sustainable Energy Solutions, sets a clear purpose and direction for Vestas' employees and fuels its ambitions for the global energy transition: Vestas wants to lead the industry on volume, revenue, and margins, and together with its key stakeholders wants to make the positive impact on the planet Vestas has the potential to create.

### Global electricity consumption

PWh



Source: Bloomberg New Energy Finance: New Energy Outlook 2018. June 2018.

### Leading from the front: Business areas and unparalleled market position

To create a world entirely powered by renewable energy and reap the associated growth opportunities, the Group continues to consolidate and expand its strong position within each of its business areas, while investing in the solutions and commercial capabilities that meet future market demand. Specifically, the Group leverages its competitive differentiators: global reach, technology and service leadership, unparalleled scale, and proven execution. These differentiators are leveraged from more than 105 GW of installed wind turbines, as well as more than 90 GW under service, to offer market leading solutions within the Group's three business areas: onshore wind, onshore service, and offshore wind. Based on market-leading profitability, the Group also sustains industry-leading research and development capabilities and investment levels across the three business areas that allows it to repeatedly introduce more efficient sustainable energy solutions.

### Connecting future and legacy in onshore wind – Onshore outlook and priorities




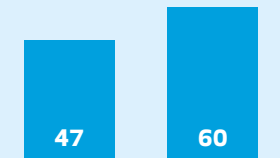
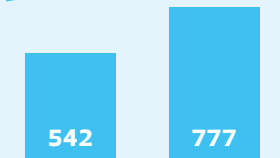
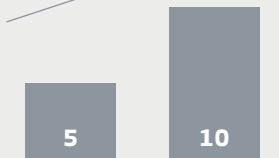
As the cheapest source of energy in several parts of the world, onshore wind energy will play a key role in the planet's sustainable development and unlock growth opportunities in new markets and segments for Vestas.

Towards 2022, global onshore markets are expected to increase 5-7 percent annually from the 2018 base.<sup>7)</sup> In mature markets, new installations are primarily driven by the need to decarbonise the energy sector, while rapidly increasing electricity demand is driving strong growth in emerging markets. At the same time, repowering of older wind turbines with new and more efficient solutions grows as the global wind turbine fleet's average age increases, while hybrids are emerging as a grid-friendly and cost-effective solution to increase the penetration of onshore wind.

1) Source: UN Environment: Emissions Gap Report 2018. November 2018.  
2) Source: The Boston Consulting Group: The Economic Case for Combating Climate Change. September 2018.  
3) Source: Bloomberg New Energy Finance: New Energy Outlook 2018. June 2018.  
4) Source: International Energy Agency (IEA): World Energy Outlook 2018. November 2018.  
5) Source: Bloomberg New Energy Finance: Emerging Markets Outlook 2018 – Climatescope. November 2018.  
6) Source: Bloomberg New Energy Finance: Data Viewer. June 2018.  
7) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. December 2018.



Group main business areas

 <p><b>Power solutions</b> Global leader in onshore wind</p>	 <p><b>Service</b> Global leader in onshore service</p>	 <p><b>Offshore</b> Top player in offshore wind</p>	
<p><b>#1</b> in onshore wind 101 GW total installed</p>	<p><b>#1</b> in onshore service 86 GW under service</p>	<p><b>#2</b> in offshore wind 5 GW total installed</p>	<b>Market position</b>
<p><b>Onshore installations per year (GW)*</b></p> <p>CAGR 5-7%</p>  <p>47 (2018e)    60 (2022e)</p>	<p><b>Installed fleet of onshore wind (GW)*</b></p> <p>CAGR 8-10%</p>  <p>542 (2018e)    777 (2022e)</p>	<p><b>Offshore installations per year (GW)*</b></p> <p>CAGR 15-20%</p>  <p>5 (2018e)    10 (2022e)</p>	<b>Market expectations</b>
<ul style="list-style-type: none"> <li>• Grow faster than the market</li> <li>• Best-in-class margins</li> <li>• Lowest cost-of-energy solutions</li> </ul>	<ul style="list-style-type: none"> <li>• Grow faster than the market</li> <li>• Best-in-class margins</li> </ul>	<ul style="list-style-type: none"> <li>• Grow faster than the market</li> <li>• Best-in-class margins</li> <li>• Lowest cost-of-energy solutions</li> </ul>	<b>Priorities</b>

\* Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. December 2018.

Vestas' mid-term objective is to strengthen its position as global leader in wind power plant solutions, which Vestas seeks to achieve by:

- Growing faster than the market by continuing to expand Vestas' market share and presence, especially in the fastest growing emerging markets.
- Expanding Vestas' focus on full-scope solutions such as Engineering, Procurement and Construction (EPC), hybrids, and co-/development, which tap into the increasing demand changes in the renewable value chain.
- Introducing new products to continue to offer the lowest cost-of-energy solutions while delivering industry-leading margins.

**The leading service provider in a growing market – Onshore service outlook and priorities**

The wind turbine service market remains a key priority for Vestas due to its growth and profitability potential and predictable nature. Cumulative onshore installations are expected to increase 8-10 percent annually until 2022<sup>8)</sup>, driven by increasing annual installations, digitalisation, as well as customers' and societies' need for predictable energy production from renewables.

8) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. December 2018.

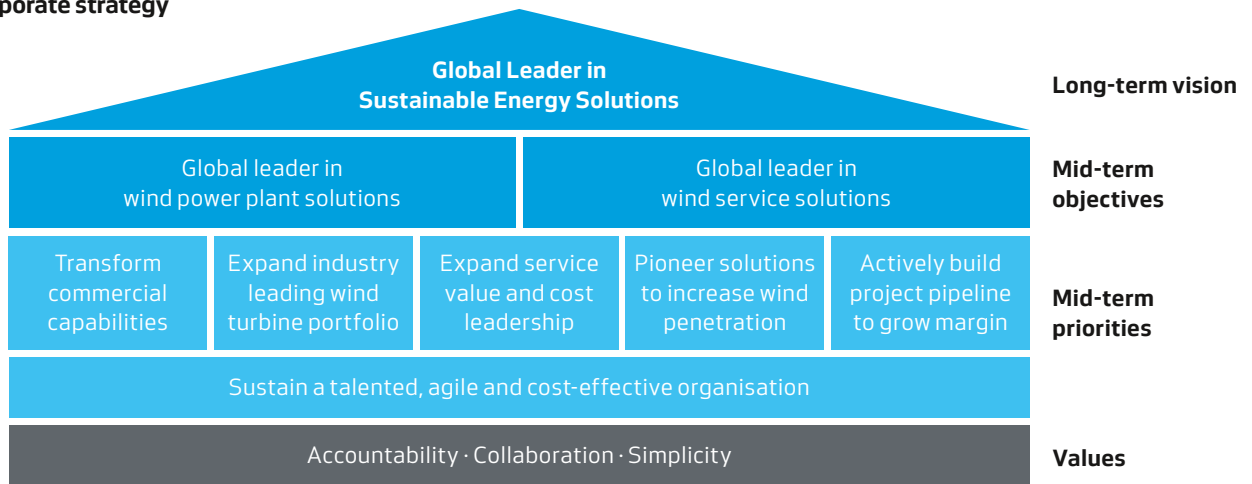
To that end, service innovation to support customers' changing needs, operational excellence across the entire service value chain, as well as strong digital tools and services are key to being successful in the growing service market.

The mid-term objective is to extend and fully leverage Vestas' global leadership in wind turbine service solutions, growing the service business faster than the market while delivering industry-leading margins. Vestas seeks to achieve this by:

- Capturing the full benefit of scale in Vestas' operating model, including leveraging artificial intelligence and automation to optimise operations.
- Delivering volume growth through cost competitive solutions, high renewal rates and multi-brand solutions.
- Innovating Vestas' service offering through digitalisation and solutions that optimise customers' output and asset management.

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

## The building blocks of the corporate strategy



### Creating a top player in offshore wind – Offshore outlook and priorities

The positive outlook for offshore wind power has been reaffirmed as more countries outside the North Sea area such as the USA and Taiwan have made final decisions to include offshore wind power in their future energy mix.

Based on the global expansion and reductions in levelised cost of energy, offshore installations are expected to grow 15-20 percent annually towards 2022 from a base of 5 GW installed in 2018<sup>9)</sup>, with the service business growing simultaneously, delivering stable and predictable revenue.

Through its joint venture, MHI Vestas Offshore Wind, Vestas wants to be a market-leader in offshore wind, offering the market-leading V164 platform, which includes the industry's most powerful turbine: the V164-10 MW<sup>TM</sup>. The joint venture seeks to achieve this by:

- Executing on the solid position achieved in today's robust core markets while expanding reach into new markets such as Taiwan, USA, and Japan.
- Innovating the V164 platform and services which enable MHI Vestas Offshore Wind to grow in both established and emerging markets.

### Updating the mid-term objectives to ensure Vestas stays in the lead

While Vestas' strategy has delivered industry-leading profitable growth and shareholder value since 2013, it is important that Vestas both understands and adapts to the mid-to-long term changes in the markets for renewable energy.

Technologies, policies, and markets are maturing, which means that the success parameters and business models along the renewable energy value chain are expected to adapt. The key underlying trends include increasingly market-based remuneration for renewable projects, an expanding set of low-cost renewable technologies and hybrids, a focus on delivering high system-value, and shifting patterns in types and sources of funding for new renewable installations. To reflect this reality, Vestas' 2019-2021 strategy update includes a new set of mid-term strategic objectives and priorities.

The mid-term objectives, Global leader in wind power plant solutions and Global leader in wind service solutions, entail:

- Leading in innovating products, services, and digital solutions that deliver the lowest cost of energy, increase the penetration of renewables, and help customers fully optimise value from renewable power plants.

- Being the preferred solutions provider and partner to customers.
- Leading by market share in established markets, and competing for leadership in emerging markets.
- Leading in profitability to enable Vestas to reinvest into future innovation and competitiveness.

### Mid-term priorities, the route to continuing leadership in sustainable energy solutions

Transform commercial capabilities:

- Combining all of Vestas' strengths to help customers win in auctions and achieve the optimal business case.
- Develop more advanced solutions, with hybrids and digital solutions.

Expand industry-leading wind turbine portfolio:

- Continuously develop technology to be competitive in all priority wind markets globally.
- Take full advantage of Vestas' global scale and operational excellence to deliver lowest cost of energy.

Expand service value and cost leadership:

- Expand customer value and continue to deliver service at the lowest cost utilising scale, processes, and new tools.
- Further develop digital solutions that improve internal efficiency and output from installed wind turbines creating customer value.

Pioneer solutions to increase wind penetration:

- Constantly addressing the challenges created by the intermittency of wind.
- Ease the integration of wind energy into electrical grids by using solutions like hybrids and storage facilities that can store and release renewable energy into the grid when it is needed.

Actively build project pipeline to grow margin:

- Accelerate the replacement of older wind turbines with new, more productive ones.
- Selectively engage in co-/development of projects to grow the pipeline of future projects.

In order to achieve the mid-term priorities, Vestas will need an organisation that is talented, agile, and cost-effective. Vestas' organisation is inspired by its values of Accountability, Collaboration, and Simplicity. These reflect guiding principles in terms of how Vestas' employees work and engage with each other internally and with the full range of stakeholders externally.

9) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. December 2018.

# Capital structure strategy

## Priorities and capital allocation in 2018



\* Based on recommended dividend for the financial year 2018.

### Capital structure targets

Vestas' capital structure targets, as well as related dividend policy, link to the strategic aspirations of the company.

The main priority is to invest in Vestas' corporate strategy and use capital resources for required investments and research and development to realise this strategy.

As a player in a market where projects, customers, and wind turbine investors are becoming larger, Vestas aims to be a strong financial counterpart. Capital resources will be maintained to secure compliance with the capital structure targets:

- Net interest bearing debt/EBITDA ratio below 1x at any point in the cycle.
- Solvency ratio of minimum 25 percent by the end of each financial year.

### Capital allocation priorities

Available capital resources may also be used for bolt-on acquisitions to accelerate or increase profitable growth prospects.

Any decision to distribute cash to shareholders will be made in appropriate consideration of the capital structure targets 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 of Directors of Vestas Wind Systems A/S (the Board) 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 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.

# Group performance

## Highlights

mEUR	2018	2017	2016	2015	2014
<b>FINANCIAL HIGHLIGHTS</b>					
<b>INCOME STATEMENT</b>					
Revenue	10,134	9,953	10,237	8,423	6,910
Gross profit	1,631	1,963	2,126	1,505	1,178
Operating profit before amortisation, depreciation and impairment losses (EBITDA) before special items	1,394	1,651	1,826	1,212	929
Operating profit (EBIT) before special items	959	1,230	1,421	860	559
Operating profit before amortisation, depreciation and impairment losses (EBITDA)	1,379	1,651	1,826	1,258	977
Operating profit (EBIT)	921	1,230	1,421	906	607
Operating profit (EBIT) before special items adjusted for tax	719	923	1,066	636	419
Net financial items	(51)	2	(33)	(15)	(53)
Profit before tax	910	1,192	1,287	925	523
Profit for the year	683	894	965	685	392
<b>BALANCE SHEET</b>					
Balance sheet total	11,899	10,871	9,931	8,587	6,997
Equity	3,104	3,112	3,190	2,899	2,379
Investments in property, plant and equipment	312	268	304	220	163
Net working capital	(2,040)	(1,984)	(1,941)	(1,383)	(957)
Net invested capital	(538)	(397)	(361)	301	677
Capital employed	3,602	3,609	3,686	3,394	2,986
Interest-bearing position (net), end of year	3,046	3,359	3,255	2,270	1,411
Interest-bearing debt, end of year	498	497	496	495	607
<b>CASH FLOW STATEMENT</b>					
Cash flow from operating activities	1,021	1,625	2,181	1,472	1,126
Cash flow from investing activities before acquisitions of subsidiaries and financial investments	(603)	(407)	(617)	(425)	(285)
Free cash flow before acquisitions of subsidiaries and financial investments	418	1,218	1,564	1,047	841
Free cash flow	(69)	1,218	1,364	1,047	841
<b>FINANCIAL RATIOS<sup>1)</sup></b>					
<b>FINANCIAL RATIOS</b>					
Gross margin (%)	16.1	19.7	20.8	17.9	17.0
EBITDA margin (%) before special items	13.8	16.6	17.8	14.4	13.4
EBIT margin (%) before special items	9.5	12.4	13.9	10.2	8.1
EBITDA margin (%)	13.6	16.6	17.8	14.9	14.1
EBIT margin (%)	9.1	12.4	13.9	10.8	8.8
Return on invested capital (ROIC) (%)	388.4	(9,044.1)	265.2	117.2	35.3
Return of capital employed (ROCE) (%)	20.4	25.1	30.8	20.3	16.0
Net interest-bearing debt/EBITDA before special items	(2.2)	(2.0)	(1.8)	(1.9)	(1.5)
Solvency ratio (%)	26.1	28.6	32.1	33.8	34.0
Return on equity (%)	22.6	28.1	32.6	26.2	20.1
<b>SHARE RATIOS</b>					
Earnings per share (EUR)	3.4	4.2	4.4	3.1	1.8
Book value per share (EUR)	15.1	14.4	14.4	12.9	10.6
P/E ratio	19.3	13.6	14.0	21.2	17.2
Dividend per share (EUR)	1.00 <sup>2)</sup>	1.24	1.31	0.91	0.52
Payout ratio (%)	30.0 <sup>2)</sup>	29.9	30.0	29.9	29.9
Share price 31 December (EUR)	65.9	57.6	61.7	64.8	30.4
Number of shares at the end of the year	205,696,003	215,496,947	221,544,727	224,074,513	224,074,513
<b>OPERATIONAL KEY FIGURES</b>					
Order intake (bnEUR)	10.6	8.9	9.5	8.2	5.8
Order intake (MW)	14,214	11,176	10,494	8,943	6,544
Order backlog – wind turbines (bnEUR)	11.9	8.8	8.5	7.9	6.7
Order backlog – wind turbines (MW)	15,646	11,492	9,530	8,732	7,513
Order backlog – service (bnEUR)	14.3	12.1	10.7	8.9	7.0
Produced and shipped wind turbines (MW)	10,676	11,237	9,957	7,948	6,125
Produced and shipped wind turbines (number)	3,729	4,241	4,264	3,330	2,527
Deliveries (MW) <sup>3)</sup>	10,847	8,779	9,654	7,486	6,252

1) The ratios have been calculated in accordance with the guidelines from "Finansforeningen" (The Danish Finance Society) (Recommendations and Financial ratios 2018).

2) Based on proposed dividend.

3) In fourth quarter 2018, Vestas has aligned deliveries to follow timing of revenue recognition, see note 1.2 in the Consolidated financial statements, page 058. Consequently, 2018 deliveries is positively impacted by net 443 MW.

# Financial performance

## Group business areas

### Vestas

#### Consolidated

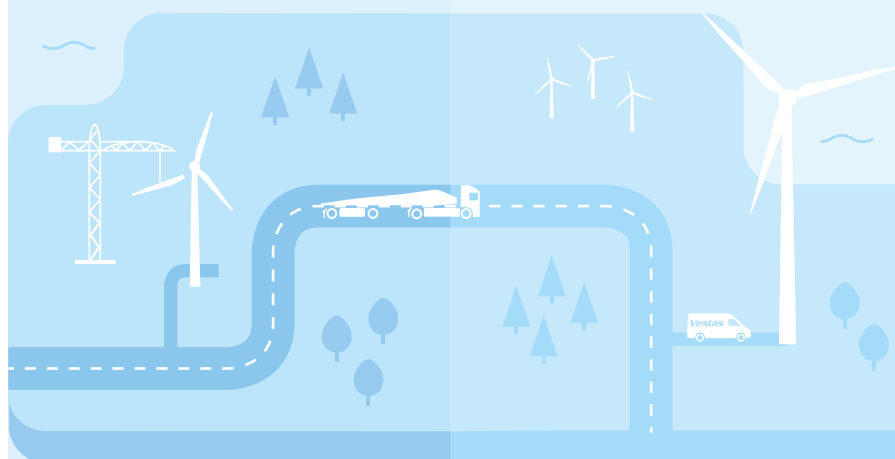
Vestas' consolidated numbers comprise Vestas Wind Systems A/S and the subsidiaries over which Vestas exercises control. Vestas covers the two business areas: Power solutions and Service. MHI Vestas Offshore Wind is accounted for using the equity method.



Power solutions



Service



#### Key highlights 2018

Revenue

EUR 8,465m

EBIT before special items

EUR 754m

Backlog

EUR 11.9bn

In a rapidly changing market, Vestas achieved an increase in order intake compared to 2017, with a record-high 14,214 MW. This also resulted in an order backlog of 15,646 MW. Activity levels remained at a high level with 10,676 MW produced and shipped and 10,847 MW delivered to the customers.

#### Key highlights 2018

Revenue

EUR 1,669m

EBIT before special items

EUR 421m

Backlog

EUR 14.3bn

Vestas' reputation as a trusted service partner for customers was confirmed by 2018's order intake. At the end of 2018, Vestas had service agreements in the order backlog with expected contractual revenue of EUR 14.3bn, an increase of EUR 2.2bn compared to 2017. At the end of the year, Vestas had a total of 86 GW under service across 67 countries.

### MHI Vestas Offshore Wind

#### Joint venture

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



Offshore



#### Key highlights 2018\*

Revenue

EUR 1,112m

Net profit

EUR 26m

Backlog

3,838 MW

Accounted for as a joint venture in Vestas, MHI Vestas Offshore Wind generated a net profit of EUR 26m and secured an order intake of 3,180 MW. The solid order intake and consequently high 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 2018.

## Income statement

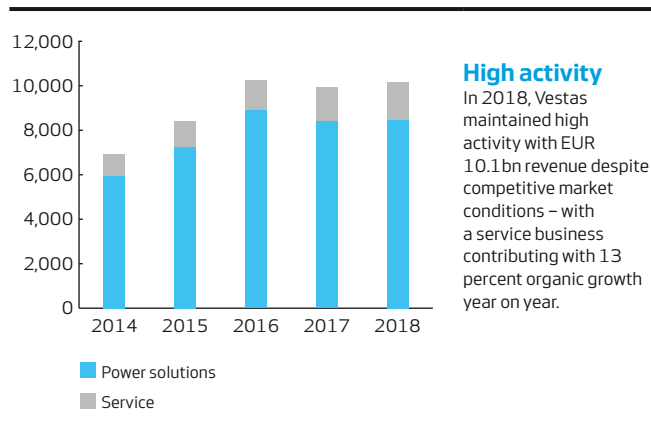
### Result for the year

#### Revenue

Revenue amounted to EUR 10,134m in 2018, compared to EUR 9,953m in 2017, and was within the guidance of EUR 10.0bn-10.5bn. In 2018, revenue includes a negative foreign exchange translation impact of approx. EUR 300m, compared to 2017.

#### Revenue

mEUR



Americas accounted for 44 percent (2017: 42 percent) of revenue, Europe, Middle East, and Africa (EMEA) accounted for 42 percent (2017: 49 percent), while Asia Pacific accounted for 14 percent (2017: 9 percent).

#### Distribution of revenue

mEUR

	2018	2017
Europe, Middle East, and Africa	4,310	4,840
Americas	4,444	4,194
Asia Pacific	1,380	919
<b>Total</b>	<b>10,134</b>	<b>9,953</b>

#### Gross profit

Gross profit amounted to EUR 1,631m, corresponding to a gross margin of 16.1 percent, which is a 3.6 percentage point decrease relative to 2017. The gross margin decrease was driven by lower average project margins in the Power solutions segment, which reflects mainly an increased competition, but as well some additional ramp up costs related to new products. This was partly offset by improved Service profitability.

#### Research and development costs

Research and development costs recognised in the income statement amounted to EUR 229m, which was slightly below EUR 235m in 2017. The total research and development expenditure prior to capitalisation and amortisation on the other hand increased by 44 percent to EUR 325m in 2018, against EUR 225m in 2017, due to continued development activities as part of bringing new technology to the market, including the EnVentus innovative modular platform.

#### Distribution costs

Distribution costs amounted to EUR 189m in 2018, compared to EUR 229m in 2017. The decline was partly driven by release of provisions for doubtful receivables made in prior periods.

#### Administration costs

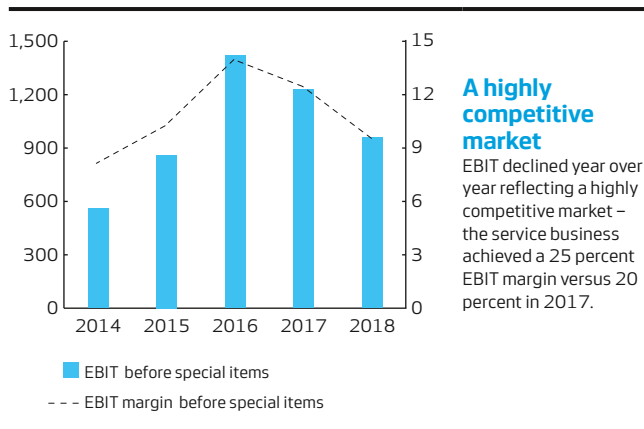
Administration costs amounted to EUR 254m compared to EUR 269m and constituted 2.5 percent of revenue in 2018; a decline of 0.2 percentage points compared to 2017.

#### Operating profit (EBIT)

EBIT before special items amounted to EUR 959m in 2018, compared to EUR 1,230m in 2017, equivalent to an EBIT margin before special items of 9.5 percent, and was within the guidance of 9.5-10.5 percent. The EBIT margin before special items decreased by 2.9 percentage points compared to 2017; mainly driven by the lower gross profit.

#### Operating profit (EBIT) before special items

mEUR · Percent



Special items of EUR 38m related to the closure of Vestas' assembly factory in León, Spain, with EUR 23m relating to impairment of the production facility and EUR 15m relating to provisions for severance costs.

Including special items, EBIT totalled EUR 921m in 2018; equivalent to an EBIT margin of 9.1 percent.

Depreciation, amortisation and impairment before special items amounted to EUR 435m in 2018, compared to EUR 421m in 2017. The increase was driven by higher depreciation and amortisation in the Power solution segment from development and introduction of new product variants.

#### Income from investments in joint ventures

Income from investments in joint ventures amounted to a profit of EUR 40m in 2018 compared to a loss of EUR 40m in 2017. The profit derives mainly from Vestas' share of the result in MHI Vestas Offshore Wind on a standalone basis combined with release of elimination on deliveries from Vestas to MHI Vestas Offshore Wind, reflecting the increased deliveries to customers during 2018.

#### Net financial items

Net financial items for 2018 amounted to cost of EUR 51m, compared to income of EUR 2m in 2017, and constituted of interests, fees, and currency related items.

#### Income tax

Income tax amounted to EUR 227m, equivalent to an effective tax rate of 25 percent. Effective tax rate is unchanged compared to 2017.

#### Profit for the year

Profit for the year amounted to EUR 684m in 2018, compared to EUR 894m in 2017. The decline in profit is mainly a result of the decreased gross profit.

#### Financial ratios

Earnings per share amounted to EUR 3.4 in 2018, a decrease of EUR 0.8 compared to EUR 4.2 in 2017, mainly driven by lower net profit, but partly offset by cancellation of treasury shares.

Return on capital employed (ROCE) was 20.4 percent for 2018, compared to 25.1 percent for 2017, with a decline as a result of lower operating profit before special items.

Return on equity was 22.6 percent in 2018, compared to 28.1 percent in 2017, which was a decrease of 5.5 percentage points. The decline was a result of the lower net profit.

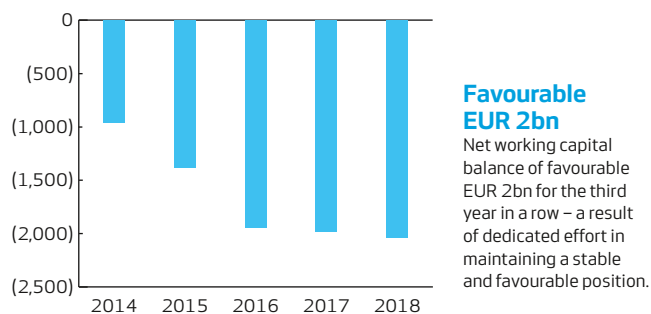
## Working capital and cash flow

### Net working capital

Net working capital amounted to a net liability of EUR 2.0bn as at 31 December 2018, which was on par with last year. During 2018, the level was impacted by build-up of inventory and receivables from contracts in progress, offset by increasing down- and milestone payments from customers particularly in fourth quarter.

### Net working capital

mEUR



### Cash flow from operating activities

Cash flow from operating activities was EUR 1,021m in 2018, which was a decrease of 37 percent compared to last year. The decrease was a mainly driven by lower profit for 2018 and an adverse cash flow impact from change in net working capital adjusted for exchange rate adjustments during 2018.

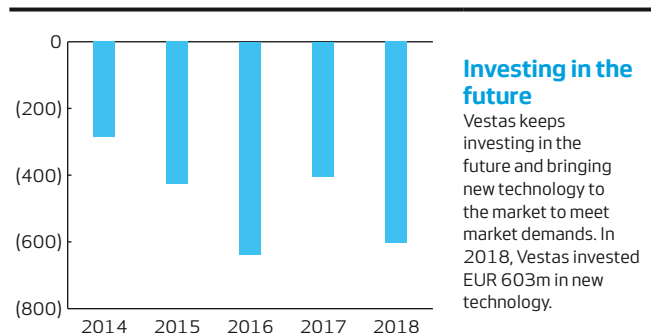
### Cash from net investments

Cash flow used for investing activities amounted to EUR 603m excluding the acquisition of Utopus Insights, Inc. (Utopus) and short-term financial investments, EUR 65m and 422m, respectively. This was in line with the guidance of approx. EUR 600m.

The development in cash flow from investing activities was mainly due to investments related to new technology and IT projects. Capitalisation of development activities amounted to EUR 258m in 2018, compared to EUR 156m in 2017. Cash flow from investing activities was further driven by tangible blade investments.

### Net investments\*

mEUR



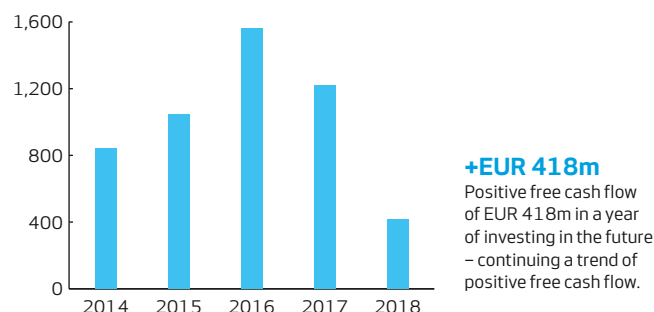
\* Excl. any investments in marketable securities, and short-term financial investments and for 2018 the acquisition of Utopus.

### Free cash flow

The free cash flow excluding the acquisition of Utopus and short-term financial investments amounted to EUR 418m which was in line with the updated guidance of approx. EUR 400m disclosed on 9 January 2019.

### Free cash flow\*

mEUR



\* Excl. any investments in marketable securities, and short-term financial investments and for 2018 the acquisition of Utopus.

## Capital structure and financing items

### Equity and solvency ratio

As at 31 December 2018, total equity amounted to EUR 3,104m, which was on par with level of EUR 3,112m end of 2017. Total equity was maintained at the 2017 level, despite dividend pay-out and share buy-back programmes of a combined value of EUR 652m.

As at 31 December 2018, the solvency ratio was 26.1 percent, which was a decline of 2.5 percentage points from 2017.

To adjust the capital structure and to meet the obligations arising from employee share option programmes, Vestas bought back 6,962,324 shares under the two share buy-back programmes initiated in 2018.

The strength of the balance sheet combined with the results achieved in 2018, has led the Board of Directors of Vestas Wind Systems A/S to recommend a dividend of DKK 7.44 (approx. EUR 1.00) per share equivalent to 30.0 percent of the net result for the year after tax.

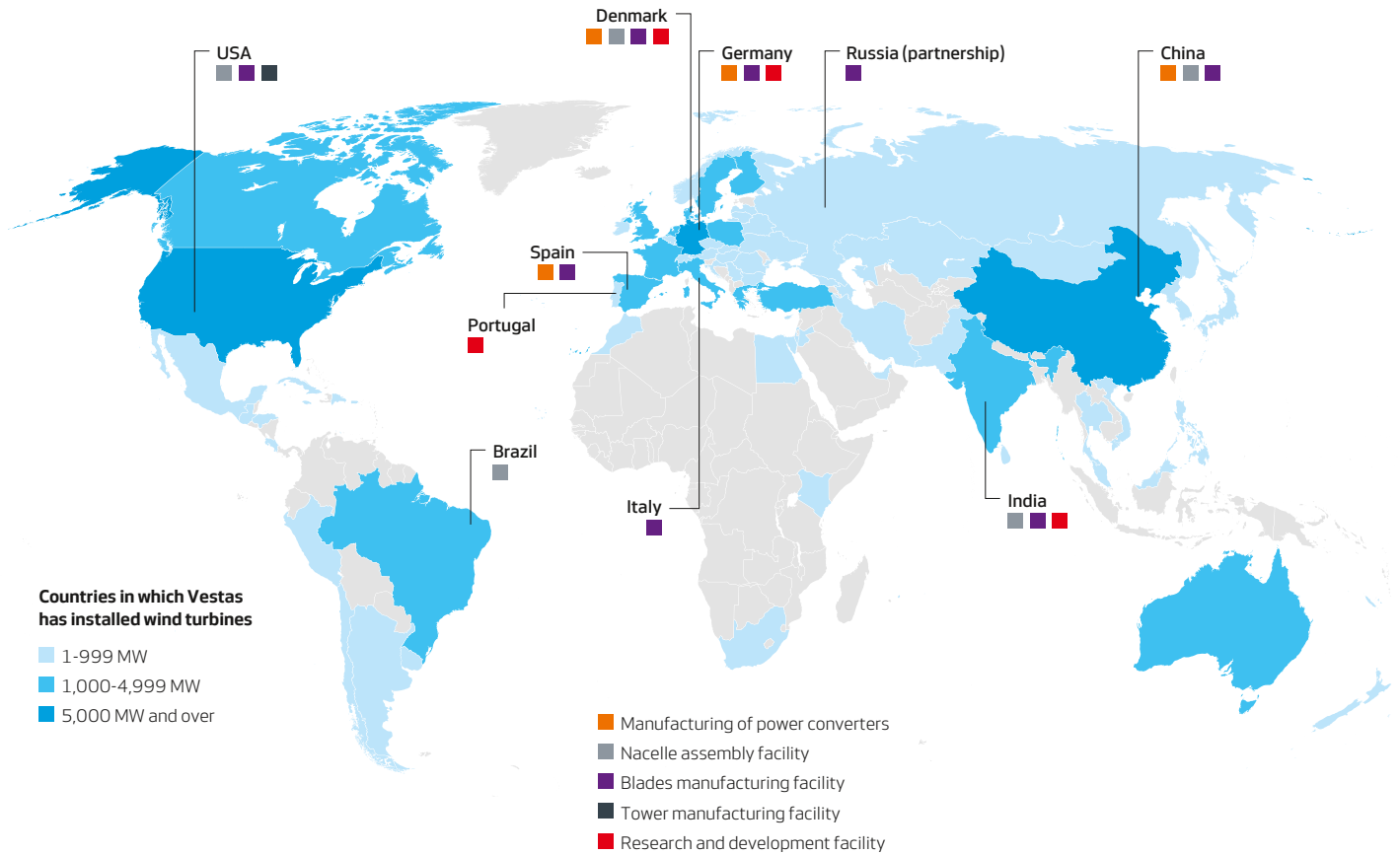
### Net interest-bearing position and cash position

As at 31 December 2018, net interest-bearing position was positive of EUR 3,046m, a decline of EUR 313m, compared to a positive position of EUR 3,359m end of 2017. This development was a result of distributing cash to shareholders through dividend and share buy-back in excess of the free cash flow generated in the year.

Cash and cash equivalents amounted to EUR 2,918m as at 31 December 2018, compared to EUR 3,653m end of 2017. This decline was impacted by EUR 422m purchase of short-term financial investments as well as aforementioned distribution to shareholders in excess of free cash flow.

The ratio net interest-bearing debt/EBITDA of (2.2) as at 31 December 2018 was comparable to (2.0) end of 2017, driven by the high cash balance maintained throughout the year. This is well below the capital structure target of a net interest-bearing debt/EBITDA ratio below 1x.

## Global footprint



	Americas	Europe, Middle East, and Africa	Asia Pacific
Revenue	EUR 3,903m	EUR 3,354m	EUR 1,208m
Order intake – firm and unconditional orders	6,271 MW	5,599 MW	2,344 MW
Deliveries	4,996 MW	4,128 MW	1,723 MW
Order backlog – firm and unconditional orders	6,038 MW	7,023 MW	2,585 MW
Installed wind turbines in	10 countries	23 countries	6 countries



## Financial performance

### Result for the period

Revenue from Power solutions amounted to EUR 8,465m in 2018, which was much in line with 2017 where revenue in segment amounted to EUR 8,431m. This was primarily driven by increased deliveries to customers, but offset by pressure on prices. Since 2014, revenue in Power solutions has been increasing 42 percent.

EBIT before special items from Power solutions amounted to EUR 754m, a 4.6 percent decrease compared to 2017. Consequently, the EBIT margin before special items was 8.9 percent, compared to 13.5 percent in 2017. This decline was primarily driven by the competitive pressure in the market stemming primarily from the introduction of auctions and reduced prices.

### Order intake

In 2018, order intake amounted to 14,214 MW, compared to 11,176 MW in 2017, resulting in yet another record-high order intake. Thereby, the trend with increasing order intake continues, underpinning the strong demand for wind power globally. The order intake in 2018 corresponded to EUR 10.6bn compared to EUR 8.9bn in 2017.

Europe, Middle East, and Africa accounted for 39 percent of the order intake, and the region continues to be important for Vestas, with countries such as Norway, Italy, and Sweden offsetting a declining order intake in Germany.

Americas and Asia Pacific accounted for 44 percent and 17 percent, respectively, and both regions have been representing an increasing order intake for Vestas every year in the last five years. Americas continues to be driven by strong demand in the USA, together with auctions in Latin America spurring increasing demand.

Asia Pacific as a whole has been led by India and China, but for Vestas specifically, Australia was the largest contributor to the order intake in 2018.

### Order backlog

At the end of the year, the order backlog amounted to 15,646 MW, equalling EUR 11.9bn. Compared to last year, the order backlog in MW increased by 36 percent. Despite a strong development in deliveries, the record-high order intake in 2018 resulted in a positive development for the order backlog.

### Onshore deliveries in MW\*

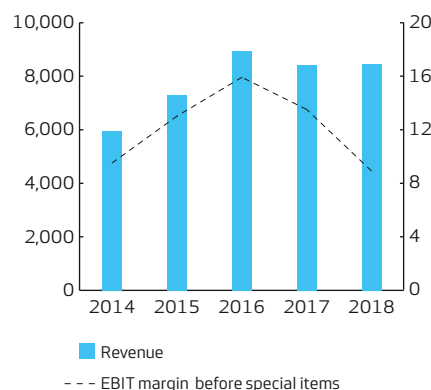
Europe, Middle East, and Africa  
4,128 MW

Americas  
4,996 MW

Asia Pacific  
1,723 MW

### Revenue and EBIT margin before special items

mEUR · Percent

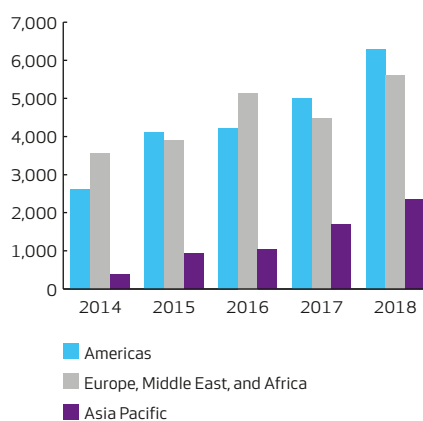


#### Best-in-class

Vestas continues to lead the wind power industry; revenue in Power solutions kept at a high level while delivering an EBIT margin of 8.9 percent in 2018.

### Order intake

MW



#### Record order intake













With a five-year regional increase, Vestas has grown its order intake 117 percent since 2014.

Europe, Middle East, and Africa		Americas	
Germany	638	USA	2,827
France	636	Mexico	1,027
Sweden	482	Argentina	688
Norway	471	Canada	192
United Kingdom	431	Brazil	170
Kenya	310	Dominican Republic	48
Italy	278	Chile	15
Austria	178	Martinique	14
Greece	158	Honduras	13
Denmark	123	Uruguay	2
Jordan	94		
Spain	70	<b>Asia Pacific</b>	
Netherlands	61	Australia	547
Russia	50	India	543
Belgium	45	China	373
Ukraine	32	Thailand	180
Turkey	25	Mongolia	55
Ireland	14	South Korea	25
Czech Republic	11		
Senegal	8		
Finland	7		
Belarus	4		
Bahrain	2		

\* In fourth quarter 2018, Vestas has aligned deliveries to follow timing of revenue recognition, see note 1.2 in the Consolidated financial statements, page 058. Consequently, 2018 deliveries is positively impacted by net 443 MW.

## Examples of auction volume allocated to wind power in 2018



6,900 MW	 India	650 MW	 France
2,350 MW	 Germany	400 MW	 Saudi Arabia
1,300 MW	 Brazil	400 MW	 Australia
1,000 MW	 Poland	~350 MW	 Finland*
1,000 MW	 Canada	330 MW	 Greece
900 MW	 Russia	165 MW	 Denmark

\* In 2018, Finland awarded 1.4 TWh; exact translation to MW can vary.

### Developments in Power solutions during the year

After two years of declining installation levels, the volume of annual installed onshore wind power capacity is expected to have increased to 47 GW in 2018, compared to 44 GW in 2017.<sup>1)</sup> The increase is mainly driven by increased activity in China and the USA, where installed onshore wind power capacity for the year amounted to 19 GW and 8 GW, respectively.

In the USA, projects previously qualified for the Production Tax Credit (PTC) are starting to materialise, and installation levels are expected to continue to increase toward 2020. During 2018, Vestas received 170 MW of orders in the USA, qualifying projects for the 60 percent PTC, which secures a healthy pipeline of projects for installation in 2022.

### Auctions

The trend towards auctions continues, and in 2018, more than 15 GW was allocated to onshore wind power in auctions worldwide.

As the allocated volume increases, onshore wind power continues to prove and improve its competitiveness as a source of energy. Auctions have quickly become the most widely used market structure to allocate volume to new electricity generation capacity, in particular for cost competitive renewable energy sources such as wind. The trend applies to developed countries with an already established presence of wind power, as well as countries where auctions mark the introduction of wind power to its energy mix.

### Repowering

Favourable wind sites and improved economics of onshore wind energy present an attractive opportunity for Vestas and its customers. 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. Increased volume from repowering outside Europe and the USA will likely happen beyond 2020.

During 2018, Vestas announced repowering orders for more than 700 MW wind projects in the USA, while Denmark and Germany also contributed to the intake of repowering orders. With the largest installed fleet of wind turbines and growing understanding of multi-brand wind turbines, Vestas finds itself in a good position to benefit from the opportunities related to repowering.

1) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook Update. December 2018.

### Hybrid energy solutions

Demand continues to increase for onshore wind energy to provide solutions that integrate with other energy technologies and storage. Hybrid solutions represent an important enabler to increase the penetration of renewable energy as they limit the downside of renewables as an intermittent source of energy by increasing efficiency of each generation source.

Vestas continues to develop capabilities to be the solution provider for these hybrid solutions, and to meet customers' increasing need to balance energy supply with grid demand.

In 2018, Vestas, together with EDP Renewables, built a turbine-coupled hybrid demonstrator with solar at a wind park in Spain. By combining wind power and solar photovoltaic, the demonstrator offers increased annual energy production through a higher capacity factor.

### Customer relations

Vestas has in 2018 conducted a study jointly with many of its customers globally to understand the long-term evolution of the industry environment, and what that means for how Vestas' customers' strategies evolve. In general, customers see a tendency to a changed environment centred on more variable remuneration of renewable energy, an expanded set of renewable technology choices and a changed asset financing environment as renewable energy continues to mature as an attractive investment asset class.

In response, the developers, owners, and operators that depend on Vestas' wind power plant and service solutions are adapting their strategies in ways that are relevant for Vestas as supplier. As an example, customers are increasing their focus on generating electricity at the time that maximizes its value. Also, customers are increasingly focusing on securing their revenue through power purchase agreements with corporate customers – and on diversifying their exposure to power markets across multiple geographies.

As Vestas seeks to continue to grow as a close partner to its customers, it is constantly innovating its technology, services, and commercial and digital offerings to help its customers succeed as they evolve and refine their operating models.

# EnVentus™

– Vestas' innovative modular platform

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.

The EnVentus™ platform will initially be available in two new variants: the V150-5.6 MW™ and V162-5.6 MW™, together covering low, medium, and high wind conditions. Based on advanced modular design, EnVentus™ supports Vestas' vision to become the Global Leader in Sustainable Energy Solutions and provides a wider range of turbine configurations that can better meet evolving customer needs.

EnVentus™ represents the next generation of wind turbine technology and connects four decades of wind energy innovation with the knowledge represented by Vestas' more than 101 GW of installed capacity.

An overview of Vestas' platforms is available at the corporate website.



## Technology

As the renewable industry transitions towards more market-based mechanisms, the ability to constantly lower the cost of energy continues to be of utmost importance and remains the primary force for Vestas' product development and technology roadmaps.

In response to more auctions and tenders, customers are seeking closer collaboration. Consequently, Vestas engages earlier with customers to understand their requirements and jointly increase the value of the project in order to win in the tenders and auctions.

To succeed requires Vestas' full understanding of customers' needs as solutions are offered before they are fully developed. At the same time, it also means that even though using standard components, almost all power plant solutions will be unique, as every detail is optimised.

In addition, the changes in the market create increased demand for renewable energy, and offers an opportunity for the wind turbine suppliers who can adapt to the changes. The main driver in capturing the opportunity is being fastest at lowering the levelised cost of energy (LCOE). This means that development cycles of new technology and product variants are increasingly important and becoming shorter. Technology leadership delivering efficient products, solutions and best LCOE are the most important factors to constantly remain competitive.

The decision to move to a fully modularised product platform is the answer that enables Vestas to stay competitive in a fast-evolving market with increased complexity.

## Modularisation

To offer customers solutions that meet their specific demand anywhere in the world, Vestas continues to develop new technologies and ways of working to enhance the flexibility of its solutions while growing scale benefits. Modularisation will be a key part of this journey.

Going forward, the introduction of new products and solutions will take a fully modular approach. This decouples the development of modules from the launch of new products and will revolve around six to eight individual modules and be based on proven performance from legacy wind turbines. The individual modules can then transform into multiple turbine variants meeting requirements of customers worldwide.

## Customised solutions

One of the clear benefits of a modularised product portfolio is that it increases the flexibility to deliver customised solutions to match site-specific customer needs without changing the design of the turbine. This means that Vestas can maintain the benefits of having the largest scale in the industry, even when delivering more variants.

## More variants and less components

Modularisation allows Vestas to expand the number of product variants considerably, while at the same time reducing the number of components used across the product portfolio. By decoupling module development from the launch of new products, Vestas can bring new products to the market faster at a reduced level of complexity.

## Standardisation to enable efficiency and scale

Using fewer but standardised components and systems enables Vestas to lower the cost associated with sourcing, manufacturing, and service. At the same time, Vestas can fully leverage its unmatched scale and global footprint.

## Increased opportunities to build supplier partnerships

Developing new product variants from a modular approach provides increased opportunities to build partnerships with suppliers with respect to design and manufacturing of components. This supports Vestas' ambition to work closely with the entire supply chain to reduce the cost of energy.

Furthermore, the certification process for fully modular products will be simpler compared to the previous process. This, as testing and verification will move from product level to module level, which is simpler and faster.

### New technologies and hybrids

With the largest research and development investments in the industry, Vestas' ambitions to be the leader in technology and reduce the LCOE faster than the market average, remains.

Further to a modularised product portfolio, this also includes new technical solutions. One example is the cable-stayed tower which was installed as a prototype in 2017. In 2018, Vestas received the first order for wind turbines with cable stayed towers for the Viinmäki project in Finland. Through a unique research and development collaboration with the customer, the data collection from the project will play a vital role in the product certification of cable-stayed towers.

Additionally, numerous projects are being executed within transportation, installation of turbines, robotics, and automation of product design.

### Hybrid energy systems

As highlighted earlier, Vestas continues to see great opportunities within hybrid energy systems. Projects addressing energy management and storage based on digitalisation to ensure best connectivity with the grid and the ability to decentralise the generation and energy efficiency are key focus areas.

Apart from that, Vestas has developed a power plant controller enabling it to deliver the integration of multiple energy sources and storage.

The controller is flexible and can be adapted and customised to various types of grids and customer requirements. A number of pilot projects are being developed together with key customers and used for validating the performance.

### Manufacturing

A lean and scalable manufacturing setup continues to display its importance in a market environment constantly changing. The ability to adjust to changes in demand is crucial, and to sustain its competitiveness on a global scale, Vestas continuously optimises its global footprint to meet market demand across regions.

### Ramping up for production of new products

2018, was a busy year at Vestas' manufacturing facilities. Activity levels were high, and production of the upgraded wind turbine variants for both the 2 MW and 4 MW platforms was prepared. Manufacturing of the V120-2.2 MW™ turbine has already started, whereas the upgraded turbines on the 4 MW platform is expected to start in the first half of 2019.

At the same time, the capacity of produced and shipped wind turbines remained at a high level of close to 1.1 GW, only a slight decrease compared to 2017.

Warranty consumption was EUR 181m in 2018, compared to EUR 143m in 2017, while the Lost Production Factor remains at a low level of below 2 percent. Both factors are important for Vestas as they demonstrate the high quality of its products, even in a year with growth in wind turbines delivered to customers.

### Optimising the global manufacturing and supply chain footprint

During 2018, Vestas continued to optimise its manufacturing footprint to support a steep ramp up of new products in regions and countries with strong growth.

Following a successful outcome of the country's last two onshore wind auctions, Vestas together with local partners established blade, nacelle, and tower facilities in Russia.

Building on its strong position in Latin America, in 2018, Vestas localised hub and nacelle assembly through partners in Argentina.

In March 2018, Vestas also announced that it had strengthened the flexibility and cost-effectiveness of its global manufacturing footprint and supply chain with a multi-year supply agreement with TPI Composites, Inc. (TPI), in China. With the agreement, TPI will establish four manufacturing lines producing the V150-4.2 MW™ turbine blades. To further support the strong outlook for 2019, Vestas has entered into an agreement with Shanghai Aeolon Wind Energy Technology Development Co., Ltd. to provide blades for the V136 turbine.

As some regions are seeing demand shifting from the 2 MW to the 4 MW platform, Vestas announced to adjust its manufacturing footprint by ceasing production at its assembly factory in León, Spain. In Brazil, Vestas announced that the production of wind turbines on the 2 MW platform will be replaced by local production of the 4 MW platform.

As part of Vestas' continuous optimisation of its manufacturing footprint, Vestas' factory in Hammel, Denmark, which produces wind turbine converters, will shift its focus to the work on introducing new technology including prototype building, testing, and documenting. This allows Vestas to effectively collaborate with its main research and development and testing sites in Denmark.

### Safety first

Working with wind turbines is not hazard-free. Large heavy components, dizzying heights, unpredictable weather conditions, and demanding processes, to name but a few, present a challenging work environment.

For the 24,648 passionate and dedicated employees at Vestas, the journey towards zero incidents continues. While working to optimise the production and supply chains, the focus on ensuring high safety and quality standards remains.

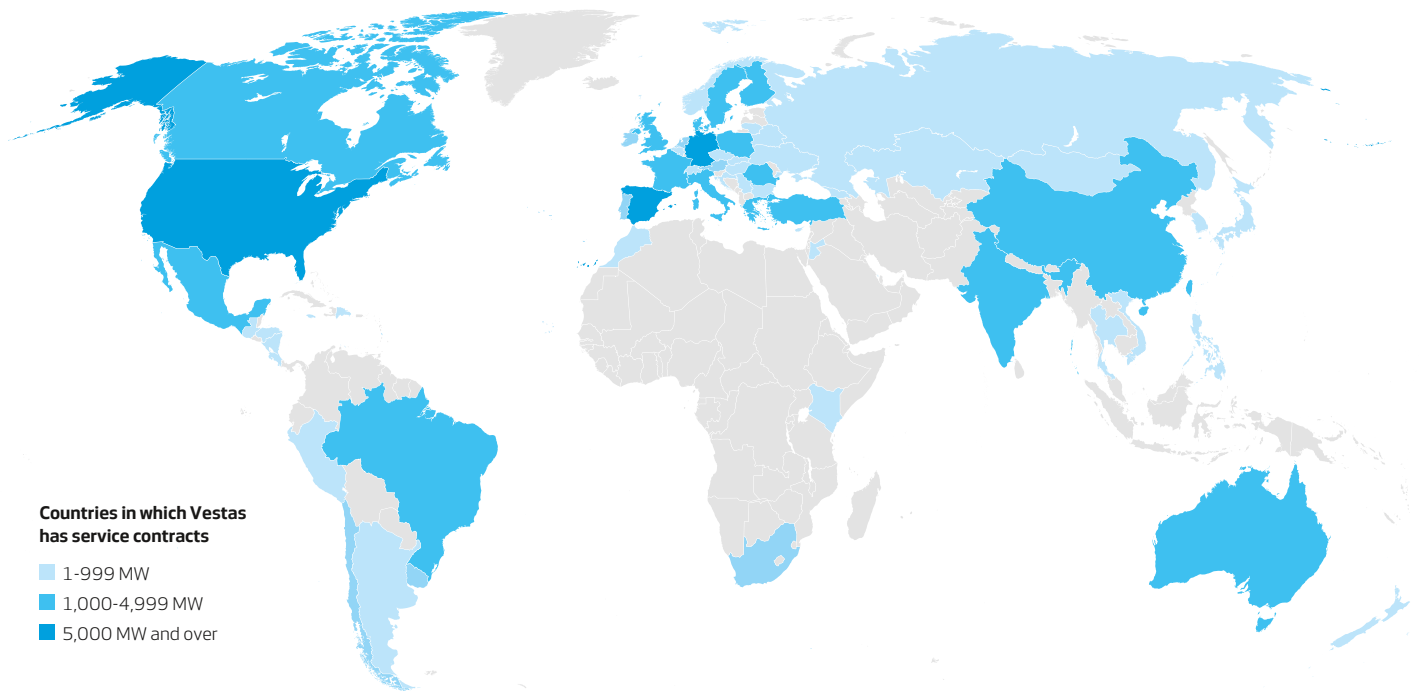
In 2018, Vestas' main safety-related key performance indicator "Incidence of total recordable injuries per million working hours" was 4.0, below the full-year target of 4.8, and down from 5.3 in 2017.

Further information, see Health and safety, page 030.



# Service

## Global footprint



	Americas	Europe, Middle East, and Africa	Asia Pacific
Revenue	EUR 541m	EUR 956m	EUR 172m
Share of the region's total revenue	12%	22%	12%
Under service	32,549 MW	44,201 MW	9,594 MW
Expected contractual revenue of order backlog	EUR 4,426m	EUR 8,477m	EUR 1,416m
Provides service in	17 countries	39 countries	11 countries

## Financial performance

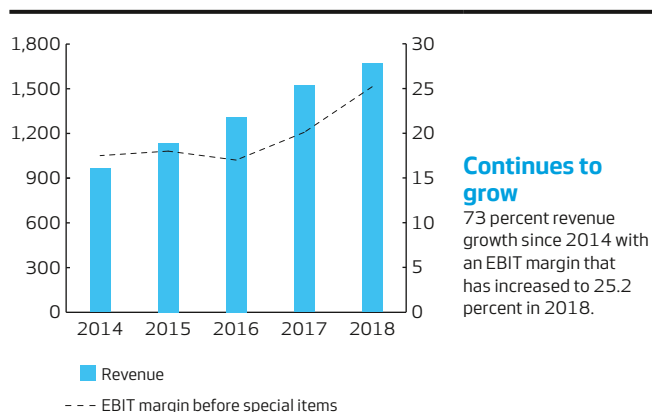
### Result for the period

Vestas' onshore service business continues its growth, and the annual growth in revenue almost exceeded 10 percent. In 2018, the service business generated revenue of EUR 1,669m, which equals a year-on-year growth rate of 10 percent. The organic growth rate was 13 percent in 2018. 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 improve, and in 2018, the EBIT margin increased to 25.2 percent compared to 20.1 percent in 2017. This development was primarily driven by reliable performance of wind turbines under service contracts as well as efficient cost management. Scale benefits from having the largest fleet of onshore wind turbines under service together with the integration of multibrand service providers Availon Holding GmbH and Upwind Solutions, Inc. have also contributed to development in profitability.

### Revenue and EBIT margin before special items

mEUR · Percent

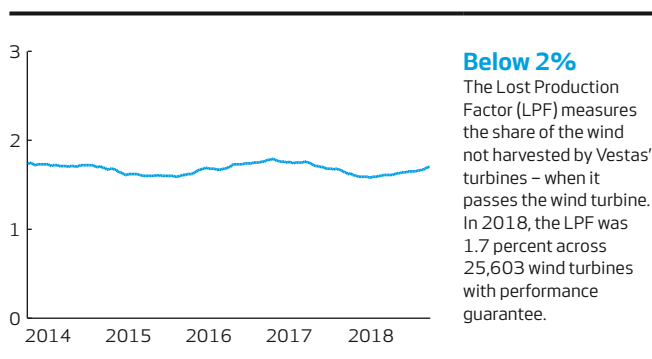


### Order backlog

At the end of 2018, Vestas had service agreements in the order backlog with expected contractual revenue of EUR 14.3bn, which is an increase of EUR 2.2bn compared to 2017. This provides the service business with strong visibility and the ability to continue the reduction of the cost of maintenance for wind turbines.

### Lost Production Factor

Percent



## Global trends in the onshore wind power service market

A high level of onshore wind power installations forms the basis of strong growth in the global wind power service market. In 2018, the cumulative installed capacity grew by close to 10 percent compared to 2017.<sup>1)</sup>

As the onshore wind power market becomes more market based, customers are becoming increasingly sophisticated and increase their focus on the life cycle cost of wind power. In this equation, the service market plays a crucial role, and the ability to forecast future trends is critical.

### Digital transformation

One such trend is the digitalisation of the service operations, holding promising opportunities to reduce the cost and increase output of wind power and, in the longer term, increase the possible penetration of wind power in the grid. The ability to utilise data and technology to continuously improve operations and deliver value to customers will determine the success going forward.

To continue as the leading service provider, in 2018, Vestas acquired Utopus Insights, Inc. (Utopus). By combining Vestas' unparalleled data repository with Utopus' unique competences, Vestas can offer its customers digital solutions to deliver greater predictability, more efficient operations, and better integration with energy grids.

### Developments in Service during the year Vestas' four-leg service portfolio

The global service business combines smart data capabilities with unique operational and technical insights.

Vestas offers its customers solutions covering all areas of the wind power service business: maintenance partnering, parts & repair offerings, fleet optimisation solutions, and data & consultancy services.

### Maintenance partnering

The maintenance partnering based on the Active Output Management (AOM) service concept remains the core of Vestas' portfolio. With this concept, Vestas helps its customers to maximise the performance of the wind turbines and lower the cost of onshore wind energy.

### AOM 2000-5000 signed with new wind turbine orders

Percent (of MW service order intake)

Type of contract	2018	2017
AOM 2000	0.7	1.3
AOM 3000	6.9	3.4
AOM 4000	32.8	33.7
AOM 5000	59.6	61.6

Vestas continues to see great demand from customers for service contracts with a high scope, reflected by the fact that for new service contracts sold with wind turbine orders in 2018, more than 92 percent was either AOM 4000 or AOM 5000, the most extensive service packages where Vestas guarantees a certain performance.

The average length of Vestas' service agreements continues to be more than seven years, and constantly pushes the boundaries of its wind turbines' performance and lifetime. As an example, in June, Vestas worked with project partners in Australia on the 216 MW Lal Lal wind park and agreed on a 30-year AOM 5000 service agreement.

### Parts & repair offerings

Vestas offers an extensive range of parts & repair services, which includes uptower repairs of major components, advanced inspection programmes, and an eCommerce platform for wind turbine spare parts.

1) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook. December 2018.



As part of the ambition to always optimise the performance of wind turbines, Vestas has expanded its partnership with leading gearbox provider ZF Friedrichshafen AG, Germany (ZF) to offer global service solutions for customers' gearboxes. Through the partnership, Vestas becomes ZF's preferred supplier to perform uptower repair work and will offer customers solutions that can lower repair costs, decrease downtime, and limit additional future repairs.

#### Fleet optimisation solutions

Developing new solutions and upgrades can boost the business case of an already existing wind park. Through the Vestas PowerPlus™ series, Vestas offers such fleet optimisation solutions for its customers.

In 2018, Vestas upgraded long-time customer IKEA's global portfolio of Vestas wind turbines. Spanning across six different turbine types, the upgrade is expected to generate 1.5 percent on average in additional energy production.

#### Data & consultancy services

2018 was an extraordinary year for the development of data & consultancy services. With the ambition to digitalise its service offerings even further, Vestas acquired Utopus, a leading energy analytics and digital solutions company.

As Vestas' fleet of wind turbines under service becomes bigger, the potential of utilising data increases. By monitoring more than 42,000 wind turbines across the globe, Vestas has an unparalleled insight into a broad range of data covering performance of a wind turbine and its components, as well as wind and weather conditions.

Wind Xplore, a descriptive analytics visualisation dashboard, is the first product from Utopus to be commercially available and was brought to market during 2018.

Upcoming products to become available includes Wind Xplore Advanced, HyperCast, a solar and wind forecasting tool, and Pulse, a predictive application enabling customers to identify, prioritise, and pre-empt critical wind component failures.

#### Multibrand

Vestas continues to grow its capabilities within multibrand servicing. In 2018, this was highlighted by Vestas being awarded a service contract from Spanish Iberdrola, S.A., covering a total of more than 2 GW on non-Vestas turbines across Spain, Portugal, and Mexico.

The multibrand service potential remains intact as customers' portfolios typically consist of more than one brand of wind turbines. Vestas offers an umbrella solution to cover their entire fleet and continues to be the leading service provider in the multibrand segment.

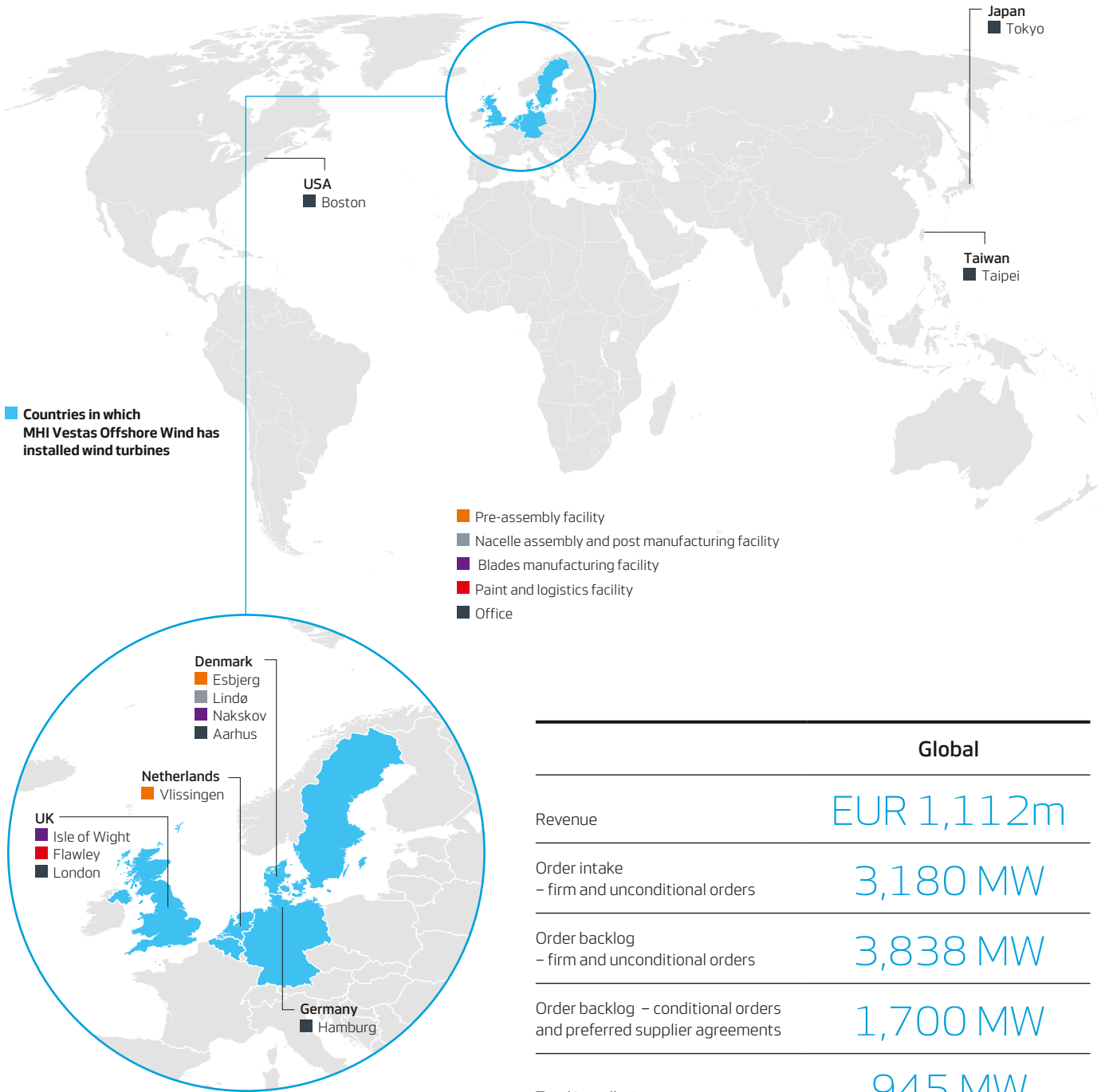
#### Customer relations

Vestas' customers will now get online access to blade inspection analysis and data from any of their wind turbines in any market, thanks to the expansion of Vestas' partnership with the leading energy asset inspection company InspectTools.

Global investment funds and corporations aiming to increase its renewable energy consumption continues to curtail the predominance of the global utilities. This presents a great opportunity for the service business, as an advanced service offering on the wind turbines de-risks investments in wind power projects.

To respond to these industry dynamics, Vestas continues to work intensively on strengthening partnerships with emerging customer segments by implementing a Service Key Account Management structure, to outweigh the effect from increased insourcing by utilities.

## Global footprint





## Financial performance

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

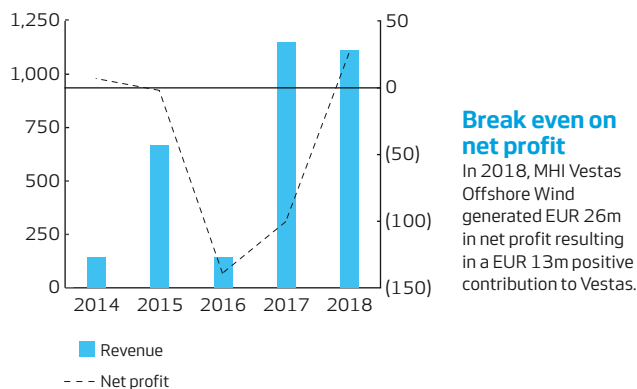
### Result for the period

Compared to 2017, the joint venture's revenue in 2018 decreased slightly by 3.4 percent to EUR 1.1bn.

Net profit in the joint venture amounted to EUR 26m, compared to EUR (100)m in 2017, a turn-around of EUR 126m. Since the launch of the joint venture in 2014, 2018 was the first year in which it generated a positive net profit on a stand-alone basis, highlighting a successful ramp up of the V164 turbine.

### Revenue and net profit

mEUR



### 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", see note 3.4 in the Consolidated financial statement, page 067.

For Vestas, the investment amounted to a positive contribution of EUR 39m in 2018, compared to a loss of EUR 40m in 2017. This is positively impacted by Vestas' share of the joint ventures stand-alone net profit of EUR 13m, and further 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 067.

### Financial ambitions

The V164 offshore wind turbine continues to be a success in the marketplace and as a result of a strong order intake, factories are ramping up production in anticipation of the increasing volume of new installations.

Accordingly, MHI Vestas Offshore Wind expects to double its revenue over a four-year period from a base of its completed financial year 2017/2018, while continuously improving profitability. In addition, the ambition is to build a leading offshore service business from the growing installed base.

## Global trends in the offshore wind power market

For the year 2018, annual installations are expected to have reached 5 GW for offshore wind power. This is an increase from 2017, where installations reached 4 GW.<sup>1)</sup>

2018 was a year where the offshore wind solidified its position as an affordable part of the mainstream energy mix, confirming a promising future for offshore wind, as demand is growing. The expansion of offshore wind power is expected to continue and the outlook for the industry remains positive longer term. According to Wood Mackenzie, annual global offshore wind power installations are expected to grow 15-20 percent annually towards 2022 from a base of 5 GW installed in 2018.<sup>1)</sup>

### Established markets remain the foundation of the industry

The expansion of offshore wind power will continue to be driven from established markets. Ambitious climate targets in Europe and excellent wind resources, not least in the North Sea, ensure that Europe will continue to play a significant role in the global offshore wind power market up to 2050.<sup>2)</sup>

Building on the 3.3 GW offshore wind power volume that the UK allocated in the Contract for Difference (CfD) auction in 2017, the government renewed its commitment to the sector with the announcement of CfD auctions every other year starting in 2019 and with a total volume of up to 6 GW to be allocated in 2019.<sup>3)</sup>

### New countries coming on line

The early 2020s could see the first projects installed in Taiwan and the USA.

Taiwan allocated 5.5 GW of offshore wind power to be installed by 2025 to lead the country's clean energy transition.<sup>4)</sup> The industry is currently seeking clarity on the updated policy conditions for the market.

Setting the stage for large-scale deployment of offshore wind along the Eastern seaboard, the USA marked its entry to offshore wind power with approx. 1.5 GW of tenders in Massachusetts, Rhode Island, and Connecticut.<sup>5)</sup>

Looking to 2030, new offshore wind regions are likely to emerge. Greater activity is expected in places like the Baltic Sea, India, Vietnam, South Korea, and Japan.

### Strong interest for the V164 turbine

MHI Vestas Offshore Wind continued to build a strong pipeline of projects which will be executed over the next five years. MHI Vestas Offshore Wind is well-positioned as one of the two leading offshore wind turbine manufacturers. During 2018, the intake of firm and unconditional orders reached 3,180 MW consisting of six projects:

- 950 MW Moray East project in the UK
- 860 MW Triton Knoll project in the UK
- 751 MW Borssele III/IV/V projects in the Netherlands
- 224 MW Northwester 2 project in Belgium
- 370 MW Norther project in Belgium
- 25 MW Windfloat Atlantic floating offshore wind project in Portugal

### Positioned for growth

With 900 MW of preferred supplier agreements already signed with Copenhagen Infrastructure Partners K/S and China Steel Corporation, the joint venture has positioned itself as one of the leading players in Taiwan.

1) Source: Wood Mackenzie: Q4 Global Wind Power Market Outlook. December 2018.

2) Source: European Commission: Climate strategies & targets ([https://ec.europa.eu/clima/policies/strategies/2030\\_en](https://ec.europa.eu/clima/policies/strategies/2030_en))

3) Source: Windpower Offshore: Online article "UK sets out CfD auction plan from 2019". 23 July 2018.

4) Source: Windpower Offshore: Online article "Taiwan sets out 5.5 GW plan". 17 April 2018.

5) Source: Wood Mackenzie: US offshore wind power sector dynamics. December 2018.

In December the 800 MW Vineyard Wind off the coast of Martha's Vineyard in the Commonwealth of Massachusetts, named "MHI Vestas" as the preferred supplier for the first large scale commercial project in the US. The project established MHI Vestas in the US offshore wind power market.

### Developments in MHI Vestas Offshore Wind during the year

#### Further legacy added to the world's most powerful wind turbine

Several major milestones for the V164 turbine were reached during the year, including the 9.5 MW model receiving final certification, clearing the way for installations to begin by the end of 2019. In September, the joint venture launched the V164-10.0 MW™, the world's first commercially available wind turbine with a double-digit capacity. The new wind turbine variant is built on proven technology, promising a level of certainty and reliability for customers. First installation is expected in 2021.

To further optimise wind turbine performance, in April 2018, MHI Vestas Offshore Wind launched the MVOW SMART Turbine® product portfolio. The portfolio consists of four advanced technology solutions that optimise customers' business cases for offshore wind turbines during design, operations, and maintenance.

### Floating Offshore Wind

The joint venture will make a substantial contribution to the development of floating offshore wind power, by providing three V164-8.4 MW™ turbines to the WindFloat Atlantic projects situated near the coast of Northern Portugal. The WindFloat Atlantic Project will give significant insights to develop capabilities for applying different foundation technologies, and especially within floating platforms, which represent great commercial opportunities in opening up new markets.

### Successful installation of the V164 turbine continues

With installation times matching best-in-class levels, the joint venture successfully and safely installed V164 turbines at Walney Extension and Aberdeen Bay in the UK and Borkum Riffgrund 2 in Germany. Notably, at Aberdeen Bay, MHI Vestas Offshore Wind installed two V164-8MW™ turbines, making them the most powerful wind turbines operating in the world today. At the same time, the company celebrated the installation of wind turbine number 100 at Borkum Riffgrund 2.

In 2019, MHI Vestas Offshore Wind will build on its operational track record as three new V164 projects will be installed - the 370 MW Norther project, the 224 MW Northwester 2 project in Belgium and the 252 MW Deutsche Bucht project in Germany.



## Highlights

	2018	2017	2016	2015	2014
<b>SOCIAL AND ENVIRONMENTAL KEY FIGURES</b>					
<b>OCCUPATIONAL HEALTH &amp; SAFETY</b>					
Total recordable injuries (number)	210	243	303	335	384
– of which lost time injuries (number)	80	92	82	56	53
– of which fatal injuries (number)	0	1	0	1	0
<b>CONSUMPTION OF RESOURCES</b>					
Consumption of energy (GWh)	614	569	567	516	501
– of which renewable energy (GWh)	294	325	296	283	278
– of which renewable electricity (GWh)	262	264	268	257	255
Consumption of fresh water (1,000 m <sup>3</sup> )	470	454	428	427	366
<b>WASTE DISPOSAL</b>					
Volume of waste (1,000 tonnes)	81	71	75	67	51
– of which collected for recycling (1,000 tonnes)	42	39	37	33	27
<b>EMISSIONS</b>					
Emission of direct CO <sub>2</sub> (1,000 tonnes)	69	60	58	49	50
Emission of indirect CO <sub>2</sub> (1,000 tonnes)	32	26	26	25	29
<b>LOCAL COMMUNITY</b>					
Environmental accidents (number)	0	0	0	0	0
Breaches of internal inspection conditions (number)	0	0	1	0	3
<b>EMPLOYEES</b>					
Average number of employees	24,221	22,504	21,625	18,986	16,325
Number of employees at the end of the period	24,648	23,303	21,824	20,507	17,598
<b>SOCIAL AND ENVIRONMENTAL INDICATORS</b>					
<b>OCCUPATIONAL HEALTH &amp; SAFETY</b>					
Incidence of total recordable injuries per one million working hours	4.0	5.3	6.9	8.7	11.8
Incidence of lost time injuries per one million working hours	1.5	2.0	1.9	1.5	1.6
Absence due to illness among hourly-paid employees (%)	2.1	2.3	2.2	1.9	2.3
Absence due to illness among salaried employees (%)	1.1	1.2	1.2	1.1	1.3
<b>PRODUCTS</b>					
CO <sub>2</sub> savings over the lifetime of the MW produced and shipped (million tonnes of CO <sub>2</sub> )	275	317	281	224	173
<b>UTILISATION OF RESOURCES</b>					
Renewable energy (%)	48	57	52	55	56
Renewable electricity for own activities (%)	100	100	100	100	100
<b>EMPLOYEES</b>					
Women in Board of Directors <sup>1)</sup> and Executive Management (%)	15	23	23	23	23
Women at management level (%) <sup>2)</sup>	19	19	19	18	18

1) Only Board members elected by the general meeting are included.

2) Employees at management level comprise Leadership Track positions, i.e. managers, specialists, project managers, and above.

Vestas recognises its responsibility to be an active citizen and respect the rights of the stakeholders in the areas where it operates. Through its Social Due Diligence and local community development and engagement activities, Vestas translates this responsibility into action.



Vestas strives to provide renewable energy solutions in a sustainable way, ultimately contributing to addressing climate change. Assessing the environmental impact and contribution of its products and its business in general is part of how Vestas tracks its performance and ensures constant improvements.

Operating responsibly is core to Vestas' work. The company's high health and safety standards are non-negotiable and Vestas continuously works with the supply chain to ensure that the standards are reflected down the chain.



## Sustainability at Vestas

Vestas produces renewable energy solutions across the globe. From manufacturing, installing, and servicing wind turbines, the heart of the business is anchored in producing affordable and clean energy for the benefit of the world's population.

Vestas understands that reaching its vision to be the global leader in sustainable energy solutions also requires delivering on its social and environmental performance. Continuous improvements in these areas form the baseline for how Vestas works, and partnerships are an important element contributing to this work.

Vestas' business connects directly or indirectly with all the UN Sustainable Development Goals (SDGs). There are six SDGs that Vestas has selected where Vestas has the greatest possible impact:

**SDGs No. 13 Climate action and No. 7 Affordable and clean energy:** the core of Vestas' business model is to produce affordable renewable energy solutions, and to continuously innovate to improve wind turbine efficiency, thus contributing to the fight against climate change.

**SDG No. 4 Quality education:** Vestas' community development activities are anchored in bringing education opportunities to locals.

**SDG No. 8 Decent work and economic growth:** how the organisation engages with Vestas employees, the suppliers' employees and in creating opportunities for local communities is a significant contribution to this goal.

**SDG No.12 Responsible consumption and production:** continuously improving wind turbine efficiency and reducing Vestas' environmental impact is part of the company's environmental commitment.

**SDG No. 17 Partnerships for the goals:** to reach the SDGs, Vestas works with partnerships where possible.

Combined with additional information about Vestas' sustainability initiatives at the corporate website, this Annual report constitutes Vestas' Communication on Progress (COP) pursuant to the UN Global Compact. 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.<sup>1)</sup>

One of Vestas' current main risks is adapting to markets with greater complexity. In some of these markets there are increased non-technical risks such as corruption, sanctions, increased security concerns, community

1) Read more at [www.vestas.com/en/about/sustainability](http://www.vestas.com/en/about/sustainability)

impact, etc. In addition to this risk, the principal sustainability risks and opportunities related to Vestas' operations are identified as: occupational injuries of employees and contractors and carbon footprint of wind turbines. Policies and associated due diligence address these risks and opportunities. Read more about Vestas' main risks on page 046.

## Social and environmental governance

Vestas is signatory to international initiatives in the UN Global Compact 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 the governance is Vestas' whistleblower hotline "EthicsLine". EthicsLine works 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 to EthicsLine, and employees are strongly encouraged to report compliance violations to their managers, or directly to EthicsLine.

The substantiated cases closed in 2018 (including cases originating from 2017 but closed in 2018) have led to disciplinary actions including 15 warnings and 27 dismissals.

### EthicsLine cases

Number

	2018	2017
Questions submitted to EthicsLine	8	14
Compliance cases reported	165	105
– hereof substantiated	42	31
– hereof non-substantiated	92	74
Cases under investigation end of year	31	19

Supporting its public commitments to health, safety, and environment, Vestas' operations specifically build on global certificates for these three standards: ISO 9001 for Quality, ISO 14001 for Environment, and OHSAS 18001 for Health and Safety.

In addition to Vestas' social and environmental governance, there are two material themes cutting across its sustainability pillars: business ethics and human rights.

### Business ethics

Vestas works actively to continuously assess the company's exposure to the risk of bribery and corruption and establish robust preventative procedures. In 2018, the company has focused on strengthening its compliance programme in the regions by revising the compliance governance structure and anchoring compliance in the Sales Business Units.

To support the regional units in this process, Vestas has established a global compliance network to facilitate knowledge sharing on compliance initiatives across the organisation. In 2018, all regions performed country risk assessments and consequently developed mitigating actions. In addition, Vestas has strengthened its business partner screening and due diligence processes covering business ethics and sanctions.

### Human rights

Vestas recognises its responsibility to respect human rights as set out in the UN Guiding Principles on Business and Human Rights. This commitment, which includes Vestas' expectations to its business partners, is outlined in the Vestas Human Rights Policy<sup>2)</sup> and implemented across the organisation.

2) The policy can be found at [www.vestas.com/en/about/sustainability#antislavery-statement](http://www.vestas.com/en/about/sustainability#antislavery-statement)

In 2018, Vestas, together with qualified external experts, updated its corporate-wide Human Rights Impact Assessment (HRIA). The results of the HRIA are currently being translated into updating and/or initiating new activities, starting with addressing the most salient human rights impacts.

## Citizenship

### Social Due Diligence

To support Vestas' emerging markets entry strategy and ensure that Vestas obtains the social license to operate, the company has developed a Social Due Diligence (SDD) methodology. The SDD focuses on identifying social risks and impacts associated with Vestas' wind parks, and preventing or mitigating such impacts.

Vestas strives to work closely with customers to assist them in securing and maintaining the social license to operate during construction and operation of wind park projects according to international standards. Overall, working with the customers on building a good relationship with the local community contributes to developing a wind park that is financeable and sustainable in the long term with local stakeholder approval.

Vestas understands the importance of sustainably investing in local communities, which is why it identifies and prioritises local community development and engagement opportunities via the SDD process.

In 2018, Vestas has been active in investing in several local community development initiatives, such as:

- In Honduras, close to the two wind parks Chinchayote and San Marcos II, Vestas has been active in both creating local jobs in connection with the wind parks and empowering local communities' development. During construction, Vestas created 1,645 jobs, of which 1,019 were filled by Honduran workers, including 323 workers from local communities. Vestas also initiated a poultry project with the purpose of developing self-employment and the local community's capacity to create sustainable and environmentally friendly food production. The initiative proved to be successful with more than 50 families benefitting from the first roll-out phase of this initiative.
- In Jordan, connected to the Fujiej project, Vestas has worked together with the developer to maximise local employment, employing over 75 percent of project workers from local communities. Vestas is also active in the local communities, and has, for example, provided support to 200 families during religious holidays, and donated sunshades, school materials, and furniture to four local schools.
- In India, Vestas is engaged in multiple community development activities connected to the wind farm project sites, the blade factory in Ahmedabad and service sites. For example, close to the Taralkatti wind farm, Vestas has invested in community skills development, focusing on training 60 young rural women in tailoring, sewing, and stitching, and providing equipment to a local industrial training institute supporting over 80 rural youths. Vestas has also prioritised education initiatives in the local area; approximately 550 school children from four local schools have benefitted from a solar powered digital education platform installed by Vestas, and the company has furthermore supported several schools with donating educational supplies impacting over 1,050 students.

To further understand the potential socio-economic impact of wind park developments in emerging markets, and contribute towards building knowledge in this area, in 2018, Vestas partnered with an external consulting specialist to develop a methodology and accordingly map the socio-economic impacts of the Lake Turkana Wind Farm in Kenya. Preliminary results assessing the socio-economic impact of the 208 km access road has already shown that increased development has reduced transport time, increased economic activity, and increased accessibility for education and health authorities in the area.

The study provides valuable input for the continued discussion on how to minimise impacts from large-scale renewable energy projects in emerging markets, and how to enhance potential positive contributions to the host country and the local communities.

## Responsible operations

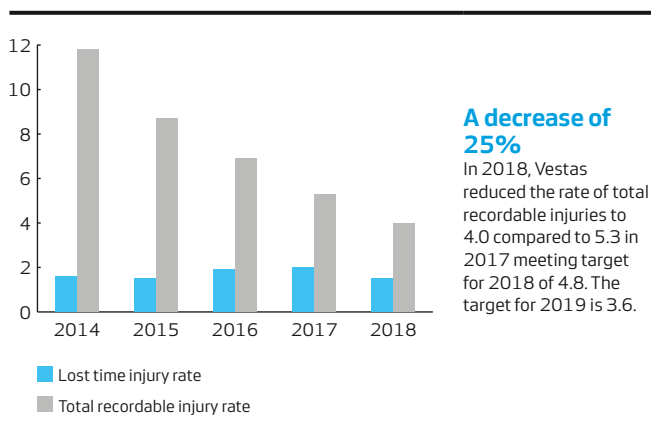
### Health and safety

Vestas considers its employees to be its most important asset. Therefore, health and safety are consistently given highest priority to provide and maintain a safe and secure workplace for all employees.

Vestas has seen significant improvements in relation to reducing the number of injuries. From 2005 to 2018, Vestas has reduced the incidence of lost time injuries by 96 percent.

### Incidence of injuries

Per one million working hours



To anticipate injuries before they occur, Vestas employees register near-misses and hazard observations as well as injuries. Part of the incident handling is to assess if the incident in question had potential for serious injury, thereby preventing more injuries.

Although Vestas has achieved a significant improvement in the occurrence of workplace injuries, it has still seen a number of serious injuries and fatalities in past years.

Vestas is now placing increased focus on the incidents with high potential for serious injury or fatality. The incident management process has been strengthened in the identification and management of incidents with fatal exposure. Such incidents must be prioritised and immediately acted upon to ensure any potential risk to life is eliminated, and subsequently control mechanisms will follow up to ensure that no recurrence will take place.

In addition, Vestas is placing increased focus on Safety Leading indicators. These indicators give an overview of the country-specific and regional performance on a number of essential safety initiatives to ensure sufficient focus on safety is embedded.

Vestas has three behavioural safety programmes. The first, Safety awareness training, which explains why safe behaviour is critical to making Vestas a safe place to work and includes safety walks by managers, has been implemented globally.

The Vestas Behavioural Change program is an employee-led programme of peer-to-peer feedback loops of observed safety behaviour and improvements. The programme is currently implemented in 70 percent of the factories worldwide and will be further implemented as safety culture matures.

These two safety programmes were in 2017 supplemented by My Team My Responsibility (MTMR) as a pilot programme in selected segments of the business. In 2018, MTMR was implemented in most

manufacturing facilities and launched in the Sales Business Units, including selected contractors. The MTMR programme focuses on changing identified at-risk behaviours to safe behaviours throughout all levels of the business.

An occupational health and safety strategy was launched in 2017. In 2018, ergonomics and chemical exposure were identified as the main risks for Vestas employees and activities were initiated to improve both current practices as well as the design of new workplaces. The ultimate goal is that when employees leave or retire from Vestas they should be able to reflect on their career and consider that their physical and mental wellbeing has been enhanced due to the conscientious focus Vestas places on occupational health and safety.

### Responsible supplier management

Vestas works very closely with suppliers and sub-suppliers of components and raw materials to improve the sustainability of Vestas' products and operations.

The risk management process spreads over the whole product life-cycle, starting from supplier selection. The expected conduct of Vestas' suppliers is deployed via the Business Partner Code of Conduct and is an integral part of purchase agreements. Vestas takes action to ensure that suppliers comply with its policies by screening significant suppliers on compliance with the Code of Conduct, environment, health, and safety through the standards in a supplier assessment tool.

In 2018, monthly supplier scorecards have officially been rolled out to 165 key suppliers with significant focus on safety and other sustainability aspects. The supplier's scorecard performance and agreed development activities are evaluated as part of monthly performance dialogue meetings.

In 2018, 154 suppliers were assessed on site by Vestas globally. Of these, 98 were approved, 14 were rejected, and 42 are under approval.

### Sustainable products and services

Creating sustainable energy solutions and thereby contributing to the fight against climate change calls for a constant improvement of both the environmental impact of Vestas' products and of the overall environmental impact of Vestas' activities – in designing, manufacturing, installing, and servicing wind turbines.

A Vestas wind turbine in operation saves CO<sub>2</sub> emissions compared to electricity generated from fossil fuels; a clear contribution in moving away from a carbon intensive energy mix. In 2018, the CO<sub>2</sub> savings over the lifetime for the capacity produced and shipped by Vestas amounted to 275m tonnes, a decrease of 13 percent compared to 2017, due to a lower amount of MW produced and shipped in 2018 and lower world average CO<sub>2</sub> emissions from fuel combustion.

As the wind power industry is expected to account for a growing share of the future energy mix, it is important that Vestas acknowledges that when producing solutions to harness wind energy, a small negative impact on the environment is made.

Vestas is committed to reducing this impact to the extent possible, together with its suppliers and customers, and believes that it is a prerequisite for Vestas' continued development.

### Environmental impact of a Vestas wind turbine

Since 2010, Vestas has defined targets and pushed the bar on two essential parameters to reduce the environmental impact of wind turbines: carbon footprint and waste. These targets are informed by the Life Cycle Assessments (LCAs) that measure the 'cradle to grave' environmental impacts of Vestas' products and activities throughout the lifetime of a wind power plant.<sup>3)</sup>

The product carbon footprint over the lifetime of a Vestas wind turbine has been reduced significantly since the first target was set in 2010. The current target is a 10 percent reduction of carbon footprint by 2020 from a baseline of 6.60 grams CO<sub>2</sub> per kWh in 2017.



The current target for product waste is a 7 percent reduction by 2020 versus a baseline of 0.178 grams waste per kWh in 2017. Progress towards the targets is documented when new wind turbine versions are released.

Around 83-89 percent of a Vestas wind turbine is recyclable, depending on turbine type. On the road to achieving 100 percent recyclability, the composite materials of the blades comprise the largest component yet to be made recyclable. To address this issue, Vestas continues to work in the DreamWind project (Designing Recyclable Advanced Materials for Wind Energy) that aims at developing new sustainable composite materials for blades.

Furthermore, during wind turbine operation and maintenance, Vestas has developed new advanced repair services which include a comprehensive offering of up- and down-tower repair solutions for gearboxes, generators, minor components, and blades. This retains the maximum value of materials from an environmental and circular economic perspective. For example, Vestas' LCA is used to determine the environmental benefits of repair, which shows up to 90 percent savings in material weight and up to 95 percent saving of carbon footprint for the repaired item.

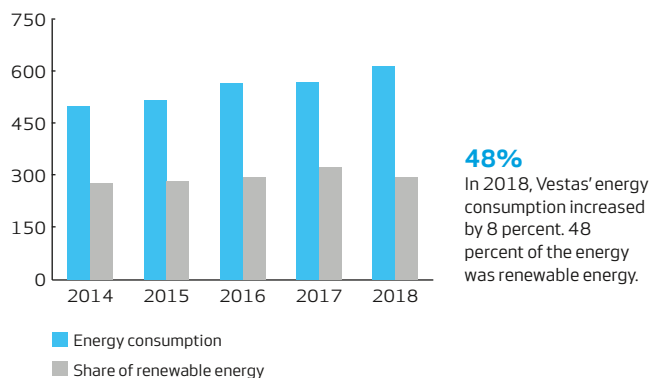
### Environmental impact of Vestas' operations

The LCAs reveal that Vestas accounts for 5-10 percent of the carbon footprint of a wind turbine. For Vestas' activities, performance is reported in terms of inputs of resources and outputs of CO<sub>2</sub> emissions and waste. Increased service in 2018 compared to 2017 was not to the same degree reflected in the consumption of water and energy and emissions of CO<sub>2</sub> and waste, which increased relatively less than the increased service level. With more frequent product upgrades, the manufacturing resulted in relatively higher energy and water consumption and emissions of CO<sub>2</sub> and waste than the change in production level.

Vestas' focus on increasing renewable energy share continues. 50 percent of the non-renewable energy is used in Service and the share is increasing as the business grows. Vestas is committed to increase

the carbon efficiency and reduce the carbon emissions from its Sales Business units relative to kWh produced from the wind turbines where Vestas has service agreements.

### Energy consumption and share of renewable energy 1,000 MWh



It is Vestas' ambition that 100 percent of its electricity consumption must come from renewable energy sources, subject to availability, which continued to be fulfilled in 2018. This was achieved partly by purchasing renewable electricity where available, and partly by compensating for the consumption of non-renewable electricity with Vestas-owned wind power plants. In 2017, Vestas joined the organisation RE100, whose members commit to 100 percent renewable electricity.

3) 100 percent of MW delivered by Vestas are covered by LCAs based on ISO 14040/44 and are publicly available at [www.vestas.com/en/about/sustainability#available-reports](http://www.vestas.com/en/about/sustainability#available-reports)

# Accounting policies

## Basis for preparation of the statement

### General reporting standards

Vestas' reporting contains Standard Disclosures from the GRI Sustainability Reporting Guidelines.

The below description of accounting policies of social and environmental performance refers to the social and environmental key figures and indicators presented on page 027.

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 the Group's 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 same measurement and calculation methods are applied at all Vestas sites. There have been no significant changes from previous reporting periods in the scope and boundary applied in the report.

## Social performance

### Occupational health and safety

Occupational health & 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 external 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 external 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) who have 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 IPE level (Mercer's International Position Evaluation). Employee indicators are calculated based on head counts.

## Environmental performance

Energy consumption, water consumption, waste generation and CO<sub>2</sub> 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. Consumption of electricity from non-renewable sources purchased as a result of not being able to purchase renewable electricity at some locations, is in the Group statement balanced with renewable electricity produced by wind power plants owned by Vestas and sold to the local grid.

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<sub>2</sub>

Direct emission of CO<sub>2</sub> 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<sub>2</sub> is calculated on the basis of direct consumption of electricity and district heating, with the usage of national grid emissions factors published by International Energy Agency. Indirect CO<sub>2</sub> emissions from electricity consumption based on non-renewable sources is balanced out by CO<sub>2</sub> emission savings in the production and sale to the grid from Vestas owned wind turbines.

### 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<sub>2</sub> savings from the produced and shipped MW are calculated on the basis of a capacity factor of 30 per cent 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<sub>2</sub> emission for electricity in the world, at present 490 grams of CO<sub>2</sub> per kWh.



## Vestas on the capital markets

### The Vestas share

Vestas Wind Systems A/S' total share capital amounts to DKK 205,696,003 and has one share class, which is 100 percent free float at the Nasdaq Copenhagen stock exchange in Denmark. In 2018, the Vestas share was the third most traded share with an average daily turnover of DKK 4.28m at the stock exchange.

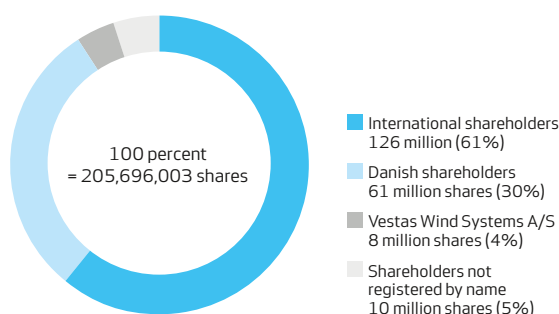
The Vestas share price ended the year at DKK 492.10, equal to a market capitalisation of DKK 101.2bn. The share price increased by 15 percent, compared to end of 2017. This was significantly better than the general trend in the OMX Copenhagen 25 CAP (OMXC25CAP) index, which decreased by 13 percent in 2018.

### Ownership

At the end of the year, the company had 136,693 shareholders registered by name (195,438,719 shares), including custodian banks. No shareholders have, in accordance with the EU Transparency Directive and the Danish Capital Markets Law, reported a shareholding that exceeds 5 percent.

### Share capital distribution as at 31 December 2018

Percent



Information about the Board of Directors' (the Board) and the Executive Management of Vestas Wind Systems A/S' ownership of the listed company, see page 038.

### 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 - ISIN code XS1197336263 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 525m as at 31 December 2018. For further information about the bond, see notes 4.6 and 4.8 to the Consolidated financial statements, pages 076 and 083.

### 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 011.

### Authorisations granted to the Board of Directors

According to article 3 of the Articles of association, 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 2018, the shareholders authorised the Board to let the company acquire treasury shares in the period until 31 December 2019 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 the wind turbines and service solutions that will support the corporate strategy. For further information about Vestas' capital structure and dividend policy, see Capital structure strategy, page 011.

### Dividend

On 3 April 2018, the shareholders approved a dividend of DKK 9.23 per share to be paid out for the financial year 2017. This was equivalent to a dividend percentage of 29.9 percent measured against the net profit for the year.

For the financial year 2018, the Board proposes a dividend of DKK 7.44 (approx. EUR 1.00) per share equivalent to 30.0 percent of the net result for the year after tax.

### Share buy-back programmes 2018

On 12 February 2018 and on 15 August 2018, the Board initiated new share buy-back programmes.<sup>1)</sup> The main purpose of the programmes was to adjust the company's capital structure and, secondly, to meet the obligations arising from share-based incentive programmes to employees of Vestas. They were completed on 3 May 2018 and 18 December 2018, respectively. Under the programmes, Vestas has bought back shares for an amount of DKK 3bn (EUR 402m).

### Share capital reduction

On 3 May 2018, the company reduced its share capital by a nominal value of DKK 9.8m (EUR 1.3m). The capital reduction was carried out through the cancellation of 9,800,944 treasury shares in accordance with the resolution passed at the Annual General Meeting on 3 April 2018.

At Vestas' Annual General Meeting in 2019, a resolution will be proposed that 6,794,040 shares out of Vestas' holding of 8,418,860 treasury shares be cancelled.

1) The programmes were 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).

## Distribution to shareholders

	2018	2017
Dividend per share (DKK)	7.44*	9.23
Dividend per share (EUR), approx.	1.00*	1.24
Dividend (EURm)**	205*	267
Payout ratio (%)	30.0*	29.9
Share buy-back (EURm)	402	694

\* Based on recommended dividend.

\*\*Based on issued shares as at 31 December.

## Holding of treasury shares

Number

Treasury shares as at 31 December 2017	11,843,929
Reduction of the share capital	(9,800,944)
Bought under the share buy-back programmes	+6,962,324
Exercised share options and performance shares	(586,449)
<b>Total holding of treasury shares as at 31 December 2018</b>	<b>8,418,860</b>

## 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.

Vestas attaches great value to maintaining an open dialogue with its stakeholders, therefore the Executive Management and Investor Relations takes 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.

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.

Furthermore, Vestas seeks to disclose information to the market in a high quality, consistently, and with continuity – to make it easily accessible and interpretable for the stakeholders. There is a four-week silent period prior to the disclosure of any financial reports.

Vestas aims to continuously improve the communication with its shareholders to inform about Vestas' goals and to safeguard long-term shareholder interests. However, in order to reach all of its shareholders, it is necessary for Vestas to know their identity. Vestas therefore recommends that its shareholders have their Vestas shares registered by name in the company's register of shareholders.

## Analyst coverage

Vestas is currently covered by 25 sell-side equity analysts, amongst others from major global investment banks, that regularly publish research reports on Vestas to their clients.

A list of these analysts can be found at Vestas' corporate website, together with comprehensive information about the Vestas share and share-related information such as company announcements, financial reports, an overview of announced orders, share price, earnings calls (audiocasts), the financial calendar, how to sign up for news etc.



# Corporate governance

## Corporate governance principles

Corporate governance, defined as “the system used to manage and control a business”, is to a wide extent reflected in the provisions concerning the board set out in the Danish Companies Act. The purpose of corporate governance is to support value creation and accountable management, and thus to contribute to the long-term success of companies.

### What is corporate governance for Vestas?

To the Board of Directors of Vestas Wind Systems A/S (the Board), corporate governance is not just a set of rules but a constant process. Consequently, the Board continuously addresses the guidelines and processes for the overall management of Vestas. This ensures that the management is at any time able to conduct its managerial tasks professionally and in due consideration of applicable law, practices, and recommendations.

Furthermore, 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 the market 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.

### Clear guidelines provide a true and fair view

The Board finds that clear guidelines on how to manage and communicate help provide a true and fair view of Vestas to the world. In light of the challenges Vestas faces in a market characterised by fierce competition, changing market mechanisms, expected consolidation, and ever-increasing quality requirements, a clear and well-considered management and communication strategy is of special importance.

In 2018, 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 exercise of the necessary control.

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

## Management structure

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

### Shareholders

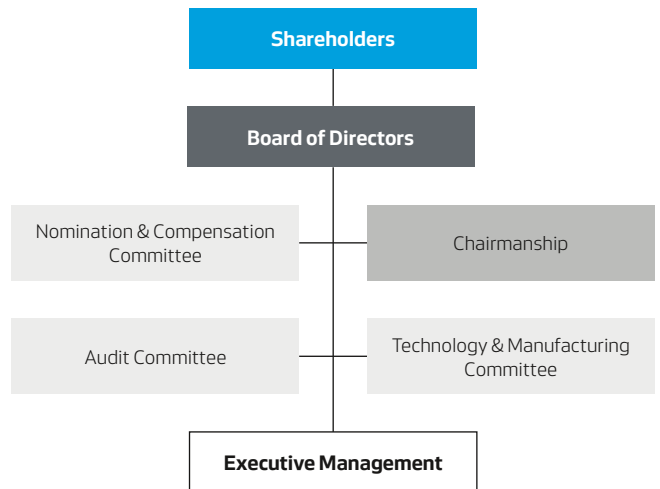
Shareholders have ultimate authority over the company and exercise their rights of co-administration and supervision at general meetings, which usually take place within the first four months of the business year. All shareholders are entitled, in compliance with a few formal requirements, to have access,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

In 2018, the Annual General Meeting took place in April and the minutes of meeting are available at the corporate website.

### Annual General Meeting 2019

On Wednesday 3 April 2019 at 14:00 (CET), Vestas Wind Systems A/S' Annual General Meeting will take place in Aarhus, Denmark. The notice convening the meeting will be disclosed on Wednesday, 27 February 2019.

## Vestas' management structure



### 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. The record date is defined as one week before the general meeting. The number of shares held by each shareholder at the record date is calculated on the basis of registration of the shareholder's ownership in the register of shareholders (or notifications about ownership received by the company, but which has not yet been registered in Vestas' register of shareholders).

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 2018 is available at the corporate website.

### Audit

Vestas' annual report is audited by an independent external audit firm elected 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 and Executive Management grant the auditor access to make any investigations, they find necessary, and ensure that the auditor receives the information and the assistance needed for them to exercise their duties. 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.

The external auditor attends all meetings of the Audit Committee, as well as the meeting of the Board at which the annual report is adopted. In 2018, the auditor participated in one meeting with the Board and in five meetings with the Audit Committee.

The contractual basis and thereby the scope of the auditor's work as well as the auditor's fee is agreed between the Board and the auditor based upon a recommendation from the Audit Committee. Any non-audit related services provided by the auditor are agreed with the Finance Management according to policy approved by the Audit Committee. Such non-audit services are reported to the Audit Committee and reviewed on a quarterly basis. Moreover, the Board once a year determines the general framework for the supply by the auditor of non-audit related services in order to ensure independence on the part of the auditor.

For the Independent Auditor's Report and the Independent Auditor's Limited Assurance Report regarding this annual report, see pages 103 and 106.

### Appointment of the auditors

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 business year 2023.

In April 2018, the Annual General Meeting re-elected PricewaterhouseCoopers as Vestas' external auditor for the financial year 2018.

### Policy for audit and non-audit services

One area of particular focus in corporate governance is the independence of the auditor. The Vestas Group's auditor may be used, within certain parameters, for certain non-audit services, and they 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 and monitors compliance.

During 2018, audit and non-audit services provided by the Vestas' auditors globally totalled EUR 4m, for more details about the audit fee see note 6.1 in the Consolidated financial statements, page 090.

### Internal audit

Once a year, the Audit Committee assesses the need for an internal audit function. The committee found that it was not necessary to establish an internal audit function in 2018.

### Board of Directors

Pursuant to the company's Articles of association, the company is managed by a Board composed of 5-10 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. They serve a one-year term and may be re-elected. The most recent ordinary election of employee representatives for the Board took place in 2016. They serve for a statutory four-year term and are up for election in 2020.

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.

When proposing new Board candidates, the Board pursues the goal of having several nationalities of both genders represented, and a diverse age distribution. However, these goals must not compromise the other recruitment criteria. The statutory report on gender distribution is available at the corporate website.

In April 2018, the Annual General Meeting re-elected all members of the Board and in addition, the shareholders decided to extend the Board with an additional member – Mr Jens Hesselberg Lund. After the Annual General Meeting, the Board held a statutory board meeting. At the meeting, Mr Bert Nordberg was re-elected as Chairman of the Board and Mr Lars Josefsson was re-elected as Deputy Chairman of the Board.

In July 2018, Ms Lykke Friis decided to step down from the Board.

As at 31 December 2018, the Board consisted of 12 members, of which eight were elected by the shareholders and four by the employees in Denmark. Read more about the composition of the Board on page 044.

The Board met 11 times during 2018, including a two-day strategy seminar.

### 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 the 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 the Executive Management, the Board establishes and approves overall policies, procedures and controls in key areas, not least in relation to the 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 2018 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 forums such as Vestas' Product Portfolio Council, Product Value Chain Board, and Product Portfolio Board, which also handle prioritisation of and investments in innovation and concept development.

### 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 2018, the three board committees evaluated their performance for 2018. 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.

Vestas has in November 2018 engaged with an external partner to undertake an external assessment of the Board as a result of changes made to the Danish Corporate Governance Code. Going forward Vestas will include external assistance to perform an evaluation of the Board at least every third year.

The main conclusions from the external partner is that Vestas has a Board with a clear understanding of current role and responsibilities. The external partner brings key recommendations for the Board to perform a skills audit to understand key capabilities required on the Board both now and in the future. The current capabilities among the members could be reviewed taking into account maintaining the diverse range of skills, experience and styles of Board members.

The Chairman should re-affirm expectations of each Board member specifically relating to the level of contribution and challenge expected during board meetings and strategy sessions. It is recommended to allow the Board to monitor its performance on a more regular basis, with an on-going self-assessment tool.

An evaluation report was prepared for the three committees and a similar report was prepared by the external consultant who performed the self-assessment of the Board – comprising the result of the assessments. These reports are used by the Nomination & Compensation Committee when they propose nomination of members to the Board and members of the board committees.

### Remuneration

The remuneration of the Board is approved each year at the annual general meeting.

In 2018, the Board received a remuneration of EUR 1m. Read more about the remuneration on page 039.

### Executive Management

The Executive Management of Vestas Wind Systems A/S is appointed by the company's Board and among the members of the Executive Management they have appointed a Chief Executive Officer who is the manager 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 meets at least once a month and often more frequently.

In 2018, the Board has not made any changes to the composition of the Executive Management. Read more about the composition of the Executive Management on page 045.

### The 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. The 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.

### 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 – and the combined Executive Management; and the co-operation between the Board and the Executive Management.

The result of the assessment conducted in 2018 revealed good collaboration between the Board and Executive Management.

### Remuneration

The remuneration of the Executive Management is determined by the Board.

In 2018, the Executive Management received a fixed remuneration of EUR 5m and vested 166,812 performance shares. No bonus will be paid out for the financial year 2018. Read more about the remuneration on page 042.

### 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](https://vestas.com/investor/corporate_governance#!statutoryreports). Vestas follows all recommendations of the Danish Corporate Governance recommendations except from three 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\\_governancecorporate\\_governance#!statutoryreports](https://vestas.com/investor/corporate_governancecorporate_governance#!statutoryreports).

## Members of the Board of Directors

	Born	Independent	Date of election	Expiry of election period	Share trading in 2018	Number of shares end 2018 <sup>1)</sup>
Mr Bert Nordberg	23/03/1956	Yes	March 2012 and re-elected for subsequent terms, most recently in 2018	2019	0	14,600
Mr Lars Josefsson	31/05/1953	Yes	March 2012 and re-elected for subsequent terms, most recently in 2018	2019	0	3,500
Mr Carsten Bjerg	12/11/1959	Yes	March 2011 and re-elected for subsequent terms, most recently in 2018	2019	0	4,019
Ms Eija Pitkänen	23/04/1961	Yes	March 2012 and re-elected for subsequent terms, most recently in 2018	2019	+150	1,400
Mr Henrik Andersen	31/12/1967	Yes	March 2013 and re-elected for subsequent terms, most recently in 2018	2019	0	12,700
Mr Henry Sténson	10/06/1955	Yes	March 2013 and re-elected for subsequent terms, most recently in 2018	2019	0	5,000
Mr Jens Hesselberg Lund	08/11/1969	Yes	April 2018	2019	0	4,000
Mr Kim Hvid Thomsen	08/08/1963	-	May 1996 and re-elected for subsequent terms, most recently in 2016	2020	0	3,710
Mr Michael Abildgaard Lisbjerg	17/09/1974	-	April 2008 and re-elected for subsequent terms, most recently in 2016	2020	0	834
Mr Peter Lindholst	25/02/1971	-	March 2016	2020	0	500
Ms Sussie Dvinge Agerbo	05/10/1970	-	November 2005 and re-elected for subsequent terms, most recently in 2016	2020	0	800
Mr Torben Ballegaard	07/02/1951	Yes	March 2015 and re-elected for subsequent terms, most recently in 2018	2019	0	500

## Members of the Executive Management

	Born	Position	Date of appointment	Share trading in 2018	Number of shares end 2018 <sup>1)</sup>
Mr Anders Runevad	16/03/1960	Group President & CEO	September 2013	+12,982 <sup>2)</sup> -7,270 +27,478 <sup>2)</sup> -15,388	26,115
Mr Anders Vedel	06/03/1957	Executive Vice President & CTO	February 2012	+19,470 <sup>2)</sup> +13,740 <sup>2)</sup> -13,740 <sup>3)</sup>	46,252
Mr Jean-Marc Lechêne	29/10/1958	Executive Vice President & COO	July 2012	+19,470 <sup>2)</sup> -1,000 <sup>3)</sup> +13,740 <sup>2)</sup> -10,000 -5,000	39,592
Mr Juan Araluce	17/01/1963	Executive Vice President & CSO	February 2012	+19,470 <sup>2)</sup> -58,238 +13,740 <sup>2)</sup> -13,740	0 <sup>3)</sup>
Ms Marika Fredriksson	04/11/1963	Executive Vice President & CFO	May 2013	+12,982 <sup>2)</sup> -7,270 <sup>3)</sup> +13,740 <sup>2)</sup> -7,695	17,505

1) The mentioned number of shares includes both own and related parties' total shareholdings.

2) Exercised vested shares in 2018 (DKK 0 per share).

3) Stated as a whole number.

# Remuneration report

“ This remuneration report sets out how we have implemented the Remuneration policy and General guidelines for incentive pay approved by the shareholders in 2016. The policy and guidelines aim to secure that the interests of the top management are aligned with the company’s short- and long-term targets which are set to create value for both Vestas and the shareholders.”

**Bert Nordberg**

Chairman of the Nomination & Compensation Committee

## Remuneration aligned to strategy

The Board of Directors of Vestas Wind Systems A/S (the Board) believes in aligning the remuneration policy to the strategic goals and priorities for the company.

The remuneration policy enables Vestas to sustain a talented, agile, and cost-effective organisation continuing the leadership in sustainable energy. The compensation elements described in the Remuneration policy is supporting Vestas in reaching the two strategic mid-term objectives:

- Global leader in wind power plant solutions
- Global leader in wind service solutions

The Remuneration policy describes the different elements included in the remuneration for the Board and the Executive Management. The purpose of the combined remuneration is to ensure motivation and performance management towards the strategic focus areas on both an annual basis (through short-term incentive) and a long-term attention towards value creation for shareholders while ensuring retention and long-term commitment.

The Remuneration policy and the General guidelines for incentive pay are available at the corporate website.

## Remuneration linked to the results

The main group of members of the Board was elected in 2011-2013 – and the Executive Management was appointed in 2012-2013. Since then, Vestas has been guided in a clear direction, through a turnaround, and has executed on the Profitable Growth strategy, which the figures for the period shows.

**+ 67%**

Revenue is one of the four elements in Vestas’ guidance for the year. From 2013 to 2018 revenue increased from EUR 6bn to EUR 10bn – equal to 67 percent.

**+ EUR 857m**

Another guidance element is operating profit (EBIT) before special items. Since 2013, EBIT has increased from EUR 102m to EUR 959m – an EBIT increase of EUR 857m.

**- 59%**

Through dedicated efforts of Vestas employees and supervised contractors, Vestas has reduced the rate of total recordable injuries by 59 percent from 2013-2018.

**100%**

In the last six years Vestas has kept the renewable electricity for own activities at 100 percent.

**6 share buy-backs**

Since 2013, Vestas has completed six share buy-back programmes – bought back 26,043,094 Vestas shares (DKK 12.2bn) – and cancelled 18,378,510 Vestas shares – and will propose the cancellation of additional 6,794,040 shares at the Annual General Meeting in 2019.

**EUR 866m**

From 2013-2018, Vestas has in total, paid out EUR 866m in dividend – and are proposing for the fifth time in a row a dividend pay-out at the coming annual general meeting.

With the right composition of the Board, the right members of the Executive Management, and a committed group of employees, Vestas will continue to perform for the benefit of the shareholders but also for the benefit of the environment.

It is therefore very important for the Board to continuously evaluate the composition of its members and of Executive Management to make sure that Vestas has the right composition in its management to lead Vestas into the next decade.

In order to attract and retain a talented management it is important that an attractive compensation is granted while safeguarding the company’s interests through long-term targets, which is in the interest of the shareholders.

## Remuneration of the Board

The Board assess the fees paid to the Board annually, according to the recommendations of the Nomination and Compensation Committee. Efforts are made to ensure that the remuneration of the Board matches

the level in comparable companies, whilst also taking into consideration board members' required competencies, efforts, and the scope of the board work, including the number of meetings.

Board members elected by the employees receive the same remuneration as the Board members elected by the general meeting. On any takeover event, retiring Board members will not receive any compensation for their lost board remuneration and similar benefits.

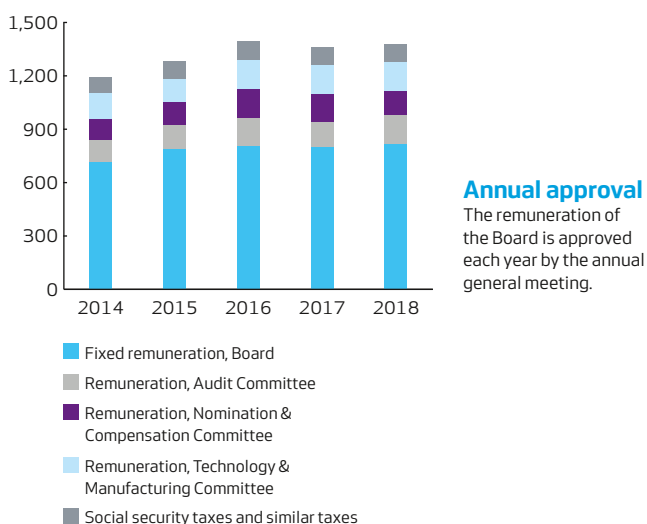
The remuneration of the board members for the past year and the level for the current year is approved by the shareholders at the annual general meeting as two separate items.

The remuneration of the Board consists of five elements: fixed remuneration, committee remuneration, remuneration of ad hoc tasks, social security taxes and similar taxes, and reimbursement of expenses. The Board is not included in incentive programmes or covered by any Vestas pension scheme or a defined benefit pension scheme.

Each element of the remuneration of the Board and detailed information about the remuneration in 2018 is described in the Remuneration report 2018 – Board of Directors, see page 041.

### Remuneration of the Board of Directors

tEUR



**Annual approval**  
The remuneration of the Board is approved each year by the annual general meeting.

### Remuneration of the Executive Management

The Board believes that a combination of fixed and performance-based pay to the Executive Management helps ensure that the company can attract and retain key employees. The Executive Management is paid partly through variable performance-based elements to motivate performance aligned with short and long-term business targets, and to enable flexible remuneration costs. Furthermore, the variable remuneration is a motivation for management to promote sound business decisions to meet the company's targets and support the strategy.

All members of Executive Management are employed under executive service contracts, and the Board sets the terms within the frames of the contracts.

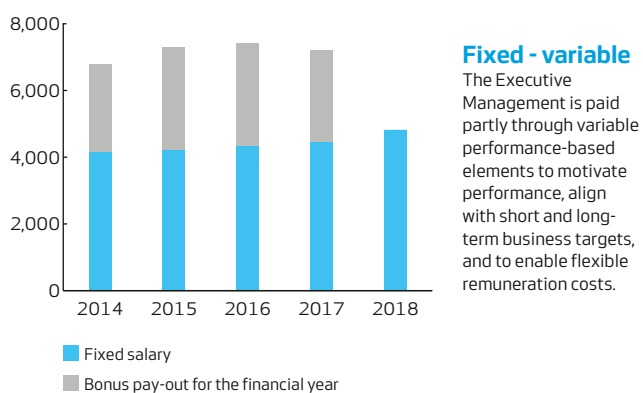
The Nomination & Compensation Committee submits proposals concerning the remuneration of the Executive Management and ensures that the remuneration is in line with the conditions in comparable companies. The proposals are submitted for approval at a board meeting.

In 2017, the Board decided to maintain the structure of the remuneration packages for Executive Management for the financial year 2018. According to the remuneration policy, remuneration consists of the following four elements: fixed salary, cash bonus, share-based incentives, and personal benefits.

Each element of the remuneration of the Executive Management and detailed information about the remuneration in 2018 is found in the Remuneration report – Executive Management 2018, see page 042.

### Remuneration of the Executive Management

tEUR



**Fixed - variable**  
The Executive Management is paid partly through variable performance-based elements to motivate performance, align with short and long-term business targets, and to enable flexible remuneration costs.

Besides the fixed salary and bonus pay-outs, the members of Executive Management have also been entitled to participation in the restricted performance share programmes for the years 2013-2018. They have been entitled to a target level of shares which has subsequently been performance adjusted, following the terms and conditions of the programmes.

All the performance shares follow the same principles for vesting and are granted to the Executive Management with 50 percent after three years and 50 percent after five years.



# Remuneration report 2018

## Board of Directors

This report describes the remuneration of the Board of Directors of Vestas Wind Systems A/S (the Board) in 2018. The level of the remuneration in 2018 remain unchanged – as pre-approved by the shareholders at the Annual General Meeting in 2018 – and will be presented for final approval at the Annual General Meeting in 2019.

According to the Remuneration policy, the remuneration of the Board comprises the following five elements.

### Fixed remuneration

Members of the Board receive a fixed cash payment (basic remuneration). The Chairman receives triple basic remuneration and the Deputy Chairman receives double basic remuneration for their extended board duties.

According to the shareholders decision at the Annual General Meeting in 2018, the members of the Board has each received DKK 400,000<sup>1)</sup> for the financial year 2018. The Chairman has received DKK 1,200,000 and the Deputy Chairman has received DKK 800,000 for their extended duties.

The Board of Directors is not included in incentive programmes or covered by any Vestas pension scheme or a defined benefit pension scheme.

### Committee remuneration

In addition to the basic remuneration, annual committee remuneration is paid to board members who are also members of one of the board committees. The remuneration is determined as a base fee, and the

committee chairman receives an additional remuneration of 80 per cent of the committee remuneration.

For the financial year, in addition to the basic remuneration the members of the Board have received remuneration of DKK 250,000 per membership of a board committee and the chairmen of the committees has received DKK 450,000 for their extended committee duties.

### Remuneration for ad hoc tasks

Individual Board members may take on specific ad hoc tasks outside their normal duties assigned by the Board. In each such case, the Board shall determine a fixed remuneration for the work carried out in relation to those tasks. The fixed remuneration will be presented for approval at the following Annual General Meeting.

### Social security taxes and similar taxes

In addition to the remuneration, the company may pay social security taxes and similar taxes imposed by non-Danish authorities in relation to the remuneration.

### Reimbursement of expenses

Actual expenses defrayed in connection with board and committee meetings are reimbursed.

### Remuneration for the financial year<sup>2)</sup>

DKK

	Board		Committees		Adhoc task remuneration	Social security taxes and similar taxes	Reimbursement of expenses	mDKK		
	Fixed remuneration	Meetings	Remuneration(s)	Meetings				Total 2018	Total 2017	Total 2016
Bert Nordberg	1,200,000	11/11	450,000	5/5	-	346,040	147,313	2,143,353	2.2	2.1
Lars Josefsson	800,000	11/11	700,000	4/4 + 5/5	-	314,582	18,336	1,832,918	1.8	1.8
Carsten Bjerg	400,000	11/11	500,000	4/4 + 5/5	-	-	9,427	909,427	0.9	0.9
Eija Pitkänen	400,000	11/11	250,000	4/4	-	-	-	650,000	0.7	0.7
Henrik Andersen	400,000	10/11	700,000	5/5 + 5/5	-	-	-	1,100,000	1.1	0.5
Henry Sténson	400,000	11/11	-	-	-	83,888	-	483,888	0.7	0.7
Jens Hesselberg Lund <sup>3)</sup>	400,000	8/8	250,000	4/4	-	-	-	650,000	-	-
Kim Hvid Thomsen	400,000	11/11	250,000	4/4	-	-	-	650,000	0.7	0.7
Michael Abildgaard										
Lisbjerg	400,000	11/11	-	-	-	-	-	400,000	0.4	0.4
Peter Lindholst	400,000	11/11	-	-	-	-	-	400,000	0.4	0.4
Sussie Dvinge Agerbo	400,000	11/11	-	-	-	-	-	400,000	0.4	0.4
Torben Ballegaard	400,000	10/11	250,000	5/5	-	-	-	650,000	0.7	0.4

1) The company may also pay social security taxes and similar taxes which are being levied by non-Danish authorities in relation to the remuneration for membership of the Board or a board committee.

2) Only, members of the Board are included in the table. Ms Lykke Friis was a member of the Board until 6 July 2018.

3) Joined on 3 April 2018.

# Remuneration report 2018

## Executive Management

The Board of Directors (the Board) believes that a combination of fixed and performance-based pay to the Executive Management helps ensure that the company can attract and retain key employees.

According to the Remuneration policy, the remuneration of the Executive Management of Vestas Wind Systems A/S comprises the following four elements.

### Fixed salary

The fixed salary is based on market level and is continuously reviewed by the Nomination & Compensation Committee against comparable positions.

The Executive Management is not covered by Vestas' employer administered pension plan or a defined benefit pension scheme, nor do members of Executive Management receive remuneration for ad hoc tasks or receive any remuneration for directorships held in Vestas Wind Systems A/S' subsidiaries or its joint ventures.

In 2018, the Executive Management received a fixed remuneration of EUR 5m.

### Cash bonus

Members of the Executive Management participate in a bonus programme rewarding annual performance of selected key performance indicators (KPIs).

The bonus is paid out annually after adoption of the annual report for the relevant financial year, ref. the General guidelines for incentive pay.

The bonus pay-out-level is defined by a weighted target achievement and is capped at a certain percentage of the fixed salary with the target and maximum pay-out levels set at 50 percent and 75 percent of the annual base salary, respectively.

The bonus programme is based on target achievement of a number of selected KPIs. Vestas executive management actively engage in an annual process in prioritising and defining the KPIs relevant for the coming performance year to be presented for the Nomination and Compensation Committee for final approval.

With the strategy and key priorities for the coming performance year as guiding indicators, the Nomination & Compensation Committee approves the selected KPIs for the Executive Management.

The Executive Management is measured on the overall Group's results with the financial KPIs; EBIT, revenue, and cash flow along with selected strategic shared KPIs as well as individual KPIs reflecting their area of

responsibility. KPIs and the corresponding annual targets are approved by the Nomination & Compensation Committee. No pay-out will be made if the target for EBIT is not met at the defined minimum acceptable performance level.

Based on the results achieved in 2018, no global bonus will be paid in 2019 to the Executive Management or other employees for the performance year 2018.

### Share-based incentives

The purpose of Vestas share incentives is to strengthen the alignment between Vestas top management and the interests of the company's shareholders, to promote long-term performance, as well as to retain the executive talents.

The intention of the share incentives is to ensure value creation and fulfilment of the company's long-term goals, and the programme contains elements of both short- and long-term performance. The incentive programme is based on restricted performance shares conditional upon continued employment at the time of vesting three to five years after the announcement of the programme.

For any single financial year, the Executive Management may be granted restricted performance shares based on achievement of selected KPIs approved by the Nomination and Compensation Committee. The KPIs may be based on financial measurements as well as Vestas' market share as defined by the Board.

### Share-based incentive programme 2018

In May 2018, the Board announced that it had decided to continue the share-based incentive programme for all participants, including the Executive Management, and launch a new programme for 2018 based on the same terms and conditions governing the restricted performance share programme for the year 2017, ref. the Remuneration policy and the General guidelines for incentive pay.

### Number of shares

The number of shares to be granted is based on a defined target level for each position. No payments for any grants are made by the participants. If all KPIs are reached on target level, a total of 320,000 shares will be granted from the programme with a total present value calculated based on the current share price amounting to EUR 18m (value at close of Nasdaq Copenhagen on 16 April 2018).

### Share-based incentive programmes for the Executive Management

Total outstanding share per year for vesting (performance adjusted until year 2018)

	2019	2020	2021	2022	2023
Share-based incentive programme 2014	80,616	-	-	-	-
Share-based incentive programme 2015	-	82,438	-	-	-
Share-based incentive programme 2016	45,237	-	45,237	-	-
Share-based incentive programme 2017	-	37,262	-	37,262	-
Share-based incentive programme 2018	-	-	35,116	-	35,116

The actual number of restricted performance shares available for distribution may range between 0 and 150 percent of the target level and is determined by Vestas' performance in the financial years 2018, 2019, and 2020. The maximum grant of shares under the programme in total is 480,000 shares based on full performance achievement.

The number of shares that may be granted the combined Executive Management will as previous programmes follow the General guidelines for incentive pay, allowing up to a total of 120,000 shares for target achievement.

The 2018 target number of shares corresponds to approx. 110 percent of the annual base salary for the Executive Management.

The performance adjustments for the financial year 2018 will be communicated to all participants in the respective share incentive programmes when results of all KPIs are available in April 2019.

#### Time of grant

The shares are to vest and be granted to the participants in 2021 and 2023.

#### Key performance indicators

The KPIs for all three performance years are based on financial targets including Earnings per share, Return on Capital Employed, Vestas' market share, as well as commercial targets for relevant participants. All KPIs and targets are defined by the Nomination and Compensation Committee.

The KPIs for the share incentive programme are evaluated regularly by the Nomination & Compensation Committee ensuring alignment to Vestas strategy and long-term value creation.

#### Conditions

The restricted performance shares are governed by the specific terms and conditions of the programme and subject to mandatory law. If a participant chooses to leave Vestas before the time of grant, the participant's rights to receive shares will generally lapse.

#### Adjustments to the programme

The number of shares available for grant and the calculation of the KPIs may be adjusted in the event of certain changes in Vestas' capital structure. In addition, calculation of the KPIs may be adjusted for certain non-operational events. 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.

Further information, see note 6.2 in the Consolidated financial statements, page 090.

#### Personal benefits

Members of the Executive Management have access to a number of work-related benefits, including company car, free telephony, broadband at home, and work-related newspapers and magazines.

#### Remuneration of the Executive Management

	2018	2017	2016
Fixed salary (EUR)	4,650,779	4,508,518	4,379,945
Cash bonus for the year (EUR)	-	2,730,234	3,085,366
Exercised share options in the year (number)	-	-	58,336
Vested performance shares in the year (number)	166,812	77,923	108,891



## Fiduciary positions

The members of the Board of Directors and the Executive Management 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	Positions in Vestas	Fiduciary positions	Positions of trust	Special competencies
<b>Bert Nordberg</b> Professional board member	<ul style="list-style-type: none"> <li>Chairman of the Board of Directors</li> <li>Chairman of the Nomination &amp; Compensation Committee</li> </ul>	<p>Chairman of the boards of Sigma Connectivity AB and TDC A/S.</p> <p>Member of the boards of AB Electrolux<sup>1) 2)</sup>, Essity AB<sup>2)</sup>, Saab Group AB<sup>2)</sup>, and Svenska Cellulosa Aktiebolaget SCA<sup>2)</sup>.</p>		Special competence in restructuring, services and infrastructure business; several years of international business experience; development market knowledge.
<b>Lars Josefsson</b> Independent consultant	<ul style="list-style-type: none"> <li>Deputy Chairman of the Board of Directors</li> <li>Chairman of the Technology &amp; Manufacturing Committee</li> <li>Member of the Nomination &amp; Compensation Committee</li> </ul>	<p>Chairman of the boards of Ouman Oy and TimeZynk AB.</p> <p>Member of the boards of Holmen AB<sup>2)</sup> and Metso Oyj<sup>2)</sup>.</p>		In-depth knowledge of managing international companies including research and development, technology and production.
<b>Carsten Bjerg</b> Professional board member	<ul style="list-style-type: none"> <li>Member of the Board of Directors</li> <li>Member of the Technology &amp; Manufacturing Committee</li> <li>Member of the Audit Committee</li> </ul>	<p>Chairman of the boards of Hydrema Holding ApS, Bogballe A/S and Bogballe Investment A/S, Ellepot A/S, Ellegaard Investment I A/S and Ellegaard Investment II A/S, Guldager A/S and CapHold Guldager ApS, Robco Engineering A/S and Robco Engineering Investment A/S - and PCH Engineering A/S and PCH Investment A/S.</p> <p>Deputy chairman of the board of Rockwool International A/S<sup>2)</sup>.</p> <p>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<sup>2)</sup>, TCM Group Investment ApS and TMK A/S.</p>		In-depth knowledge of managing an international group including thorough knowledge of R&D, manufacturing, and strategic management.
<b>Eija Pitkänen</b> Sustainability, Ethics & Compliance Officer, Risk Officer, Telia	<ul style="list-style-type: none"> <li>Member of the Board of Directors</li> <li>Member of the Technology &amp; Manufacturing Committee</li> </ul>	Member of the board of Finnish Refugee Council.		Extensive international experience in developing and executing global sustainability strategies as part of business in several international companies.
<b>Henrik Andersen</b> Group President & CEO of Hempel A/S	<ul style="list-style-type: none"> <li>Member of the Board of Directors</li> <li>Chairman of the Audit Committee<sup>3)</sup></li> <li>Member of the Nomination &amp; Compensation Committee</li> </ul>	<p>Chairman and member of the boards of several subsidiaries of the Hempel Group.</p> <p>Member of the board of H. Lundbeck A/S<sup>2)</sup>.</p>	<p>Chairman of the audit committee of H. Lundbeck A/S<sup>2)</sup>.</p> <p>Member of the investment committee Maj Invest Equity 4 &amp; 5 K/S.</p>	In-depth knowledge of accounting, finance and capital markets, international business experience including restructuring and strategic management of international companies.
<b>Henry Sténson</b> Professional board member	<ul style="list-style-type: none"> <li>Member of the Board of Directors</li> </ul>	<p>Member of the advisory board of Braathens Regional Aviation.</p> <p>Member of the board of Triboron International AB.</p>		More than 20 years' experience from executive teams in global business and extensive experience from communications with media, capital markets and international public affairs. Furthermore, experience from industrial turnaround processes and crisis management.
<b>Jens Hesselberg Lund</b> Group CFO of DSV A/S <sup>2)</sup>	<ul style="list-style-type: none"> <li>Member of the Board of Directors</li> <li>Member of the Audit Committee</li> </ul>	<p>Chairman of the boards of three subsidiaries of the DSV Group.</p> <p>Deputy chairman of five subsidiaries of the DSV Group.</p>		In-depth knowledge of accounting, finance and capital markets and management of an international and listed company.

1) Mr Bert Nordberg will not stand for re-election as member of the board at the next annual general meeting.

2) Company listed on a stock exchange.

3) Fulfills the demand for qualifications within financial accounting and meets the definition of independence of audit committee members as set out in the Danish Auditors Act.

Name and title	Positions in Vestas	Fiduciary positions	Positions of trust	Special competencies
<b>Kim Hvid Thomsen</b> HR Business Partner, People & Culture, Vestas Wind Systems A/S <sup>1)</sup>	· Member of the Board of Directors (elected by Group employees) · Member of the Technology & Manufacturing Committee			In-depth knowledge of production processes and human resources, etc. of Vestas.
<b>Michael Abildgaard Lisbjerg</b> Senior Shop Steward and Skilled Worker, Production, Vestas Manufacturing A/S	· Member of the Board of Directors (elected by Group employees)	Deputy chairman of the boards of DM Skjern-Ringkøbing P/S and DMSR af 24. oktober 2016 ApS.		In-depth knowledge of production processes and human resources, etc. of Vestas.
<b>Peter Lindholst</b> Vice President, Concept Development, Power Solutions, Vestas Wind Systems A/S <sup>1)</sup>	· Member of the Board of Directors (elected by company employees)			In-depth knowledge of wind turbine design and innovation, and experience from Vestas in managing research and development activities in an international set-up.
<b>Sussie Dvinge Agerbo</b> Management Assistant, Power Solutions, Vestas Wind Systems A/S <sup>1)</sup>	· Member of the Board of Directors (elected by company employees)			In-depth knowledge of project management and organizational structures including human resources and staff development.
<b>Torben Ballegaard</b> Professional board member	· Member of the Board of Directors · Member of the Audit Committee	Chairman of the boards of Dena A/S, Liquid Vanity ApS, Sofaco Holding ApS, and Sofaco International ApS.  Deputy chairman of the boards of Egmont International Holding A/S including its subsidiaries and Nowaco A/S.  Member of the boards of Ejendomsselskabet Gothersgade 55 ApS and Ejendomsselskabet Vognmagergade 11 ApS.	Chairman of the Foundation Capnova Invest Zealand and the Musikteatret-Holstebro Foundation.  Deputy chairman of the Egmont Foundation.	Experience from growth and continuous improvement of global and complex industrial organizations. Leadership development. Product and business innovation and strategic execution. International sales and marketing. Value adding board work, financial controlling, and interaction with capital markets.

Name and title	Position in Vestas	Fiduciary positions	Positions of trust
<b>Anders Runevad</b>	· Group President & CEO	Chairman of the board of MHI Vestas Offshore Wind A/S.  Member of the boards of Nilfisk Holding A/S <sup>1)</sup> and Schneider Electric <sup>1)</sup> .	Member of The General Council of the Confederation of Danish Industries and The Industrial Policy Committee of the Confederation of Danish Industries.
<b>Anders Vedel</b>	· Executive Vice President & CTO	Member of the boards of Hvide Sande Havn Energy ApS and MHI Vestas Offshore Wind A/S.	
<b>Jean-Marc Lechêne</b>	· Executive Vice President & COO	Chairman of the board of Norican A/S.  Member of the board of Velux A/S.	
<b>Juan Araluce</b>	· Executive Vice President & CSO	Member of the board of MHI Vestas Offshore Wind A/S.	
<b>Marika Fredriksson</b>	· Executive Vice President & CFO	Member of the boards of Sandvik AB <sup>1)</sup> and SSAB <sup>1)</sup> .	Chairman of the audit committee of SSAB <sup>1)</sup> .

1) Company listed on a stock exchange.

# Risk Management

## Risk management at Vestas

Being a multinational company and global leader in sustainable energy solutions, Vestas is exposed to a variety of risks in the daily business.

To create shareholder value and achieve its strategic objectives, Vestas must take risks and at the same time actively ensure that such risks are understood, monitored, and managed to ensure that they do not adversely impact the realisation of Vestas' strategic and financial targets.

In order to support decision making, Vestas has integrated a 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, structured and sorted between three types of risks – persistent, current, and risks related to Vestas' Corporate Strategy. 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.

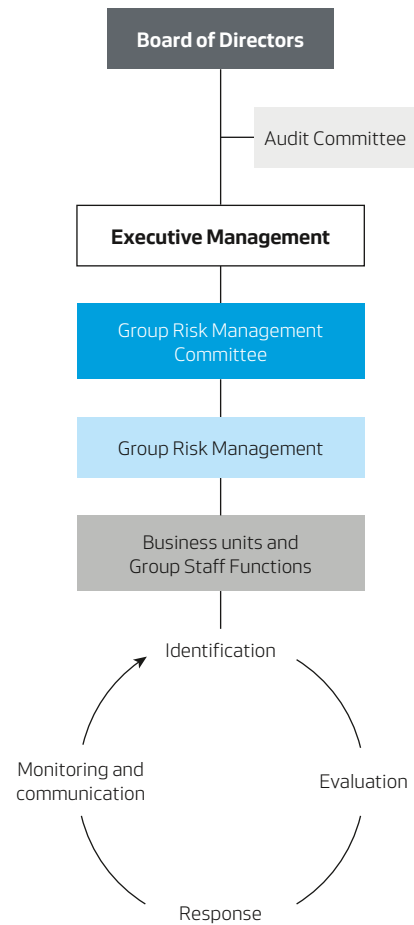
### Governance

Risk management is the responsibility of everyone at Vestas and all parts of the organisation work with risk management as part of the daily operation. According to the Vestas ERM framework, the risk reporting is conducted on a quarterly basis. Relevant risks across all business units and functions are formally identified, assessed, and reported to Group Risk Management using the Vestas risk criteria in line with the risk management framework.

Each quarter, key risks are discussed in the Group Risk Management Committee, including the status and risk exposure of each risk, and an evaluation of mitigation activities for potential implementation. The committee is chaired by the Executive Vice President and CFO of Vestas Wind Systems A/S and includes other senior management members from relevant parts of the business.

A summary of the key risks is presented to the Executive Management three times a year, and on a semi-annual basis the Board of Directors reviews the key risks.

## Risk management



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

## Defined risks for the financial year 2018

As mentioned, Vestas is exposed to a number of financial risks and main risks, why the monitoring and control of these risks is important for Vestas.

### Financial risks

In 2018, the management has assessed the following as Vestas' key financial risks: liquidity risk, credit risk, market risk (foreign exchange), market risk (interest risk), and market risk (commodity price) all addressed in the notes to the Consolidated financial statements, see page 078.

### Main risks

The management has assessed several risks which are monitored closely. Out of these risks three have been defined as main risks for the financial year 2018:

- cyber risks,
- adapting to markets with greater complexity, and
- trade wars.

These risks are further described below.

## 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 related to this.

### Impact

Risks include economical theft 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, and operational IT infrastructure.

## Adapting to markets with greater complexity

### Description

A number of the markets in which Vestas is exploring business opportunities have characteristics, that differ from the more mature markets. 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 related 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 related to intellectual property rights may, amongst others, lead to reductions in the competitive positioning of Vestas, whereas other risks may prevent Vestas from engaging in business relationships or undertaking projects.

### Mitigation

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

## Trade wars

### Description

During 2018, several countries have imposed tariffs on traded goods. Among these, the USA has implemented tariffs both on commodities, as well as on specific imported goods coming into the USA. Considering the amount of steel and many key parts in a wind turbine, Vestas is naturally not immune to those kinds of tariffs.

### Impact

As a consequence of the implementation of tariffs, prices of both domestically sourced material and imported components are expected to go up. This could lead to increased energy costs.

### Mitigation

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



# Consolidated financial statements

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049	Income statement
049	Statement of comprehensive income
050	Balance sheet
051	Statement of changes in equity
052	Statement of cash flows
053	Overview of notes
054	Note 1 · Result for the year
061	Note 2 · Working capital
064	Note 3 · Other operating assets and liabilities
073	Note 4 · Capital structure and financing items
087	Note 5 · Tax
090	Note 6 · Other disclosures
096	Note 7 · Basis for preparation

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## Income statement 1 January – 31 December

mEUR	Note	2018	2017
<b>Revenue</b>	1.1, 1.2	10,134	9,953
Production costs	1.3, 1.4, 2.2	(8,503)	(7,990)
<b>Gross profit</b>		<b>1,631</b>	<b>1,963</b>
Research and development costs	1.3, 1.4	(229)	(235)
Distribution costs	1.3, 1.4	(189)	(229)
Administration costs	1.3, 1.4	(254)	(269)
<b>Operating profit (EBIT) before special items</b>		<b>959</b>	<b>1,230</b>
Special items	1.4, 1.6	(38)	-
<b>Operating profit (EBIT)</b>		<b>921</b>	<b>1,230</b>
Income/(loss) from investments in joint ventures and associates	3.4	40	(40)
Financial income	4.4	17	45
Financial costs	4.4	(68)	(43)
<b>Profit before tax</b>		<b>910</b>	<b>1,192</b>
Income tax	5.1	(227)	(298)
<b>Profit for the year</b>		<b>683</b>	<b>894</b>
<b>Profit is attributable to:</b>			
Owners of Vestas Wind Systems A/S		684	894
Non-controlling interests	4.2	(1)	-
<b>Earnings per share (EPS)</b>	4.3		
Earnings per share (EUR)		3.41	4.23
Earnings per share (EUR), diluted		3.39	4.20



## Statement of comprehensive income 1 January - 31 December

mEUR	Note	2018	2017
<b>Profit for the year</b>		<b>683</b>	<b>894</b>
<b>Other comprehensive income</b>			
Items that may be subsequently reclassified to the income statement:			
Exchange rate adjustments relating to foreign entities		(1)	(128)
Fair value adjustments of derivative financial instruments	4.9	21	174
Gain/(loss) on derivative financial instruments transferred to the income statement	4.9	(49)	(16)
Exchange rate adjustments relating to joint ventures	3.4	(0)	(1)
Share of fair value adjustments of derivatives financial instruments of joint ventures	3.4	(1)	(2)
Share of fair value adjustments of derivative financial instruments transferred to the income statement of joint ventures	3.4	0	(14)
Tax on fair value adjustments that may be subsequently reclassified to the income statement		5	(37)
<b>Other comprehensive income after tax</b>		<b>(25)</b>	<b>(24)</b>
<b>Total comprehensive income</b>		<b>658</b>	<b>870</b>

## Balance sheet 31 December

### Assets

mEUR	Note	2018	2017
Intangible assets	3.1, 3.3	1,096	901
Property, plant and equipment	3.2	1,318	1,247
Investments in joint ventures and associates	3.4	233	150
Other investments	4.6	35	30
Tax receivables	5.1	98	51
Deferred tax	5.2	281	218
Other receivables	2.5, 4.6	79	72
Financial investments	4.6	204	196
<b>Total non-current assets</b>		<b>3,344</b>	<b>2,865</b>
Inventories	2.2	2,987	2,696
Trade receivables	4.6, 4.7	967	1,144
Contract assets	2.3, 4.6	330	82
Contract costs	2.4	328	-
Tax receivables	5.1	88	53
Other receivables	2.5, 4.6	515	371
Financial investments	4.6	422	7
Cash and cash equivalents	4.5, 4.6	2,918	3,653
<b>Total current assets</b>		<b>8,555</b>	<b>8,006</b>
<b>Total assets</b>		<b>11,899</b>	<b>10,871</b>

### Liabilities

mEUR	Note	2018	2017
Share capital	4.1	28	29
Other reserves		22	37
Retained earnings		3,042	3,046
Equity attributable to Vestas		3,092	3,112
Non-controlling interests	4.2	12	-
<b>Total equity</b>		<b>3,104</b>	<b>3,112</b>
Provisions	3.5	491	483
Deferred tax	5.2	120	61
Financial debts	4.6, 4.7	498	497
Tax payables	5.1	212	166
Other liabilities	2.6, 4.6	69	19
<b>Total non-current liabilities</b>		<b>1,390</b>	<b>1,226</b>
Contract liabilities	2.3	4,202	3,082
Trade payables	4.6	2,417	2,660
Provisions	3.5	126	148
Tax payables	5.1	112	108
Other liabilities	2.6, 4.6	548	535
<b>Total current liabilities</b>		<b>7,405</b>	<b>6,533</b>
<b>Total liabilities</b>		<b>8,795</b>	<b>7,759</b>
<b>Total equity and liabilities</b>		<b>11,899</b>	<b>10,871</b>

## Statement of changes in equity 1 January – 31 December

mEUR	Reserves					Retained earnings	Non-controlling interest	Total
	Share capital	Trans-lation reserve	Cash flow hedging reserve	Other reserves	Total reserves			
<b>Equity as at 1 January 2018</b>	<b>29</b>	<b>(21)</b>	<b>60</b>	<b>(2)</b>	<b>37</b>	<b>3,046</b>	<b>-</b>	<b>3,112</b>
Impact on change in accounting policy (IFRS 15)	-	-	-	-	-	(54)	-	(54)
<b>Adjusted equity as at 1 January 2018</b>	<b>29</b>	<b>(21)</b>	<b>60</b>	<b>(2)</b>	<b>37</b>	<b>2,992</b>	<b>-</b>	<b>3,058</b>
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 <sup>1)</sup>	(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)
<b>Equity as at 31 December 2018</b>	<b>28</b>	<b>(22)</b>	<b>47</b>	<b>(3)</b>	<b>22</b>	<b>3,042</b>	<b>12</b>	<b>3,104</b>

1) During 2018, the share capital was reduced by 9,800,944 shares of DKK 1.00, due to cancellation of treasury shares. Ref. note 4.1 for changes on share capital in the period 2014-2018.

A dividend of DKK 7.44 (EUR 1.00) per share, corresponding to EUR 205m in total, is proposed for the financial year 2018. The proposed dividends are included in retained earnings. Dividends of EUR 250m, net of treasury shares, have been paid in 2018 relating to the financial year 2017.

Ref. to the parent company's statement of changes in equity on page 109 for information about which reserves are available for distribution. For proposed distribution of profit, ref. to note 4.1 and page 112 of the parent company's financial statements.

mEUR	Reserves					Retained earnings	Non-controlling interest	Total
	Share capital	Trans-lation reserve	Cash flow hedging reserve	Other reserves	Total reserves			
<b>Equity as at 1 January 2017</b>	<b>30</b>	<b>107</b>	<b>(61)</b>	<b>15</b>	<b>61</b>	<b>3,099</b>	<b>-</b>	<b>3,190</b>
Profit for the year	-	-	-	-	-	894	-	894
Other comprehensive income for the year	-	(128)	121	(17)	(24)	-	-	(24)
Total comprehensive income for the year	-	(128)	121	(17)	(24)	894	-	870
Transactions with owners:								
Reduction of share capital	(1)	-	-	-	-	1	-	-
Dividends distributed	-	-	-	-	-	(289)	-	(289)
Dividends distributed related to treasury shares	-	-	-	-	-	11	-	11
Acquisitions of treasury shares	-	-	-	-	-	(694)	-	(694)
Sale of treasury shares	-	-	-	-	-	1	-	1
Share-based payment	-	-	-	-	-	18	-	18
Tax on equity transactions	-	-	-	-	-	5	-	5
Total transactions with owners	(1)	-	-	-	-	(947)	-	(948)
<b>Equity as at 31 December 2017</b>	<b>29</b>	<b>(21)</b>	<b>60</b>	<b>(2)</b>	<b>37</b>	<b>3,046</b>	<b>-</b>	<b>3,112</b>

Dividends of EUR 278m, net of treasury shares, were paid in 2017 relating to the financial year 2016.

## Statement of cash flows 1 January – 31 December

mEUR	Note	2018	2017
Profit for the year		683	894
Adjustments for non-cash transactions	6.6	716	845
Interest received		13	17
Interest paid		(27)	(33)
Income tax paid	5.1	(195)	(262)
Cash flow from operating activities before change in net working capital		1,190	1,461
Change in net working capital	2.1	(169)	164
<b>Cash flow from operating activities</b>		<b>1,021</b>	<b>1,625</b>
Purchase of intangible assets	3.1	(295)	(223)
Purchase of property, plant and equipment	3.2	(312)	(268)
Disposal of property, plant and equipment		8	8
Disposal of non-current assets held for sale		-	99
Purchase of other financial assets		-	(8)
Proceeds from investment in joint venture	3.4	10	-
Additions of shares in joint ventures and associates	3.4	(14)	(15)
<b>Cash flow from investing activities before acquisition of subsidiaries and financial investments</b>		<b>(603)</b>	<b>(407)</b>
<b>Free cash flow before acquisition of subsidiaries and financial investments</b>		<b>418</b>	<b>1,218</b>
Acquisition of subsidiaries, net of cash	6.5	(65)	-
Purchase of financial investment		(422)	-
<b>Free cash flow</b>		<b>(69)</b>	<b>1,218</b>
Acquisition of treasury shares		(402)	(697)
Disposal of treasury shares		-	1
Dividends paid		(250)	(278)
Transactions with non-controlling interest		13	-
<b>Cash flow from financing activities</b>		<b>(639)</b>	<b>(974)</b>
<b>Net increase in cash and cash equivalents</b>		<b>(708)</b>	<b>244</b>
Cash and cash equivalents as at 1 January		3,653	3,550
Exchange rate adjustments on cash and cash equivalents		(27)	(141)
<b>Cash and cash equivalents as at 31 December</b>	4.5	<b>2,918</b>	<b>3,653</b>

Note	Page
<b>1 Result for the year</b>	<b>054</b>
1.1 Segment information	054
1.2 Revenue	056
1.3 Costs	058
1.4 Amortisation, depreciation and impairment	060
1.5 Government grants	060
1.6 Special items	060
<b>2 Working capital</b>	<b>061</b>
2.1 Change in net working capital	061
2.2 Inventories	061
2.3 Contract balances	062
2.4 Contract costs	063
2.5 Other receivables	063
2.6 Other liabilities	063
<b>3 Other operating assets and liabilities</b>	<b>064</b>
3.1 Intangible assets	064
3.2 Property, plant and equipment	065
3.3 Impairment	067
3.4 Investments in joint ventures and associates	067
3.5 Provisions	071
3.6 Contingent assets and liabilities	072
<b>4 Capital structure and financing items</b>	<b>073</b>
4.1 Share capital	073
4.2 Change in Vestas' ownership interest in a subsidiary	074
4.3 Earnings per share	074
4.4 Financial items	075
4.5 Cash and cash equivalents	075
4.6 Financial assets and liabilities	076
4.7 Financial risk management	078
4.8 Fair value hierarchy	083
4.9 Hedge accounting	084
<b>5 Tax</b>	<b>087</b>
5.1 Income tax	087
5.2 Deferred tax	088
<b>6 Other disclosures</b>	<b>090</b>
6.1 Audit fees	090
6.2 Management's incentive programmes	090
6.3 Contractual obligations	091
6.4 Related party transactions	092
6.5 Business combinations	092
6.6 Non-cash transactions	093
6.7 Legal entities	094
<b>7 Basis for preparation</b>	<b>096</b>
7.1 General accounting policies	096
7.2 Key accounting estimates and judgements	097
7.3 Changes in accounting policies and disclosures	098
7.4 Financial definitions	101

## 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, 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 level, 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.

2018 mEUR	Power solutions	Service	Not allocated	Total
Revenue	8,465	1,669	-	10,134
<b>Total revenue</b>	<b>8,465</b>	<b>1,669</b>	<b>-</b>	<b>10,134</b>
<b>Total costs</b>	<b>(7,711)</b>	<b>(1,248)</b>	<b>(216)</b>	<b>(9,175)</b>
<b>Operating profit (EBIT) before special items</b>	<b>754</b>	<b>421</b>	<b>(216)</b>	<b>959</b>
Special items, ref. note 1.6				<b>(38)</b>
<b>Operating profit (EBIT)</b>				<b>921</b>
Income/(loss) from investments in joint ventures and associates, ref. note 3.4			40	40
Financial income			17	17
Financial costs			(68)	(68)
<b>Profit before tax</b>				<b>910</b>
Amortisation and depreciation included in total costs, ref. note 1.4	(348)	(35)	(43)	(426)
Investments in joint ventures and associates, ref. note 3.4				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 has been recognised in special items where impact is not allocated, ref. note 1.4 and 1.6.

## 1.1 Segment information (continued)

2017 mEUR	Power solutions	Service	Not allocated	Total
Revenue	8,431	1,522	-	9,953
<b>Total revenue</b>	<b>8,431</b>	<b>1,522</b>	<b>-</b>	<b>9,953</b>
<b>Total costs</b>	<b>(7,289)</b>	<b>(1,216)</b>	<b>(218)</b>	<b>(8,723)</b>
<b>Operating profit (EBIT) before special items</b>	<b>1,142</b>	<b>306</b>	<b>(218)</b>	<b>1,230</b>
Special items				-
<b>Operating profit (EBIT)</b>				<b>1,230</b>
Income/(loss) from investments in joint ventures and associates, ref. note 3.4			(40)	(40)
Financial income			45	45
Financial costs			(43)	(43)
<b>Profit before tax</b>				<b>1,192</b>
Amortisation and depreciation included in total costs, ref. note 1.4	(335)	(33)	(30)	(398)
Investments in joint ventures and associates, ref. note 3.4				150

During 2017 impairment loss of EUR 23m has negatively impacted Vestas' EBIT, of which the largest contributors is EUR 31m related to R&D activities. However, this was partially offset by reversal of EUR 8m under production facilities. Both the impairment and the reversal are impacting the Power solutions segment.

### Revenue specified by country

mEUR	2018	2017
USA	2,589	2,968
Denmark	291	380
Other countries	7,254	6,605
<b>Total</b>	<b>10,134</b>	<b>9,953</b>

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	2018	2017
Denmark	1,181	1,101
USA	557	455
Other countries	676	592
<b>Total</b>	<b>2,414</b>	<b>2,148</b>

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 has applied IFRS 15 using the modified retrospective application, with the cumulative effect of initially applying the standard to be adjusted to the opening balance of retained earnings 2018, and therefore the comparative information has not been restated and continues to be reported under IAS 18 and IAS 11.

### 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.

In comparative periods, sale of individual wind turbines and wind power plants based on standard solutions (supply-only and supply-and-installation) was recognised in the income statement, provided that risk was transferred to the buyer. Revenue from contracts to deliver wind power plants with a high degree of customisation was recognised as the wind power plants were constructed based on the stage of completion of the individual contracts (turnkey projects). Service sales, comprising service and maintenance agreements as well as extended warranties regarding wind turbines and wind power plants sold, were recognised as revenue over the term of the agreement as the services were provided. Spare parts sales were recognised in the income statement provided that risk was transferred to the buyer.

### Revenue recognition under IFRS 15

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 maintenances 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 power plants, wind turbines 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 plants contracts include a standard warranty clause. For further details on warranty, ref. note 3.5 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.

#### 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.

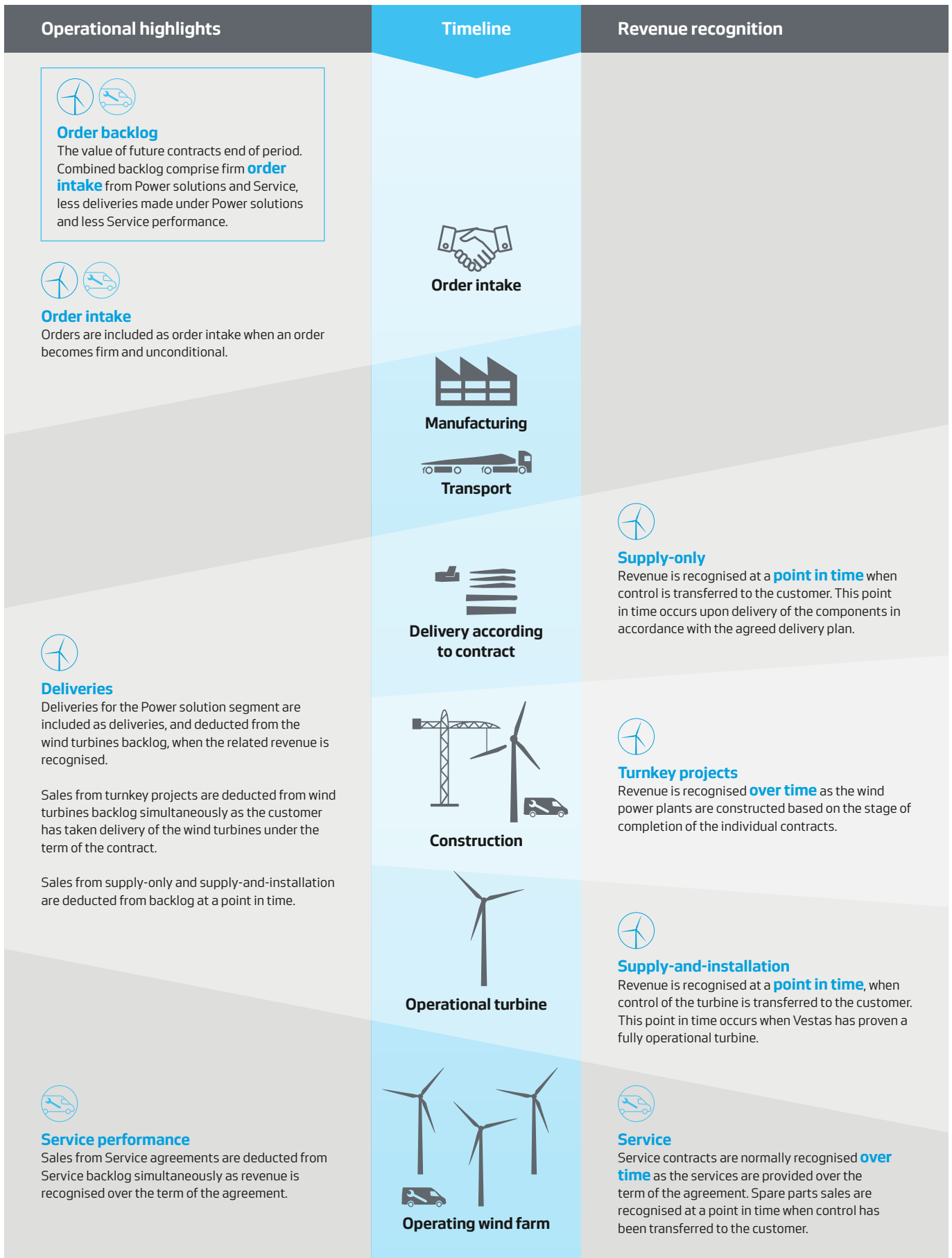
#### Estimates of stage of completion

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. 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



## 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.

mEUR	Power solutions		Service		Total	
	2018	2017 <sup>1)</sup>	2018	2017 <sup>1)</sup>	2018	2017 <sup>1)</sup>
<b>Timing of revenue recognition</b>						
Products and services transferred at a point in time	7,174	7,784	304	267	7,478	8,051
Products and services transferred over time	1,291	647	1,365	1,255	2,656	1,902
<b>Total</b>	<b>8,465</b>	<b>8,431</b>	<b>1,669</b>	<b>1,522</b>	<b>10,134</b>	<b>9,953</b>
<b>Revenue from contract types</b>						
Supply-only	2,413	3,360	-	-	2,413	3,360
Supply-and-installation	5,256	4,424	-	-	5,256	4,424
Turnkey (EPC)	796	647	-	-	796	647
Service	-	-	1,669	1,522	1,669	1,522
<b>Total</b>	<b>8,465</b>	<b>8,431</b>	<b>1,669</b>	<b>1,522</b>	<b>10,134</b>	<b>9,953</b>
<b>Primary geographical markets</b>						
EMEA	3,354	3,992	956	848	4,310	4,840
Americas	3,903	3,676	541	518	4,444	4,194
Asia Pacific	1,208	763	172	156	1,380	919
<b>Total</b>	<b>8,465</b>	<b>8,431</b>	<b>1,669</b>	<b>1,522</b>	<b>10,134</b>	<b>9,953</b>

1) Vestas has initially applied IFRS 15 using modified retrospective application. Under this method, the comparative information is not restated, ref. note 7.3.

### 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	2018	2017
Order backlog - wind turbines	11.9	8.8
Order backlog - Service	14.3	12.1
<b>Total</b>	<b>26.2</b>	<b>20.9</b>

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

At the end of 2018, the average remaining duration in service order backlog was approx. seven years, with a spread up to 33 years. For the Power solutions segment, projects are normally expected to be delivered within 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 backlog is forward-looking in nature and the backlog is 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. Cost consists of raw materials, consumables, direct labour costs, and indirect cost such as salaries, rental and lease cost 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

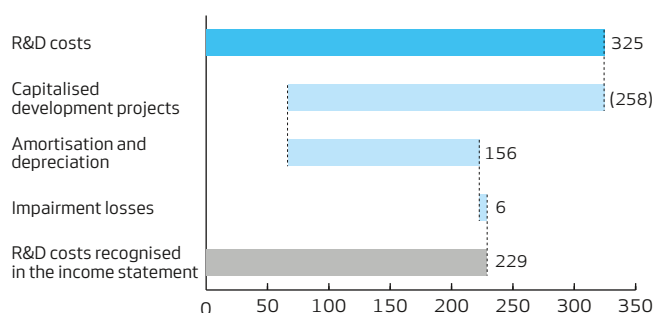
Administration costs comprise costs incurred during the year for management and administration of Vestas, including costs for administrative staff, management, office premises, office costs, and depreciation.

## 1.3 Costs (continued)

### Research and development costs

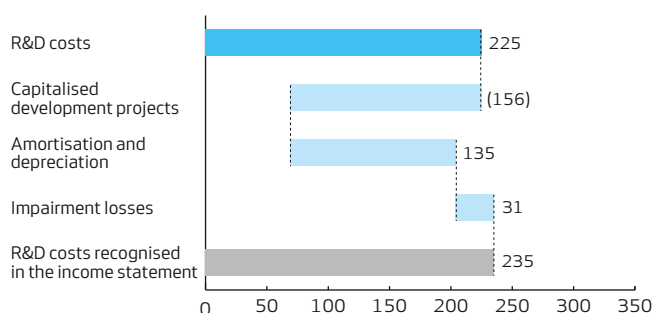
#### Research and development costs 2018

mEUR



#### Research and development costs 2017

mEUR



### Staff costs

mEUR

Staff costs are specified as follows:

	2018	2017
Wages and salaries, etc.	1,157	1,224
Share-based payment, ref. note 6.2	18	18
Pension schemes, defined contribution schemes	58	60
Other social security costs	173	156
	<b>1,406</b>	<b>1,458</b>
Average number of employees	24,221	22,504
Number of employees 31 December	24,648	23,303

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

mEUR

Attributable to:

#### Board of Directors

	2018	2017
Board remuneration	1	1
	<b>1</b>	<b>1</b>

#### Executive Management

	2018	2017
Wages and bonus	5	8
Share-based payment	5	6
Social security costs	0	0
	<b>10</b>	<b>14</b>

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.

## 1.4 Amortisation, depreciation and impairment

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
<b>Total</b>	<b>205</b>	<b>162</b>	<b>23</b>	<b>45</b>	<b>23</b>	<b>458</b>

2017 mEUR	Production costs	Research and development costs	Distribution costs	Administration costs	Special items	Total
Amortisation, intangible assets, ref. note 3.1	17	117	-	21	-	155
Depreciation, property, plant and equipment, ref. note 3.2	192	18	22	11	-	243
Impairment losses, intangible assets, ref. note 3.1	-	3	-	-	-	3
Impairment losses, property, plant and equipment, ref. note 3.2	-	28	-	-	-	28
Reversal of impairment losses, property, plant and equipment, ref. note 3.2	(8)	-	-	-	-	(8)
<b>Total</b>	<b>201</b>	<b>166</b>	<b>22</b>	<b>32</b>	<b>-</b>	<b>421</b>

## 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 1m (2017: EUR 3m) has been offset against incurred cost and EUR 3m (2017: 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 significant 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.

### Closure of León assembly factory

Vestas intends to cease production at the assembly factory in León in the EMEA region. A provision for severance and closure costs of EUR 15m and impairment loss of EUR 23m has therefore been recognised in special items.

### Basis for impairment test

A review of the recoverable amount of the León assembly factory has been carried out because of indications of impairments due to cease production in León, Spain in third quarter 2018 leading to the recognition of an impairment loss of EUR 23m with a recoverable amount of EUR 4m. The impairment loss is not allocated to a segment and is the result of the impairment loss of land and building and plant and machinery.

The value in use is assumed to be substantially equal to the fair value less costs of disposal, as the expected cash flows underlying the value in use calculation will largely represent the expected sales proceeds less costs of disposal. The impairment test is therefore based on the fair value less costs of disposal and the fair value measurement of the León factory is categorised within the fair value hierarchy Level 2. Vestas has obtained broker reports, which consider previous sales, including price per square meter, of similar land and buildings.

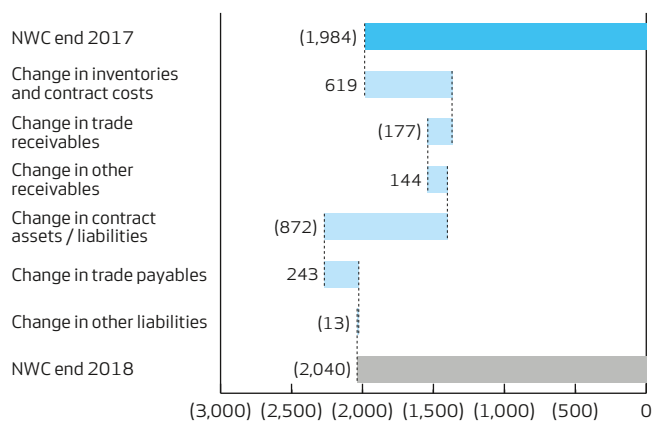
mEUR	2018	2017
Impairment loss on property, plant and equipment	(23)	-
Staff costs	(15)	-
<b>Special Items</b>	<b>(38)</b>	<b>-</b>

## 2. Working capital

### 2.1 Change in net working capital

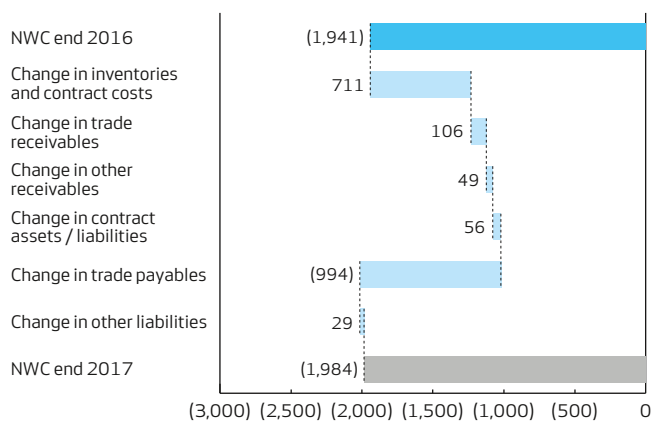
#### NWC change 2018

mEUR



#### NWC change 2017

mEUR



Included in the change in net working capital (NWC) are non-cash adjustments and exchange rates adjustments with a total amount of EUR (225)m (2017: EUR 121m). Consequently, the cash flow impact of change in NWC is EUR (169)m (2017: EUR 164m).

### 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.

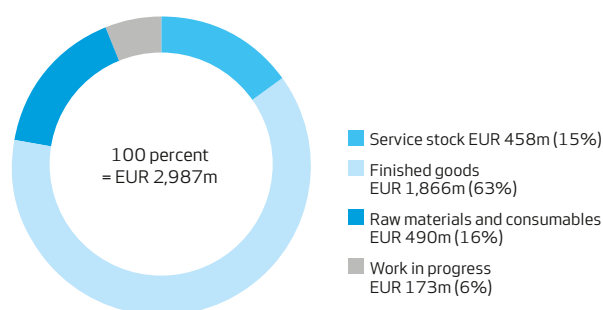
#### Key accounting estimate

##### 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.

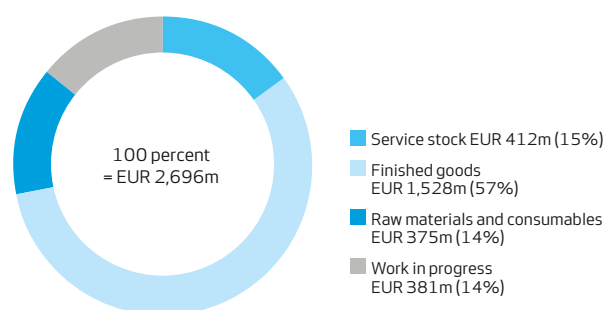
#### Inventories 2018

mEUR and percent



#### Inventories 2017 <sup>1)</sup>

mEUR and percent



1) As part of IFRS 15 implementation, costs to fulfill a contract have been reclassified from Inventory to contract costs in 2018. Comparative information is not restated. Included in 2017 were work in progress with EUR 237m. Ref. note. 2.5.

## 2.2 Inventories (continued)

mEUR	2018	2017
<b>Inventories consumed</b>		
Inventories consumed for the year, which are included in production costs	5,104	5,170
<b>Write down inventories</b>		
Write-downs of inventories in the year	22	24
Utilised write-downs in the year	(20)	(7)
Reversal of write-downs in the year <sup>1)</sup>	(1)	(2)

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.

## 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) and wind power plants with a high degree of customisation (turnkey projects), as well as services 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 its contracts. 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 perform 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 by the proportion that the costs on the contract incurred to date bear 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 an obligation.

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
<b>1 January 2018</b>	<b>186</b>	<b>3,082</b>
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)	-	3,450
Transfers from contract assets recognised at the beginning of the period to receivables	(87)	-
<b>31 December 2018</b>	<b>330</b>	<b>4,202</b>
Contract assets and liabilities comprise the following:		
Construction contract in progress (turnkey)	3	239
Service contracts <sup>1)</sup>	323	674
Supply-only contracts <sup>1)</sup>	-	1,642
Supply-and-installation contracts <sup>1)</sup>	4	1,647

1) Vestas has initially applied IFRS 15 using cumulative effect method. Under this method, the comparative information is not restated. In 2017, service contracts were classified as 'Trade receivables' and 'Prepayments from customers'. Prepayments from supply-only and supply-and-installation projects were classified as 'Prepayments from customers'.

## 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	2018	2017
Asset recognised from costs to fulfill a contract <sup>1)</sup>	328	-
<b>Total Contract costs</b>	<b>328</b>	<b>-</b>

1) Vestas has initially applied IFRS 15 using cumulative effect method. Under this method, the comparative information is not restated. In 2017, asset recognised from costs to fulfill a contract was included in inventory as work in progress with EUR 237m. Ref. note 2.2.

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 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	2018	2017
Prepayments	74	37
Supplier claims	15	11
VAT <sup>1)</sup>	220	138
Derivative financial instruments	166	116
Other receivables <sup>2)</sup>	119	141
	<b>594</b>	<b>443</b>
Specified as follows:		
0-1 years	515	371
> 1 year	79	72
	<b>594</b>	<b>443</b>

1) Includes write-downs of VAT receivables of EUR 77m as at 31 December 2018 (2017: EUR 78m).

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, and any contributions outstanding are recognised in the balance sheet in other liabilities.

mEUR	2018	2017
Staff costs	153	246
Taxes and duties	239	244
Derivative financial instruments	123	29
Other liabilities	102	35
	<b>617</b>	<b>554</b>
Specified as follows:		
0-1 year	548	535
> 1 years	69	19
	<b>617</b>	<b>554</b>

## 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 6.5. Subsequently, goodwill is measured at this value less accumulated impairment losses. Goodwill is not amortised.

The carrying amount of goodwill is 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 a separate line 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 are recognised in the income statement and incurred 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 three 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 and trademarks are measured at cost less amortisation and impairment losses.

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)	-
<b>Cost as at 31 December</b>	<b>482</b>	<b>1,627</b>	<b>370</b>	<b>88</b>	<b>277</b>	<b>2,844</b>
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
<b>Amortisation and impairment losses as at 31 December</b>	<b>103</b>	<b>1,357</b>	<b>252</b>	<b>36</b>	<b>-</b>	<b>1,748</b>
<b>Carrying amount as at 31 December</b>	<b>379</b>	<b>270</b>	<b>118</b>	<b>52</b>	<b>277</b>	<b>1,096</b>
Internally generated assets included above	-	270	83	-	277	630
Amortisation period		2-5 years	3-5 years	3-7 years		



### 3.1 Intangible assets (continued)

2017 mEUR	Goodwill	Completed development projects	Software	Other intangible assets	Projects in progress	Total
Cost as at 1 January	412	1,410	263	64	85	2,234
Reclassification	-	(2)	-	10	10	18
Exchange rate adjustments	(5)	(2)	-	-	-	(7)
Additions	-	-	10	-	213	223
Disposals	-	-	(1)	-	-	(1)
Transfers	-	129	35	-	(164)	-
<b>Cost as at 31 December</b>	<b>407</b>	<b>1,535</b>	<b>307</b>	<b>74</b>	<b>144</b>	<b>2,467</b>
Amortisation and impairment losses as at 1 January	103	1,110	183	10	-	1,406
Reclassification	-	-	-	5	-	5
Exchange rate adjustments	-	(2)	-	-	-	(2)
Amortisation for the year	-	115	30	10	-	155
Reversal of amortisation of disposals in the year	-	-	(1)	-	-	(1)
Impairment losses for the year	-	3	-	-	-	3
<b>Amortisation and impairment losses as at 31 December</b>	<b>103</b>	<b>1,226</b>	<b>212</b>	<b>25</b>	<b>-</b>	<b>1,566</b>
<b>Carrying amount as at 31 December</b>	<b>304</b>	<b>309</b>	<b>95</b>	<b>49</b>	<b>144</b>	<b>901</b>
Internally generated assets included above	-	309	72	-	144	525
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.

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

Buildings (including installations).....	15-40 years
Plant and machinery.....	3-10 years
Other fixtures and fittings, tools and equipment.....	3-5 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 of 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)

2018 mEUR	Land and buildings	Plant and machinery	Other fixtures and fittings, tools and equipment	Property, plant and equipment in progress	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)	-
<b>Cost as at 31 December</b>	<b>1,205</b>	<b>915</b>	<b>1,206</b>	<b>130</b>	<b>3,456</b>
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)
<b>Depreciation and impairment losses as at 31 December</b>	<b>543</b>	<b>657</b>	<b>938</b>	<b>-</b>	<b>2,138</b>
<b>Carrying amount as at 31 December</b>	<b>662</b>	<b>258</b>	<b>268</b>	<b>130</b>	<b>1,318</b>
Depreciation period	15–40 years	3–10 years	3–5 years		

2017 mEUR	Land and buildings	Plant and machinery	Other fixtures and fittings, tools and equipment	Property, plant and equipment in progress	Total
Cost as at 1 January	1,229	765	1,044	108	3,146
Reclassification	-	-	-	(10)	(10)
Exchange rate adjustments	(72)	(29)	(54)	(5)	(160)
Additions	20	49	85	114	268
Disposals	-	(48)	(53)	(4)	(105)
Transfers	34	65	31	(130)	-
<b>Cost as at 31 December</b>	<b>1,211</b>	<b>802</b>	<b>1,053</b>	<b>73</b>	<b>3,139</b>
Depreciation and impairment losses as at 1 January	462	532	823	-	1,817
Exchange rate adjustments	(21)	(22)	(44)	-	(87)
Depreciation for the year	46	92	105	-	243
Impairment losses for the year	28	-	-	-	28
Reversal of depreciation of disposals in the year	-	(48)	(53)	-	(101)
Reversal of impairment	(8)	-	-	-	(8)
<b>Depreciation and impairment losses as at 31 December</b>	<b>507</b>	<b>554</b>	<b>831</b>	<b>-</b>	<b>1,892</b>
<b>Carrying amount as at 31 December</b>	<b>704</b>	<b>248</b>	<b>222</b>	<b>73</b>	<b>1,247</b>
Depreciation period	15–40 years	3–10 years	3–5 years		

### 3.3 Impairment

#### Valuation of goodwill

As at 31 October 2018, Management performed the annual impairment test of the carrying amount of goodwill. No basis for impairment was found for 2018 (2017: EUR 0m). In the impairment tests, the carrying amount of the assets is compared to the discounted value of future expected cash flows.

The annual test of goodwill was 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 also allocated to the Service segment.

With the acquisition of Utopus Insights, Inc. in 2018, Vestas has recognised goodwill of EUR 70m, which is also allocated to the Service segment, ref. note 6.5.

#### 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 solutions order backlog of EUR 11.9bn as at 31 December 2018	Service order backlog of EUR 14.3bn as at 31 December 2018
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	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:

	2018			2017		
	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	10.0	2	180	10.0	2	180
Service	10.0	2	199	10.0	2	124

### 3.4 Investments in joint ventures and associates

#### Vestas accounting policies

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 does 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.

### 3.4 Investments in joint ventures and associates (continued)

The amounts recognised in the balance sheet are as follows:

mEUR	2018	2017
Investments in joint ventures	189	149
Investments in associates	44	1
<b>Carrying amount as at 31 December</b>	<b>233</b>	<b>150</b>

The amounts recognised in the income statement are as follows:

mEUR	2018	2017
Associates	-	
Joint ventures	40	(40)
	<b>40</b>	<b>(40)</b>

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

mEUR	2018	2017
Cost as at 1 January	282	267
Additions	8	15
<b>Carrying amount at 31 December</b>	<b>290</b>	<b>282</b>
Value adjustments as at 1 January	(133)	(68)
Proceeds from sale of projects	(10)	-
Share of profit/(loss)	40	(40)
Share of other comprehensive income	(1)	(17)
Effect of exchange rate adjustment	3	(8)
<b>Value adjustments as at 31 December</b>	<b>(101)</b>	<b>(133)</b>
<b>Carrying amount as at 31 December</b>	<b>189</b>	<b>149</b>

#### Investment in associates

mEUR	2018	2017
Cost as at 1 January	2	2
Additions	43	-
<b>Carrying amount at 31 December</b>	<b>45</b>	<b>2</b>
Value adjustments as at 1 January	(1)	(0)
Share of profit/(loss)	-	(1)
<b>Value adjustments as at 31 December</b>	<b>(1)</b>	<b>(1)</b>
<b>Carrying amount as at 31 December</b>	<b>44</b>	<b>1</b>

### 3.4 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 is 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
Roaring Fork Wind, LLC	Delaware, USA	50	Equity	Joint venture

#### 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 13m (2017: loss of EUR 50m). MHI Vestas Offshore Wind A/S (MVOW) is a private company and there is no quoted market prices available for its shares.

With reference to page 025, MVOW has continued to build a strong pipeline for the 8 MW platform (V164 turbine), and with the intake of firm and unconditional orders of 3,180 MW in 2018, the expected performance continues to be in line with previous expected performance.

The carrying amount of the investment in MVOW is mainly comprised of the development project of the 8 MW platform. Any change to such future expectation on future performance may in nature result in impairment of the carrying amount of the investment in MVOW.

#### Roaring Fork Wind, LLC

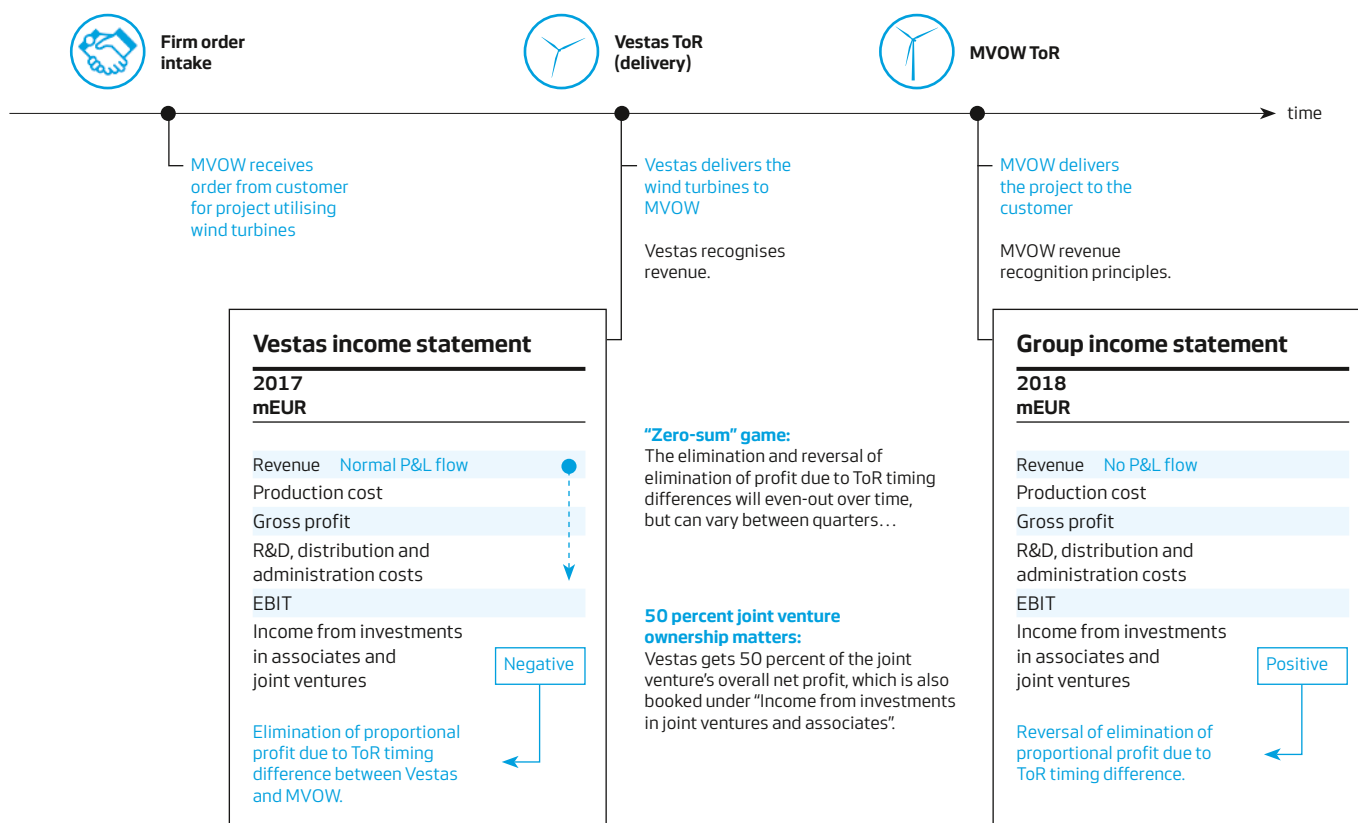
Vestas has through its wholly owned subsidiary Steelhead Wind 1, LLC a strategic co-development partnership with RES America Developments Inc. ('RES') forming the equally shared ownership in Roaring Fork Wind, LLC. The purpose of the partnership is development of wind power plants. In 2018, Vestas has transferred additional EUR 8m in cash as capital. The share of profit/(loss) from the joint venture on a stand alone basis amounts to EUR 1m (2017: EUR 0m). Roaring Fork Wind, is a private company and there is no quoted market prices available for its shares.

#### Other joint ventures and associates

In May 2018, Vestas has entered into a partnership with Swedish utility, Vattenfall, and Danish pension fund, PKA, for a 353 MW wind energy project in Sweden. For the project, Vestas is a shareholder through a share purchase agreement for 40 percent of the project. PKA and Vattenfall owns 30 percent project equity each. Financial close has been finalised in the fourth quarter of 2018, with a total consideration of EUR 43m of which EUR 6m is contributed in cash.

#### 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 statement annually, which will even-out over time. The 50 percent ownership structure is what matters in the long-run.



### 3.4 Investments in joint ventures and associates (continued)

#### Commitments and contingent liabilities in respect of joint ventures

Ref. to note 3.6 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 are the summarised financial information for joint ventures which are accounted for using the equity method. The information below reflects 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

mEUR	Roaring Fork Wind		MHI Vestas Offshore Wind	
	2018	2017	2018	2017
<b>Current</b>				
Cash and cash equivalents	2	1	204	114
Other current assets (excluding cash)	1	2	933	624
<b>Total current assets</b>	<b>3</b>	<b>3</b>	<b>1,137</b>	<b>738</b>
Other current liabilities (including trade and other payables and provisions)	(2)	(1)	(1,355)	(973)
<b>Total current liabilities</b>	<b>(2)</b>	<b>(1)</b>	<b>(1,355)</b>	<b>(973)</b>
<b>Non-current</b>				
Total non-current assets	99	97	492	477
Total non-current liabilities	-	-	(38)	(30)
<b>Net assets</b>	<b>100</b>	<b>99</b>	<b>236</b>	<b>212</b>

#### Summarised statement of comprehensive income

mEUR	Roaring Fork Wind		MHI Vestas Offshore Wind	
	2018	2017	2018	2017
Revenue	17	-	1,112	1,151
Depreciation and amortisation	(15)	-	(93)	(85)
Interest income	-	-	-	-
Interest cost	-	-	-	-
Profit before tax	1	(0)	(13)	(98)
Income tax	-	-	39	(2)
<b>Post-tax profit from continuing operations</b>	<b>1</b>	<b>(0)</b>	<b>26</b>	<b>(100)</b>
Other comprehensive income	-	-	(2)	(35)
<b>Total comprehensive income</b>	<b>1</b>	<b>(0)</b>	<b>24</b>	<b>(135)</b>

#### Reconciliation of summarised financial information

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

mEUR	Roaring Fork Wind		MHI Vestas Offshore Wind	
	2018	2017	2018	2017
Opening net assets 1 January	99	90	212	347
Capital increase	14	20	-	-
Distribution to shareholders	(18)	-	-	-
Profit/(loss) for the year	1	-	25	(100)
Other comprehensive income	-	-	(1)	(35)
Effect of exchange rate adjustment	4	(11)	-	-
<b>Closing net assets</b>	<b>100</b>	<b>99</b>	<b>236</b>	<b>212</b>
Interest in joint venture (50 % of net assets)	50	49	118	106
Elimination of internal profit on sale of wind turbines	-	-	-	(26)
Re-assessment of milestone payments, gain consideration and other adjustments	24	23	(3)	(3)
<b>Carrying value</b>	<b>74</b>	<b>72</b>	<b>115</b>	<b>77</b>

### 3.5 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 3.6.

#### Key accounting estimates

##### Provisions for warranties

The product warranties, which in the great majority of cases includes component defects, functional errors and any 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 granted. 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 the light of factual information about population size, costs of repair and the timing of such repairs.

It is estimated that 10-15 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 previous year, commercial settlements and proactive upgrading as well as new information about the serial type faults in question.

Total warranty provisions of EUR 161m have been made in 2018 (2017: EUR 185m), corresponding to 1.6 percent (2017: 1.9 percent) of Vestas' revenue.

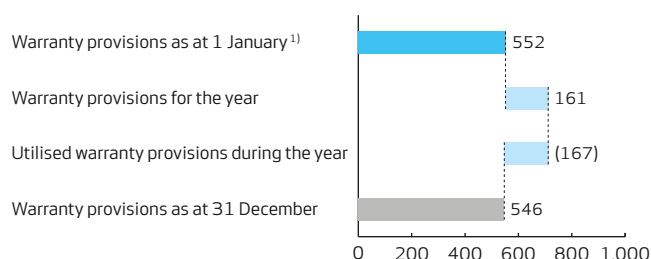
Management assesses the likely outcome of pending and future negotiations with sub-suppliers for compensation. Compensation from sub-suppliers may be recognised only when it is virtually certain that we will receive compensation from the sub-suppliers.

The carrying amount of warranty provisions was EUR 546m as at 31 December 2018 (2017: EUR 566m).

mEUR	2018	2017
<b>Non-current provisions</b>		
Warranty provisions	431	434
Other provisions	60	49
	<b>491</b>	<b>483</b>
<b>Current provisions</b>		
Warranty provisions	115	132
Other provisions	11	16
	<b>126</b>	<b>148</b>
<b>Total provisions</b>	<b>617</b>	<b>631</b>

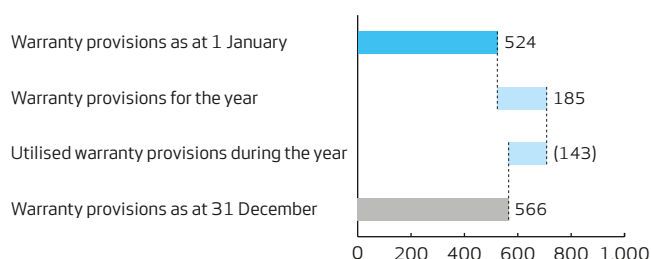
#### Warranty provisions 2018

mEUR



#### Warranty provisions 2017

mEUR



1) Vestas has initially applied IFRS 15 using the cumulative effect method. Under this method, the comparative information is not restated. The opening effect from IFRS 15 on warranty provisions is EUR 14m.

### 3.5 Provisions (continued)

mEUR	2018	2017
The warranty provisions are expected to be consumed as follows:		
0-1 year	115	132
>1 year	431	434
	<b>546</b>	<b>566</b>
In line with accounting policies, potential product warranties are recognised as warranty provisions when revenue from the sale of wind turbines is recognised.		
<b>Product risks</b>		
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.		
<b>OTHER PROVISIONS</b>		
Other provisions as at 1 January	65	64
Exchange rate adjustments	(4)	(3)
Other provisions for the year	50	28
Utilised other provision during the year	(16)	(12)
Reversed of other provisions during the year	(24)	(12)
<b>Other provisions as at 31 December</b>	<b>71</b>	<b>65</b>
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	11	16
>1 year	60	49
	<b>71</b>	<b>65</b>

### 3.6 Contingent assets and liabilities

#### 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 436m (2017: EUR 378m). 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 4,451m (2017: 2,292). No guarantees have been utilised during 2018 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. GE claims infringement of its U.S. Patents No. 7,629,705 and No. 6,921,985 (the "705 Patent" and the "985 Patent"). Patent 705 addresses Zero Voltage Ride Through technology. The 985 Patent addresses techniques to maintain functioning of the blade pitch system during low voltage events. Vestas answered and counterclaimed on December 15, 2017. Additionally, both parties have filed petitions with the United States Patent Office requesting Inter partes reviews of the patents asserted in the lawsuit for the purpose of challenging the validity of those

patents. As set forth in its counterclaims, it is Vestas assessment that GE's patents are invalid and unenforceable, and that Vestas does not infringe. Several of these petitions are actively ongoing. Consequently, Vestas has made no provision to cover the complaint. However, in the event that Vestas is not successful in its defence in this case, and GE prevails, this case could potentially have significant financial impact on Vestas. As GE has not claimed any specific amount from Vestas, it is not possible for Vestas to estimate such financial impact any further at this point in time.

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 2018, the Board of Directors of Vestas Wind Systems A/S (the Board) proposes to distribute a dividend of DKK 7.44 (EUR 1.00) per share, corresponding to total EUR 205m. Dividends of EUR 250m, net of treasury shares, have been paid in 2018, relating to the financial year 2017.

#### Share capital

	2018	2017
The share capital comprises 205,696,003 shares of DKK 1.00	205,696,003	215,496,947
Number of shares as at 1 January	215,496,947	221,544,727
Cancellation	(9,800,944)	(6,047,780)
<b>Number of shares as at 31 December</b>	<b>205,696,003</b>	<b>215,496,947</b>
Shares outstanding	197,277,143	203,653,018
Treasury shares	8,418,860	11,843,929
<b>Number of shares as at 31 December</b>	<b>205,696,003</b>	<b>215,496,947</b>

In 2014, the share capital was increased by 20,370,410 shares of DKK 1.00. 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 also, 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. Except for these four transactions, the share capital has not changed in the period 2014-2018.

All shares rank equally.

#### Treasury shares

	2018	2017	2018	2017
	Number of shares / Nominal value (DKK)	Number of shares / Nominal value (DKK)	% of share capital	% of share capital
Treasury shares as at 1 January	11,843,929	7,770,888	5.8	3.6
Purchases	6,962,324	10,503,515	3.4	4.9
Cancellation	(9,800,944)	(6,047,780)	(4.8)	(2.8)
Vested treasury shares	(586,449)	(382,694)	(0.3)	(0.2)
<b>Treasury shares as at 31 December</b>	<b>8,418,860</b>	<b>11,843,929</b>	<b>4.1</b>	<b>5.5</b>

Pursuant to authorisation granted to the Board by the Annual General Meeting on 6 April 2017, 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 12 February 2018. It was completed on 3 May 2018.

Further, pursuant to authorisation granted to the Board by the Annual General Meeting on 3 April 2018, 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 second share buy-back programme during 2018 on 15 August 2018. It was completed on 18 December 2018.

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

At Vestas Wind Systems A/S' Annual General Meeting on 3 April 2019, a resolution will be proposed that shares acquired, which are not used for hedging purposes of share-based incentive programmes, will be cancelled.

## 4.1 Share capital (continued)

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

	2018	2017
Average share price, purchases (DKK)	431	492
Average share price, sales (DKK)	-	58
Purchase amount (mEUR)	402	694
Sales amount (mEUR)	-	(1)

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	2018	2017
Dividend <sup>1</sup>	197	253

1) Dividend excluding treasury shares.

## 4.2 Change in Vestas' ownership interest in a subsidiary

In April 2018, Vestas disposed 49 percent of its interest in Vestas Manufacturing Rus through capital injections from third parties, reducing its continuing interests to 51 percent. The proceeds from third parties of EUR 4m were received in cash. An amount of EUR 4m (being the proportionate share of the carrying amount of the net assets of Vestas Manufacturing Rus) has been transferred to non-controlling interest.

## 4.3 Earnings per share

	2018	2017
<b>Profit for the year (mEUR)</b>	<b>683</b>	<b>894</b>
Weighted average number of ordinary shares	208,989,763	217,612,018
Weighted average number of treasury shares	(8,374,233)	(6,124,347)
Weighted average number of ordinary shares outstanding	200,615,530	211,487,671
Dilutive effect of outstanding options and restricted performance shares	905,560	1,216,692
<b>Average number of shares outstanding including dilutive effect of options and restricted performance shares</b>	<b>201,521,090</b>	<b>212,704,363</b>
Earnings per share, EPS (EUR)	3.41	4.23
Earnings per shares, diluted, EPS-D (EUR)	3.39	4.20

For information about numbers of shares used for the calculation of earnings per share (EPS), ref. note 4.1.

## 4.4 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	2018	2017
Interest income	15	14
Foreign exchange gains	-	20
Hedging instruments	1	9
Other financial income	1	2
	<b>17</b>	<b>45</b>

### Financial costs

mEUR	2018	2017
Interest costs	22	15
Foreign exchange losses	30	-
Hedging instruments	-	14
Other financial costs	16	14
	<b>68</b>	<b>43</b>

## 4.5 Cash and cash equivalents

mEUR	2018	2017
Cash and cash equivalents without disposal restrictions	2,886	3,197
Cash and cash equivalents with disposal restrictions	32	456
<b>Cash and cash equivalents as at 31 December</b>	<b>2,918</b>	<b>3,653</b>

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.

## 4.6 Financial assets and liabilities

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
<b>Financial assets, non-current and current</b>							
Other investments <sup>1)</sup>		35	-	35	-	23	12
Financial investments <sup>2)</sup>		626	-	626	-	204	422
Foreign currency derivatives <sup>3)</sup>		166	-	166	166	-	-
Commodity derivatives <sup>3)</sup>		-	-	-	-	-	-
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
<b>Total financial assets, non-current and current</b>		<b>5,470</b>	<b>326</b>	<b>5,144</b>	<b>166</b>	<b>227</b>	<b>4,751</b>
<b>Financial liabilities, non-current and current</b>							
Financial debts <sup>4)</sup>		498	-	498	-	-	498
Foreign currency derivatives <sup>3)</sup>		121	-	121	119	2	-
Commodity derivatives <sup>3)</sup>		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	6.5	14	-	14	-	14	-
<b>Total financial liabilities, non-current and current</b>		<b>3,532</b>	<b>251</b>	<b>3,281</b>	<b>121</b>	<b>16</b>	<b>3,144</b>

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 continuous 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.

## 4.6 Financial assets and liabilities (continued)

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

2017 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	Loans and receivables
<b>Financial assets, non-current and current</b>							
Other investments <sup>1)</sup>		30	-	30	-	30	-
Financial investments <sup>2)</sup>		203	-	203	-	203	-
Foreign currency derivatives <sup>3)</sup>		114	-	114	114	-	-
Commodity derivatives <sup>3)</sup>		2	-	2	2	-	-
Other receivables		327	175	152	-	-	152
Other receivables and derivative financial instruments	2.5	443	175	268	116	-	152
Trade receivables	4.7	1,144	-	1,144	-	-	1,144
Contract assets	2.3, 4.7	82	-	82	-	-	82
Cash and cash equivalents	4.5	3,653	-	3,653	-	-	3,653
<b>Total financial assets, non-current and current</b>		<b>5,555</b>	<b>175</b>	<b>5,380</b>	<b>116</b>	<b>233</b>	<b>5,031</b>
<b>Financial liabilities, non-current and current</b>							
Financial debts <sup>4)</sup>		497	-	497	-	-	497
Foreign currency derivatives <sup>3)</sup>		29	-	29	29	-	-
Commodity derivatives <sup>3)</sup>		-	-	-	-	-	-
Other liabilities		525	244	281	-	-	281
Other liabilities and derivative financial instruments	2.6	554	244	310	29	-	281
Trade payables		2,660	-	2,660	-	-	2,660
<b>Total financial liabilities, non-current and current</b>		<b>3,711</b>	<b>244</b>	<b>3,467</b>	<b>29</b>	<b>-</b>	<b>3,438</b>

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.

## 4.7 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, letters of credit and parent company guarantees
Market risk, foreign exchange	Currency forward contracts and currency swaps
Market risk, interest risk	Interest rate swaps
Market risk, commodity price	Commodity futures purchase 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 Board is supported by a Financial Risk Committee in assuring appropriate policies and procedures are in place.

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 011.

### 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, highly rated money market funds and marketable securities. The liquidity is managed and optimised centrally by using cash pools and in-house bank solutions.

Vestas' main credit facility was refinanced in June 2017 and extended by one year in June 2018. The facility now has a five-year duration with an option, at the lenders' discretion, to extend the maturity one additional year. The facility is a EUR 1,150m revolving credit facility. The facility 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	2018	2017
<b>Liquidity position</b>			
Financial investments	4.6	626	203
Cash and cash equivalents	4.5	2,918	3,653
<b>Credit facilities</b>			
Main credit facility		550	550
Other credit facilities		13	27
<b>Total available financial resources</b>		<b>4,107</b>	<b>4,433</b>

## 4.7 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.

2018 mEUR	Note	Carrying amount financial instruments	Contractual cash flows			
			Total	0-1 year	1-2 years	>2 years
<b>Financial assets, non-current and current</b>						
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	-	-
<b>Total financial assets, non-current and current</b>		<b>5,144</b>	<b>5,166</b>	<b>4,829</b>	<b>86</b>	<b>251</b>
<b>Financial liabilities, non-current and current</b>						
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 <sup>1)</sup>	3.6	-	4,887	4,887	-	-
<b>Total financial liabilities, non-current and current</b>		<b>3,281</b>	<b>8,226</b>	<b>7,601</b>	<b>34</b>	<b>591</b>

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.

## 4.7 Financial risk management (continued)

2017 mEUR	Note	Carrying amount financial instruments	Contractual cash flows			
			Total	0-1 year	1-2 years	>2 years
<b>Financial assets, non-current and current</b>						
Other investments		30	30	-	-	30
Financial investments		203	264	9	40	215
Foreign currency derivatives		114	114	82	19	13
Commodity derivatives		2	2	2	-	-
Other receivables		152	152	47	40	65
Other receivables and derivative financial instruments		268	268	131	59	78
Trade receivables		1,144	1,144	1,144	-	-
Contract assets		82	82	82	-	-
Cash and cash equivalents		3,653	3,653	3,653	-	-
<b>Total financial assets, non-current and current</b>		<b>5,380</b>	<b>5,441</b>	<b>5,019</b>	<b>99</b>	<b>323</b>
<b>Financial liabilities, non-current and current</b>						
Financial debts		497	569	14	14	541
Foreign currency derivatives		29	29	18	6	5
Commodity derivatives		-	-	-	-	-
Other liabilities		281	281	274	4	3
Other liabilities and derivative financial instruments		310	310	292	10	8
Trade payables		2,660	2,660	2,660	-	-
Financial guarantee contracts <sup>1)</sup>	3.6	-	2,670	2,670	-	-
<b>Total financial liabilities, non-current and current</b>		<b>3,467</b>	<b>6,209</b>	<b>5,636</b>	<b>24</b>	<b>549</b>

1) Financial guarantee contracts comprise the maximum amounts Vestas would have to settle if the guaranteed amount is claimed by the beneficiary. 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 2018, Vestas considers the maximum credit risk to financial institution counterparties to be EUR 3,556m (2017: EUR 3,972m). The total credit risk is considered to be EUR 4,955m (2017: 5,495m).

### 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 between one to two months 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. An allowance matrix is used in measuring expected lifetime credit losses where current and forward-looking information has been applied to historical loss rates. Contract assets are grouped with trade receivables as these relate to unbilled work in progress with same credit risk as trade receivables.

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



## 4.7 Financial risk management (continued)

mEUR	2018	2017
Not overdue	1,135	1,047
0-60 days overdue	101	120
61-120 days overdue	22	23
121-180 days overdue	14	14
More than 180 days overdue	50	62
Gross trade receivables and contract assets	1,322	1,266
Write-downs as at 31 December	(25)	(40)
<b>Net trade receivables and contract assets as of 31 December</b>	<b>1,297</b>	<b>1,226</b>

mEUR	2018	2017
Write-downs as at 1 January	(40)	(15)
Reversal of write-downs	33	4
Write-downs realised	0	0
Write-downs in the year	(18)	(29)
<b>Write-downs as at 31 December</b>	<b>(25)</b>	<b>(40)</b>

As at 31 December 2018, 70 percent of Vestas's trade receivables and contract assets were concentrated to customers in Europe and North America.

The commercial credit risk relating to the outstanding trade receivables balance as of 31 December was mitigated by EUR 225m (2017: EUR 396m) received as security. Historically, Vestas has not incurred significant losses on trade receivables.

### Financial instruments and cash deposits

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

70 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 in case of certain credit events occur, which mean 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.

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

mEUR 2017	Note	Carrying amount balance sheet	Netting agreements not offset in the balance sheet	Net amount
Foreign currency derivatives	4.6	114	(12)	102
<b>Financial assets</b>		<b>114</b>	<b>(12)</b>	<b>102</b>
Foreign currency derivatives	4.6	29	(12)	17
<b>Financial liabilities</b>		<b>29</b>	<b>(12)</b>	<b>17</b>

## 4.7 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 services 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 hedge the forecasted exposures related to the firm wind turbine order backlog as well as committed foreign currency transactions. Foreign currency risks related to long-term investments are not hedged based on an overall risk, liquidity and cost perspective. Foreign currency risks are primarily hedged through foreign currency forward contracts and foreign currency swaps.

Vestas is to a large extent exposed to USD, as part of the significant business activities in this currency. The project nature of the business changes the foreign currency risk picture towards specific currencies from one year to another, depending on in which geographical areas Vestas has activity.

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 specified currencies towards EUR. The analysis includes the impact from hedging instruments 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.

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

mEUR 2017	Change	Effect on profit/ (loss) before tax	Effect on equity before tax
USD	10%	(35)	(116)
SEK	10%	(2)	(107)
NOK	10%	0	(99)
GBP	10%	(2)	(38)
CNY	10%	2	54

### 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 as well as outstanding interest-bearing debt with floating interest.

Vestas has no outstanding interest-bearing debt with floating interest, why fluctuations in the market interest rates won't 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. The exposure is mitigated financially by entering into forward transactions.

## 4.8 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 set 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.

2018 mEUR	Valuation technique	Carrying amount	Fair value			
			Total	Level 1	Level 2	Level 3
Other investments <sup>2)</sup>	Discounted cash flow	35	23	-	-	23
Financial investments	Market prices	204	204	204	-	-
Renewable energy certificates (RECs) <sup>3)</sup>		-	-	-	-	0
Foreign currency derivatives <sup>1)</sup>	Forward pricing and swap models	166	166	-	166	-
Commodity derivatives <sup>1)</sup>	Forward pricing	-	-	-	-	-
Other receivables and derivative financial instruments		166	166	-	166	-
<b>Financial assets</b>		<b>405</b>	<b>393</b>	<b>204</b>	<b>166</b>	<b>23</b>
Financial debts	Market prices	498	525	525	-	-
Foreign currency derivatives <sup>1)</sup>	Forward pricing and swap models	121	121	-	121	-
Commodity derivatives <sup>1)</sup>	Forward pricing	2	2	-	2	-
Other liabilities and derivative financial instruments		123	123	-	123	-
Contingent consideration <sup>4)</sup>	Discounted cash flow	14	14	-	-	14
<b>Financial liabilities</b>		<b>635</b>	<b>662</b>	<b>525</b>	<b>123</b>	<b>14</b>

2017 mEUR	Valuation technique	Carrying amount	Fair value			
			Total	Level 1	Level 2	Level 3
Other investments <sup>2)</sup>	Discounted cash flow	30	20	-	-	20
Financial investments	Market prices	203	203	203	-	-
Renewable energy certificates (RECs) <sup>3)</sup>		-	-	-	-	0
Foreign currency derivatives <sup>1)</sup>	Forward pricing and swap models	114	114	-	114	-
Commodity derivatives <sup>1)</sup>	Forward pricing	2	2	-	2	-
Other receivables and derivative financial instruments		116	116	-	116	-
<b>Financial assets</b>		<b>349</b>	<b>339</b>	<b>203</b>	<b>116</b>	<b>20</b>
Financial debts	Market prices	497	533	533	-	-
Foreign currency derivatives <sup>1)</sup>	Forward pricing and swap models	29	29	-	29	-
Commodity derivatives <sup>1)</sup>	Forward pricing	-	-	-	-	-
Other liabilities and derivative financial instruments		29	29	-	29	-
<b>Financial liabilities</b>		<b>526</b>	<b>562</b>	<b>533</b>	<b>29</b>	<b>-</b>

1) Foreign currency contracts and embedded derivatives is measured as Level 2, as the fair value can be established directly based on exchange rates published and interest rates curve and prices specified at the balance sheet date.

2) Other investments in non-listed equity shares are measured at fair value based on Level 3 input by using a DCF model. In the valuation of the investments a discount rate in the range of 18-23 percent have been applied with a weighted average rate of 21 percent. An increase (decrease) in the discount rate would result in a decrease (increase) of the fair value. Deposits with the carrying amount of EUR 1.2m in 2018 is a reasonable approximation of the fair value, and therefore not disclosed.

## 4.8 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 44m (2017: EUR 42m). Currently RECs are trading at a lower price than Vestas' agreed purchase price. Given the uncertainties underpinning the future market for selling RECs, Management has determined that the best evidence of fair value of 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 EUR 23.25/MWh (2017: EUR 22.81/MWh) in average, the contract would have had a positive value of EUR 46m (2017: EUR 42m) at 31 December 2018. Had the estimated market price of the RECs been EUR 0 (2017: EUR 0), the contract would have had a negative value of EUR 35m (2017: EUR 33m) as at 31 December 2018.
- 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.

There have been no changes in fair values of recurring assets and there have been no transfers between levels in 2018.

## 4.9 Hedge accounting

Risks which was managed by derivative financial instruments in 2018 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 2018 the following derivative financial instruments with the net contract notional amounts for each instrument comprising future purchases and (sales) of foreign currencies:

2018 mEUR	Contract notional amount	Expected recognition		
		2019	2020	After 2020
<b>Foreign currency risk</b>				
Cash flow hedges	<b>(2,885)</b>	<b>(1,968)</b>	<b>(634)</b>	<b>(283)</b>
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	<b>(213)</b>	<b>(213)</b>	-	-
USD	193	193	-	-
NOK	88	88	-	-
GBP	(62)	(62)	-	-
CNY	(58)	(58)	-	-
Other	(374)	(374)	-	-
<b>Commodity price risk</b>				
Cash flow hedges	<b>51</b>	<b>21</b>	<b>16</b>	<b>14</b>
Copper	33	21	12	-
Steel	18	-	4	14
<b>Total</b>	<b>(3,047)</b>	<b>(2,160)</b>	<b>(618)</b>	<b>(269)</b>

2017 mEUR	Contract amount	Net fair value	Expected recognition		
			2018	2019	After 2019
Cash flow hedges	(3,515)	79	58	13	8
Fair value hedges	(63)	8	8	-	-
<b>Total derivative financial instruments</b>	<b>(3,578)</b>	<b>87</b>	<b>66</b>	<b>13</b>	<b>8</b>

## 4.9 Hedge accounting (continued)

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			
<b>Foreign currency risk</b>					
Cash flow hedges	165	107	(2,885)	Other receivables, Other payables	31
Fair value hedges	1	12	(213)	Other receivables, Other payables	(23)
<b>Commodity price risk</b>					
Cash flow hedges	-	2	51	Other receivables, Other payables	(5)
<b>Total</b>	<b>166</b>	<b>121</b>	<b>(3,047)</b>		<b>3</b>

In the table below the effect from hedged items on the balance sheet is shown:

2018 mEUR	Carrying amount of hedging instruments		Change in fair value used for measuring ineffectiveness	Cash flow hedge reserve
	Assets	Liabilities		
<b>Foreign currency risk</b>				
Highly probable forecasted sales and purchases			26	49
Firm commitments <sup>1)</sup>	2,823	2,618	(23)	
<b>Commodity price risk</b>				
Commodity purchases			(5)	(2)
<b>Total</b>	<b>2,823</b>	<b>2,618</b>	<b>(2)</b>	<b>47</b>

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
<b>Foreign currency risk</b>					
Cash flow hedges, forward contracts	26	5	Financial items	(28) (21)	Revenue Production costs
<b>Commodity price risk</b>					
Cash flow hedges, forward contracts	(5)	-		-	
<b>Total</b>	<b>21</b>	<b>5</b>		<b>(49)</b>	

The effect from hedging recognised in 2017 under IAS 39 is shown below.

2017 mEUR	
Income statement, gains/(losses)	9
Other comprehensive income, gains/(losses)	78
Other receivables, current	84
Other receivables, non-current	32
Other liabilities, current	18
Other liabilities, non-current	11

## 4.9 Hedge accounting (continued)

Ineffectiveness in 2017 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 OCI for the period.

2018 mEUR	Cash flow hedge reserve
Carrying amount as at 1 January 2018	60
Changes in fair value:	
Foreign currency risk, cash flow hedges	26
Commodity price risk, cash flow hedges	(5)
Amount reclassified to profit or loss:	
Foreign currency risk, cash flow hedges	(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	12
Foreign currency risk, cash flow hedges of received prepayments from customers	1
Commodity price risk, cash flow hedges of inventory	-
Tax effect	2
<b>Carrying amount as at 31 December 2018</b>	<b>47</b>

## 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, and 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.

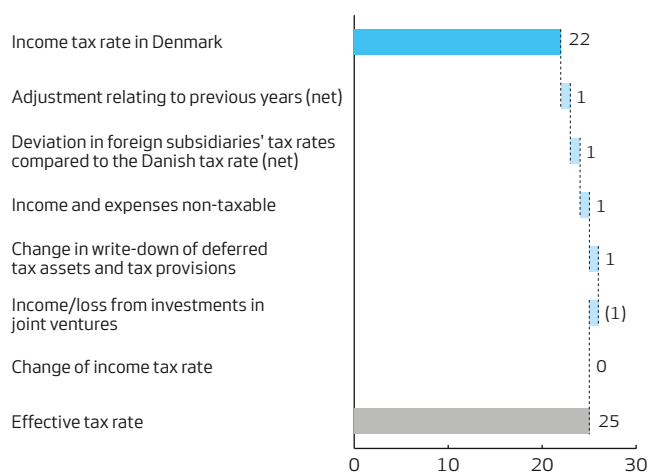
Vestas is subject to income taxes around the world and therefore recognises that significant judgement is required in determining the worldwide accrual for income taxes, deferred income tax assets and liabilities and provision for uncertain tax positions.

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	2018	2017
Current tax on profit for the year	225	248
Deferred tax on profit for the year	(4)	19
Tax on profit for the year	221	267
Change in income tax rate	-	33
Adjustments relating to previous years (net)	7	(2)
<b>Income tax for the year recognised in the income statement, expense</b>	<b>228</b>	<b>298</b>
Deferred tax on other comprehensive income for the year	(5)	37
<b>Tax recognised in other comprehensive income, expense/(income)</b>	<b>(5)</b>	<b>37</b>
Deferred tax on equity transactions	4	(5)
<b>Tax recognised in equity</b>	<b>4</b>	<b>(5)</b>
<b>Total income taxes for the year, expense</b>	<b>227</b>	<b>330</b>

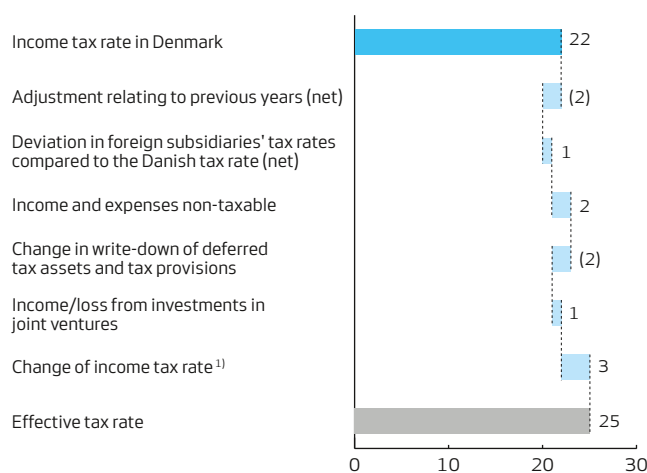
#### Computation of effective tax rate 2018

percent



#### Computation of effective tax rate 2017

percent



1) Change of income tax rate mainly relates to the reduction of tax rate in USA.

## 5.1 Income tax (continued)

mEUR	2018	2017
Income tax as at 1 January, net assets/(liabilities)	(170)	(154)
Exchange rate adjustments	2	(2)
Income tax for the year	(225)	(248)
Adjustments relating to previous years	(12)	-
Non-current income tax	-	(65)
IFRS 15 impact	19	-
Settlements against VAT receivables	53	37
Income tax paid in the year	195	262
<b>Income tax as at 31 December, net assets/(liabilities)</b>	<b>(138)</b>	<b>(170)</b>
Receivables specified as follows:		
0-1 year	88	53
> 1 year	98	51
<b>Income tax receivables</b>	<b>186</b>	<b>104</b>
Liabilities specified as follows:		
0-1 year	(112)	(108)
> 1 year	(212)	(166)
<b>Income tax liabilities</b>	<b>(324)</b>	<b>(274)</b>

## 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 17m (2017: EUR 18m) is expected to be realised within 12 months, and EUR 22m (2017: EUR 18m) is expected to be realised later than 12 months after the balance sheet date.

The assessment in 2018 resulted in the reversal of write-down of deferred tax assets by EUR 41m (2017: EUR 33m write-down) primarily due to the fact that the tax losses are expected to be utilised in the foreseeable future.

As at 31 December 2018, the value of recognised deferred tax assets amounted to EUR 281m (2017: EUR 218m), of which EUR 39m (2017: EUR 36m) relates to tax loss carry-forwards. The value of non-recognised tax assets totals EUR 61m (2017: EUR 102m), of which EUR 61m (2017: EUR 102m) relating to write-downs that are not expected to be utilised in the foreseeable future.



## 5.2 Deferred tax (continued)

mEUR	2018	2017
Deferred tax as at 1 January, net assets	157	174
Exchange rate adjustments	(3)	-
Deferred tax on profit for the year	4	(19)
Adjustment relating to previous years	5	2
Changes in income tax rate	-	(33)
Transferred to non-current tax receivables/payables	-	65
Deferred tax on equity transactions	(4)	5
Acquisitions as part of business combinations	(3)	-
Tax on other comprehensive income	5	(37)
<b>Deferred tax as at 31 December, net assets</b>	<b>161</b>	<b>157</b>
Deferred tax assets specified as follows:		
Tax value of tax loss carry-forwards (net)	39	36
Intangible assets	(1)	(1)
Property, plant and equipment	19	19
Current assets	172	175
Provisions	112	39
Uncertain tax position	-	-
Write-down of tax assets	(61)	(102)
Other <sup>1)</sup>	39	52
<b>Deferred tax assets</b>	<b>281</b>	<b>218</b>
Deferred tax provisions specified as follows:		
Intangible assets	146	104
Property, plant and equipment	(7)	(15)
Current assets	18	40
Provisions	(33)	(93)
Other	4	25
<b>Deferred tax provisions</b>	<b>120</b>	<b>61</b>

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 25m (2017: EUR 11m) 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 (2017: EUR 0m) relates to Denmark. The recognised loss carry-forward relating to Denmark amounts to EUR 0m (2017: 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	2018	2017
Audit:		
PricewaterhouseCoopers	3	3
<b>Total audit</b>	<b>3</b>	<b>3</b>
Non-audit services: <sup>1)</sup>		
PricewaterhouseCoopers		
Assurance engagements	0	0
Tax assistance	1	2
Other services	0	1
<b>Total non-audit services</b>	<b>1</b>	<b>3</b>
<b>Total</b>	<b>4</b>	<b>6</b>

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 16 percent (2017: 44 percent). Excluding significant one-time capital structure events is 10 percent (2017: 39 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 1m and consists mainly of 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

In March 2013, the share-based incentive programme was revised and after this, the share-based incentive programme is based on restricted performance shares instead of share options which were used in previous programmes. 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 April 2018, 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 2017 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 3 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 zero or 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)

	2018	2017	2016	2015	2014
Year awarded:	April 2018	May 2017	April 2016	April 2015	March 2014
Performance year <sup>1)</sup> :	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	EBIT margin, Free cash flow, Business area specific KPIs
Vesting years:	2021/2023	2020/2022	2019/2021	2018/2020	2017/2019

1) Performance years defined as Vestas' financial year.

In 2018, the total number of shares issued amounts to 248,089 shares with a fair value of EUR 14m (out of which 70,233 shares with a fair value of EUR 4m were issued to the Executive Management). The fair value calculated is based on share price at measurement, close of Nasdaq Copenhagen on 17 April 2018, EUR 56.

	Executive Management pcs	Other executives pcs	Total pcs
Number of restricted performance shares			
<b>Outstanding as at 1 January 2018</b>	<b>520,957</b>	<b>1,173,502</b>	<b>1,694,459</b>
Adjusted <sup>1)</sup>	(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)
<b>Outstanding as at 31 December 2018</b>	<b>398,284</b>	<b>862,032</b>	<b>1,260,316</b>
<b>Outstanding as at 1 January 2017</b>	<b>488,474</b>	<b>1,047,837</b>	<b>1,536,311</b>
Adjusted <sup>1)</sup>	22,600	45,694	68,294
Awards issued	87,806	216,204	304,010
Vested	(77,923)	(128,398)	(206,321)
Cancelled	-	(7,835)	(7,835)
<b>Outstanding as at 31 December 2017</b>	<b>520,957</b>	<b>1,173,502</b>	<b>1,694,459</b>

1) Adjustments due to final calculation of entitlement based on performance in prior year. Allocation of performance shares for the 2016-2018, 2017-2019, and 2018-2020 performance programmes will be adjusted based on the level of target achievement in the measurement period.

An employee elected member of the Board, had 1,320 restricted shares outstanding as at 31 December 2018 (2017: 754).

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 Contractual obligations

mEUR	2018	2017
The minimum lease obligations relating to operating leases fall due:		
0-1 year	66	57
1-5 years	127	115
> 5 years	34	42
<b>Total</b>	<b>227</b>	<b>214</b>

Operating leases primarily comprise irrevocable operating leases regarding land, buildings and vehicles. The main obligations relate to buildings and run for up to 15 years after the balance sheet date.

Costs recognised in the income statement relating to operating leases amount to EUR 69m in 2018 (2017: EUR 52m).

Vestas has entered into binding contracts concerning purchase of property, plant and equipment to be delivered in 2019 and future periods at a value of EUR 68m (2017: EUR 15m).

## 6.4 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:

mEUR	2018	2017
<b>MHI Vestas Offshore Wind A/S</b>		
Revenue	157	294
Receivable as at 31 December	59	33
<b>Roaring Fork Wind, LLC</b>		
Proceeds from sale of projects	10	-
Capital increase	8	15
Prepayments balance as at 31 December	85	86
<b>Blakildem Fäbodberget Holding AB</b>		
Payable capital contribution as at 31 December, ref. note 3.4	37	-

## 6.5 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).

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 0.2m in 2018 (2017: EUR 0.3m). The outstanding amount of purchases as at 31 December 2018 amounted to EUR 0.0m (2017 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 2018.

### Transactions with joint ventures and associates

Vestas has had the following material transaction with joint ventures and associates:

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.

### Acquisition of Utopus Insights, Inc.

On 4 February 2018, Vestas acquired 100 percent of the share capital of Utopus Insights, Inc. (Utopus), a leading energy analytics and digital solutions company. The acquisition significantly improves Vestas' existing market-leading capabilities for advanced analytics and integrated energy software solutions.

The goodwill of EUR 70m arising from the acquisition is attributable to synergies expected from combining the operations of Vestas and Utopus. None of the goodwill recognised is expected to be deductible for income tax purpose.

## 6.5 Business combinations (continued)

The following table summarises the considerations paid for Utopus, the fair value of assets acquired and liabilities assumed at the acquisition dates.

mEUR	Utopus
Cash	70
Contingent consideration	11
<b>Total consideration</b>	<b>81</b>

The following table summarises the recognised amounts of identifiable assets acquired and liabilities assumed.

mEUR	Utopus
Technology (included in other intangible assets)	13
Cash	5
Deferred tax liability	(3)
Trade payables	(1)
Other liabilities	(3)
<b>Total identifiable net assets</b>	<b>11</b>
<b>Goodwill</b>	<b>70</b>
<b>Total</b>	<b>81</b>

The cash consideration is EUR 65m on a debt and cash free basis and has been paid in cash from readily available sources.

The contingent consideration arrangement requires Vestas to pay, in cash, to the former owners of Utopus, an earn-out up to EUR 1.6m, undiscounted, contingent on revenue in 2020.

The fair value of the acquired identifiable net asset of EUR 11m (including Technology) is provisional pending final valuations for those assets.

The revenue included in the consolidated income statement since 14 February 2018 contributed by Utopus was EUR 2m. Utopus also contributed a loss after tax of EUR 4m over the same period.

Had Utopus' financial statements been consolidated with Vestas' financial statements from 1 January 2018, Vestas' consolidated income statement would have been impacted with revenue of approx. EUR 5m and loss after tax of approx. EUR 2m.

The revenue, costs, and EBIT from Utopus are allocated to the Service segment.

### Valuation technique

Income-based method: Estimate of future economic benefits derived from ownership of the technology by identifying, separating and qualifying cash flows attributable to the technology and capitalising these cash flows.

## 6.6 Non-cash transactions

mEUR	2018	2017
Amortisation, impairment and depreciation for the year of intangible assets and property, plant and equipment	458	421
Share of (profit)/loss from investments in joint ventures and associates	(40)	40
Warranty provisions in the year (net)	(6)	42
Other provisions in the year	9	1
Exchange rate adjustment	24	4
Financial income	(17)	(45)
Financial expenses	68	43
Income tax for the year	227	298
Cost of share-based payments	18	18
Gains from property, plant and equipment	(6)	(9)
Change in marketable securities	-	(2)
Non-cash settlements	-	37
Other adjustments for non-cash transactions	(19)	(3)
	<b>716</b>	<b>845</b>

## 6.7 Legal entities<sup>1)</sup>

Name and country	Ownership (%)
<b>Parent company</b>	
Vestas Wind Systems A/S, Denmark	-
<b>Production units</b>	
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
<b>Sales and service units</b>	
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 (%)
<b>Sales and service units, continued</b>	
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 (Portugal) - Serviços de Tecnologia Eólica Lda., Portugal	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 Maroc 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 <sup>2)</sup>	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

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.

## 6.7 Legal entities<sup>1)</sup> (continued)

Name and country	Ownership (%)
<b>Other subsidiaries</b>	
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 <sup>2)</sup>	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
Vestas Middle East A/S, Denmark	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 Spare Parts & Repair UK Limited, United Kingdom	100
Wind 30 ApS, Denmark	100
Wind 31 ApS, Denmark	100
Admede AB, Sweden	100
<b>Joint ventures</b>	
MHI Vestas Offshore Wind A/S, Denmark	50
Roaring Fork Wind, LLC, USA	50
Emerging Markets Power (Holdings) Limited, Ireland	50
<b>Associates</b>	
Blakliden Fäbodberget Holding AB, Sweden	40

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 2017, except from the impact of IFRS 9 and IFRS 15, 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 094-095.

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

##### Leases

For accounting purposes, lease contracts are classified as either finance or operating lease obligations.

A lease is classified as a finance lease when it transfers substantially all risks and rewards of the leased asset as if the asset had been owned. Other leases are classified as operating leases.

Finance lease assets are capitalised under property, plant and equipment and are depreciated over their expected useful lives. The corresponding finance lease obligations are recognised in liabilities. Operating lease expenses are recognised on a straight line basis in the income statement over the lease term.

#### 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 re-measured at fair value through profit or loss. Any changes in the fair values of financial investments re-measured 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).



## 7.1 General accounting policies (continued)

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 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 finance 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, acquisition and sale of treasury shares together with distribution of dividends to shareholders. Cash flows from finance lease assets are recognised as interest payments and repayments of debts.

## 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 046-047 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	056
	Judgement regarding method for recognition of revenue from Supply-and-installation contracts	1.2	056
	Estimate of stage of completion	1.2	056
Special items	Judgement regarding classification in the income statement	1.6	060
Provisions	Estimates for warranty provisions	3.5	071
Income tax	Assumptions included in income tax assessment and uncertain tax position	5.1	087
Deferred tax	Estimate of deferred tax assets valuation	5.2	088
Inventories	Estimates of net realisable value	2.2	061
Other receivables	Estimates of allowance for doubtful VAT receivables	2.5	063

## 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 2018 financial year, including:

- Annual Improvements to IFRSs 2014-2016 (effective date 1 January 2018)
- IFRS 9, Financial Instruments (effective date 1 January 2018)
- IFRS 15, Revenue from Contracts with Customers (effective date 1 January 2018)
- Clarifications to IFRS 15, Revenue from Contracts with Customers (effective date 1 January 2018)
- IFRIC 22, Foreign Currency Transactions and Advance Consideration (effective date 1 January 2018)

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 9, Financial Instruments

As at 1 January 2018, the new accounting standard IFRS 9 Financial Instruments, which replace IAS 39 Financial Instruments: Recognition and Measurement, have been adopted and applied to the consolidated statements for 2018. In comparison to IAS 39, the main changes in IFRS 9 comprise changes within classification and measurement, impairment and hedge accounting. Vestas has applied IFRS 9 prospectively without restating comparative information, which is reported under IAS 39. The effects from adopting IFRS 9 is insignificant for Vestas and has been recognised in 2018.

The categories defining classification and measurement of financial assets have been changed to comprise amortised cost, fair value through profit or loss and fair value through other comprehensive income. Financial assets subject for reclassification as at 1 January 2018 regarded assets within the category loans and receivables under IAS 39, which is categorised as amortised cost under IFRS 9.

Impairment losses for financial assets have been changed from an incurred loss approach to an expected credit loss approach. The effect from this change is deemed immaterial for Vestas due to a general low credit risk and have been recognised in 2018.

The adoption of IFRS 9 is aligning the way that Vestas undertakes risk management activities with the hedge accounting model and qualification criteria. As Vestas continues designating the change in fair value of the entire forward contract in cash flow hedges, no impact has been reflected in the balance sheet as at 1 January 2018.

### IFRS 15 impact on income statement 1 January 2018 - 31 December 2018

mEUR	As reported	Adjustments Total	Balances without adoption of IFRS 15
<b>Revenue</b>	<b>10,134</b>	<b>(396)</b>	<b>9,738</b>
Production costs	(8,503)	342	(8,161)
<b>Gross profit</b>	<b>1,631</b>	<b>(54)</b>	<b>1,577</b>
Research and development costs	(229)	-	(229)
Distribution costs	(189)	-	(189)
Administration costs	(254)	-	(254)
<b>Operating profit (EBIT) before special items</b>	<b>959</b>	<b>(54)</b>	<b>905</b>
Special items	(38)	-	(38)
<b>Operating profit (EBIT)</b>	<b>921</b>	<b>(54)</b>	<b>867</b>
Income from investments in joint ventures and associates	40	-	40
Financial income	17	-	17
Financial costs	(68)	-	(68)
<b>Profit before tax</b>	<b>910</b>	<b>(54)</b>	<b>856</b>
Income tax	(227)	13	(214)
<b>Profit for the period</b>	<b>683</b>	<b>(41)</b>	<b>642</b>

### IFRS 15, Revenue from Contracts with Customers and Clarifications to IFRS 15

IFRS 15 has been implemented in Vestas' consolidated financial statements for the financial year beginning on 1 January 2018, ref. note 1.2. Vestas has applied IFRS 15 using modified retrospective application, with the cumulative effect of initially applying the standard to be adjusted to the opening balance of retained earnings 2018. The transition impact and the opening equity has been impacted negatively by EUR 54m as at 1 January 2018.

Consequently, 2017 comparative figures are reported according to IAS 11/IAS 18 and are not restated to reflect the numbers according to IFRS 15. In the table below, 2018 numbers according to both IFRS 15 and IAS 11/IAS 18 are disclosed so as to provide comparability between 2017 and 2018 and to disclose the effect from the changed regulation.

Under IFRS 15 turnkey projects and service agreements are classified as contract assets/liabilities. Contract liabilities also comprise prepayments from customers for supply-only and supply-and-installation projects ordered but not yet delivered. Previously service agreements were classified as 'Trade receivables' and 'Prepayments from customers'. Prepayments from supply-only and supply-and-installation projects were classified as 'Prepayments from customers'.

For supply-only and supply-and-installation projects cost to fulfil a contract are capitalised as contract costs in a separate line in the balance sheet. Previously these costs were capitalised as part of inventory.

Under IFRS 15, total revenue of a contract will remain unchanged compared to IAS 11/IAS 18; however, the timing of the revenue recognition will be deferred for supply-only and turnkey contracts. The details of the changes and quantitative impact of the changes are set out below.

#### Supply-only projects

Vestas continues to recognise revenue for supply-only projects at a point in time; however, under IFRS 15 revenue is deferred as control is deemed to be transferred to the customer upon delivery of the components in accordance with the agreed delivery plan, which is at a later stage compared to IAS 11/IAS 18.

#### Turnkey projects

Vestas continues to recognise revenue for turnkey projects over time applying the percentage-of-completion method; however, under IFRS 15 work performed as part of the percentage-of-completion method is assessed to be initiated at a later stage, which is deferring revenue.

#### Impact on financial statements

The following table summarise the initial impacts of adapting IFRS 15 in the consolidated financial statements. There is no impact on statement of comprehensive income and the impact on Vestas' basic or diluted earnings per share for 2018 is not material.

### 7.3 Changes in accounting policies and disclosures (continued)

The following table summarises the impact on balance sheet of adapting IFRS 15 in Vestas' Consolidated financial statements.

#### IFRS 15 impact on balance sheet – Assets (31 December 2018)

mEUR	As reported	Adjustments	Balances without adoption of IFRS 15
<b>Total non-current assets</b>	<b>3,344</b>	<b>-</b>	<b>3,344</b>
Inventories	2,987	541	3,528
Trade receivables	967	323	1,290
Construction contracts in progress	-	3	3
Contract assets	330	(330)	-
Contract costs	328	(328)	-
Tax receivables	88	-	88
Other receivables	515	-	515
Financial investments	422	-	422
Cash and cash equivalents	2,918	-	2,918
<b>Total current assets</b>	<b>8,555</b>	<b>209</b>	<b>8,764</b>
<b>Total assets</b>	<b>11,899</b>	<b>209</b>	<b>12,108</b>

#### IFRS 15 impact on balance sheet – Equity and liabilities (31 December 2018)

mEUR	As reported	Adjustments	Balances without adoption of IFRS 15
Share capital	28	-	28
Other reserves	22	-	22
Retained earnings	3,042	13	3,055
Equity attributable to Vestas	3,092	13	3,105
Non-controlling interests	12	-	12
<b>Total equity</b>	<b>3,104</b>	<b>13</b>	<b>3,117</b>
<b>Total non-current liabilities</b>	<b>1,390</b>	<b>-</b>	<b>1,390</b>
Prepayments from customers	-	3,963	3,963
Construction contracts in progress	-	239	239
Contract liabilities	4,202	(4,014)	188
Trade payables	2,417	-	2,417
Provisions	126	5	131
Tax payables	112	3	115
Other liabilities	548	-	548
<b>Total current liabilities</b>	<b>7,405</b>	<b>196</b>	<b>7,601</b>
<b>Total liabilities</b>	<b>8,795</b>	<b>196</b>	<b>8,991</b>
<b>Total equity and liabilities</b>	<b>11,899</b>	<b>209</b>	<b>12,108</b>

## 7.3 Changes in accounting policies and disclosures (continued)

The following table summarises the impact on statement of cash flows of adapting IFRS 15 in Vestas' Consolidated financial statements. There is no impact on cash flow from investing activities or financing activities.

### IFRS 15 impact on statement of cash flows 1 January 2018 - 31 December 2018

mEUR	As reported	Adjustments	Balances without adoption of IFRS 15
Profit for the year	683	(41)	642
Adjustment for non-cash transactions	716	61	777
Financial income received	13	-	13
Financial costs paid	(27)	-	(27)
Income tax paid	(195)	-	(195)
<b>Cash flow from operating activities before change in net working capital</b>	<b>1,190</b>	<b>20</b>	<b>1,210</b>
Change in net working capital	(169)	(20)	(189)
<b>Cash flow from operating activities</b>	<b>1,021</b>	<b>0</b>	<b>1,021</b>

#### IFRIC 22, Foreign Currency Transactions and Advance Consideration

IFRIC 22 clarifies which date an exchange rate should be applied in the recognition of a related asset, expense or income, when Vestas derecognise a non-monetary item that arose from a payment or receipt of advance consideration as prepayments.

As at 1 January 2018, Vestas implemented IFRIC 22 with no transition impact. The interpretation aligns the way Vestas account for foreign currency transactions, and therefore does not have any impact on the financial figures in 2018.

#### New accounting standards not yet adopted

The IASB has issued a number of new or amended accounting standards and interpretations with effective date after 31 December 2018. Vestas expects to implement the following new or amended accounting standards and interpretations when they become mandatory:

- 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)

#### IFRS 16, Leases

IFRS 16 will be implemented in Vestas' consolidated financial statements for the financial year beginning on 1 January 2019.

IFRS 16 replaces IAS 17, and changes the accounting treatment of lease contracts that are currently treated as operating lease contracts. The change in lease accounting requires capitalisation of operating lease contracts as an asset under property, plant and equipment with a related lease liability in liabilities. The Income statement will be affected as the lease expenses will according to the new accounting regulation be split into two elements; depreciation on lease assets included in Operating profit and interest expenses on lease liability included in Financial expenses, as opposed to all being recognised as operating expenses in 2018.

Vestas has entered into lease contracts, which primarily comprise leases regarding buildings, equipment and vehicles. Vestas has elected not to capitalise lease contracts with a lease term of 12 month or less.

IFRS 16 will be implemented using the simplified transition method where Vestas will not restate comparative information, but recognise the cumulative effect of initially applying IFRS 16 as an adjustment to opening equity at the date of initial application.

The transition impact and the impact to lease assets in property, plant and equipment represents approx. 2 percent of the total assets with the equivalent impact on related lease liability within liabilities. Financial ratios related to the balance sheet will be impacted as well. The impact on Operating profit will be insignificant.

#### IFRIC 23, Uncertainty over Income Tax Treatment

IFRIC 23 is an interpretation which clarifies the accounting for uncertainties in income taxes as part of the application of IAS 12.

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 will be followed, and uncertain tax positions are measured at the most likely outcome method.

Vestas will apply the interpretation from its effective date 1 January 2019. The interpretation does not have a significant impact to the balance sheet nor financial ratios.

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**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 invested capital:** Assets (excluding investments accounted for using the equity method, marketable securities and assets held for sale) less non-interest bearing debt including provisions.

**Net working capital (NWC):** Inventories, trade receivables, construction contracts in progress, other receivables minus trade and other payables, prepayments from customers and construction contracts in progress.

**Free cash flow:** Cash flow from operating activities less cash flow from investing activities.

**Free cash flow before acquisitions of subsidiaries and financial investments securities:**

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.

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**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.

**Return on invested capital (ROIC) (%):** Operating profit/loss (EBIT) before special items adjusted for tax (effective tax rate) as a percentage of average net invested capital.

**Solvency ratio (%):** Equity at year-end divided by total assets.

**Return on equity (%):** Profit/loss after tax for the year divided by average equity.

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**SHARE RATIOS**

**Earnings per share (EPS):** Profit/loss for the year divided by the average number of shares outstanding.

**Cash flow from operating activities per share:** Cash flows from operating activities divided by the average number of shares.

**Dividend per share:** Dividend multiplied by the nominal value of the share.

**Payout ratio:** Total dividend distribution divided by profit/loss for the year.

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**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.

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**OTHER DEFINITIONS**

**Full-time equivalent (FTE):** Employees on the Vestas' payroll are counted and reported as Vestas employees.

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**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

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# 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 2018.

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 2018 and of the results of Vestas' and Parent Company's operations and consolidated cash flows for the financial year 1 January to 31 December 2018.

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, 7 February 2019

### Executive Management

**Anders Runevad**  
Group President & CEO

**Marika Fredriksson**  
Executive Vice President & CFO

**Anders Vedel**  
Executive Vice President & CTO

**Jean-Marc Lechêne**  
Executive Vice President & COO

**Juan Araluze**  
Executive Vice President & CSO

### Board of Directors

**Bert Nordberg**  
Chairman

**Lars Josefsson**  
Deputy chairman

**Carsten Bjerg**

**Eija Pitkänen**

**Henrik Andersen**

**Henry Sténson**

**Torben Ballegaard Sørensen**

**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 2018 and of the results of the Group's operations and cash flows for the financial year 1 January to 31 December 2018 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 2018 and of the results of the Parent Company's operations for the financial year 1 January to 31 December 2018 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 2018 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 20 years including the financial year 2018.

## 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 2018. 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
<p><b>Revenue recognition</b></p> <p>Vestas has adopted IFRS 15 at 1 January 2018 using the modified retrospective application, with the cumulative effect of initially applying the standard to be adjusted to the opening equity 2018, and therefore the comparative information has not been restated and continues to be reported under IAS 18 and IAS 11.</p> <p>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.</p> <p>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.</p> <p>Refer to Note 1.2, Note 2.3 and Note 2.4.</p>	<p>We reviewed the Group's implementation of IFRS 15, including recognition of the effect on opening equity and changes to procedures, accounting guidelines, disclosures and systems to support correct revenue recognition. We reviewed and discussed the group accounting policy, the effect on opening equity and disclosures with Management, including the key accounting estimates and judgements made by Management.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Key audit matter	How our audit addressed the key audit matter
<p><b>Tax risks</b></p> <p>The Group operates in a complex multinational tax environment and the Group is part in tax cases with domestic and foreign tax authorities.</p> <p>At 31 December 2018, the Group has recognised provisions in respect of uncertain tax positions.</p> <p>Furthermore, the Group has recognised write-downs on deferred tax assets.</p> <p>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.</p> <p>Refer to Note 5.1 and 5.2.</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>We evaluated the Group's model for valuation of deferred tax assets, including the forecasts used to estimate the expected future taxable income.</p>

### 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 3.5.

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 fur-

ther 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, 7 February 2019

**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

To the Stakeholders of Vestas Wind Systems A/S

Vestas Wind Systems A/S engaged us to provide limited assurance on the consolidated social and environmental key figures and indicators for the year ended 31 December 2018.

## Our conclusion

Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us not to believe that the consolidated social and environmental key figures and indicators as stated on page 027 in the 2018 Annual Report has not been prepared, in all material respects, in accordance with the accounting policies as stated on page 032 in the 2018 Annual Report.

This conclusion is to be read in the context of the remainder of our report.

## What we are assuring

The scope of our work was limited to assurance over consolidated social and environmental key figures and indicators as stated on page 027 in the 2018 Annual Report.

## 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 must be read and understood together with the accounting principles (page 032 of the 2018 Annual Report), 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;
- Made site visits in Denmark, Italy and Spain to assess the completeness of social and environmental data sources, data collection methods, source data and relevant assumptions applicable to the sites. The sites selected for testing were chosen taking into consideration their size and sites selected in prior periods. Our procedures included testing to underlying documentation as well as input data controls performed at these sites;
- 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 internal and external documentation to determine whether consolidated social and environmental key figures and indicators are supported by sufficient 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 consolidated social and environmental key figures and indicators that are free from material misstatement, whether due to fraud or error;
- Establishing objective accounting principles for preparing data; and
- Measuring and reporting the consolidated social and environmental key figures and indicators based on the accounting principles.

## Our responsibility

We are responsible for:

- Planning and performing the engagement to obtain limited assurance about whether the consolidated social and environmental key figures and indicators as stated on page 027 in the 2018 Annual Report are free from material misstatement, whether due to fraud or error;
- Forming an independent conclusion, based on the procedures we have performed and the evidence we have obtained; and
- Reporting our conclusion to the Stakeholders of Vestas Wind Systems A/S.

Hellerup, 7 February 2019

**PricewaterhouseCoopers**

Statsautoriseret Revisionspartnerselskab  
Company Reg. No.: 3377 1231

**Claus Lindholm Jacobsen**  
State Authorised  
Public Accountant  
mne23328

**Kim Tromholt**  
State Authorised  
Public Accountant  
mne33251



## Financial statements for Vestas Wind Systems A/S

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108	Income statement
108	Balance sheet
109	Statement of changes in equity
109	Note 1 · Result for the year
109	Note 2 · Working capital
110	Note 3 · Other operating assets and liabilities
112	Note 4 · Capital structure and financing items
113	Note 5 · Tax
113	Note 6 · Other disclosures
113	Note 7 · Basis of preparation

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## Income statement 1 January – 31 December

mEUR	Note	2018	2017
<b>Revenue</b>	1.1	1,376	1,693
Production costs	1.2	(533)	(561)
<b>Gross profit</b>		<b>843</b>	<b>1,132</b>
Administration costs	1.2	(162)	(222)
<b>Operating profit (EBIT)</b>		<b>681</b>	<b>910</b>
Income/loss from investments in subsidiaries	3.3	145	150
Income/loss from investments in associates including joint venture	3.3	39	(40)
Financial income	4.1	73	143
Financial costs	4.1	(110)	(71)
<b>Profit before tax</b>		<b>828</b>	<b>1,092</b>
Income tax	5.1	(160)	(216)
<b>Profit for the year</b>		<b>668</b>	<b>876</b>

mEUR	Note	2018	2017
Proposed distribution of profit:			
Reserve for net revaluation under the equity method		184	110
Retained earnings		279	499
Proposed dividends		205	267
<b>Profit for the year</b>		<b>668</b>	<b>876</b>

## Balance sheet 31 December - Assets

mEUR	Note	2018	2017
Intangible assets	3.1	731	619
Property, plant, and equipment	3.2	131	143
Investments in subsidiaries	3.3	2,447	2,322
Investments in associates including joint venture	3.3	116	78
Marketable securities		204	196
Other investments		4	4
Other receivables		104	47
Tax receivables		93	51
<b>Total financial fixed assets</b>		<b>2,968</b>	<b>2,698</b>
<b>Total non-current assets</b>		<b>3,830</b>	<b>3,460</b>
Inventories	2.1	93	75
Receivables from subsidiaries		2,709	3,379
Receivable from joint venture		7	14
Other receivables		286	91
Prepayments	3.4	13	8
<b>Total receivables</b>		<b>3,015</b>	<b>3,492</b>
Marketable securities		-	7
Cash and cash equivalents		2,475	2,864
<b>Total current assets</b>		<b>5,583</b>	<b>6,438</b>
<b>Total assets</b>		<b>9,413</b>	<b>9,898</b>

## Balance sheet 31 December - Equity and liabilities

mEUR	Note	2018	2017
Share capital		28	29
Reserve for net revaluation under the equity method		297	157
Reserve for capitalised development cost		430	267
Dividend		205	267
Retained earnings		1,954	2,219
<b>Total equity</b>		<b>2,914</b>	<b>2,939</b>
Warranty provisions	3.5	545	565
Deferred tax	5.2	91	33
<b>Total non-current provisions</b>		<b>636</b>	<b>598</b>
Other liabilities		67	2
Financial debt	4.3	498	497
<b>Total non-current debt</b>		<b>565</b>	<b>499</b>
<b>Total non-current liabilities</b>		<b>1,201</b>	<b>1,097</b>
Trade payables		156	156
Payables to subsidiaries		4,758	5,553
Other liabilities		326	99
Tax payables		58	54
<b>Total current liabilities</b>		<b>5,298</b>	<b>5,862</b>
<b>Total liabilities</b>		<b>6,499</b>	<b>6,959</b>
<b>Total equity and liabilities</b>		<b>9,413</b>	<b>9,898</b>
Contingent assets and liabilities	3.6		
Financial risks	4.2		
Audit fees	6.1		
Contractual obligations	6.2		
Related party transactions	6.3		
Ownership	6.4		
General accounting policies	7.1		

## Statement of changes in equity 1 January – 31 December

2018 mEUR	Share capital	Reserve under the equity method	Reserve for capitalised development cost	Dividend	Retained earnings	Total
<b>Equity as at 1 January</b>	<b>29</b>	<b>157</b>	<b>267</b>	<b>267</b>	<b>2,219</b>	<b>2,939</b>
Exchange rate adjustments relating to foreign entities	-	12	-	-	-	12
Transition to IFRS 15 at 1 January	-	(65)	-	-	11	(54)
Fair value adjustments of derivative financial instruments	-	26	-	-	(44)	(18)
Tax on fair value adjustments of derivative financial instruments	-	(6)	-	-	8	2
Fair value adjustments of derivative financial instruments, joint venture	-	(1)	-	-	-	(1)
Paid dividend	-	-	-	(250)	-	(250)
Paid dividend related to treasury stock	-	-	-	(17)	17	-
Proposed dividend	-	-	-	197	(197)	-
Proposed dividend related to treasury stock	-	-	-	8	(8)	-
Capitalised development cost	-	-	209	-	(209)	-
Tax on capitalised development cost	-	-	(46)	-	46	-
Acquisition of treasury shares	-	-	-	-	(402)	(402)
Sale of treasury shares	-	-	-	-	1	1
Share-based payments	-	(10)	-	-	28	18
Tax on share-based payments	-	-	-	-	(1)	(1)
Capital decrease	(1)	-	-	-	1	-
Profit for the year	-	184	-	-	484	668
<b>Equity as at 31 December</b>	<b>28</b>	<b>297</b>	<b>430</b>	<b>205</b>	<b>1,954</b>	<b>2,914</b>

## 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	2018	2017
Staff costs are specified as follows:		
Wages and salaries, etc.	228	254
Pension schemes	15	15
Other social security costs	2	1
	<b>245</b>	<b>270</b>

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.

Average number of employees in Vestas Wind Systems A/S	2,162	2,166
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## Note 2 · Working capital

### 2.1 · Inventories

mEUR	2018	2017
Raw materials and consumables	91	73
Work in progress	2	2
	<b>93</b>	<b>75</b>

Inventories relate to the spare parts activity.

## Note 3 · Other operating assets and liabilities

### 3.1 · Intangible assets

2018 mEUR	Goodwill	Completed development projects	Software	Other intangible assets	Development projects in progress	Total
Cost as at 1 January	75	1,535	295	14	144	2,063
Exchange rate adjustments	0	(10)	(1)	0	0	(11)
Additions	-	-	1	-	293	294
Transfers	-	98	62	-	(160)	-
<b>Cost as at 31 December</b>	<b>75</b>	<b>1,623</b>	<b>357</b>	<b>14</b>	<b>277</b>	<b>2,346</b>
Amortisation as at 1 January	13	1,226	203	2	-	1,444
Exchange rate adjustments	0	(8)	0	0	-	(8)
Amortisation for the year	1	129	39	3	-	172
Impairment loss	-	6	1	-	-	7
<b>Amortisation as at 31 December</b>	<b>14</b>	<b>1,353</b>	<b>243</b>	<b>5</b>	<b>-</b>	<b>1,615</b>
<b>Carrying amount as at 31 December</b>	<b>61</b>	<b>270</b>	<b>114</b>	<b>9</b>	<b>277</b>	<b>731</b>
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 83m as at 31 December 2018 (2017: EUR 72m). 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

2018 mEUR	Land and buildings	Plant and machinery	Other fixtures and fittings, tools, and equipment	Property, plant and equipment in progress	Total
Cost as at 1 January	251	93	127	1	472
Additions	1	10	18	3	32
Disposals	(39)	(1)	(1)	-	(41)
Transfers	-	1	-	(1)	-
<b>Cost as at 31 December</b>	<b>213</b>	<b>103</b>	<b>144</b>	<b>3</b>	<b>463</b>
Depreciation as at 1 January	165	64	100	-	329
Depreciation for the year	12	12	16	-	40
Depreciations on disposals for the year	(36)	-	(1)	-	(37)
<b>Depreciation as at 31 December</b>	<b>141</b>	<b>76</b>	<b>115</b>	<b>-</b>	<b>332</b>
<b>Carrying amount as at 31 December</b>	<b>72</b>	<b>27</b>	<b>29</b>	<b>3</b>	<b>131</b>
Depreciation period	15-40 years	3-10 years	3-5 years		

### 3.3 · 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	2018	2017
Subsidiaries	2,447	2,322
Joint venture	115	77
Associates	1	1
<b>Carrying amount as at 31 December</b>	<b>2,563</b>	<b>2,400</b>

#### Income/(loss) from investments in subsidiaries, joint venture, and associates

mEUR	2018	2017
Subsidiaries	145	150
Joint venture	39	(40)
Associates	0	0
	<b>184</b>	<b>110</b>

#### Income from subsidiaries

mEUR	2018	2017
Share of profit in subsidiaries after tax	157	162
Amortisation of goodwill	(12)	(12)
	<b>145</b>	<b>150</b>

#### Income/(loss) from joint venture

mEUR	2018	2017
Share of profit(loss) in joint venture after tax	39	(40)
	<b>39</b>	<b>(40)</b>

#### Investments in subsidiaries

mEUR	2018	2017
Cost as at 1 January	2,040	1,980
Exchange rate adjustments	(5)	(4)
Additions	28	64
<b>Cost as at 31 December</b>	<b>2,063</b>	<b>2,040</b>
Value adjustments as at 1 January	282	193
Exchange rate adjustments	12	(126)
Transition to IFRS 15 at 1 January	(65)	-
Share of profit/loss for the year after tax	157	162
Changes in equity, share-based payment	(10)	(6)
Changes in equity, derivative financial instruments	20	71
Amortisation of goodwill	(12)	(12)
<b>Value adjustments as at 31 December</b>	<b>384</b>	<b>282</b>
<b>Carrying amount as at 31 December</b>	<b>2,447</b>	<b>2,322</b>
Remaining positive difference included in the above carrying amount as at 31 December	67	79

#### Investments in joint venture

mEUR	2018	2017
Cost as at 1 January	202	202
<b>Cost as at 31 December</b>	<b>202</b>	<b>202</b>
Value adjustments as at 1 January	(125)	(68)
Share of profit(loss) for the year after tax	39	(40)
Changes in equity	(1)	(17)
<b>Value adjustments as at 31 December</b>	<b>(87)</b>	<b>(125)</b>
<b>Carrying amount as at 31 December</b>	<b>115</b>	<b>77</b>

Ref. note 6.7 to the Consolidated financial statements for an overview of the legal entities within the Group.

With reference to page 025, MHI Vestas Offshore Wind A/S (MVOW) has continued to build a strong pipeline for the 8 MW platform (V164 turbine), and with the intake of firm and unconditional orders of 3,180 MW in 2018, the expected performance continues to be in line with previous expected performance.

The carrying amount of the investment in MVOW is mainly comprised of the development project of the 8 MW platform. Any change to such future expectation on future performance may in nature result in impairment of the carrying amount of the investment in MVOW.

### 3.4 · Prepayments

Prepayments comprise of prepaid software license, insurance, and rent.

### 3.5 · Provisions

#### Warranty provisions

mEUR	2018	2017
Warranty provisions as at 1 January	565	521
Warranty provisions for the year	161	185
Used warranty provisions for the year	(181)	(141)
<b>Warranty provisions as at 31 December</b>	<b>545</b>	<b>565</b>

The warranty provisions are expected to be consumed as follows:

0–1 year	115	132
> 1 year	430	433
	<b>545</b>	<b>565</b>

In line with accounting policies, potential product warranties is recognised as warranty provisions when revenue from sale of wind turbines is recognised. This may result in commercial constructive obligations beyond the specified legally binding warranty period for the wind turbine being recognised as a warranty obligation.

#### 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.

### 3.6 · Contingent assets and liabilities

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 436m (2017: EUR 378m). 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 4,405m (2017: EUR 2,292m). No guarantees have been utilised during 2018 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 4.5 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. GE claims infringement of its U.S. Patents No. 7,629,705 and No. 6,921,985 (the "705 Patent" and the "985 Patent"). The 705 Patent addresses Zero Voltage Ride Through technology. The 985 Patent addresses techniques to maintain functioning of the blade pitch system during low voltage events. Vestas answered and counterclaimed on December 15, 2017. Additionally, both parties have filed petitions with the United States Patent Office requesting Inter partes review of the patents asserted in the lawsuit for the purpose of challenging the validity of those patents. As set forth in its counterclaims, it is Vestas assessment that GE's patents are invalid and unenforceable, and that Vestas does not infringe. Several of these petitions are actively ongoing. Consequently, Vestas has made no provision to cover the complaint. However, in the event that Vestas is not successful in its defense in this case, and GE prevails, this case could potentially have significant financial impact on Vestas. As GE has not claimed any specific amount from Vestas, it is not possible for Vestas to estimate such financial impact any further at this point in time.

For pending lawsuits, ref. note 3.6 to the Consolidated financial statements. For disclosure of contingent assets, ref. note 3.6 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	2018	2017
<b>Financial income</b>		
Interest income	6	24
Interest income from subsidiaries	66	79
Exchange rate adjustments	-	36
Other financial income	1	4
	<b>73</b>	<b>143</b>
<b>Financial costs</b>		
Interest costs	15	14
Interest costs to subsidiaries	63	27
Exchange rate adjustments	12	-
Financial instruments	11	22
Other financial costs	9	8
	<b>110</b>	<b>71</b>

### 4.2 · Financial risks

For the use of derivative financial instruments and risks and capital management ref. note 4.7 to the Consolidated financial statements.

### 4.3 · Financial liabilities

#### Financial debts

mEUR	2018	2017
Green corporate eurobond	498	497
	<b>498</b>	<b>497</b>

Financial debts break down as follows:

< 1 year	-	-
1–2 years	-	-
> 2 years	498	497
	<b>498</b>	<b>497</b>



## Note 5 · Tax

### 5.1 · Income tax

mEUR	2018	2017
Current tax on profit for the year	91	181
Deferred tax on profit for the year	49	36
Foreign taxes	3	2
Adjustment related to previous years	17	(3)
<b>Income tax for the year recognised in the income statement, (income)</b>	<b>160</b>	<b>216</b>
Deferred tax on equity	(7)	10
<b>Tax recognised in equity, expense/(income)</b>	<b>(7)</b>	<b>10</b>
<b>Total income taxes for the year, (income)</b>	<b>153</b>	<b>226</b>

### 5.2 · Deferred tax

mEUR	2018	2017
Deferred tax as at 1 January, net liabilities	(33)	20
Deferred tax on profit for the year	(49)	(36)
Tax on entries in equity	7	(10)
Adjustment relating to previous years	(16)	(7)
<b>Deferred tax as at 31 December, net liabilities</b>	<b>(91)</b>	<b>(33)</b>

## Note 6 · Other disclosures

### 6.1 · Audit fees

mEUR	2018	2017
Audit:		
PricewaterhouseCoopers	1	1
<b>Total audit</b>	<b>1</b>	<b>1</b>
Non-audit services:		
PricewaterhouseCoopers		
Assurance engagement	0	0
Tax assistance	0	1
Other services	0	1
<b>Total non-audit services</b>	<b>0</b>	<b>2</b>
<b>Total</b>	<b>1</b>	<b>3</b>

### 6.2 · Contractual obligations

mEUR	2018	2017
The lease obligations relating to operating leases fall due:		
0–1 year	13	14
1–5 years	41	50
> 5 years	11	14

Operating leases comprise irrevocable operating leases regarding land, buildings, IT equipment, and cars. The main obligations relate to land and buildings. 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.

### 6.3 · 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 6.4 to the Consolidated financial statement.

### 6.4 · 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 revenue.

#### Implementation of new standard

On 1 January 2018, Vestas early adopted a new accounting standard IFRS 15 – Revenue from contracts with customers to align with accounting practice in the Group. Description of the accounting policy for revenue, ref. note 7.3 to the Consolidated financial statements.

The adoption of IFRS 15 has had an impact on recognition and measurement of the opening balance at 1 January 2018 to the investment in subsidiaries of EUR (65)m, warranty EUR (11)m and equity of EUR (54)m in the financial statement for Vestas Wind Systems A/S for 2018. 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 052.

## 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](http://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.

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