novo nordisk

ANNUAL REPORT 2017

A STRATEGY TO DRIVE CHANGE FOR PATIENTS' LIVES

RAISING THE INNOVATION HEIGHT

GOOD DIABETES CARE REQUIRES MORE THAN BLOOD GLUCOSE CONTROL

WHY SOME PEOPLE WITH OBESITY NEED MEDICAL TREATMENT

novo nordisk®

"I'M VERY FOCUSED ON IMPROVING MY HEALTH WITH DIET CONTROL, EXERCISE, FOLLOWING MY MEDICATION DIRECTIONS FROM MY DOCTOR AND THINKING POSITIVE THOUGHTS. MY MATERNAL GREAT-GRANDMOTHER LIVED UNTIL SHE WAS 103 YEARS OLD AND SHE WAS VERY HEALTHY – I WANT TO BE HER!"

SHIRLEY ADELIA STEWART

Shirley Adelia Stewart lives in New Orleans, Louisiana, US, and was diagnosed with type 2 diabetes when she was 40 years old. Both of her parents died from complications with diabetes, and all her seven brothers and sisters have also been identified as having type 2 diabetes.

Shirley is 68 years old, is an arts and music teacher of elementary school children, a member of the New Orleans Opera House Chorus and a diligent soloist in her neighbourhood churches.

The patients portrayed in this Annual Report have participated of their own accord and solely to express their personal opinions on topics referred to in the articles in which they appear, which do not necessarily reflect the views and opinions of Novo Nordisk. Use of their pictures as illustrations is in no way intended to associate them with the promotion of any Novo Nordisk products.

CONTENTS

All references can be found on p 113.

The Management review, as defined by the Danish Financial Statements Act, is found on pp 1–56 and 97.

This Annual Report is a printed extract of the Novo Nordisk statutory Annual Report pursuant to section 149 of the Danish Financial Statements Act (FSA). The full statutory Annual Report, including the financial statements of the parent company, will be submitted to the Danish Business Authority, and is available at novonordisk.com/annualreport.

The full statutory Annual Report is published in English only. A shortened printed version, consisting of the Management review and excerpts from the consolidated statements, is available in Danish upon request. In the event of any discrepancies, the full statutory Annual Report shall prevail.

The Annual Report has been prepared in accordance with the Danish Financial Statements Act (FSA), sections 99a and 99b. Section 99a requires Novo Nordisk to account for the company's activities relating to social responsibility, reporting on business model, significant risks, business strategies, and activities in the areas of human rights, labour standards, environment, anti-corruption and climate. Section 99b requires Novo Nordisk to account for the gender diversity at Board level by reporting on targets and policies ensuring increased gender diversity over time. A more elaborate discussion of risks, policies and performance is available in Novo Nordisk's annual Communication on Progress to the UN Global Compact at novonordisk.com/annualreport and on the UN Global Compact's website at unglobalcompact.org/COP. For formal compliance with sections 99a and b of the Danish Financial Statements Act, Novo Nordisk refers to its Communication on Progress 2017.

A YEAR OF CHANGE AND PROGRESS

LETTER FROM THE CHAIRMAN

For Novo Nordisk, 2017 ended much better than it started. Following the revision of our long-term financial target for operating profit growth in the autumn of 2016, we have been focusing on rebuilding confidence with our external stakeholders as well as with our employees.

I believe that we are on the right track. Two factors in particular have been important for our shareholders: quarter by quarter, we delivered on our promises in terms of financial performance, and we made significant progress in terms of new, positive clinical data and regulatory milestones passed for some of our key products.

Lars Fruergaard Jørgensen assumed the role of president & CEO on 1 January 2017. He will give you more details in his letter on the following pages. What is important for me to say is that the Board of Directors is very pleased with how he, his leadership team and the organisation at large have responded to the challenges that gradually surfaced during 2016. The challenges, especially as they relate to the pricing environment in the long-acting insulin market in the US, have materialised in 2017 and are expected to persist.

What we experienced in the US in 2016 was the interplay of several related developments. With the large and increasing number of people with diabetes in the US, diabetes care has become a major cost driver for insurers and health plans which, in turn, are pushing hard for better deals with healthcare providers and pharmaceutical companies in order to curb costs. This is still a fact, and so is the increasing negotiating power of the pharmaceutical benefit managers (PBMs), the large purchasing organisations with which Novo Nordisk negotiates rebates and access for its products in the US. At the same time, competition among the pharmaceutical companies within diabetes care is continuing to intensify in an already crowded marketplace.

Under Lars Fruergaard Jørgensen's leadership, Novo Nordisk has started a change process that will make the company more competitive in the new business reality. Resources have been directed towards the key growth drivers, an updated R&D strategy is being implemented, focused on delivering more breakthrough innovation from both in-house labs and external partners, and costs have been managed tightly, all while maintaining a high level of employee engagement. Already in his first year at the helm, Lars has shown that he can lead an organisation in challenging times.

During 2017, three new members joined his executive management team:

Doug Langa assumed responsibility for North America Operations. Prior to his promotion, he was senior vice president, Market Access, and a member of Novo Nordisk's US leadership team, and he brings more than 25 years' experience in the US pharmaceutical and medical device industries into this role. Doug took over from Jakob Riis, who decided to leave for a CEO job outside of the pharma industry. We wish him all the best.

Lars Green was appointed head of Business Services and Compliance, responsible for IT, quality, HR and business assurance. Lars Green, who has been with Novo Nordisk for more than 25 years, was previously senior vice president, Finance and Operations, in North America.

Camilla Sylvest was appointed head of Commercial Strategy & Corporate Affairs. She joined Novo Nordisk in 1996 and most recently held the position of senior vice president in charge of Novo Nordisk's operations in Region China.

With these changes, and the appointment in 2016 of Maziar Mike Doustdar as head of an expanded International Operations area, we have strengthened the commercial capabilities of what is now a renewed and yet very experienced executive leadership team.

Based on Novo Nordisk's performance in 2017, at the Annual General Meeting the Board will propose a total dividend of 7.85 Danish kroner per share. Furthermore, the Board has decided to initiate a new share repurchase programme of up to 14 billion kroner, which will commence in February 2018.

For me personally, 2017 was my last full year on the Board of Directors, as I have decided not to seek re-election at the Annual General Meeting in 2018. As a member of the Board since 2005 and its chairman since 2013, it has been my privilege to be part of Novo Nordisk's exciting journey. At the Annual General Meeting, the Board will propose the election of Helge Lund as the new chairman. Helge has a successful record in managing complex global companies in highly regulated industries, and I wish him all the best in his new role.

On behalf of the Board, I would like to express my appreciation for the leadership shown by Novo Nordisk's management, the hard work and dedication of the entire Novo Nordisk organisation and the support of our shareholders.

Göran Ando
Chairman of the Board of Directors

CREATING A PLATFORM FOR SUSTAINABLE GROWTH

LETTER FROM THE CEO

2017 was my first year as CEO of Novo Nordisk, and what an experience it has been.

I have spent a lot of time travelling the world to meet employees, patients, healthcare professionals, payers, investors, politicians, NGOs and other stakeholders who are all important for Novo Nordisk. And it has been worth every minute. It is very clear to me from all these exchanges that Novo Nordisk, despite the growing competitive pressure we are experiencing these days, has a very strong platform for future success – and a very important purpose.

Our employees want the company to do well and are deeply engaged in helping patients live better lives. Our portfolio of pharmaceutical products, both on the market and in our pipeline, provide important clinical benefits compared with other medications. And there are millions of people with diabetes and other serious chronic diseases who need better treatment.

That is a strong foundation to build on and a huge responsibility for Novo Nordisk to live up to. I will revert to what we are doing to live up to expectations, but allow me first to recap some highlights from 2017.

Novo Nordisk grew sales by 2% and operating profit by 5%, both in local currencies. Sales were within and operating profit was above the range we had announced at the beginning of the year, when we predicted that sales would grow between -1% and 4% and operating profit between -2% and 3%, both in local currencies.

Sales growth was primarily driven by Tresiba®, Victoza® and Saxenda®. These are all strategic products which we expect to be major growth drivers in the coming years together with Ozempic®, our new once-weekly, injectable GLP-1 treatment for adults with type 2 diabetes. Looking at the sales development from a regional perspective, it is encouraging to note that our two operational units, North America Operations and International Operations, both performed according to our plans. Despite strong pressure on prices, North America managed to keep sales at the same level as 2016, while International Operations grew by 5%.

2017 was a year characterised by a high flow of new clinical data, which led to regulatory approvals and label updates for several key products. Most important of all was the approval in the US of Ozempic®, followed by a recommendation for approval by the European Medicines Agency's expert committee, both in December 2017.

Other highlights were:

- Approvals in the EU and the US of Fiasp®, a new fast-acting mealtime insulin, for the treatment of adults with diabetes.
- A label update for Tresiba® in the EU, based on data from trials demonstrating a clinically relevant reduction in hypoglycaemia compared with insulin glargine U100.
- Label updates for Victoza® in the EU and the US, reflecting the product's ability to reduce the risk of cardiovascular events in adults with type 2 diabetes and at high risk of cardiovascular disease.

Additional milestones include important label updates for Saxenda®, the approval of our long-acting factor IX product for haemophilia B (Refixia®/Rebinyn®) in both the EU and the US, and the submission of applications in the EU and the US for including data from the DEVOTE trial in the Tresiba® label. Moreover, to increase the likelihood of making ground-breaking innovations in the years to come, we have updated our R&D strategy. You will find more on this topic on **pp 20–21**, where you can also read about the exciting possibilities we see for semaglutide, the molecule on which Ozempic® is based.

Based on the strong clinical data and approvals obtained over the past year, we have an important task ahead of us in making sure that as many patients as possible benefit from them. This means ensuring optimal market access for our products and making sure that prescribers and patients understand the benefits our products provide.

As you will see from the article about our US business on **pp 32–35**, during 2017 we implemented many changes to ensure that we can operate effectively in the world's largest pharmaceutical market.

International Operations, which covers more than 190 countries, is taking a 'market fit' approach to grow its business. This means tailoring the portfolio, market access strategy and sales strategy to the needs of each individual country. You can read more about what it takes in the article on **pp 36–39**.

Allowing our affiliates around the world the autonomy to decide which approach is best for their markets, requires a shared understanding of what we want to achieve as a company, our overall strategic priorities and 'how we do business' at Novo Nordisk.

The starting point is having a clear purpose. Ours is to drive change to defeat diabetes and other serious chronic diseases. This is what makes us relevant to patients, healthcare professionals and society at large. You can read more about how we do business (we call it the Novo Nordisk Way) on **pp 16–17** and about our overall strategic priorities on **pp 18–19**.

There are huge unmet medical needs in all disease areas in which Novo Nordisk is active. Take diabetes and obesity as examples: despite many advances in medical treatment over the past decades, only few people with diabetes are achieving the desired blood sugar levels, and many still have a higher risk of cardiovascular disease despite being treated with drugs that lower cholesterol and blood pressure. When it comes to obesity, there have not been many advances in medical treatment. And the sad fact is that obesity is not even recognised as a disease for which some people require medical help.

In both these areas, Novo Nordisk has products on the market and in the pipeline that can help address this poor state of affairs. However, we also recognise that it takes more than medicine to achieve the desired results. In diabetes, it requires more public–private partnerships to contain the rise of diabetes before it becomes unmanageable, and giving more people access to diagnosis and treatment where it does not currently exist. On **pp 26–27**, you can learn more about what Novo Nordisk does in this regard.

With the decisions we have made in 2017, I believe that we have created a solid platform for sustainable, long-term growth for Novo Nordisk. In 2018, our focus will be on implementing the strategies we have developed and started executing on in 2017. Prices will still be under pressure, especially in the US. The increase in the number of people with chronic diseases such as diabetes and the cost of treating them put healthcare budgets under pressure, and this especially affects the prices of our insulin products. We therefore expect modest sales growth in 2018, despite our ambition to gain market share.

At Novo Nordisk, we have a big responsibility for the more than 425 million people in the world with diabetes, the millions more who have obesity and the thousands who live with haemophilia or growth disorders. They are our reason for being.

My vision is that, during my tenure as CEO, Novo Nordisk will solidify its position as the world's leading diabetes care company, be the world's leading company in the medical treatment of obesity, be among the leading companies in haemophilia, and be recognised by our employees, the patients we serve, our shareholders and other stakeholders as an outstanding company, both for what we do and how we do it.

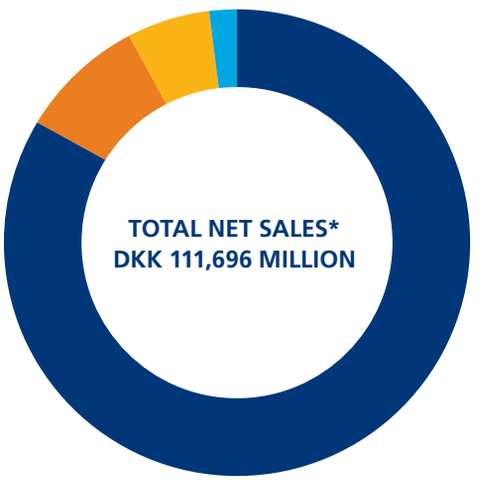
I would like to thank everyone in the Novo Nordisk organisation for their contribution to our results in 2017, the people who use our products for their confidence in us, our stakeholders and partners for their collaboration and our shareholders for their continued support.

Lars Fruergaard Jørgensen
President & CEO

NOVO NORDISK AT A GLANCE

Novo Nordisk is a global healthcare company, headquartered in Denmark. We are 42,682 employees in 79 countries united in the pursuit of the company's purpose: driving change to defeat diabetes and other serious chronic diseases. Our key contribution is to discover and develop innovative biological medicines and make them accessible to patients throughout the world. We aim to lead in all disease areas in which we are active.

STRATEGIC FOCUS AREAS



SHARE OF SALES (GROWTH)

DIABETES CARE 81% (+3%)

HAEMOPHILIA 9% (0%)

GROWTH DISORDERS 6% (-24%)

OBESITY 2% (+60%)

OTHER SERIOUS CHRONIC DISEASES 0%

* Including other biopharmaceuticals (2%). See sales and growth analyses by business segment and by geographical area on pp 68–69.

BUSINESS MODEL

THE RESOURCES WE RELY ON

EXTERNAL

- Capital provided by investors
- Insights from patients and expertise from academic and educational institutions
- Raw materials, water and energy

INTERNAL

- Financial resources to invest in R&D, production capacity and customer outreach
- Biological research and manufacturing facilities
- A skilled and diverse workforce

THE CAPABILITIES WE APPLY

Engineering, formulating, developing and delivering protein-based treatments
Research & development facilities in Denmark, China and the US

Efficient large-scale production of proteins
16 production sites on 5 continents

Global commercial reach and leader in chronic disease care
Products marketed in more than 170 countries

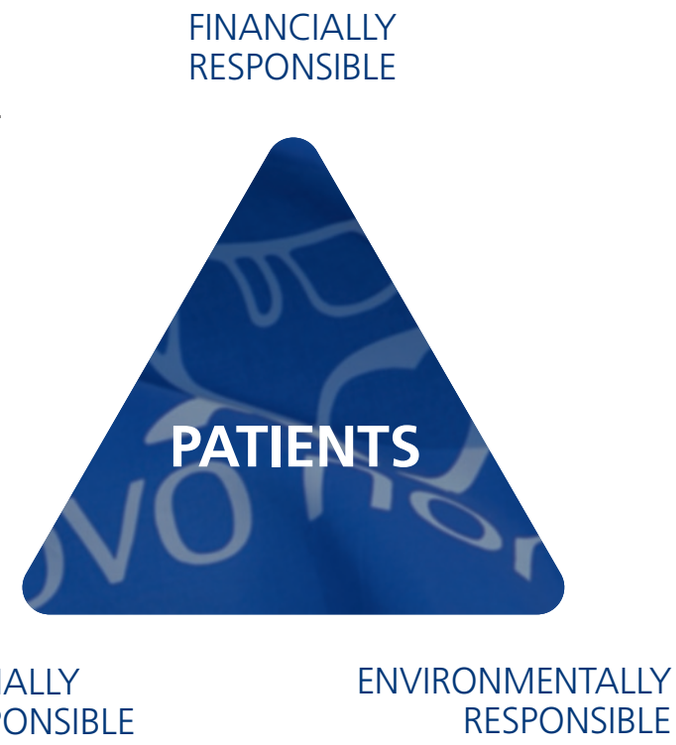
Deep disease understanding

BUSINESS APPROACH

The Triple Bottom Line principle is anchored in the company's Articles of Association and the Novo Nordisk Way as the way we do business. It is applied to ensure that business decisions balance financial, social and environmental considerations, always keeping in mind the best interests of the patients we serve.

NOVO NORDISK'S AMBITION IS TO BE A SUSTAINABLE BUSINESS. BY THIS WE MEAN:

- creating long-term value for patients, employees, partners and shareholders by developing innovative and competitive solutions to patients' unmet needs
- doing business in a financially, environmentally and socially responsible way
- anticipating, adapting to and creating new business opportunities from changes in our business environment.



See the account for financial, social and environmental performance on pp 6–13 and pp 57–106. The articles on pp 16–53 elaborate on the company's strategy and actions to be a sustainable business. More information can be found at novonordisk.com/sustainable-business.

THE VALUE WE CREATE

- Improved health and quality of life for people with diabetes and other serious chronic diseases
- Job creation and productivity
- Contributions to communities
- Tax contributions
- Capacity and competence building
- Return to shareholders

EXAMPLES OF VALUE CREATED

27.7 MILLION people use Novo Nordisk diabetes care products

60,000 (approx) direct and indirect jobs created in Denmark

Production based on **79%** renewable power

DKK 10.6 BILLION expensed on company income taxes

4,800 (approx) investigator sites active in Novo Nordisk-sponsored clinical trials

DKK 7.85 total dividend per share in 2017

2017 PERFORMANCE AND 2018 OUTLOOK

FINANCIAL PERFORMANCE

Novo Nordisk's 2017 performance for sales growth measured in local currencies was in line with the outlook provided in February 2017, while operating profit growth measured in local currencies exceeded the outlook provided in February 2017 reflecting overall cost containment. The free cash flow and effective tax rate were in line with the outlook provided in February 2017, while Capital expenditure was moderately lower than the outlook provided in February 2017.

SALES DEVELOPMENT

Sales remained broadly unchanged measured in Danish kroner and increased by 2% in local currencies. Sales growth was realised within diabetes care and obesity with the majority of growth originating from Tresiba®, Victoza®, Saxenda® and NovoRapid®, partly offset by declining sales of Levemir®. Sales within biopharmaceuticals declined, predominantly reflecting lower sales of growth disorder products and Vagifem®.

Sales growth in local currencies was driven by International Operations while sales in North America Operations were broadly unchanged. Within International Operations, the main growth contributors were Region AAMEO (Africa, Asia, Middle East and Oceania), Region Europe, Region China and Region Latin America. Sales growth in Region Latin America of 7% measured in local currencies was 9 percentage points positively impacted by inflationary price effects in countries with high inflation. Sales in North America Operations were negatively impacted by approximately 4 percentage points due to the negative effect from the launch of a generic version of Vagifem® and the non-recurring adjustments to rebates in the Medicaid patient segment in the first quarter of 2016 predominantly related to Norditropin®, both in the USA.

In the following sections, unless otherwise noted, market data are based on moving annual total (MAT) from November 2017 and November 2016 provided by the independent data provider IQVIA (formerly IMS Health).

DIABETES CARE AND OBESITY, SALES DEVELOPMENT

Sales of diabetes care and obesity products increased by 4% measured in Danish kroner and by 7% in local currencies to DKK 92,877 million. Novo Nordisk is the world leader in diabetes care with a global value market share of 27%.

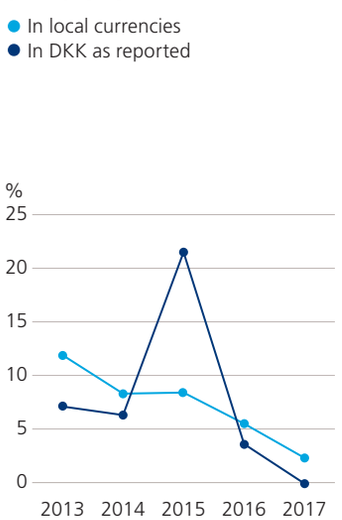
INSULIN

Sales of insulin remained unchanged measured in Danish kroner and increased by 3% in local currencies to DKK 63,119 million. Measured in local currencies, sales growth was driven by International Operations where Region AAMEO, Region China, Region Europe and Region Latin America contributed to growth. Novo Nordisk is the global leader with 47% of the total insulin market and 45% of the market for modern insulin and new-generation insulin, both measured in volume.

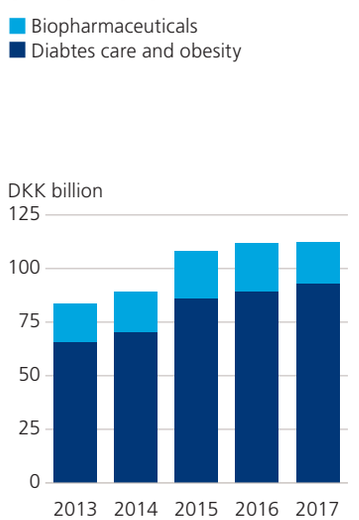
Sales of new-generation insulin (Tresiba®, Xultophy®, Ryzodeg® and Fiasp®) reached DKK 8,647 million compared with DKK 4,459 million in 2016.

Sales of Tresiba® (insulin degludec), the once-daily new-generation insulin, reached DKK 7,327 million compared with DKK 4,056 million in 2016. The roll-out of Tresiba® continues and the product has now been launched in 62 countries. In the USA where Tresiba® was launched broadly in January 2016, the product maintains wide commercial and Medicare Part D formulary coverage. Generally, Tresiba® has shown solid penetration in markets with reimbursement at a similar level to insulin glargine U100, whereas penetration remains modest in markets with restricted market access. In September 2017, Novo Nordisk obtained the approval of Tresiba® in China. Novo Nordisk expects to launch Tresiba® in China without reimbursement and with limited market access in the first quarter of 2018.

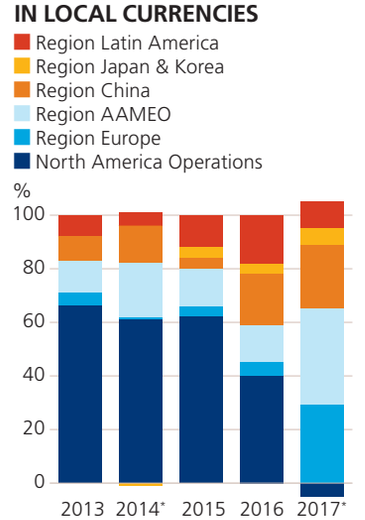
SALES GROWTH



SALES BY SEGMENT

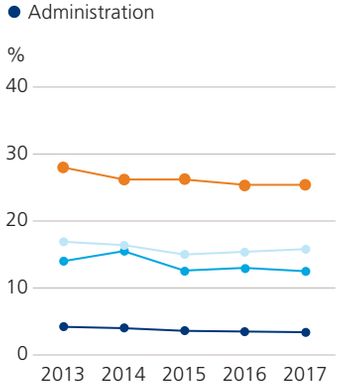


SHARE OF GROWTH IN LOCAL CURRENCIES

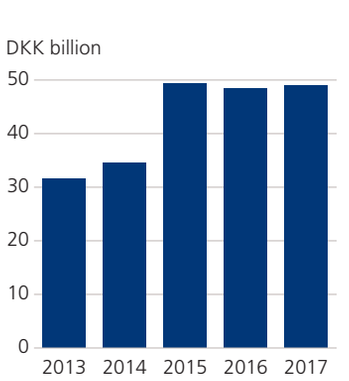


* In 2014, Japan & Korea contributed -1% to the total growth.
In 2017, North America contributed -5% to the total growth.

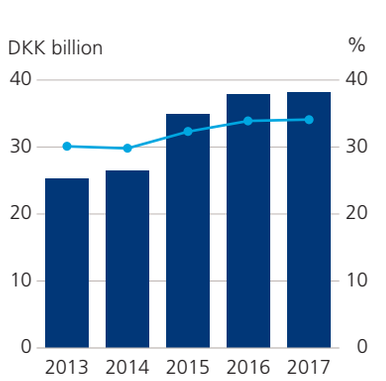
DEVELOPMENT IN COSTS
Costs in % of sales



OPERATING PROFIT



NET PROFIT



Sales of Xultophy®, a once-daily combination of insulin degludec (Tresiba®) and liraglutide (Victoza®), reached DKK 729 million compared with DKK 207 million in 2016. Sales growth was driven by both International Operations, where predominantly Region Europe contributed to growth, and North America Operations. Xultophy® has now been launched in 18 countries; in the USA, it was launched in May 2017 under the brand name Xultophy® 100/3.6.

Sales of Ryzodeg®, a soluble formulation of insulin degludec and insulin aspart, reached DKK 492 million compared with DKK 196 million in 2016. Sales growth was driven by International Operations, where Region Japan & Korea and Region AAMEO contributed to growth. Ryzodeg® has now been marketed in 18 countries, and feedback from patients and prescribers remains encouraging.

The novel mealtime insulin Fiasp®, fast-acting insulin aspart, received marketing authorisation from the European Commission in the first quarter of 2017 and approvals were also received in Norway, Iceland and Canada. In September 2017, Novo Nordisk received the approval of Fiasp® in the USA. Fiasp® is expected to launch in the USA imminently and has now been launched in 17 countries including recent launches in France and the Netherlands.

Sales of modern insulin decreased by 7% in Danish kroner and by 4% in local currencies to DKK 44,400 million. The decline reflects lower sales in North America Operations of Levemir® due to price pressure in the basal insulin segment as well as the impact following the introduction of the new-generation insulin Tresiba® and lower NovoMix® sales, as the pre-mix insulin market continues to decline. The decline was partly offset by sales growth within International Operations, where Region AAMEO, Region China and Region Latin America were the main contributors to growth. Sales of modern insulin and new-generation insulin in total constitute 84% of Novo Nordisk's global sales of insulin measured in value.

VICTOZA®
(GLP-1 THERAPY FOR TYPE 2 DIABETES)

Victoza® sales increased by 16% in Danish kroner and by 18% in local currencies to DKK 23,173 million. Sales growth is predominantly driven by North America Operations comprising 90% share of growth. The GLP-1 segment's value share of the total diabetes care market has increased to 11.8% compared with 9.7% 12 months ago. Victoza® is the market leader in the GLP-1 segment with a 50% value market share.

OTHER DIABETES CARE

Sales of other diabetes care products, which predominantly consist of oral antidiabetic products and needles, declined by 6% in Danish kroner and by 3% in local currencies to DKK 4,023 million. Declining sales were seen in International Operations, where all regions apart from Region AAMEO and Region Latin America experienced lower sales, partly offset by higher sales in North America Operations.

SAXENDA® (OBESITY)

Sales of Saxenda®, liraglutide 3 mg for weight management, increased by 62% in Danish kroner and by 64% in local currencies to DKK 2,562 million. Sales growth was driven by both North America Operations and International Operations, where Region Latin America, especially Brazil, Region AAMEO and Region Europe contributed to growth. Saxenda® was launched in May 2015 in the USA and has obtained broad commercial formulary market access, but generally with prior authorisation requirements. Saxenda® has now been launched in 25 countries.

BIOPHARMACEUTICALS SALES DEVELOPMENT

Sales of biopharmaceutical products declined by 18% measured in Danish kroner and by 16% in local currencies to DKK 18,819 million. Sales of DKK 8,155 million in North America Operations declined by 30% measured in local currencies reflecting a negative impact of 21 percentage points from a generic version of the hormone replacement therapy product Vagifem® and from rebate adjustments for growth hormone in Q1 2016, both in the USA. Sales in International Operations declined by 2% in Danish kroner and remained unchanged in local currencies.

HAEMOPHILIA

Sales of haemophilia products remained unchanged in Danish kroner and increased by 2% in local currencies to DKK 10,469 million. The sales increase in local currencies was primarily driven by NovoSeven® and the roll-out of NovoEight® in Region Europe and North America Operations. This was partly offset by lower NovoSeven® sales in Region Latin America and Region Japan & Korea.

GROWTH DISORDERS

Sales of growth disorder products decreased by 24% measured in Danish kroner and by 22% in local currencies to DKK 6,655 million. The sales decline reflects the significant positive non-recurring adjustment in the USA in the first quarter of 2016, related to rebates in the Medicaid patient segment for the period 2010-2015, as well as an impact from intensified competition impacting realised prices and to some extent volumes in the USA. Sales in International Operations were broadly unchanged in local currencies reflecting lower sales in Region AAMEO and Region Europe offset by sales growth in Region Japan & Korea and Region Latin America. Novo Nordisk is the leading company in the

CONTINUED ▶

global growth disorder market with a 27% market share measured in volume.

OTHER BIOPHARMACEUTICALS

Sales of other products within biopharmaceuticals, which predominantly consist of hormone replacement therapy-related (HRT) products, declined by 53% measured in Danish kroner and by 52% in local currencies to DKK 1,695 million. The sales decline reflects a negative impact from the launch of a generic version of Vagifem® in the USA in the fourth quarter of 2016.

DEVELOPMENT IN COSTS AND OPERATING PROFIT

The cost of goods sold increased by 3% in both Danish kroner and local currencies to DKK 17,632 million, resulting in a gross margin of 84.2% measured in Danish kroner compared with 84.6% in 2016. The decline in gross margin reflects a negative currency impact of 0.3 percentage point. In addition, the gross margin was negatively impacted by lower prices primarily reflecting intensified competition in the insulin segment and the non-recurring Medicaid rebate adjustments in 2016, both in the USA. The negative gross margin impact was partly offset by a positive contribution from product mix due to higher Victoza® and Tresiba® sales, countered by lower sales of Vagifem® following the launch of a generic version in the USA.

Sales and distribution costs remained broadly unchanged in Danish kroner and increased by 2% in local currencies to DKK 28,340 million. The increase in sales and distribution costs measured in local currencies reflects increased sales force and promotional costs in Region AAMEO and Region Latin America as well as increased costs related to legal cases partly offset by reduced manning in the US and broad cost control initiatives.

Research and development costs decreased by 4% in Danish kroner and by 3% in local currencies to DKK 14,014 million. The decline reflects the discontinuation of a number of research projects following the updated R&D strategy announced in October 2016 leading to lower research costs. This development was partially offset by an increase in development costs due to the PIONEER programme for oral semaglutide, where all 10 planned trials have now been fully recruited, partly countered by an impact related to the completion of the cardiovascular outcomes trial DEVOTE and by lower biopharmaceuticals development costs following the completion of the regulatory process for N9-GP.

Administration costs decreased by 4% in Danish kroner and by 3% in local currencies to DKK 3,784 million. The lower administrative costs are mainly related to general cost control initiatives.

Other operating income (net) was DKK 1,041 million compared with DKK 737 million in 2016. The increase in Other operating income reflects the positive contribution from the divestment of the C5aR inflammation asset to Innate Pharma in the third quarter of 2017.

Operating profit increased by 1% in Danish kroner and by 5% in local currencies to DKK 48,967 million.

FINANCIAL ITEMS (NET) AND TAX

Financial items (net) showed a loss of DKK 287 million compared with a loss of DKK 634 million in 2016.

In line with Novo Nordisk's treasury policy, Novo Nordisk hedges the most significant foreign exchange risks for the Group mainly through foreign exchange forward contracts. The foreign exchange (net) result was a loss of DKK 187 million compared with a loss of DKK 576 million in 2016.

The financial items (net) for 2017 is after a positive market value of financial contracts as per the end of December 2017 of approximately DKK 2 billion has been deferred for income recognition in 2018.

The effective tax rate for 2017 was 21.7%.

CAPITAL EXPENDITURE AND FREE CASH FLOW

Net capital expenditure for property, plant and equipment was DKK 8.7 billion compared with DKK 7.1 billion in 2016. Net capital expenditure was primarily related to investments in a new production facility for a range of diabetes active pharmaceutical ingredients in Clayton, North Carolina, USA, a new diabetes care filling capacity in Hillerød, Denmark and an expansion of the manufacturing capacity for biopharmaceutical products in Kalundborg, Denmark.

Free cash flow was DKK 32.6 billion compared with DKK 40.0 billion in 2016. The decrease of 19% compared to 2016 primarily reflects a negative impact from lower income taxes paid in 2016 due to one-offs as well as increased capital expenditure in 2017.

OUTLOOK 2018

For 2018, sales growth is expected to be in the range of 2% to 5% growth, measured in local currencies. This reflects expectations for robust performance for the portfolio of new-generation insulin and the GLP-1 portfolio, now comprising both Victoza® and Ozempic® as well as a solid contribution from Saxenda®. Sales growth is expected to be partly countered by intensifying global competition both within diabetes care and biopharmaceuticals, especially within the haemophilia inhibitor

OUTLOOK 2018

The current expectations for 2018 are summarised in the table below:

EXPECTATIONS ARE AS REPORTED, IF NOT OTHERWISE STATED	EXPECTATIONS 1 FEBRUARY 2018
Sales growth	
• in local currencies	2% to 5%
• as reported	Around 7 percentage points lower than in local currencies
Operating profit growth	
• in local currencies	1% to 5%
• as reported	Around 10 percentage points lower than in local currencies
Financial items (net)	Gain of around DKK 2.5 billion
Effective tax rate	20% to 22%
Capital expenditure	Around DKK 9.5 billion
Depreciation, amortisation and impairment losses	Around DKK 3 billion
Free cash flow	DKK 27-32 billion

KEY INVOICING CURRENCIES	IMPACT ON NOVO NORDISK'S OPERATING PROFIT IN THE NEXT 12 MONTHS OF A 5% IMMEDIATE MOVEMENT IN CURRENCY	HEDGING PERIOD (MONTHS)
USD	DKK 1,900 million	12
CNY	DKK 325 million	6*
JPY	DKK 170 million	12
GBP	DKK 90 million	13
CAD	DKK 80 million	11

* Chinese yuan traded offshore (CNH) used as proxy when hedging Novo Nordisk's CNY currency exposure.

PEFORMANCE AGAINST LONG-TERM FINANCIAL TARGETS	2017	TARGET
Operating profit growth	1.1%	5%
Operating profit growth adjusted	*1.1%*	
Operating profit growth adjusted in local currencies	*4.8%*	
Operating profit after tax to net operating assets	143.2%	125%
Cash to earnings	85.5%	
Cash to earnings (three-year average)	96.4%	90%

segment, as well as continued pricing pressure within diabetes care especially in the USA. Overall, the expectations are based on an assumption of a broadly unchanged global macroeconomic environment. Given the current exchange rates versus the Danish krone, growth reported in DKK is expected to be around 7 percentage points lower than the local currency level.

For 2018, operating profit growth is expected to be in the range of 1% to 5% growth, measured in local currencies. The expectation for operating profit growth primarily reflects the outlook for sales growth and an impact from continued cost control. The outlook also reflects a planned increase in the sales and distribution costs to support the commercialisation efforts for the launch of Ozempic®. Given the current exchange rates versus the Danish krone, growth reported in DKK is expected to be around 10 percentage points lower than the local currency level.

For 2018, Novo Nordisk expects financial items (net) to amount to a gain of around DKK 2.5 billion, partly offsetting the negative currency impact on operating profit. The current expectation for 2018 reflects gains associated with foreign exchange hedging contracts, mainly related to the US dollar and Japanese yen versus the Danish krone, partly offset by losses on non-hedged currencies. The expectation for financial items (net) reflects that net gains of DKK 2.7 billion in relation to foreign exchange hedging contracts as per 26 January 2018 is expected to be income recognised later in 2018.

The effective tax rate for 2018 is expected to be in the range of 20-22%. The range for effective tax rate is positively impacted by the reduced federal corporate tax rate in 2018 in the USA.

Capital expenditure is expected to be around DKK 9.5 billion in 2018, primarily related to investments in additional capacity for active pharmaceutical ingredient production within diabetes care and an expansion of the diabetes care filling capacity. Depreciation, amortisation and impairment losses are expected to be around DKK 3 billion. Free cash flow is expected to be DKK 27-32 billion.

All of the above expectations are based on assumptions that the global economic and political environment will not significantly change business conditions for Novo Nordisk during 2018, and that currency exchange rates, especially the US dollar, will remain at the current level versus the Danish krone.

Novo Nordisk has hedged expected net cash flows in a number of invoicing currencies and, all other things being equal, movements in key invoicing currencies will impact Novo Nordisk's operating profit as outlined in the table on the opposite side.

FORWARD-LOOKING STATEMENTS

Novo Nordisk's reports filed with or furnished to the US Securities and Exchange Commission (SEC), including this statutory Annual Report 2017 and Form 20-F, both expected to be filed with the SEC in February 2018, in continuation of the publication of this Annual Report 2017, and written information released, or oral statements made, to the public in the future by or on behalf of Novo Nordisk, may contain forward-looking statements. Words such as 'believe', 'expect', 'may', 'will', 'plan', 'strategy', 'prospect', 'foresee', 'estimate', 'project', 'anticipate', 'can', 'intend', 'target' and other words and terms of similar meaning in connection with any discussion of future operating or financial performance identify forward-looking statements. Examples of such forward-looking statements include, but are not limited to:

- statements of targets, plans, objectives or goals for future operations, including those related to Novo Nordisk's products, product research, product development, product introductions and product approvals as well as cooperation in relation thereto
- statements containing projections of or targets for revenues, costs, income (or loss), earnings per share, capital expenditures, dividends, capital structure, net financials and other financial measures
- statements regarding future economic performance, future actions and outcome of contingencies such as legal proceedings, and
- statements regarding the assumptions underlying or relating to such statements.

In this Annual Report 2017, examples of forward-looking statements can be found under the headings '2017 performance and 2018 outlook' and elsewhere.

These statements are based on current plans, estimates and projections. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific. Novo Nordisk cautions that a number of important factors, including those described in this Annual Report 2017, could cause actual results to differ materially from those contemplated in any forward-looking statements.

Factors that may affect future results include, but are not limited to, global as well as local political and economic conditions, including interest rate and currency exchange rate fluctuations, delay or failure of projects related to research and/or development, unplanned loss of patents, interruptions of supplies and production, product recalls, unexpected contract breaches or terminations, government-mandated or market-driven price decreases for Novo Nordisk's products, introduction of competing products, reliance on information technology, Novo Nordisk's ability to successfully market current and new products, exposure to product liability and legal proceedings and investigations, changes in governmental laws and related interpretation thereof, including on reimbursement, intellectual property protection and regulatory controls on testing, approval, manufacturing and marketing, perceived or actual failure to adhere to ethical marketing practices, investments in and divestitures of domestic and foreign companies, unexpected growth in costs and expenses, failure to recruit and retain the right employees, and failure to maintain a culture of compliance.

For an overview of some, but not all, of the risks that could adversely affect Novo Nordisk's results or the accuracy of forward-looking statements in this Annual Report 2017, reference is made to the overview of risk factors in 'The risks of doing business' on pp 40–43 of this Annual Report 2017.

Unless required by law, Novo Nordisk is under no duty and undertakes no obligation to update or revise any forward-looking statement after the distribution of this Annual Report 2017, whether as a result of new information, future events or otherwise.

RESEARCH AND DEVELOPMENT

2017 was a year during which Novo Nordisk made significant progress in its research and development pipeline and reached several regulatory milestones.

Below are the highlights from the key development projects. On pp 22–23, the pipeline overview shows all the compounds in clinical development, and further details on clinical trials can be found in the company announcements and press releases published by Novo Nordisk during 2017, which are available on novonordisk.com.

R&D STRATEGY

Novo Nordisk's R&D strategy was updated in 2016 and focuses on raising the innovation level within the core therapy areas: diabetes, obesity, haemophilia and growth disorders. In addition, Novo Nordisk is expanding its R&D efforts into other serious chronic diseases with high unmet medical needs and market attractiveness. The other serious chronic diseases are cardiovascular disease (CV), non-alcoholic steatohepatitis (NASH) and chronic kidney disease (CKD). Novo Nordisk plans to expand into these areas with semaglutide.

DIABETES

During 2017, the EU label for Tresiba® (insulin degludec) was updated to include results from the DEVOTE and SWITCH trials reflecting the reduced risk of hypoglycaemia with Tresiba® compared with insulin glargine U100. In the US, the FDA is currently reviewing the DEVOTE and SWITCH trials for an update of the Tresiba® label, with feedback expected in the first quarter of 2018.

Fiasp® (fast-acting insulin aspart), a new fast-acting mealtime insulin, obtained approval in the US and the EU for the treatment of adults with diabetes. Fiasp® is an innovative formulation of insulin aspart (NovoLog®) developed with the aim of obtaining pharmacokinetic and pharmacodynamic properties that more closely match the natural physiological insulin mealtime response of a person without diabetes.

The label for Victoza® (liraglutide) was updated in the US and the EU to reflect the reduced risk of major adverse cardiovascular (CV) events in adults with type 2 diabetes and established CV disease. The decision was based on the results of the landmark LEADER trial, which demonstrated that Victoza® statistically significantly reduced the risk of cardiovascular death, non-fatal heart attack or non-fatal stroke by 13% vs placebo, when added to standard of care.

In August 2017, the results of the SUSTAIN 7 trial were announced, demonstrating that people with type 2 diabetes treated with Ozempic® (once-weekly semaglutide) experienced superior reduction in HbA_{1c} and body weight compared with treatment with dulaglutide. SUSTAIN 7 was a 40-week trial investigating the efficacy and safety of 0.5 mg semaglutide compared with 0.75 mg dulaglutide, and of 1.0 mg semaglutide compared with 1.5 mg dulaglutide, when added to metformin.

In December 2017, Novo Nordisk obtained approval of Ozempic® in the US and subsequent endorsement in the EU from the Committee for Medical Products for Human Use (CHMP). Ozempic® is a once-weekly glucagon-like peptide-1 (GLP-1 analogue), and the approvals were based on the results of the SUSTAIN clinical trial programme. In people with type 2 diabetes, Ozempic® produced clinically meaningful and statistically significant reductions in HbA_{1c} compared with placebo, sitagliptin, exenatide extended-release and insulin glargine U100. Furthermore, in the trials, treatment with Ozempic® resulted in statistically significant reductions in body weight. Ozempic® demonstrated a safe and well-tolerated profile across the SUSTAIN programme, with the most common adverse event being mild-to-moderate nausea, which diminished over time.

OBESITY

The EU label for Saxenda® was updated to reflect the primary outcome from the LEADER trial, which investigated the long-term effects of Victoza® in people with type 2 diabetes and established cardiovascular disease. Although the Saxenda® dosing of liraglutide 3.0 mg was not investigated in the LEADER trial, the results were considered supportive for the assessment of Saxenda® for any potential cardiovascular risk.

Novo Nordisk completed a phase 2 trial with once-daily subcutaneous semaglutide in people with obesity. The headline results from the 52-week double-blind phase 2 clinical trial with once-daily subcutaneous semaglutide showed that people from a mean baseline weight of around 111 kg and a body mass index (BMI) of approximately 39, experienced a weight loss of up to 17.8 kg after 52 weeks of treatment with semaglutide. The results corresponded to an estimated 13.8% weight loss compared with the weight loss of 2.3% achieved by diet, exercise and placebo alone, with all treatment arms adjusted for people discontinuing treatment in the study. Novo Nordisk plans to initiate a large phase 3a trial with once-weekly subcutaneous semaglutide in people with obesity during 2018.

HAEMOPHILIA

Novo Nordisk obtained approval of its extended half-life factor IX molecule Refixia®/Rebinyn® for replacement therapy in people with haemophilia B (congenital factor IX deficiency) in both the EU and the US. In the US, Rebinyn® is indicated for on-demand treatment and control of bleeding episodes and the perioperative management of bleeding in adults and children with haemophilia B. In the EU, Refixia® is indicated for prophylaxis, on-demand treatment of bleeding and surgical procedures in adolescents (> 12 years of age) and adults with haemophilia B.

In August 2017, Novo Nordisk initiated two phase 2 trials for concizumab, a monoclonal antibody against Tissue Factor Pathway Inhibitor (TFPI) intended for bleeding prevention after subcutaneous administration in people with haemophilia. The two trials, named explorer 4 and explorer 5, are expected to enrol more than 50 people in total, with the objective of demonstrating that concizumab is efficacious in preventing bleeding episodes in people with haemophilia A or B with inhibitors as well as in people with haemophilia A.

GROWTH DISORDERS

Novo Nordisk completed the main phase of REAL 1, the pivotal phase 3 trial with the long-acting recombinant growth hormone somapacitan. REAL 1 was a 34-week trial that enrolled 301 treatment-naïve adults with growth hormone deficiency. At the end of the trial, there was a statistically significant difference between somapacitan and placebo, with the somapacitan-treated patients showing a greater reduction in truncal fat percentage. The safety profile observed in this study was consistent with that known for Norditropin®.

SOCIAL PERFORMANCE

Novo Nordisk accounts for social performance on three dimensions: patients, people and assurance.

The number of people reached with Novo Nordisk diabetes care products decreased slightly, while employee turnover was higher than in previous years, following a workforce reduction implemented in late 2016 and 2017. Company reputation remains high.

PATIENTS

Novo Nordisk's business is built on the promise to help patients with serious chronic diseases live better, healthier lives and the determination to enhance access to medical treatment and quality of care for patients. In 2017, Novo Nordisk provided medical treatment to an estimated 27.7 million people with diabetes worldwide, a decrease of 1% compared to 28.0 million in 2016. The decline was caused by lower sales of human insulin mainly due to an impact from lower tender volumes of human insulin in some large tender markets in 2017, partly offset by growth in sales of modern and new-generation insulin as well as Victoza® (see note 2.2 to the Consolidated financial statements).

Through Novo Nordisk's Access to Insulin Commitment, the company guarantees to provide low-priced human insulin to the poorest parts of the world. The guarantee applies to Least Developed Countries (LDCs) as defined by the UN and other low-income countries as defined by the World Bank as well as selected organisations providing relief in humanitarian situations. Moreover, Novo Nordisk sells human insulin at similar prices in other low- and middle-income countries. In 2017, the ceiling price was USD 4 per vial with an average selling price of USD 3 per vial. As a result, an estimated 0.3 million patients were treated with insulin for 12 cents per day or less.

Through the company's Changing Diabetes® programmes particular focus is given to vulnerable populations. The Changing Diabetes® in Children programme operates in 13 countries and reaches more than 16,000 children with type 1 diabetes, who receive insulin treatment free of charge (see p 37). The Changing Diabetes® in Pregnancy programme has screened more than 68,000 women for gestational diabetes, and more than 6,700 women have been diagnosed and subsequently treated. The Base of the Pyramid programme has been expanded in Nigeria and Ghana and started up in Senegal.

Cities Changing Diabetes is a partnership programme with University College London and Steno Diabetes Center Copenhagen as well as a range of local partners, including diabetes and health communities, city governments, academic institutions, city experts and civil society organisations. It is a response to the dramatic rise in type 2 diabetes in cities, also referred to as 'urban diabetes', and the aim is to map the problem, share solutions and drive concrete action to address the diabetes challenge in cities around the world. The coalition of cities, which comprises Beijing, Copenhagen, Hangzhou, Houston, Johannesburg, Mexico City, Rome, Shanghai, Tianjin, Vancouver and Xiamen, representing more than 100 million citizens, has called for an ambitious global goal to prevent more than 100 million new cases of diabetes by 2045. Achieving the goal requires cutting rates of obesity by 25%, which would prevent more than 100 million people globally developing diabetes and could lead to savings of USD 200 billion annually by 2045.

Donations to the World Diabetes Foundation (WDF) amounted to 85 million Danish kroner in 2017. Created by Novo Nordisk in 2002, WDF is an independent trust dedicated to the prevention and treatment of diabetes in the developing world. WDF supports sustainable partnerships and acts as a catalyst to help others do more. In 2017, WDF provided funding to 47 partnership projects in 32 countries; 116 countries have been supported to date since 2002. The projects focus on awareness, education and capacity building at local, regional and global levels. For every dollar donated by WDF, local partners are able to raise approximately USD 2 in cash or as in-kind donations from other sources for the projects. Read more on worlddiabetesfoundation.org.

Novo Nordisk also provides financial support to improve global access to haemophilia care. In 2017, the company donated 18 million kroner to the Novo Nordisk Haemophilia Foundation (NNHF), established in 2005. NNHF supports programmes in developing and emerging countries. Initiatives focus on capacity building, diagnosis and registry, education and empowerment. Since 2005, NNHF has provided funding for 230 programmes in 69 countries. Read more on nnhf.org.

EMPLOYEES

Novo Nordisk aims to be an attractive employer and offers a safe and healthy, inclusive and engaging working environment. At the end of 2017, the total number of employees was 42,682, corresponding to 42,076 full-time positions, which is a 1% increase compared with 2016. The growth in employees was mainly driven by the global service centre in Bangalore, India. Employee turnover increased from 9.7% in 2016 to 11.0% in 2017. The increased employee turnover in 2017 was mainly due to the workforce reduction at the end of 2016; as a part of this workforce was still employed at the end of 2016 it affects the 2017 employee turnover.

The level of engagement and commitment to the company's values remains high. In the annual employee survey, conducted in the second quarter of 2017, 90% of employees responded positively to a set of questions to measure the level of sustainable engagement.

By the end of 2017, the gender distribution among managers was 60% men and 40% women. Of the newly promoted managers, 43% were women, which is the same level as in 2016. All management teams, from entry level and upwards, are encouraged to focus on enhanced diversity, with the aim of ensuring a robust pipeline of talent for management positions.

The average frequency rate of occupational accidents with absence was 2.7 per million working hours in 2017 compared with 3.0 in 2016. There were no work-related fatalities in 2017, compared with one fatality in 2016. Novo Nordisk works with a zero-injury mindset and remains committed to continuously improving safety performance. The link between company values and safety behaviour is emphasised to ensure that employees always make the safe choice.

ASSURANCE

Measures are taken to provide assurance that Novo Nordisk conducts its business in a responsible way.

Training in business ethics is mandatory and a high priority. Annual business ethics training is required for all employees, including new hires. Business ethics training is therefore a key element of the onboarding programmes. In 2017, as in 2016, 99% of all relevant employees completed and documented their training and passed the related tests. This high level is attributed to the constant focus on and communication by senior management of the importance of business ethics compliance.

CONTINUED ▶

A total of 34 business ethics reviews were completed in 2017 with 130 findings, compared with 52 reviews in 2016 with 234 findings. It is Group Internal Audit's assessment that the level of compliance is sound. Closure of findings progressed as planned, and there were no overdue findings as of 31 December 2017.

The global facilitator team conducted 65 audits of units' adherence to the Novo Nordisk Way. These facilitations covered approximately 21,000 employees, of whom almost 3,000 were interviewed, while feedback was collected from almost 700 stakeholders. The facilitations in 2017, as in 2016, showed a high level of compliance with the Novo Nordisk Way. Corrective actions and corresponding deadlines were agreed with local management for all actions (see pp 16–17 and novonordisk.com/about-novo-nordisk/novo-nordisk-way.html for additional information).

A total of 246 supplier audits, compared with 223 in 2016, were conducted in 2017 to assess suppliers' level of compliance with the company's standards for suppliers. These relate to quality as well as to Novo Nordisk's responsible sourcing policy to ensure respect for human and labour rights, environmental management and business ethics. These audits are undertaken by Novo Nordisk's Corporate Quality organisation. Of the audits carried out in 2017, 28 concerned responsible sourcing criteria, on par with 2016. Only high-risk suppliers, identified through a robust risk assessment, are selected for responsible sourcing audits. There were no critical findings in 2017.

Novo Nordisk had six product recalls from the market in 2017, which is the same level as in 2016. None of these recalls were critical. Local health authorities were informed in all instances to ensure that distributors, pharmacies, doctors and patients received appropriate information.

In 2017, as in 2016, there were no failed inspections by regulatory authorities among those resolved at year-end. A total of 83 inspections were conducted in 2017 at Novo Nordisk's sites, at clinics conducting investigations for Novo Nordisk or for voluntary ISO 9001 certification, compared with 74 inspections in 2016. At year-end, 54 inspections had been passed and 29 were unresolved.

HUMAN RIGHTS

Novo Nordisk acts on its responsibility to respect human rights as set out in the UN Guiding Principles on Business and Human Rights, and conducts ongoing due diligence. Novo Nordisk recognises that the company has a number of potential impacts with regard to human rights in its operations and business relationships. Actions are taken focusing on salient issues beyond those already addressed by existing programmes such as global labour standards and employee health and safety, bioethics, responsible sourcing and business ethics. In 2017, the focus was on human biosamples for research use, patient safety and local production projects. Novo Nordisk has also strengthened consultations with patients. Reporting on respect of human rights, using the UN Guiding Principles Reporting Framework, is available in the Communication on Progress at novonordisk.com/annualreport.

REPUTATION

Novo Nordisk's reputation among key stakeholders – people with diabetes, general practitioners and diabetes specialists – is an indicator of the extent to which the company lives up to stakeholders' expectations and the likelihood that they will trust, support and engage with the company. The company reputation score, measured on a scale of 0–100, increased to 79.3, from 77.8 in 2016. Data were collected between June and September 2017; a score between 70 and 80 is considered strong.

RESPONSIBLE TAX APPROACH

Novo Nordisk's tax approach is to pursue a competitive tax level in a responsible way. As a general rule, Novo Nordisk subsidiaries pay corporate taxes in the countries in which they operate and where business activity generates profits, earned in accordance with international transfer pricing rules. A competitive tax level implies achieving a tax level around the peer-group average. The company has a balanced tax risk profile and does not engage in tax avoidance activities. For further information about Novo Nordisk taxes, see note 2.6 Income taxes and deferred income taxes on p 72.

To create certainty regarding tax payments, Novo Nordisk has applied for advance pricing agreements (APAs) in key countries. The ambition is to have APAs covering more than two-thirds of total sales. An APA is an up-front agreement between the tax authorities in two or more countries, covering the pricing methodologies for relevant intercompany transactions, thereby determining the level of taxable income for the countries in question. An APA typically covers a future period of five tax years. Novo Nordisk currently has APAs in place covering intercompany transactions with the US, Canada and Japan, corresponding to more than half of total sales.

The finance policy and the tax strategy are endorsed by the Board of Directors of Novo Nordisk.

LONG-TERM SOCIAL TARGETS

Long-term social targets support long-term financial performance, balancing responsibility with profitability, with the aim of creating sustainable value for shareholders and other stakeholders. These targets reflect Novo Nordisk's ambition to be a sustainable business: fostering well-being by helping people live better lives, working the Novo Nordisk Way and safeguarding the reputation of the company.

Novo Nordisk has three long-term social targets related to patient reach, employee engagement and reputation, two of which are in the process of being changed. The target set in 2013 to reach 40 million people with the company's diabetes care products by 2020 has been abandoned. As communicated in the Annual Report 2016, current projections show that it will not be possible to reach the target due to a more challenging market environment than anticipated when the target was set. Work is ongoing to deliver on the commitment to improve access to quality care.

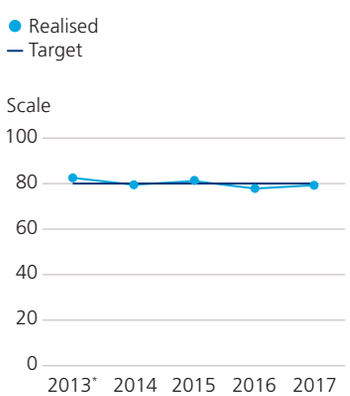
Until 2016, the company measured employee engagement through a custom-made annual survey (eVoice). While providing relevant data on year-on-year trends within the company, the study did not allow for external benchmarking with other companies. In 2017, a new methodology for measuring employee engagement was introduced that allows for external benchmarking. Once a robust baseline has been established, long-term targets will be set.

Reputation is measured among key external stakeholders, and the target is unchanged. The scope of the calculation has been updated. For more information see Changes to accounting policies and disclosures on p 100.

For further information about social performance, see the social statement on pp 98–103 and the Communication on Progress at novonordisk.com/annualreport.

COMPANY REPUTATION

Mean score among key external stakeholders



* Data for people with diabetes not included due to lack of availability.

ENVIRONMENTAL PERFORMANCE

Novo Nordisk accounts for environmental performance on three dimensions: use of resources, emissions and waste. All of Novo Nordisk's production facilities are certified according to ISO 14001. The production of active pharmaceutical ingredients (API) in Kalundborg, Denmark, is also certified according to ISO 50001.

In 2017, use of resources decreased slightly. CO_2 emissions from production sites decreased as a result of the decreased energy use while CO_2 emissions from product distribution and waste increased slightly.

RESOURCES

Novo Nordisk's environmental strategy prioritises minimising the use of non-depletable or scarce natural resources. In 2017, energy and water consumption decreased slightly. 79% of the power (electricity) used at production sites came from renewable sources such as biomass, wind and hydropower. Two facilities are located in regions subject to high water stress, ie high seasonal variations in water availability, and account for 7% of the total water used at Novo Nordisk, up from 6% in 2016 due to increased production to meet market demands. There were no incidents of water shortage. Novo Nordisk continued to focus on energy efficiency and water savings. Energy and water projects implemented in 2017 are expected to lead to estimated annual savings of 18,000 GJ energy and more than 100,000 m^3 water from 2018.

EMISSIONS AND WASTE

Novo Nordisk's climate action programme aims to reduce CO_2 emissions throughout the value chain. The current focus includes energy used in production, purchased goods and services and transportation such as company cars, business flights and product distribution.

The overall CO_2 emissions from energy consumption at production sites decreased by 2% to 90,000 tons, due to decreased energy use in areas that use fossil-based energy. Novo Nordisk continues to engage with energy suppliers to explore possible renewable power solutions for facilities in the USA and Europe, in order to meet the long-term target for all power used by the company's production sites to be based on renewable sources by 2020.

Novo Nordisk's largest production site – located in Kalundborg, Denmark – is supplied with steam and heat from the local Asnæs power plant. As a result of a partnership between Novo Nordisk, other local businesses and energy provider Ørsted, construction started in October 2017 to convert Asnæs from being coal-fired to burning wood chips. With this change, it is expected that all Novo Nordisk production in Denmark by 2020 will be based on renewable energy delivered as power, heating and steam.

With the use of bio-natural gas and steam based on wood chips in Denmark, as well as power from renewable sources at Novo Nordisk production sites globally, it is expected that more than 75% of the total energy use will be based on renewable sources by 2020.

As part of Novo Nordisk's supply chain programme, focused on reducing emissions from suppliers of raw materials, more than 20 key suppliers were engaged in 2017 to work on energy efficiency and use of renewable energy.

CO_2 emissions from business flights are estimated to be 44,000 tons in 2017, the same as in 2016. Novo Nordisk encourages employees to use virtual meetings instead of travelling, and in 2017 virtual meetings increased by 25%. CO_2 emissions from company cars, mainly used by the sales force, showed a decrease of 7% from 68,000 tons to 63,000 tons in 2017, due to a reduction in the number of cars and a shift to more fuel efficient cars. In November 2017, Novo Nordisk adopted new global guidelines for company cars, which is guiding the shift towards electric and hybrid cars. Based on these guidelines, local car policies will be implemented in 2018.

Emissions from product distribution increased by 3% compared with 2016. Emissions from air and ground transport remained stable. More products were distributed by sea. Distributing as many products as possible by sea remains a priority for Novo Nordisk, as sea transport reduces both CO_2 emissions and costs relative to product volume.

Waste increased by 3% compared with 2016, primarily due to increased amounts of organic residues from fermentation processes. The energy from these residues is recovered in biogas plants, and the digested slurry is used as fertiliser on local farmland. Overall, 96% of all the waste is recycled, used for biogas production or incinerated in plants where the energy is used for producing heat or power.

LONG-TERM ENVIRONMENTAL TARGETS

Novo Nordisk has three long-term environmental targets related to share of power from renewable sources, energy use and water use.

In 2015, Novo Nordisk set a target for all production sites to run solely on power from renewable sources by 2020. The company has signed up to the RE100 initiative, led by The Climate Group in partnership with CDP, a not-for-profit organisation responsible for managing the global disclosure system for environmental impacts. Novo Nordisk is well on track to meet the target.

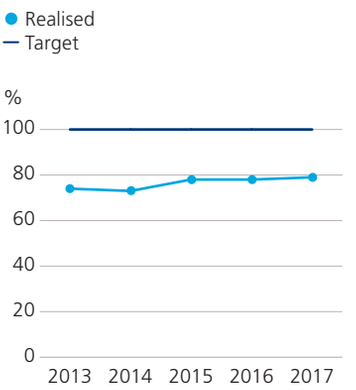
With the decrease in energy and water use in 2017, the long-term targets for reducing consumption of energy and water were met and will be discontinued. Experience has shown that a target correlated with sales does not drive performance towards becoming a sustainable business.

New long-term targets will be developed as a result of a strategy process in 2018.

Long-term environmental targets support long-term financial performance, balancing responsibility with profitability, with the aim of creating sustainable value for shareholders and other stakeholders. These targets reflect strategic priorities to be a sustainable business: aiming to manage the use of natural resources with respect to ecosystems and not encroach on ecosystems or communities.

For further information about environmental performance, see the Consolidated environmental statement on pp 104–106 and the Communication on Progress at novonordisk.com/annual report.

SHARE OF RENEWABLE POWER FOR PRODUCTION



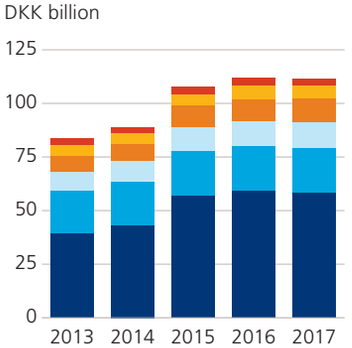
PERFORMANCE HIGHLIGHTS

DKK million	2013	2014	2015	2016	2017	2016–2017
FINANCIAL PERFORMANCE						Change
Net sales	83,572	88,806	107,927	111,780	111,696	(0%)
Sales growth in local currencies[1]	11.9%	8.3%	8.4%	5.5%	2.3%	
Foreign currency impact	(4.8%)	(2.0%)	13.1%	(1.9%)	(2.4%)	
Net sales growth as reported	7.1%	6.3%	21.5%	3.6%	(0.1%)	
Depreciation, amortisation and impairment losses	2,799	3,435	2,959	3,193	3,182	(0%)
Operating profit	31,493	34,492	49,444	48,432	48,967	1%
Net financials	1,046	(396)	(5,961)	(634)	(287)	N/A
Profit before income taxes	32,539	34,096	43,483	47,798	48,680	2%
Net profit for the year	25,184	26,481	34,860	37,925	38,130	1%
Total assets	70,337	77,062	91,799	97,539	102,355	5%
Equity	42,569	40,294	46,969	45,269	49,815	10%
Capital expenditure, net	3,207	3,986	5,209	7,061	8,679	23%
Free cash flow[1]	22,358	27,396	34,222	39,991	32,588	(19%)
FINANCIAL RATIOS[1]						
Percentage of sales:						
Sales outside Denmark	99.4%	99.5%	99.7%	99.7%	99.6%	
Sales and distribution costs	28.0%	26.2%	26.2%	25.4%	25.4%	
Research and development costs	14.0%	15.5%	12.6%	13.0%	12.5%	
Administrative costs	4.2%	4.0%	3.6%	3.5%	3.4%	
Gross margin	83.1%	83.6%	85.0%	84.6%	84.2%	
Operating margin	37.7%	38.8%	45.8%	43.3%	43.8%	
Net profit margin	30.1%	29.8%	32.3%	33.9%	34.1%	
Effective tax rate	22.6%	22.3%	19.8%	20.7%	21.7%	
Equity ratio	60.5%	52.3%	51.2%	46.4%	48.7%	
Return on equity	60.5%	63.9%	79.9%	82.2%	80.2%	
Cash to earnings	88.8%	103.5%	98.2%	105.4%	85.5%	
Payout ratio	47.1%	48.7%	46.6%	50.2%	50.4%	
LONG-TERM FINANCIAL TARGETS[1]						Target
Operating profit growth	6.9%	9.5%	43.3%	(2.0%)	1.1%	5%
Operating profit growth adjusted[2]	6.9%	9.5%	35.2%	3.9%	1.1%	
Operating profit growth in local currencies adjusted[2]	14.6%	12.7%	12.7%	6.2%	4.8%	
Operating profit after tax to net operating assets	97.2%	101.0%	148.7%	150.2%	143.2%	125%
Cash to earnings (three-year average)	93.9%	93.1%	96.8%	102.4%	96.4%	90%

1. For definitions, please refer to pp 96–97. 2. Years 2015 and 2016, adjusted for DKK 2,376 million from the partial divestment of NNIT A/S and DKK 449 million from the income related to the out-licensing of assets for inflammatory disorders respectively.

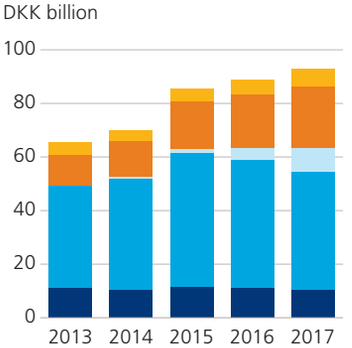
SALES BY GEOGRAPHIC REGION

- Region Latin America
- Region Japan & Korea
- Region China
- Region AAMEO
- Region Europe
- North America Operations



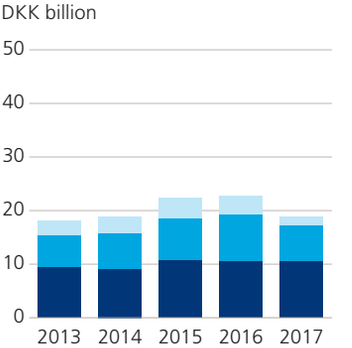
DIABETES CARE AND OBESITY SALES

- Other diabetes care and obesity
- Victoza®
- New-generation insulin
- Modern insulin
- Human insulin



BIOPHARMACEUTICALS SALES

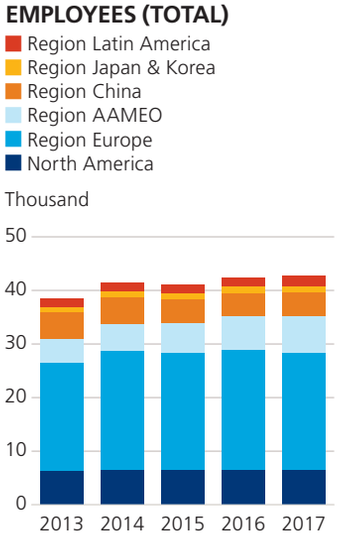
- Other biopharmaceuticals
- Growth disorders
- Haemophilia



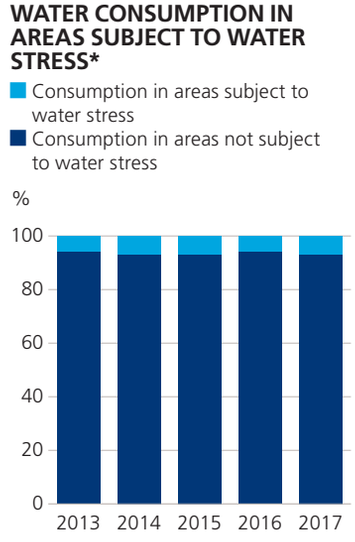
	2013	2014	2015	2016	**2017**	2016–2017
SOCIAL PERFORMANCE						Change
Patients reached with Novo Nordisk diabetes care products (estimate in millions)	24.3	24.4	26.8	28.0	27.7	(1%)
Patients reached with Novo Nordisk diabetes care products via the Access to Insulin Commitment (estimate in millions)	—	—	—	—	0.3	
Donations (DKK million)[3]	83	84	105	106	103	(3%)
New patent families (first filings)	77	93	77	74	65	(12%)
Employees (total)	38,436[4]	41,450[4]	41,122	42,446	42,682	1%
Employee turnover	8.1%	9.0%	9.2%	9.7%	11.0%	
Sustainable engagement score	—	—	—	—	90%	
Gender in Management (ratio men:women)	61:39	60:40	59:41	59:41	60:40	
Relevant employees trained in business ethics	97%	98%	98%	99%	99%	
Product recalls	6	2	2	6	6	
Failed inspections	0	0	0	0	0	
LONG-TERM SOCIAL TARGET						Target
Company reputation (scale 0–100)[5]	82.5	79.5	81.1	77.8	79.3	≥ 80
ENVIRONMENTAL PERFORMANCE						Change
Energy consumption (1,000 GJ)	2,572	2,556	2,778	2,935	2,922	(0%)
Water consumption (1,000 m^3)	2,685	2,959	3,131	3,293	3,276	(1%)
CO_2 emissions from energy consumption (1,000 tons)	125	120	107	92	90	(2%)
Waste (1,000 tons)	131	141	159	153	157	3%
LONG-TERM ENVIRONMENTAL TARGETS						Target
Energy consumption (vs prior year)[6]	6%	(1%)	9%	6%	0%	Not to exceed 3%[7]
Share of renewable power for production	74%	73%	78%	78%	79%	100% by 2020
Water consumption (vs prior year)[6]	8%	10%	6%	5%	1%	Not to exceed 3%[7]
SHARE PERFORMANCE						Change
Basic earnings per share/ADR in DKK[1,8]	9.40	10.10	13.56	14.99	15.42	3%
Diluted earnings per share/ADR in DKK[1,8]	9.35	10.07	13.52	14.96	15.39	3%
Total number of shares (million), 31 December	2,750	2,650	2,600	2,550	2,500	(2%)
Treasury shares (million), 31 December	103	57	52	46	56	22%
Share capital (DKK million)	550	530	520	510	500	(2%)
Dividend per share in DKK[8]	4.50	5.00	6.40	7.60	7.85[9]	3%
Total dividend (DKK million)	11,866	12,905	16,230	19,048	19,206[9]	1%
Share repurchases (DKK million)	13,989	14,728	17,229	15,057	16,845	12%
Closing share price (DKK)	198.80	260.30	399.90	254.70	334.50	31%

3. Donations to the World Diabetes Foundation and the Novo Nordisk Haemophilia Foundation. 4. Includes employees of NNIT A/S. 5. Calculation has been adjusted due to change of methodology. Historical data have been restated accordingly. See p 100 and p 103, note 4.6 for additional information. 6. Target to be discontinued in 2018. See p 13 for additional information. 7. The 3% equals 50% of the business growth measured as the increase in sales in local currencies as a three-year average. Please refer to p 13 for additional information. 8. Share performance-related key figures have been calculated reflecting a trading unit of DKK 0.20. 9. Total dividend for the year including interim dividend of DKK 3.00 per share, which was paid in August 2017. The remaining DKK 4.85 per share, corresponding to DKK 11,810 million, will be paid subject to approval at the Annual General Meeting.

EMPLOYEES (TOTAL)

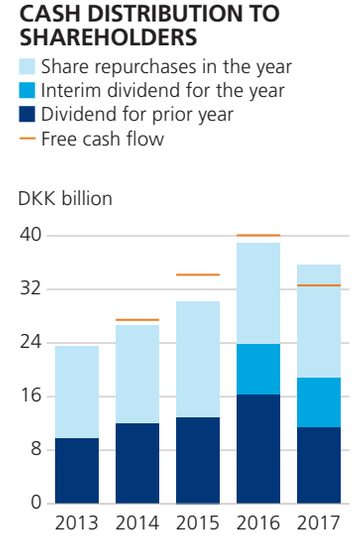


WATER CONSUMPTION IN AREAS SUBJECT TO WATER STRESS*



* As defined by the World Resources Institute

CASH DISTRIBUTION TO SHAREHOLDERS



LEADING THE NOVO NORDISK WAY

The Novo Nordisk Way is the foundation for 'how we do business'. It sets the direction for all employees at Novo Nordisk and underpins the company's vision, strategy and actions.

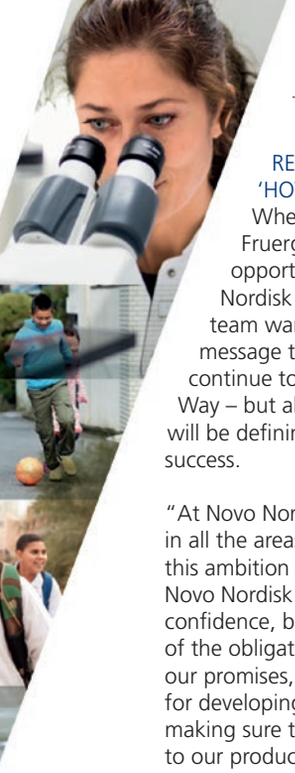
"The Novo Nordisk Way is the foundation for everything we do," says President and Chief Executive Officer Lars Fruergaard Jørgensen. "It describes why we're here, our ambitions and how we do things. And it spells out what's expected of every single employee, regardless of where they work," he elaborates.

The 10 Essentials that are part of the Novo Nordisk Way describe the behaviours that characterise working the Novo Nordisk Way. In every aspect, the patient perspective comes first. Patients rely on Novo Nordisk products every day and should have confidence in the company behind these medicines. But earning the trust of other stakeholders matters too, and the company therefore stays attuned to the interests of all key stakeholders and seeks to build and maintain good relationships.

"The actions we take will inevitably impact people, communities and the environment. That's why we use the Triple Bottom Line principle to guide decisions and always strive to achieve a good balance between financial, social and environmental dimensions of performance. We want to maximise our positive impacts and minimise any adverse impacts of our business. This is what doing business responsibly means to us," explains Lars Fruergaard Jørgensen.

Novo Nordisk's purpose is 'driving change to defeat diabetes and other serious chronic diseases'. This is a promise to patients, and the company holds itself accountable for delivering on it.

"Since the very beginning, Novo Nordisk has been focused on finding new and better ways of treating diabetes. But the way we do this matters, and the values of the company's founders are values we're guided by today, even if the wording may have been updated."



REAFFIRMING 'HOW WE DO BUSINESS'

When he took office as CEO, Lars Fruergaard Jørgensen took the opportunity to reaffirm the Novo Nordisk Way. He and his leadership team wanted to convey a strong message that not only will Novo Nordisk continue to do business the Novo Nordisk Way – but also that the Novo Nordisk Way will be defining for the company's future success.

"At Novo Nordisk, we aim to be a leader in all the areas in which we're active, and this ambition is now explicitly stated in the Novo Nordisk Way. We must have self-confidence, but we must also be mindful of the obligation that follows. To deliver on our promises, we must take responsibility for developing even better products and making sure that more patients get access to our products. This is the mindset we need to have for Novo Nordisk to be successful in the future.

> "THE NOVO NORDISK WAY AND THE TRIPLE BOTTOM LINE PRINCIPLE PROVIDE THE FOUNDATION FOR OUR SUCCESS IN THE LONG TERM."
>
> Lars Fruergaard Jørgensen, president and chief executive officer

"I'm amazed by how strongly the Novo Nordisk Way is present around the world. It really resonates. Our facilitations – an internal audit process conducted by senior employees interviewing employees to measure how well we operate in line with our values – tell us that we have a solid level of compliance with the Novo Nordisk Way," says Lars Fruergaard Jørgensen. "But we can't take this for granted. Across the organisation, we must focus on the ability to anticipate and adapt to changing conditions in a timely and agile way, tackling challenges, prioritising resources and seizing opportunities to shape our business environment. In a world and industry of increasing complexity, we must encourage employees at all levels to practise simplicity – focusing on making things simple, and to question what they don't understand, eliminating processes and steps that don't add value. That, in turn, will allow us to operate with greater agility."

NO BUSINESS WITHOUT ETHICS

One other statement stands out. Even though competition may be tough, quality and business ethics must never be compromised.

"We acknowledge that it can be difficult to understand and interpret all applicable rules correctly and that there can be challenging situations – cultural norms, industry practices or even, sometimes, conflicting demands. We also acknowledge that breaches may, and occasionally do, happen. We do our utmost to identify any violations, either through internal audits or through reports to the Compliance Hotline, and we take appropriate action, depending on the severity of the violation," explains Lars Fruergaard Jørgensen.

"There's zero tolerance for unethical business behaviour. If we don't get this right, we risk losing our licence to operate and the respect of those who trust us each and every day – jeopardising the whole company. Therefore, we make great efforts to ensure that employees know what is and what is not acceptable behaviour. Requirements are spelled out in our Business Ethics Code of Conduct, and all employees must undergo training and tests yearly. The dos and don'ts are conveyed consistently and in plain language by senior management, and through dedicated communication and education – where we share with employees what can go wrong and the associated consequences. Everyone has access to simple and practical guidance they can consult when encountering potential ethical issues. As with all of the Essentials in the Novo Nordisk Way, it's a mindset we share – and we hold ourselves accountable for living by it."

WALKING THE TALK

Facilitation is a systematic and unique approach to follow up on how the Novo Nordisk Way is lived across the organisation. The facilitations are conducted by a team of in-house experts with deep and broad knowledge of the business. They assess how the Novo Nordisk Way is practised at unit level, specifically by measuring how the Essentials are expressed in the actions of leaders and their employees. Simply put, facilitations ensure that people in the company are walking the talk.

A unit's overall compliance rating describes to what extent the unit lives up to the Novo Nordisk Way. A 1–5 rating scale is applied, ranging from 'Not meeting standards' to 'Outstanding', and best practice examples are shared internally, while action is taken by local management to remedy below-standard performance findings.

A consolidated report is presented to Executive Management and the Board of Directors. See facilitation findings in 2017 on p 103.

novo nordisk way

In 1923, our Danish founders began a journey to change diabetes. Today, we are thousands of employees across the world with the passion, skills and commitment to drive change to defeat diabetes and other serious chronic diseases.

- We aim to lead in all disease areas in which we are active.
- Our key contribution is to discover and develop innovative biological medicines and make them accessible to patients throughout the world.
- Growing our business and delivering competitive financial results is what allows us to help patients live better lives, offer an attractive return to our shareholders and contribute to our communities.
- Our business philosophy is one of balancing financial, social and environmental considerations – we call it 'The Triple Bottom Line'.
- We are open and honest, ambitious and accountable, and treat everyone with respect.
- We offer opportunities for our people to realise their potential.
- We never compromise on quality and business ethics.

Every day, we must make difficult choices, always keeping in mind what is best for patients, our employees and our shareholders in the long run.

It's the Novo Nordisk Way.

THE ESSENTIALS

1. We create value by having a patient-centred business approach.
2. We set ambitious goals and strive for excellence.
3. We are accountable for our financial, environmental and social performance.
4. We provide innovation to the benefit of our stakeholders.
5. We build and maintain good relations with our key stakeholders.
6. We treat everyone with respect.
7. We focus on personal performance and development.
8. We have a healthy and engaging working environment.
9. We strive for agility and simplicity in everything we do.
10. We never compromise on quality and business ethics.

novonordisk.com/NNWay

A STRATEGY TO IMPROVE PATIENTS' LIVES

Novo Nordisk is dedicated to driving change to defeat diabetes and other serious chronic diseases. The ambition is to lead in all disease areas where the company is active. Currently, Novo Nordisk offers and develops innovative treatments for diabetes, obesity, haemophilia and growth disorders. A new strategic priority is to expand into other serious chronic diseases, such as liver, heart and kidney diseases related to diabetes and obesity.

"Our strategic foundation is strong. We have five clear priorities, our core capabilities which enable us to execute these priorities well, and the Novo Nordisk Way which guides how we do business to be a successful, sustainable business," explains Camilla Sylvest, executive vice president, Commercial Strategy & Corporate Affairs, Novo Nordisk.

The company operates in a dynamic business environment that presents several challenges. On the one hand, there are large and growing unmet medical needs in all the areas in which Novo Nordisk is active, and the company has very competitive products to improve patients' lives. On the other hand, competition is more intense than ever, not least in what is by far Novo Nordisk's largest business area: diabetes. The launch of biosimilar products in the insulin segment, combined with stronger buyers' power and lower willingness to pay for innovation, makes for a challenging business environment.

"We must ramp up our efforts to drive commercial innovation and gain market access, if we are to grow our business sustainably. We can't rely on product innovation alone. We know it takes more than medicine to defeat diabetes and other chronic diseases. That's why we work to strengthen digital and commercial innovation in healthcare by offering supporting tools, services and programmes," says Camilla Sylvest.

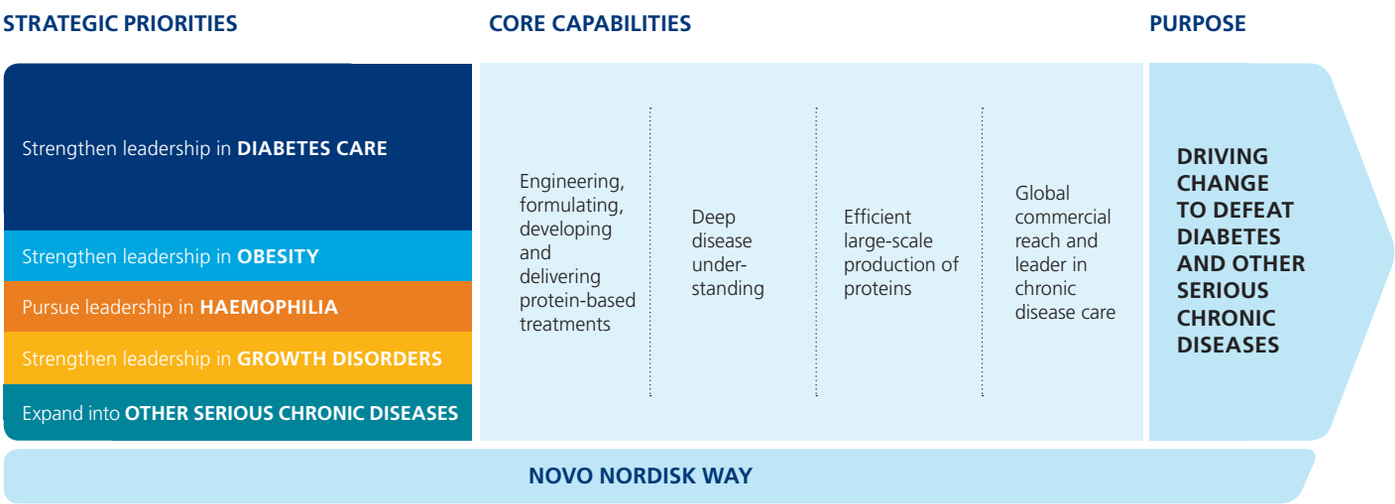
"Digital health is another innovation that can lead to better treatment outcomes, thanks to the generation of actionable insights from real-world usage of our products. Our connected pens can be applied with multiple partnership solutions for use by patients and healthcare providers. They can provide patient benefits such as better dosing, easier adherence and coaching on the use of our products. This may also allow for innovative contracting, where payers and patients can link financial investments to the proven, real-world clinical value of our products."

STRENGTHEN LEADERSHIP IN DIABETES CARE

There are significant unmet needs within diabetes care. Today, the International Diabetes Federation (IDF) estimates that more than 425 million people are living with diabetes, and this number is likely to grow to 629 million by 2045.[1] Only 6% are currently treated with Novo Nordisk products.[1]

The intention is to strengthen the differentiation of the company's newest insulins – Tresiba®, Xultophy®, Ryzodeg® and Fiasp® – by focusing on their potential for improved treatment outcomes.

In markets where there is not yet competitive access to these products, the focus will be on one or more of the modern insulin products – Levemir®, NovoRapid® and NovoMix® – depending on the local market situation. In countries where a buyer



wants insulin at the lowest possible price, Novo Nordisk offers a range of human insulin products. See Product overview on p 112.

Across the world, the majority of people with diabetes are not achieving the optimal blood glucose level. This is linked to the fear of hypoglycaemia (low blood sugar). After experiencing episodes of hypoglycaemia, some patients tend to reduce their insulin dose, which in turn leads to poor blood glucose control and long-term diabetes complications.[1] Severe hypoglycaemic episodes are associated with increased risk of death and high healthcare costs of up to 14,500 dollars per episode.[2]

"Tresiba® sets a new standard for basal insulin initiation by lowering the risk of hypoglycaemia, offering healthcare professionals and patients the ability to control diabetes with fewer concerns," Camilla Sylvest explains. Read more on pp 24–25.

"IT ALL STARTS WITH THE PATIENT. WE WILL IMPROVE PATIENTS' ACCESS TO OUR PRODUCTS AND THEIR ABILITY TO REACH TREATMENT TARGETS, BECAUSE THIS IS WHAT LEADS TO BETTER HEALTH OUTCOMES."

Camilla Sylvest, executive vice president, Commercial Strategy & Corporate Affairs

Novo Nordisk's GLP-1 products – Victoza® and the new once-weekly Ozempic® (semaglutide) – may transform the treatment of people with type 2 diabetes. They are the only GLP-1 products to have recently demonstrated in large phase 3 trials that patients can cut the risk of cardiovascular disease and death significantly, while also achieving unsurpassed blood glucose lowering and weight loss. This is important because adults with diabetes still have a 2–4-fold higher risk of cardiovascular disease, despite the advances in the treatment of cardiovascular disease that have been made. Read more on pp 24–25.

In 2017, Victoza® was relaunched with the new cardiovascular data in the label in EU countries, and a cardiovascular indication in the US. The launch of Ozempic® as a once-weekly injection is expected to begin in the first countries in 2018.

A once-daily tablet version of semaglutide is under development and may provide Novo Nordisk with a very promising product in the oral diabetes segment. Read more on pp 24–25.

STRENGTHEN LEADERSHIP IN OBESITY

"Obesity is a chronic disease that, for some people, requires medical treatment. It's possibly the largest risk to global health and may have severe comorbidities, such as type 2 diabetes and cardiovascular diseases. It's also a significant cost burden for society, expected to increase if firm action is not taken. Today, more than 650 million adults worldwide are living with obesity, of whom only 2% receive medical treatment.[3] This number is forecast to grow to 1 billion by 2025.[3] In the same period, the costs of treating diseases linked to obesity are expected to increase by 50% to around 1.2 trillion dollars globally, assuming no action is taken to bend the rise in obesity.[4] With Saxenda® (liraglutide 3 mg), we have a strong position in the small, but growing, market for medical treatment of obesity. We have the potential and the ambition to build the global obesity market," says Camilla Sylvest.

Novo Nordisk's ambition is to improve patients' access to medication, support the education of healthcare professionals in medical obesity treatment, support new clinics, and build awareness and recognition that obesity is a chronic disease.

Meanwhile, Novo Nordisk's research and development teams are working relentlessly to develop new biologic medicines that either alone or in combination can achieve a weight loss of more than 15% by reducing appetite and increasing energy expenditure. In a recent phase 2 study, a 0.4 mg dose of semaglutide as a once-daily injection led to weight loss of up to 16.2% after one year's treatment. The company plans to initiate a phase 3 clinical trial programme with semaglutide in the first half of 2018. Read more on pp 28–29.

PURSUE LEADERSHIP IN HAEMOPHILIA

Within the haemophilia business, approximately half of historic NovoSeven® sales could be exposed due to the launch of a new competing product, but the product still has opportunities in some markets. NovoEight® sales measured in volume continue to grow, despite increasing competition from long-acting factor VIII products. To solidify its position in the market for haemophilia products, Novo Nordisk is pursuing opportunities for in-licensing or acquisitions. Read more on pp 32–33.

STRENGTHEN LEADERSHIP IN GROWTH DISORDERS

Lack of growth hormone treatment may significantly impact a person physically and psychologically. "Novo Nordisk is the global market leader in growth disorder treatment, and we'll strengthen this position through effective life cycle management of existing products and innovation," explains Camilla Sylvest. "A new-generation, long-acting human growth hormone, somapacitan, could be the first once-weekly treatment for growth disorders, and this could improve treatment options for patients."

EXPAND INTO OTHER SERIOUS CHRONIC DISEASES

As part of an update of its R&D strategy, Novo Nordisk has decided to expand into other serious chronic diseases associated with diabetes and obesity. The areas currently being explored are the liver disease NASH (non-alcoholic steatohepatitis), cardiovascular diseases and chronic kidney disease – which all have patient populations with high unmet medical needs. The expansion will be spearheaded by semaglutide, which may have positive effects on these diseases. Novo Nordisk will also explore the utility of other compounds in its pipeline within these areas and intensify its search for external innovation. Read more on pp 20–21.

RAISING THE INNOVATION HEIGHT

The healthcare agenda is changing, and business competition is increasing. To meet these challenges, Novo Nordisk's future drug development ambitions call for a higher innovation threshold, expansion into other therapy areas and more external partnerships.

For many serious chronic diseases such as obesity, treatment options are limited, and the need for innovative research is great. In 2017, Novo Nordisk implemented a set of new strategic priorities in research and development that raise its drug development innovation ambitions, as the company aims to develop breakthrough treatments within its existing areas and expand into other serious chronic disease areas.

"It's all about providing better treatments for people with diabetes, obesity, haemophilia and growth disorders, but also focusing on other serious chronic diseases with high unmet needs. These are areas where we don't yet have a presence, but which are the natural next step for us as there are overlapping patient populations and we have the relevant capabilities and molecules that we believe can be developed into treatments for these diseases," explains Mads Krogsgaard Thomsen, executive vice president and chief science officer, Novo Nordisk.

TRANSFORMING EXPECTATIONS

With the launch of liraglutide (Victoza®) in 2009, Novo Nordisk moved into a new category of diabetes medications: GLP-1 analogues. This would later prove to be the company's entry into a new disease area, obesity, and potentially other areas in the future, such as cardiovascular disease.

Beyond lowering blood glucose – which all diabetes medications do – liraglutide also helps people with type 2 diabetes to lose weight and reduce their risk of major cardiovascular events. According to Mads Krogsgaard Thomsen, semaglutide (Ozempic®), Novo Nordisk's new once-weekly GLP-1 analogue, which is expected to be launched in 2018, will take diabetes treatment to the next level.

"Semaglutide, or Ozempic®, was conceived as the longer-acting version of human GLP-1, but this molecule has proven far more efficacious than expected in terms of blood glucose lowering, weight loss and reduction of cardiovascular events. We continue to explore the impact of semaglutide when it comes to weight loss and cardiovascular events, and we're also beginning to look at how semaglutide may reduce the risk of kidney and, potentially, fatty liver disease in people with diabetes.

"We're transforming expectations of what a diabetes medication should do, from only being able to lower blood glucose, to being able to treat comorbidities," he continues.

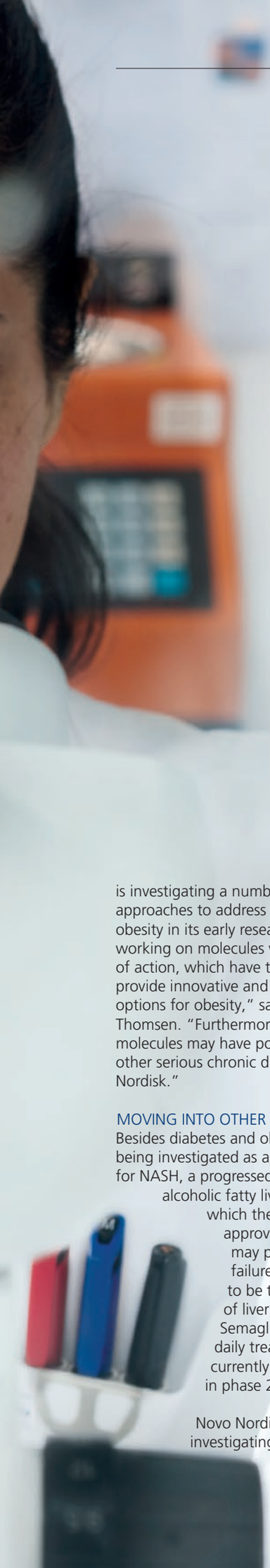
Read more about diabetes treatment moving beyond blood glucose control on pp 24–25.

TREATING OBESITY

Novo Nordisk is already leveraging the insights from its GLP-1 research in other serious chronic disease areas. Liraglutide 3 mg (Saxenda®) was launched in 2015 as a treatment for obesity, and semaglutide is approaching phase 3 development for obesity.

Obesity is a complex disease (see pp 28–29). GLP-1 analogues such as liraglutide are effective in reducing calorie consumption by reducing appetite and increasing the feeling of satiety. Striving to develop obesity treatments which can deliver more than 15% weight loss, Novo Nordisk

PARVANEH works in Research and Development at Novo Nordisk in Denmark



is investigating a number of innovative approaches to address the causes of obesity in its early research pipeline. "We're working on molecules with new modes of action, which have the potential to provide innovative and effective treatment options for obesity," says Mads Krogsgaard Thomsen. "Furthermore, some of these molecules may have potential for treating other serious chronic diseases new to Novo Nordisk."

MOVING INTO OTHER THERAPY AREAS

Besides diabetes and obesity, semaglutide is being investigated as a potential treatment for NASH, a progressed stage of non-alcoholic fatty liver disease for which there is currently no approved treatment. NASH may progress to liver failure and is projected to be the leading cause of liver transplantation.[5] Semaglutide as a once-daily treatment for NASH is currently under development in phase 2.

Novo Nordisk is also investigating the effect of semaglutide on cardiovascular and kidney disease. "Within cardiovascular disease, we have opportunities to reduce the risk of heart attacks and stroke," says Mads Krogsgaard Thomsen. "I believe that cardiovascular disease and chronic kidney disease are areas that constitute a significant unmet medical need where semaglutide could make a real difference."

BIOLOGICAL MEDICINE IN A TABLET

Insulin and GLP-1 analogues are biological medicines – proteins – that if taken orally as a tablet will be destroyed by digestive enzymes in the gastrointestinal tract before having any effect in the body – hence the need to inject such medicines. This may change within the next few years, as Novo Nordisk scientists have found a way to formulate semaglutide in a tablet that offers the GLP-1 product protection against digestive enzymes as well as increasing absorption into the bloodstream. Oral semaglutide is currently in phase 3 development for the treatment of type 2 diabetes.

In order for oral insulin to be viable, the technology to ensure that the insulin molecule is absorbed by the body in sufficient quantities still needs to be discovered. Novo Nordisk is working with external scientific partners to discover such a drug delivery technology. "We're very conscious that oral insulin, like oral GLP-1 products, remains a 'Holy Grail' for many people living with diabetes, and it's the needs of patients that guide our company," Mads Krogsgaard Thomsen points out.

STEM CELL THERAPY FOR TYPE 1 DIABETES

The ultimate treatment innovation within diabetes is finding a cure. Type 1 diabetes is caused by a malfunction in the immune system whereby the body attacks its own insulin-producing beta cells. If it were possible to transplant new beta cells into the body and keep them alive, type 1 diabetes could be cured. Professor Jacob Sten Petersen, corporate vice president of Global Research, Novo Nordisk, says that the company has recently moved several steps closer to developing beta cells that can be transplanted into the bodies of people with type 1 diabetes.

"Recent progress in our research means that today we have a protocol for developing stem cells into beta cells that is reproducible, scalable and robust. We've achieved this by leveraging decades of experience of working with mammalian cells in research, development and production. We now have the infrastructure and quality to make large-scale production of beta cells," he explains.

At the same time, Novo Nordisk has made significant progress in developing an encapsulation device that will protect the newly transplanted beta cells from attack by the body. "I hope that we'll be in a position to start clinical trials in the next few years," adds Jacob Sten Petersen.

JOINING FORCES AND TAKING RISKS

Novo Nordisk's new strategic priorities to raise the innovation threshold and move into other serious chronic disease areas are ambitious, and the company realises that it cannot achieve its goals without access to external innovation and competences. "We have a long history of collaboration with world-leading institutions and academia. We plan to intensify research collaborations and utilise external expertise to fuel our internal innovation," explains Mads Krogsgaard Thomsen.

Expanding and entering other chronic disease areas comes at the price of higher risk, he acknowledges. "Our future drug development ambitions and higher innovation threshold require a change in mindset. We need to embrace taking risks and not be discouraged by potential failures, as high-risk research innovation is necessary if we are to bring breakthrough products within our existing therapy areas to the market and successfully enter other chronic disease areas."

PIPELINE OVERVIEW

DIABETES CARE AND OBESITY

Compound	Indication	Description	Phase 1	Phase 2	Phase 3	Filed/ regulatory approval
DIABETES CARE						
Ozempic® (semaglutide) NN9535	Type 2 diabetes	A once-weekly GLP-1 analogue intended to offer the clinical benefits of a GLP-1 analogue with less frequent injections to adults with type 2 diabetes.				
oral semaglutide NN9924	Type 2 diabetes	A long-acting oral GLP-1 analogue intended as a once-daily tablet treatment for adults with type 2 diabetes.				
anti-IL-21 T1D NN9828	Type 1 diabetes	A beta-cell preservation treatment intended for adults who are newly diagnosed with type 1 diabetes.				
LAI287 NN1436	Type 1 and 2 diabetes	A long-acting basal insulin analogue intended for once-weekly dosing.				
PI406 NN1406	Type 1 and 2 diabetes	A liver-preferential mealtime insulin analogue.				
PYY 1562 NN9748	Type 2 diabetes	An appetite-regulating hormone, peptide tyrosine tyrosine, for the treatment of type 2 diabetes.				
OBESITY						
semaglutide NN9536	Obesity	A long-acting GLP-1 analogue intended as a once-weekly treatment for obesity.				
AM833 NN9838	Obesity	A novel amylin analogue intended as a once-weekly treatment for obesity.				
FGF21 NN9499	Obesity	A modified and protracted FGF21 analogue intended for the treatment of obesity.				
G530L NN9030	Obesity	A novel glucagon analogue which, in combination with liraglutide, is intended for the treatment of obesity.				
GG-co-agonist 1177 NN9277	Obesity	A novel glucagon and GLP-1 co-agonist intended for the treatment of obesity.				
PYY 1562 NN9747	Obesity	An appetite-regulating hormone, peptide tyrosine tyrosine, which, alone or in combination with semaglutide, is intended for the treatment of obesity.				
tri-agonist 1706 NN9423	Obesity	An acylated tri-agonist on human GIP, GLP-1 and glucagon receptors that acts as an agonist at three metabolically related peptide hormone receptors, intended for once-daily weight management treatment.				

Read more at novonordisk.com/investors and clinicaltrials.gov.

Overview as of 31 December 2017

Phase 1

Studies in a small group (usually 10–100) of healthy volunteers, and sometimes patients, to investigate how the body handles, distributes and eliminates new medication and establish the maximum tolerated dose.

Phase 2

Studies of various dose levels in a larger group of patients (usually 100–1,000) to learn about the new medication's effect on the condition and its side effects. In phase 2, clinical trials are carried out to evaluate efficacy (and safety) in specified patient populations. The outcome of phase 2 trials is clinical proof of concept and the selection of dose for evaluation in phase 3 trials.

BIOPHARMACEUTICALS

Compound	Indication	Description	Phase 1	Phase 2	Phase 3	Filed/ regulatory approval
HAEMOPHILIA						
N8-GP NN7088	Haemophilia A	A glycopegylated long-acting recombinant coagulation factor VIII intended to offer prophylaxis and treatment of breakthrough bleeds.				
concizumab NN7415	Haemophilia A and B	A monoclonal antibody against Tissue Factor Pathway Inhibitor (TFPI) intended to offer subcutaneous prophylaxis.				
SC N8-GP NN7170	Haemophilia A	Product to enable subcutaneous (SC) administration of N8-GP.				
GROWTH DISORDERS						
somapacitan NN8640	Growth disorders	A long-acting human growth hormone intended for once-weekly subcutaneous (SC) administration. Projects in phase 3 for adults (AGHD) and in phase 2 for children (GHD).				
OTHER SERIOUS CHRONIC DISEASES						
semaglutide NASH NN9931	NASH	A long-acting GLP-1 analogue intended as a once-daily treatment for non-alcoholic steatohepatitis (NASH).				

Read more at novonordisk.com/investors and clinicaltrials.gov.

Overview as of 31 December 2017

2018 KEY EXPECTED MILESTONES

Tresiba®	Label extension with DEVOTE and SWITCH data in the US
Ozempic® (semaglutide)	Feedback from regulatory authorities in the EU and Japan
oral semaglutide	Results from phase 3a trial programme (PIONEER)
semaglutide obesity	Initiation of phase 3
N8-GP	Submission in the US, the EU and Japan
concizumab	Results from phase 2 trial programme (explorer 4 and 5)
somapacitan	Results from phase 3a trial programme (REAL 1) for adults
somapacitan	Results from phase 2 trial programme (REAL 3) for children

Phase 3

Studies in large groups of patients (usually 1,000–3,000) comparing a new medication with a commonly used drug or placebo for both safety and efficacy. Phase 3a covers trials conducted after efficacy is demonstrated and prior to regulatory submission. Phase 3b covers clinical trials completed during and after regulatory submission. In small therapeutic areas such as haemophilia, regulatory guidelines may allow the design of single-arm therapeutic confirmatory trials or trials that compare against historical control, for example, instead of existing treatment or placebo.

Filed/regulatory approval

The phase in which a product undergoes regulatory authority review. Products listed under this phase are currently under regulatory review in at least two of the triad markets: the US, the EU and Japan.

GOOD DIABETES CARE REQUIRES MORE THAN BLOOD GLUCOSE CONTROL

The conversation between a person with diabetes and their doctor usually focuses on blood glucose control. But living with diabetes comes with a number of life-threatening risks, including cardiovascular events and severe hypoglycaemic episodes – risks that novel diabetes treatments can now reduce. And so the conversation is changing.

Fact: cardiovascular (CV) disease is the leading cause of death in people with type 2 diabetes.[1]

People with type 2 diabetes have a higher risk of experiencing or dying from CV events compared with people without diabetes, despite many being treated with blood pressure- and cholesterol-lowering agents in addition to receiving diabetes treatment. "The CV risk associated with type 2 diabetes has long been recognised," points out Stephen Gough, senior vice president and global chief medical officer, Novo Nordisk. "But treating a person with both type 2 diabetes and CV disease has historically been like treating two unconnected diseases, due to the lack of type 2 diabetes medications that also reduce the risk of major adverse CV events."

REDUCING CV RISK

In 2017, Novo Nordisk's Victoza®, which helps people with type 2 diabetes to lower their blood glucose levels and lose weight, became the first GLP-1 analogue approved in the EU and the US for also reducing the relative risk of major adverse CV events in adults with type 2 diabetes and established CV risk.

These label updates were based on data from the LEADER trial, which demonstrated that Victoza® significantly reduced the overall risk of CV events by 13% when added to standard of care.[6] Moreover, Victoza® was shown to significantly reduce death from CV events.[6]

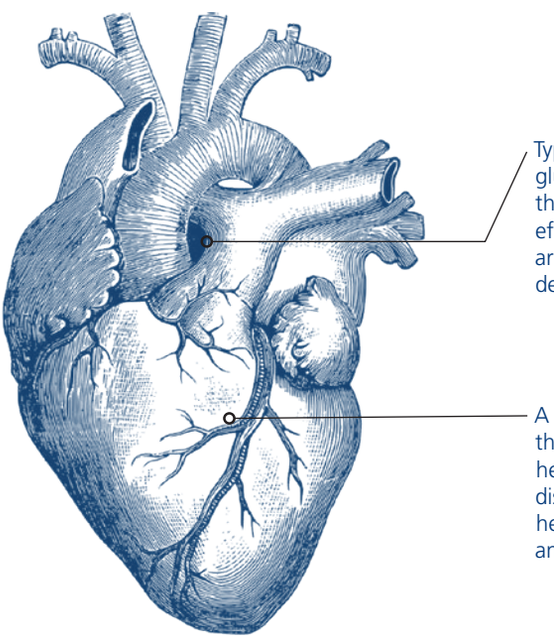
"Addressing both blood glucose and CV risks should now be integral parts of type 2 diabetes treatment, so that the number of people dying from CV events associated with diabetes is reduced," says Stephen Gough.

A ONCE-WEEKLY TREATMENT OPTION

Since the launch of Victoza®, Novo Nordisk has been working hard on the development of a once-weekly GLP-1 analogue, semaglutide, which in clinical trials has been shown to consistently lower both blood glucose and body weight significantly against all tested comparators, including a DPP-IV inhibitor, a basal insulin and other GLP-1 analogues. The results

Type 2 diabetes and cardiovascular disease

The symptoms of cardiovascular disease may go undetected for years, and serious cardiovascular disease may develop in people with diabetes before they reach the age of 30. More than half the people with type 2 diabetes will exhibit signs of cardiovascular disease complications at the time of their diabetes diagnosis.



Type 2 diabetes causes high levels of glucose in the blood (hyperglycaemia) that, if left untreated or not managed effectively, can damage the walls of the arteries and make them more likely to develop fatty deposits, called atheroma.

A build-up of atheroma in the arteries that supply oxygen-rich blood to the heart and brain leads to cardiovascular disease, including stroke and coronary heart disease, which can cause angina and heart attack.

CARDIOVASCULAR DISEASE AWARENESS SURVEY

In September 2017, the International Diabetes Federation (IDF) partnered with Novo Nordisk to launch the first-ever multi-country online survey investigating the level of cardiovascular disease awareness and knowledge among people with type 2 diabetes.

from the SUSTAIN 7 clinical trial, announced in August 2017, showed that people with type 2 diabetes treated with once-weekly semaglutide experienced superior reduction in HbA_{1c} and body weight compared with treatment with dulaglutide – the best-selling once-weekly GLP-1 analogue in the US.

"In addition to the superior blood glucose reduction, we were positively surprised by the great weight-reducing effect of semaglutide in the SUSTAIN clinical trial programme. Semaglutide has demonstrated unprecedented effects in that regard," says Stephen Gough. Semaglutide is currently awaiting phase 3 initiation for the treatment of obesity.

"In a clinical trial, we saw a 26% decrease in the occurrence of major adverse CV events when semaglutide was added to standard of care.[6] Based on the SUSTAIN clinical results, semaglutide has the potential to produce better results than Victoza® for blood glucose control, weight management and CV risk reduction, with the convenience of a once-weekly injection," Stephen Gough explains.

In 2018, Novo Nordisk plans to initiate a large clinical trial focusing on the CV benefits of semaglutide.

In December 2017, Ozempic® (semaglutide) was approved by the FDA, based on the results of the SUSTAIN clinical trial programme. Semaglutide is currently under review by several regulatory agencies, including the European Medicines Agency and the Japanese Pharmaceuticals and Medical Devices Agency. Novo Nordisk plans to launch Ozempic® in the US at the beginning of 2018.

REDUCING THE RISKS ASSOCIATED WITH HYPOGLYCAEMIA

Hypoglycaemia (low blood glucose), particularly at night, is a major fear for people with type 1 or type 2 diabetes on insulin treatment. Novo Nordisk's ambition is to help people with diabetes to achieve their treatment goals and at the same time reduce their risk of severe hypoglycaemia.

Tresiba® (insulin degludec), Novo Nordisk's once-daily long-acting basal insulin, has demonstrated lower rates of severe hypoglycaemia and severe nocturnal hypoglycaemia compared with insulin glargine U100 in adults with diabetes.

In the EU, the Tresiba® label was updated to reflect results from the double-blinded SWITCH 1 and 2 and DEVOTE clinical trials. The trials demonstrated a significant reduction in the risk of severe hypoglycaemia with Tresiba® compared with insulin glargine U100.

The DEVOTE trial confirmed the cardiovascular safety of Tresiba® and demonstrated a 53% relative reduction in the rate of severe nocturnal hypoglycaemia in people with type 2 diabetes compared with insulin glargine U100.[7]

Reducing the risk of hypoglycaemia is not only good for patient confidence – it may also have a significant impact on long-term health. Further analyses of pooled data from the DEVOTE trial showed that daily fluctuations in blood glucose levels in people with type 2 diabetes are associated with a higher risk of severe hypoglycaemic episodes and death, and that a severe hypoglycaemic episode is associated with an increased risk of death.

"The risk of severe hypoglycaemia is a major reason why people with type 2 diabetes aren't reaching their treatment targets," explains Stephen Gough. "The association between hypoglycaemia, CV risk and all-cause mortality is a real cause for concern. Maintaining low variability in blood glucose levels when treating people with type 2 diabetes is therefore crucial."

A POSITIVE IMPACT ON TREATMENT OUTCOMES

"Talking about CV risks and weight management – in addition to blood glucose control and the risks associated with hypoglycaemia – should become part of the standard dialogue between doctors and patients at primary care level," stresses Stephen Gough. "We intend to change the conversation so that everyone with diabetes is offered a treatment that addresses the associated risk of death for this serious chronic disease. This could create a positive impact on treatment outcomes and potentially change the course of diabetes."

SIMONE LENSBØL HAS TYPE 2 DIABETES AND CARDIOVASCULAR DISEASE. SIMONE LIVES IN DENMARK

Simone Lensbøl is a registered nurse with long experience from working on different hospital wards and is currently working as a clinical safety associate in the Global Safety department of Novo Nordisk.

"I'm passionate about sharing my knowledge about type 2 diabetes. It's a complicated disease, and there's a lot of prejudice attached to it. My wish is to eliminate this and give hope, knowledge and understanding to colleagues and other patients. I'm hopeful the mindset towards the disease will change over time."

WHAT IS DIABETES?

Diabetes is a chronic disease characterised by raised blood glucose due to defective insulin secretion, resistance to insulin action or a combination of both. Type 1 diabetes is characterised by the autoimmune destruction of the insulin-producing beta cells in the pancreas, leading to absolute insulin deficiency. People with type 1 diabetes are therefore dependent on daily insulin injections to control their blood glucose level. Type 2 diabetes is a progressive disease characterised by increasing insulin resistance and failing beta cell function in the pancreas. Depending on the stage of the disease, people with type 2 diabetes require different treatments. Initially, oral medication is often sufficient, while progressed stages may require GLP-1 products and eventually insulin. The treatment goals for people with diabetes are to achieve normal or near-normal glucose levels, in order to delay or reduce diabetic complications and negative outcomes.

IT TAKES MORE THAN MEDICINE TO DEFEAT DIABETES

The International Diabetes Federation (IDF) estimates that more than 425 million[1] people worldwide have diabetes today. Yet half of them are not diagnosed and even fewer receive care and live a life free of diabetes-related complications.[8] Other estimates published recently show that, without concerted action, up to 750 million people could have diabetes by 2045, with associated costs exceeding 1 trillion dollars a year.[9]

Diabetes is a disease that can be treated successfully, even in the poorest countries. With a growing portfolio of medicines and future digital health solutions that increase the benefit of those medicines, Novo Nordisk offers a broad range of medical treatment options for people with diabetes.

However, defeating diabetes will not be achieved by medicine alone. It requires containing the rise in diabetes before it becomes unmanageable for healthcare systems and economies and, at the same time, giving more people access to diagnosis and treatment where it does not currently exist.

A crucial first step to contain the rise in diabetes is to understand the scale of the challenge and what it will take to bend the curve. That is why Novo Nordisk developed a model in 2017 to plot the trajectory of diabetes prevalence over time and the associated costs to healthcare systems. The model on p 27 illustrates how, if no additional action is taken, one in nine adults will have diabetes by 2045.[9] The model also shows that the burden of type 2 diabetes can be reduced by addressing obesity, the single biggest modifiable risk factor for diabetes.

Based on the model research, Novo Nordisk joined city leaders, academics and public health experts in calling for a global goal to limit diabetes growth. The goal is that by 2045 no more than one in 10 adults globally will have diabetes. Achieving this will require ambitious action to reduce obesity by 25%[9] by 2045, thereby preventing more than 100 million people globally from developing diabetes.

LEADING THE FIGHT IN URBAN ENVIRONMENTS

Cities are the front line when it comes to containing the rise in type 2 diabetes. A rapidly urbanising world is changing not just where we live but also how we live. The way cities are designed, built and run creates health benefits for citizens – but also health risks. Towns and cities, where half of the world's population now lives, are home to two-thirds of the people with diabetes.

Novo Nordisk put the spotlight on urban diabetes in 2014 with the launch of Cities Changing Diabetes. This initiative has grown into an international coalition of 11 cities, with a combined population exceeding 100 million people,[10] and more than 100 expert partners united in the fight against diabetes.

These cities are taking impactful action to deal with their diabetes challenges, and – together with University College London, Steno Diabetes Center Copenhagen and Novo Nordisk have co-created the methods and tools that work in the cities in an Urban Diabetes Toolbox. This toolbox is now publicly available so that any city can set goals and establish an action plan for diabetes.

IMPROVING ACCESS TO DIABETES CARE

The burden of diabetes touches every country in the world. The dynamics of the challenge vary from country to country, and from region to region, but the disease disproportionately affects people in low- and middle-income countries, where four out of five people with diabetes live.[1]

Novo Nordisk has long-standing programmes supporting access to diabetes care in these countries. In 2001, the company made a commitment to provide human insulin at a very low price in the world's least developed countries. See p 38. A renewed Access to Insulin Commitment, which guarantees the provision of low-priced human insulin to low-income countries and humanitarian organisations, was launched in 2016 and benefited 0.3 million people with diabetes in 2017.

11 CITIES WITH A COMBINED POPULATION EXCEEDING 100 MILLION PEOPLE, AND MORE THAN 100 EXPERT PARTNERS, ARE FIGHTING DIABETES AS PART OF CITIES CHANGING DIABETES.

5 MILLION PEOPLE WITH DIABETES GLOBALLY HAD ACCESS TO HUMAN INSULIN AT A MAXIMUM PRICE OF 4 DOLLARS PER VIAL IN 2017.

16,000 CHILDREN WITH TYPE 1 DIABETES RECEIVE LIFE-SAVING CARE THROUGH THE CHANGING DIABETES® IN CHILDREN PROGRAMME (see p 37).

85 MILLION DANISH KRONER WAS DONATED BY NOVO NORDISK TO THE WORLD DIABETES FOUNDATION IN 2017.

In 2002, Novo Nordisk established the World Diabetes Foundation (WDF) as an independent trust dedicated to the prevention and treatment of diabetes in the developing world. WDF supports sustainable partnerships and acts as a catalyst to help others do more.

Despite these efforts, and those of other organisations in the public and private sectors, further progress is needed to make it possible for more people to get access to diabetes care. Novo Nordisk has initiated partnerships designed to tackle affordability and accessibility in sub-Saharan Africa with the non-governmental organisation PATH and through national Base of the Pyramid programmes with local health authorities and healthcare organisations. An evaluation of the programme in Kenya by University College London found that the project had ensured stable availability of human insulin at a significantly reduced price. This is a great achievement in a region where weak procurement and distribution systems are a major barrier for getting medicine to patients at a reasonable cost. However, it is clear that to remove barriers in more countries and to do so in a sustainable way, new approaches are needed, in which more companies, governments, NGOs and funding agencies join forces to improve the procurement and distribution of medicines, and build healthcare capacity. To this end, Novo Nordisk has decided to explore broader partnerships to remove the barriers to access to diabetes care in the developing world. The ambition is to launch one or more such partnerships in 2018.

PARTNERSHIPS FOR IMPACT

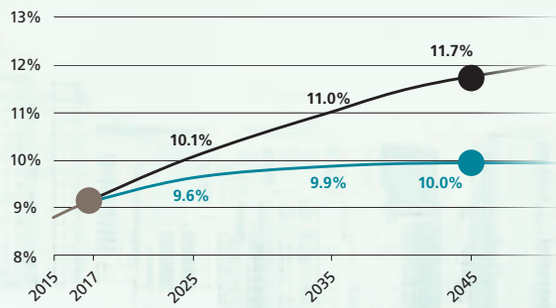
Novo Nordisk's work on Cities Changing Diabetes and access to care demonstrates the impact that can be created by building new forms of public–private partnerships which go beyond medicine and align behind a common cause: to defeat diabetes.

As a company whose focus has been on diabetes for almost 100 years, Novo Nordisk is uniquely positioned to take a leading role in the fight against this disease. And by so doing, we will help achieve several of the Sustainable Development Goals agreed by world leaders in 2015, including the goals on health and sustainable cities – and the commitment to deliver change through innovative partnerships.

Learn more at
novonordisk.com/changingdiabetes
novonordisk.com/accesstocare
citieschangingdiabetes.com

PROJECTED DIABETES PREVALENCE 2017–2045[9]

(ADULTS AGED 20–79)



IF NO ACTION IS TAKEN

11.7% EQUALS
736 MILLION PEOPLE WITH DIABETES*, AND ASSOCIATED COSTS OF
1,076 BILLION DOLLARS

BENDING THE GLOBAL DIABETES CURVE

10.0% EQUALS
625 MILLION PEOPLE WITH DIABETES, AND ASSOCIATED COSTS OF
872 BILLION DOLLARS

RULE OF HALVES

THE RULE OF HALVES[8] ILLUSTRATES THE GLOBAL DIABETES SITUATION.** ONLY AROUND 6% OF PEOPLE WITH DIABETES LIVE A LIFE FREE FROM DIABETES-RELATED COMPLICATIONS.

* The Global Diabetes Projection Model and the IDF Diabetes Atlas 2017 provide slightly differing outlooks for diabetes. The Global Diabetes Projection Model takes into account population, age and obesity, while the IDF projection takes into account population and age, but not explicitly obesity or other diabetes risk factors.

** Actual rates of diagnosis, treatment, targets and outcomes vary in different countries.

"WHEN I WAS AT MY BIGGEST, I FELT THAT THE LITTLE PERSON WAS TRAPPED INSIDE OF ME. I'D LOVE OTHER PEOPLE TO SEE ME AS JUST ME: MY HAIR, EYES, BRAIN – JUST ME."

Susie Birney has obesity and lives in Ireland

WHY SOME PEOPLE WITH OBESITY NEED MEDICAL TREATMENT

The underlying cause of obesity is an energy imbalance between calories consumed and calories expended. But this is only part of the story. The science behind obesity is complex – and maintaining weight loss is not easy.

Guilt and shame. That is what many people with obesity feel, as they either struggle to lose weight or struggle even more to maintain their weight loss. They are stigmatised for being weak with no self-control and having a 'self-inflicted' condition which is a healthcare burden. A recent paper based on the nationwide Awareness, Care and Treatment in Obesity Management (ACTION) study, which investigated key barriers to effective obesity management in the US, found that 82% of people with obesity believe weight loss to be completely their own responsibility.[11] Lack of support from families, society and even doctors is not unusual, and a series of failed diets can reinforce feelings of personal failure.

But the perception that weight loss is easy to achieve, if only you have the willpower, is incorrect. Energy balance is influenced by a number of factors, including physiology, genetics, psychology and the person's environment. Adding to the complexity is the body's own response to weight loss – increased feelings of hunger, increased desire to eat and lowered metabolic rate.[12] Put simply, the body works hard to regain lost weight. Maintaining weight loss for more than one year is therefore extremely challenging – which is why, in some cases, diet and exercise alone are not enough.

AN UNDERSERVED NEED FOR MEDICAL TREATMENT

The World Health Organization (WHO) estimates that, of the world's adult population in 2016, 39% were overweight and 13% had obesity.[3] This is a serious health concern with severe implications for the population's health and economic development, as obesity has been linked to a staggering 236 different diseases, including cardiovascular disease, high blood pressure, elevated blood lipids, type 2 diabetes and some types of cancer. In fact, obesity is linked to some of the leading causes of death.[13]

Even though an increasing number of health organisations and professional associations, including the WHO, World Obesity Federation, The Obesity Society and the American Medical Association, recognise obesity as a chronic disease requiring long-term management, few treatment options are available, and many doctors are not prepared to enter into a dialogue with patients about their weight. "I've met many people with obesity and heard their emotional stories, and it's clear that many people with obesity require support from their doctors. However, stigma and lack of awareness can act as significant barriers to constructive dialogue between people with obesity and their doctors," explains Morten Lammert, vice president of Saxenda® & Obesity, Novo Nordisk.

The ACTION study found that few people with obesity seek or receive long-term obesity management.[11] In the study, of the 71% of people with obesity who say they have spoken with a healthcare professional about their weight in the past five years, only 55% report having been given a diagnosis of obesity, and only 24% were offered follow-up care for this disease.[11]

SIGNIFICANT AND SUSTAINED WEIGHT LOSS

However, when lifestyle changes are not sufficient to maintain weight loss, medical intervention may be necessary. But with limited pharmacological treatments available, and not wanting to undergo bariatric surgery, people with obesity did not have many options in the past. Novo Nordisk's GLP-1 analogue for weight management, Saxenda® (liraglutide 3 mg), therefore addresses a significant unmet medical need.

Treatment with Saxenda®, as an adjunct to a reduced-calorie diet and increased physical activity, for weight management in adults with certain BMI levels, has been shown to result in significantly greater and sustained weight loss over three years compared to placebo. This is important for the many people with obesity who may still struggle to lose weight or are experiencing weight regain following lifestyle changes including increased physical activity and reduced-calorie diet. Furthermore, fewer people on Saxenda® developed type 2 diabetes over three years compared to placebo.

In 2017, the EU label for Saxenda® (liraglutide 3 mg) was updated to reflect the results from the LEADER cardiovascular outcomes trial which investigated the long-term cardiovascular safety of Victoza® (liraglutide 1.8 mg) in more than 9,000 people with type 2 diabetes and at high cardiovascular risk, when added to standard of care. Although Saxenda® was not investigated in this trial, the cardiovascular risk reduction observed in LEADER with Victoza® (liraglutide 1.8 mg) in people with type 2 diabetes was used by the regulatory authorities to assess and evaluate the cardiovascular safety profile of Saxenda®.

Novo Nordisk is committed to helping people with obesity get the treatment they need. "Obesity is a progressive, serious, chronic disease. We need to change the way people view, treat and care for people with obesity," explains Morten Lammert. He agrees that this will take time, but points out that the company is in this for the long haul.

A PROMISING PIPELINE

Novo Nordisk's research and development pipeline is clear testament to the fact that the company is committed to alleviating obesity. Klaus Langhoff-Roos, corporate vice president, Ozempic® & Oral Semaglutide, Novo Nordisk, believes that semaglutide for weight management, which will soon move into phase 3 development, holds great promise for future treatment options. "In the phase 2 trial for semaglutide for obesity, people treated with semaglutide achieved a weight loss of up to 13.8% after 52 weeks. As this is approaching the efficacy of some surgical procedures for obesity management, I hope it will trigger a greater willingness among doctors to consider pharmacological treatments as part of their overall weight management approach," he says.

Novo Nordisk also has six products for the treatment of obesity in phase 1 development, investigating new targets as well as combination therapies to achieve greater weight loss. See Pipeline overview on pp 22–23.

"We want to give people with obesity the opportunity to combine diet and exercise plans with medicine to achieve and maintain successful weight loss and improve their health and well-being. This way, we will improve obesity management and help reduce the burden that obesity and related diseases place on the healthcare system and society," concludes Klaus Langhoff-Roos.

SUSIE BIRNEY HAS OBESITY AND LIVES IN IRELAND

Susie Birney is a patient advocate from Ireland. She has been living with obesity and its associated psychological and physical challenges since she was 20 years old. Susie suffers from selective eating disorder as well as type 2 diabetes, diabetic retinopathy and other obesity-related complications. As part of her own journey with obesity, Susie has joined several patient support groups in Ireland, and she is determined to get obesity recognised as a chronic disease in Europe by representing Ireland in the European Association for the Study of Obesity (EASO) patient council.

WHAT IS OBESITY?

Both overweight and obesity are defined as abnormal or excessive fat accumulation that may impair health. Adults with a body mass index (BMI) equal to or greater than 25 are defined by the WHO as being overweight, and adults with a BMI equal to or greater than 30 are classified as having obesity.[3] BMI provides the most convenient population-level measure of overweight and obesity currently available.

However, BMI itself does not define health risk. BMI is a simple weight-for-height index that is commonly used to classify overweight and obesity in adults. It is calculated by dividing a person's weight in kilograms by the square of their height in metres (kg/m^2).

BUILDING THE BIOPHARM BUSINESS

Biopharm (short for biopharmaceuticals) is the part of Novo Nordisk's product portfolio not related to diabetes and obesity. There are many unmet medical needs for biopharm to address in the coming years – and some growth challenges ahead.

For decades, haemophilia and growth disorders have been the main focus of the biopharm business. Novo Nordisk was the first company to develop a treatment – NovoSeven® – for the small community of people with haemophilia who have inhibitors to existing treatment, and the first to develop a liquid growth hormone in a pen device for children with growth disorders.

Today, Novo Nordisk has a broad product portfolio and clinical development programme within haemophilia and is the leading company in the global market for growth hormone. Yet it is a business that is under pressure due to new competition and changing market dynamics. In 2017, the company's biopharm business experienced lower sales, due to patent expiry and generic competition relating to the company's hormone replacement therapy Vagifem®.

Returning to growth in biopharm is singled out as a key priority in Novo Nordisk's corporate strategy. To set a new course, the company established its new Biopharm Operations unit in October 2017, headed by Senior Vice President Christian Kanstrup.

"We see potential for leveraging our core strengths: a strong portfolio of marketed products, an exciting development pipeline and good relationships with key stakeholders," he says.

ORGANIC BUSINESS GROWTH

While the haemophilia business – and NovoSeven® specifically – is set to be challenged by a new competitor in 2018, with 50% of historic NovoSeven® sales potentially exposed, new products coming through the company's development pipeline will address some of the unmet medical needs within haemophilia and help the business to grow.

A key task for Biopharm Operations is to set the overall strategic direction for the biopharm area – which Christian Kanstrup says relies on three key elements: ensuring that more patients have access to Novo Nordisk's current and new products, pursuing complementary acquisitions to expand into other serious chronic disease areas and ensuring the right operational structure.

"Our first priority will be to increase our efforts to improve access to the products we already have on the market for the patients who need them," he explains. "In China, for example, I believe we have untapped potential for our haemophilia products. And we haven't yet seen the true global market potential of NovoEight® for the treatment of people with haemophilia A."

In 2017, Novo Nordisk's long-acting factor IX (called Refixia® in the EU and Rebinyn® in the US) was approved. "The launch of Refixia® in 2017 and Rebinyn® in 2018 will be an important expansion of the treatment options for people with haemophilia B," says Christian Kanstrup.

Novo Nordisk's long-acting factor VIII (N8-GP) for the treatment of haemophilia A is expected to be submitted for regulatory approval in 2018. Moreover, concizumab, a monoclonal antibody being developed for bleeding prevention, entered phase 2 development for haemophilia A and B in August 2017.

Within growth disorders, the company will continue to roll out its growth hormone Norditropin® in the FlexPro® injection device, aiming to make treatment as easy and pain-free as possible. Somapacitan, Novo Nordisk's long-acting growth hormone in phase 3 development for adult growth hormone deficiency and in phase 2 development for children, has the potential to improve treatment compliance. Christian Kanstrup points out that early diagnosis and optimal treatment is very important for children with growth disorders, for their future health and well-being. "We intend to invest more to improve early diagnosis rates," he says.

EXTERNAL INNOVATION AND OPPORTUNITIES

A critical element of Novo Nordisk's strategy to drive change within biopharm is its pursuit of complementary acquisitions. "Identifying external licensing and acquisition opportunities where we can leverage our core biopharm capabilities will allow us to help patients live better lives as well as strengthen our business," continues Christian Kanstrup.

INCREASED FOCUS

"To support the new growth ambition, the operational structure must enhance the level of collaboration and effectiveness around biopharm across the global organisation – which is what Biopharm Operations has already started to do," Christian Kanstrup explains. "We've optimised our structure to ensure stronger alignment in our work and improve development of key organisational capabilities. This will allow us to increase our focus even more on the patient.

"We're in biopharm for the long term, and are confident that we'll be able to strengthen our position to grow our business and make an even greater positive difference to the lives of patients going forward."

EVIE (SIX YEARS OLD) HAS GROWTH HORMONE DEFICIENCY, AND HOLLY (NINE YEARS OLD) HAS CORTISOL AND GROWTH HORMONE DEFICIENCY. THE SISTERS LIVE IN BANBURY IN THE UNITED KINGDOM

"Evie has taught me how resilient she can be. She grabs life by two hands and takes it all in her stride. Nothing stops her when she sets her mind to something. It's not nice having to go to a lot of hospital appointments and put her through blood tests, but she does it all with a smile on her face. I'm in awe of Evie's ability to keep smiling and tackle life head on."

Lorraine Lloyd-Garwood,
Evie & Holly's mother

WHAT ARE GROWTH DISORDERS?

Growth disorders are caused by growth hormone deficiency which occurs when the pituitary gland does not produce enough growth hormone for the normal development and maintenance of the body. While some growth-related disorders may be diagnosed at birth, others may not become obvious until later in childhood. Growth hormone deficiency in children impacts the body's composition, which causes insufficient longitudinal growth and may negatively affect the heart, lungs, bones, brain, quality of life and life expectancy. The standard of care for growth hormone deficiency in children is once-daily growth hormone injections. In some countries, growth hormone is also approved for the treatment of other causes of growth disorders.

PERFORMING WHILE TRANSFORMING:
BUILDING A BOLDER AND MORE COMPETITIVE US BUSINESS

The US market continues to be the largest for Novo Nordisk. It represents approximately half of the company's global sales and is in the midst of a significant transformation.

2017 was another dynamic year for Novo Nordisk in the US. A new leadership team came together and built a new business strategy anchored in prioritising and evolving the company's commercial business model – all designed to modernise the organisation, enable it to deliver on its innovation commitment and position it for growth in the challenging US market. The internal mantra is 'perform while we transform', and the organisation is doing just that.

The voices of people such as Donna Kasznel (see sidebar), who are living with a chronic disease, are where Novo Nordisk's US organisation draws its inspiration from. The unmet patient needs give the organisation purpose, not only in obesity, but also in diabetes, haemophilia and growth disorders.

NEW US LEADERSHIP

In March 2017, Doug Langa took over as head of Novo Nordisk North America Operations, which comprises the US and Canada. He was no stranger to the US organisation, having led the company's Market Access function for the previous six years and also having served on the US Executive Team.

"If there's one thing we can count on in the US, it's that things will continue to be dynamic when the competition and the pressure are on. To be successful, we need to have a deep understanding of the market dynamics and the implications for our business, and a willingness to make some bold changes," he says.

New products from competitors mean fiercer competition and, in some instances, a crowded market. Customers, especially a handful of very large pharmaceutical benefit managers, have more negotiating power and want greater rebates, fees or other concessions from drug manufacturers to keep their products on formularies, or lists of preferred medications. This has potential implications for sales growth and profitability.

At the same time, there is tremendous pressure on the healthcare system to lower costs, including the cost of prescription medications. Novo Nordisk has taken actions to better support patients who cannot afford medication and has proactively engaged in dialogue with advocacy groups, the government and customers to discuss solutions. "We're participating in programmes with customers that are making medications available at a lower cost for patients, which will be a continued area of focus. We're also implementing value-based contracts with customers, which are a way to align payment with realised outcomes. There are a lot of challenges associated with value-based contracts, such as data collection, but we're learning a lot and continuing to optimise," explains Doug Langa.

UNCERTAIN POLITICAL ENVIRONMENT

Uncertainty in the political environment provides both opportunities and challenges. Congress has expressed interest in addressing drug pricing and reforming Medicare and Medicaid. Meanwhile, several states have proposed laws relating to price controls and greater transparency regarding the costs of prescription medications. Some states have already passed legislation which means, among other things, new reporting requirements for pharmaceutical manufacturers such as Novo Nordisk. For example, in October 2017, the Governor of California signed a bill into law that will require medical companies to notify the state 60 days prior to price increases as well as to comply with a number of other reporting requirements. Activity focused on healthcare costs and access – specifically as it relates to medicines – is expected to continue at both federal and state level in 2018.

A HETEROGENEOUS AND COST-CONSCIOUS MARKET

Healthcare delivery in the US is not one-size-fits-all. It is a heterogeneous market, and different geographies have distinct local health systems requiring different approaches. In more traditional markets where there is greater access to healthcare professionals (HCPs), there are greater opportunities for face-to-face interactions between HCPs and Novo Nordisk sales representatives. At the other end of the spectrum, there are more controlled markets with integrated delivery networks (IDNs) – a more complex system of care involving hospitals, providers and employers and requiring an account management approach.

Increasingly, stakeholders in the healthcare system are trying to balance cost and quality. For example, some payers are creating exclusive formularies where they may offer only one therapy in each class. While driving price competition among manufacturers by encouraging increased rebates and discounts in order to gain preferred brand status, this potentially limits patient access to other therapeutic options. In the past six years, the rebates and discounts Novo Nordisk has paid have increased substantially.

Across all medicines in 2017, rebates and discounts consumed 64.1% of gross sales (59% in 2016 and 56% in 2015). In other words, for every dollar in gross revenue, Novo Nordisk paid 64 cents in rebates and discounts, leaving us with 36 cents to pay for expenses including R&D, manufacturing and sales and marketing.

"WE RECOGNISE THE NEED FOR SOLUTIONS BEYOND MEDICINES, AND DIGITAL HEALTH PLAYS AN IMPORTANT ROLE."

Doug Langa,
executive vice president,
North America Operations

NEW BUSINESS STRATEGY AND OPERATING MODEL

With the new leadership, there was an opportunity to take a fresh look at things in the light of these US market dynamics. "We'd already been working on a longer-term business strategy, but as we looked at the market, where we were and where we wanted to be, we knew that we needed to do more than define the business strategy. If we wanted to position the organisation for optimal success, we needed to change our operating model and how we approach the US market. Without that, we weren't in the best position to deliver on the strategy," explains Doug Langa.

Evolving the commercial operating model would involve a restructuring and a change of approach. It also brought with it the potential for significant disruption, as the company was simultaneously launching Victoza® as the only GLP-1 product on the market indicated to reduce the risk of major cardiovascular events, and preparing to launch Ozempic® in early 2018. "Of course, we took a pause and debated whether the

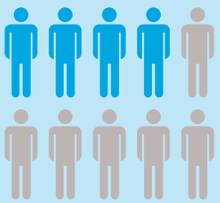
CONTINUED ▶

DONNA KASZNEL HAS OBESITY AND LIVES IN BOWLING GREEN, KENTUCKY

"I've been overweight for most of my adult life and have always been ashamed of it. Unlike some other diseases, obesity isn't something that you can keep a secret. It's the first thing people see when they meet you, and you're immediately judged based on your appearance. Obesity is relentless – it affects everything you do all day, every day, and permeates all aspects of your life – from what you wear to where you park, to the seat you choose, or whether you can even participate in certain things. My shame and my perceived failure at being able to control my weight prevented me from moving on in other areas of my life for decades. Today, I'm proud to use my voice to advocate for improved obesity management, as my wish is for others like me to get the medical treatment and support they deserve."

Donna Kasznel is a Novo Nordisk Obesity Patient Ambassador and she advocates to improve health policies that make obesity management more accessible to people in her state.

OBESITY AFFECTED ABOUT **4 OUT OF 10 ADULTS IN THE US** IN 2016[14]



MORE THAN **425 BILLION DOLLARS** PER YEAR IN DIRECT MEDICAL COSTS[16]

OBESITY IS LINKED TO OVER 50 DISORDERS[15]

timing was right and if we were putting our launches at risk, but the question quickly became, 'how can we not do this now?'" says Doug Langa. "We knew change was necessary to position us for success in the short and long term, so we couldn't wait. We focused on performing while we were transforming. I couldn't be more proud of my leadership team and all of our employees who did just that."

The new operating model and organisational design are built on three simple principles:

Integrate: create a new business unit structure for each key business: diabetes, obesity and biopharm. This would enable a simple, unified commercial approach by bringing together sales and marketing under one senior business leader and driving stronger collaboration across commercial and non-commercial functions.

Localise: understand the market at a local level and tailor the approach to local needs in the heterogeneous US market. For example, in diabetes, there are five new Area Commercial Lead roles, with experienced leaders who have the autonomy to lead the diabetes business locally and decide how to allocate resources based on local insights and actual customer needs.

Focus: strong prioritisation of, and resource allocation to, the top three strategic priorities that will drive growth in the US: growing volume share in the basal insulin market with Tresiba®, growing value share in the GLP-1 market with Victoza® and Ozempic®, and creating and leading the US obesity market with Saxenda®.

"We see an unprecedented opportunity in the US. That's why it was so important to evolve our operating model and modernise the organisation now, so we have the right infrastructure, mindset and leadership to deliver on the strategy," says Doug Langa.

The new business strategy and plans to evolve the operating model were communicated to all US employees in August 2017. As part of the restructuring, some jobs were eliminated and new positions were created. The goal of the restructuring was not to become smaller, but rather to optimise the structure to ensure the right capabilities were in place to support the strategy.

FROM STRATEGY TO ACTION

The company's approach to obesity management is a good example of how it is approaching the market and customers differently, based on needs and opportunity. In the US, more than 90 million adults are living with obesity,[14] which is linked to many other disorders and results in direct medical costs of more than 425 billion dollars per year.[16] Despite these staggering statistics, obesity remains largely under-recognised and undertreated in the US. If these trends continue, more that 44% of the US population will be affected by obesity by 2030.[15]

"We want to change how the world sees and treats obesity, and we believe we're the company to do it. We understand it, have a long-standing history in metabolic disease, 20 years of obesity medication research, the largest development pipeline in the industry and diverse partnerships that uniquely position us to lead in this area of tremendous unmet needs," comments Doug Langa. "We don't underestimate the barriers as they are multi-faceted and significant, but we have a legacy of commitment to the patients and communities we serve, and obesity is among them so we're in this for the long haul." Novo Nordisk is actively engaged in an ambitious three-part plan to reshape the treatment landscape for people with obesity, focused on changing the mindset, improving access to care and coverage for medications, and building a critical mass of people (patients and physicians) motivated to engage in discussion and manage this disease.

NEW DATA, NEW PRODUCTS, NEW OPPORTUNITIES

Based on data from the new LEADER study, Novo Nordisk received approval from the US Food & Drug Administration (FDA) in September 2017 for a supplemental New Drug Application (sNDA) for Victoza®, making Victoza® the first GLP-1 analogue indicated to reduce the risk of major cardiovascular events in people with type 2 diabetes. "Although Victoza® has been on the market since 2010, we treated this as a new product launch, with field force training, customer outreach and new promotional materials," notes Doug Langa.

In December 2017, Novo Nordisk also received FDA approval for Ozempic®, a once-weekly GLP-1 analogue for the treatment of type 2 diabetes, based on the SUSTAIN clinical development programme, involving eight phase 3a trials with more than 8,000 adults with type 2 diabetes. "It's a welcome dilemma. With Victoza® and Ozempic® we have two exceptional GLP-1 compounds, yet the challenge is how do we effectively launch Ozempic® and what's the right promotional strategy? In the old world, it would've been a one-size-fits-all approach, but that won't work today. Recognising that access won't be immediate and that once-weekly is the preferred GLP-1 dosing regimen, we'll watch the market and make a real-time shift of promotional resources as access is achieved. That way, we continue to promote Victoza® where and when it makes sense, yet we'll be ready to capitalise on the Ozempic® opportunity when the market is ready. That's something we simply couldn't have accommodated in the old operating model," Doug Langa continues.

As part of its commitment to improving patient care through digital solutions, Novo Nordisk has partnered with Glooko, a leading diabetes data management platform, to help people manage their diabetes more effectively through an app. The app combines Novo Nordisk's extensive

"WE'RE PARTICIPATING IN PROGRAMMES WITH CUSTOMERS THAT ARE MAKING MEDICATIONS AVAILABLE AT A LOWER COST FOR PATIENTS."

Doug Langa,
executive vice president, North America Operations

knowledge of diabetes and personalised patient support with Glooko's digital platform and data analytics expertise.

"We recognise the need for solutions beyond medicines, and digital health plays an important role in helping patients achieve their goals through technology. It's about building new capabilities, expertise and smart collaborations with a focus on helping people with diabetes better manage their health," notes Doug Langa.

LOOKING AHEAD

"When I reflect on 2017, I'm immensely proud of how much we accomplished, delivering solid business performance while taking bold steps to modernise and position the organisation for growth. US sales were at a similar level to 2016, despite the impact of the introduction of a generic version of the hormone replacement therapy product Vagifem® and a significant favourable rebate adjustment for human growth hormone at the beginning of 2016. That's thanks to strong growth in our diabetes care and obesity portfolio. We're competing like never before and, although change is never easy, our employees are energised by the empowerment, clear priorities, business strategy and potential to help patients through our differentiated portfolio.

In 2018, the US business will continue to build on Novo Nordisk's legacy in diabetes and drive meaningful change with innovative products and ground-breaking science, while also partnering with the obesity community and investing significantly to fundamentally change how obesity management will be delivered in the US. We're energised by the opportunity we have to make the lives of people living with diabetes, obesity, haemophilia and growth disorders better," Doug Langa concludes.

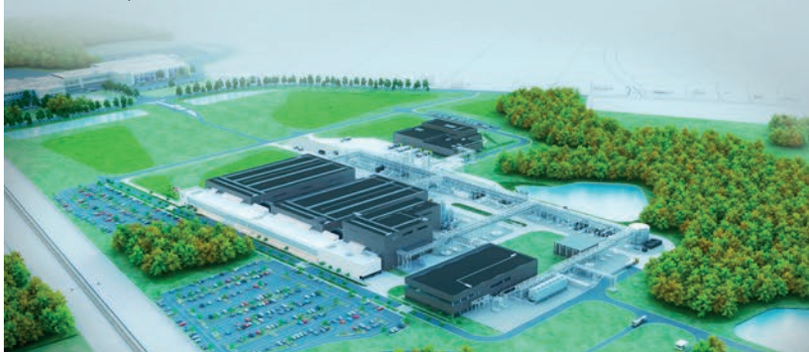
INVESTING FOR GROWTH

Novo Nordisk has a strong presence and a long history of investment in the US. Nearly 6,000 people are employed across the company's US operations, approximately 200 of whom in research and development positions. The US headquarters is in Plainsboro, New Jersey. The company has R&D sites in Seattle, Washington, and Indianapolis, Indiana, and recently completed a 10-million-dollar laboratory expansion in Seattle. Manufacturing facilities are located in Clayton, North Carolina, and West Lebanon, New Hampshire.

The Clayton facility manufactures diabetes products and represents a large investment area for the company. It was purchased in 1991 and became operational in 1996. The approximately 42,000 m^2 manufacturing facility currently employs approximately 1,000 employees and also includes office and laboratory space.

In 2015, Novo Nordisk announced that it was expanding its presence in Clayton and investing 2 billion dollars to build a new production facility. The plant will produce active pharmaceutical ingredients (API) for the company's diabetes care products, including semaglutide for formulation in a tablet (see p 21). "It's the largest investment ever undertaken by Novo Nordisk, and the expansion will help the company to meet rising US demand for its diabetes and obesity medicines. Clayton will become an even more important site in Novo Nordisk's global manufacturing set-up," says Henrik Wulff, executive vice president, Product Supply.

Once complete, the new facility will measure approximately 77,000 m^2. It will be the first location outside of Denmark where Novo Nordisk will produce API for diabetes care and obesity products. Once the facility is fully operational, it is expected to create close to 700 new full-time jobs. Novo Nordisk also expects to create a significant employment effect during the construction period, with up to 2,500 people working on the project at peak construction. The new facility is expected to be operational in 2020 and underscores Novo Nordisk's commitment to the US market and patients.



OPPORTUNITIES AND CHALLENGES: NOVO NORDISK'S INTERNATIONAL OPERATIONS

Covering 95% of the world's population in more than 190 countries,[10] International Operations is a diverse unit with a myriad of opportunities and challenges underpinned by one principle: to reach ever more people with diabetes and other serious chronic diseases with innovative treatment options. This requires a market-fit business model.

"I had no money left to buy insulin," says Affoué Alice Kouffi from Ivory Coast, talking about her son, Trésor, who was diagnosed with type 1 diabetes in 2015. "I took him to the local medicine man, who gave him some natural plants and herbs. But of course it didn't help him – and he went into a coma and almost died." Two years on, Trésor is under good control and enrolled in the Changing Diabetes® in Children programme, through which he has access to free insulin and ongoing medical education.

Trésor is one of the 23 million people treated with Novo Nordisk products in International Operations. They live across more than 190 countries and 20 time zones, from highly developed parts of the world, such as Japan and Europe, to least developed countries, such as Kenya and Afghanistan, and developing countries across Latin America, Asia and Africa. Most of the 23 million people have diabetes, but the figure also includes people with obesity, haemophilia and growth disorders.

International Operations reflects the diversity of cultures it serves. Covering 95% of the world's population,[10] it is made up of five regions: Europe, AAMEO (Africa, Asia, Middle East & Oceania), Japan & Korea, China and Latin America.

"In such a diverse unit, our business model is to take a market-fit approach," says Maziar Mike Doustdar, executive vice president and head of International Operations. "We tailor our portfolio, market access strategy and sales strategy to the needs of each individual market. This is good business sense – and means that we can ensure patients get the best possible treatment, wherever they are in the world."

One constant across the markets of International Operations is the competitive landscape. "Regardless of whether we're operating in a mature or emerging market, prescribers now have more treatment options available than ever before," he explains. "In that environment, our commercial execution needs to be flawless, with a sharp focus on the clinical benefits our products offer patients."

CHALLENGES AND OPPORTUNITIES ABOUND

The market-fit approach contributed to the strong performance in 2017. All five regions contributed to growth, despite a range of challenges. Pressures on healthcare expenditures remain in mature markets such as Europe and Japan, with their ageing populations and a rapidly rising number of people with chronic diseases. The same situation is now emerging in many developing countries. At the same time, an increasing number of biosimilar products have given payers and prescribers lower-priced treatment options across the globe.

In this challenging environment, Maziar Mike Doustdar sees opportunities for International Operations to get closer to patients, prescribers and payers through increased education and awareness, scientific dialogue and enhanced commercial execution. "I'm incredibly proud that we serve 23 million patients every day," he says, "but that's still a small proportion of the nearly 400 million people with diabetes across International Operations.[1] I believe that in the future more patients will be using Novo Nordisk products because of the strong data we've seen from recent clinical studies with Victoza® and Tresiba®. It's our responsibility to patients to leverage these data and deepen the conversation with payers and doctors about how we can improve patients' lives."

In particular, Maziar Mike Doustdar sees the need to make more payers, health policymakers and doctors understand that treating diabetes is about more than 'just' controlling blood glucose levels. "A person with diabetes thinks about and experiences their condition in complex ways," he points out. "They fear situations when their blood glucose becomes dangerously low, called hypoglycaemia, they're concerned about weight gain and may worry about the risk of severe complications, in particular cardiovascular events which could be life-changing or even life-threatening."

Maziar Mike Doustdar is confident that International Operations has the right approach to providing solutions to meet patients' needs. "Our market-fit approach means that we can offer a product mix suitable for any type of country," he says. "In less developed countries, we can provide high-quality human insulin at very low prices. In developing countries, we can offer patients modern insulin – or insulin analogues – with enhanced properties, such as shorter or longer duration of action.

And in mature markets, we can change patients' lives with the newest, innovative products that can reduce hypoglycaemic events or the risk of cardiovascular events and death."

Novo Nordisk is currently the market leader in diabetes in International Operations, supplying half of all insulin and holding a 23% share of the total diabetes value market. But Maziar Mike Doustdar believes that the unit can increase market share: "Our portfolio will become even stronger with Ozempic® – our once-weekly semaglutide – which we expect to launch in the first countries in International Operations in 2018. Combined with our existing market-fit portfolio, I believe that we'll reach and benefit more people with diabetes across the world than ever before in the years to come."

Moreover, with obesity posing a growing challenge to individuals and societies around the world, Maziar Mike Doustdar believes there are significant opportunities for International Operations to have a positive impact. "We have a robust pipeline in obesity but already we have a strong footprint with Saxenda® – our once-daily 3 mg formulation of liraglutide," he says. "Over the next couple of years, we'll see obesity become an increasingly important part of our business."

CONTINUED ▶

TRÉSOR KOUADIO AND HIS MOTHER AFFOUÉ ALICE KOUFFI. TRÉSOR HAS TYPE 1 DIABETES AND LIVES IN IVORY COAST

FOCUS ON ACCESS TO CARE: CHANGING DIABETES® IN CHILDREN

Producing life-saving medicines is a significant responsibility, but it takes more than medicine to defeat diabetes. Read more on **pp 26–27**. Novo Nordisk's Changing Diabetes® commitment is part of the company's response to create a future where fewer people develop diabetes, everyone with diabetes is diagnosed earlier, everyone diagnosed receives adequate care and everyone receiving care is able to live a life with as few limitations as possible.

One key project is the Changing Diabetes® in Children (CDiC) programme. The programme allows children with type 1 diabetes to live instead of dying due to undiagnosed or untreated diabetes. In the new CDiC programme in Ivory Coast, 44 children were enrolled six months after the programme was launched. Most of these were initially thought to have a common infectious disease. By the time they reached a healthcare provider, they were in severe ketoacidosis.

The CDiC programme is designed to address the barriers to access to care for children with type 1 diabetes in developing countries in a sustainable way. The programme is currently running in 14 countries. Providing life-saving insulin is one part of the programme, but this goes hand in hand with building capacity in the local healthcare system and educating children and caregivers. More than 16,000 children have been enrolled in the programme since 2009, and the aim is to reach 20,000 children by 2020.

Read more at **novonordisk.com/cdic**.

MAZIAR MIKE DOUSTDAR, EXECUTIVE VICE PRESIDENT, INTERNATIONAL OPERATIONS

HOW ARE NOVO NORDISK'S PRODUCTS PRICED?

The way the price and reimbursement of medicines are determined varies greatly between countries. In some countries, price and reimbursement are the result of negotiations between the pharmaceutical manufacturer and the government, and in others, governments make bulk purchases of medicine through tender orders – an auction-like process whereby several companies are invited to submit their best bid.

"When we determine how to price our medicines, we consider a number of factors – primarily what medical need the product meets for clinicians and patients, and how the clinical profile of the drug compares with other treatments for the same condition," Maziar Mike Doustdar explains. "Other factors include the level of development of the local economy, and the pricing and reimbursement systems in the country.

"In the world's poorest countries, we've made a special commitment to improving access to quality treatments for patients. We guarantee that we'll provide low-priced human insulin to least developed countries, as defined by the United Nations, and to other low-income countries, as defined by the World Bank, as well as to selected organisations providing relief in humanitarian situations. This means that we'll provide the human insulin needed at a guaranteed ceiling price which won't exceed 20% of the human insulin list price in the Western world.*"

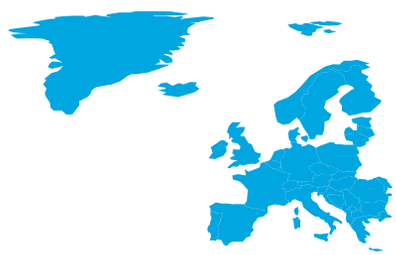
* The ceiling price for 2017 was set at 4 dollars per vial (16 cents per day).

REGION AAMEO

- Total population: 4,326m[10]
- Adults with diabetes: 187m[1]
- Adult diabetes prevalence: ~7.5%[1]
- Employees*: ~4,600

Region AAMEO is Novo Nordisk's most geographically and culturally diverse region, spanning four continents and 110 countries. In 2017, sales in Region AAMEO grew by 8% in local currencies, driven by strong diabetes market performance and a growing obesity business through private-market launches of Saxenda®. The region continues to face macroeconomic and geopolitical challenges, with oil-exporting countries acclimatising to the 'new normal' of sub-100-dollar/barrel oil prices and a number of markets beset by conflict and political unrest, particularly in the Middle East and Africa. In spite of these pressures, Region AAMEO is expected to continue to grow the market through higher volume sales, upgrades from human insulin to modern insulin in less developed countries and launches of new-generation insulin in more mature markets such as Turkey, Saudi Arabia and the Philippines. There will be further opportunities to develop the obesity business following the strong post-launch performance of Saxenda®, particularly in Middle Eastern markets. Investments will also continue to underpin ongoing partnerships in key markets, particularly through local manufacturing facilities in Iran, Algeria and Russia that ensure product supply and strengthen stakeholder relationships in strategic markets across Region AAMEO.

REGION EUROPE



- Total population: 593m[10]
- Adults with diabetes: 39m[1]
- Adult diabetes prevalence: ~8.8%[1]
- Employees*: ~2,900

Region Europe is International Operations' largest region in terms of sales, but in previous years it has seen very low growth due to pressure on healthcare budgets and difficult market access conditions. In 2017, Region Europe delivered 3% sales growth in local currencies. In particular, new-generation insulin products such as Xultophy®, Fiasp® and Tresiba® have taken significant market shares at launch across several markets. In September 2017, Victoza® received an updated label that now incorporates the cardiovascular benefits shown by the LEADER study data (see pp 24–25). In the coming year, Region Europe will focus efforts on leveraging the strong clinical profile of Victoza® and cementing leadership in the GLP-1 segment, in advance of the expected launch of Ozempic® in late 2018 in selected markets. There are also opportunities to broaden the biopharm business by building on previous launches of the recombinant factor VIII, NovoEight®.

* Employee numbers only cover regional sales organisations.

REGION CHINA

- Total population: 1,410m[10]
- Adults with diabetes: 117m[1]
- Adult diabetes prevalence: ~10.9%[1]
- Employees*: ~3,100

Region China has shown economic resilience in 2017 and continues to invest in its healthcare infrastructure and capacity, delivering opportunities for continued growth for Novo Nordisk. In 2017, sales in Region China grew by 6% in local currencies, driven by the continued strong uptake of modern insulin in a market where the majority of people with diabetes still use human insulin. Following market share declines in 2016, the key focus for Region China in 2017 was to increase share of growth by focusing on major cities and provincial markets alike. The region was able to turn around its market share performance by mid-2017, and continues to be the market leader and growth driver in modern insulin. 2017 also brought three milestones: 1) in July, Victoza® became the only reimbursed GLP-1 analogue on China's national reimbursement drug list, 2) also in July, NovoSeven® was admitted to the national reimbursement drug list and 3) in September, Tresiba® received regulatory approval from the China Food and Drug Administration (CFDA). With an enhanced portfolio, particularly in the GLP-1 segment, Region China is now in a position to deliver more treatment options for prescribers and patients alike.

REGION JAPAN & KOREA

- Total population: 178m[10]
- Adults with diabetes: 11m[1]
- Adult diabetes prevalence: ~8.0%[1]
- Employees*: ~1,200

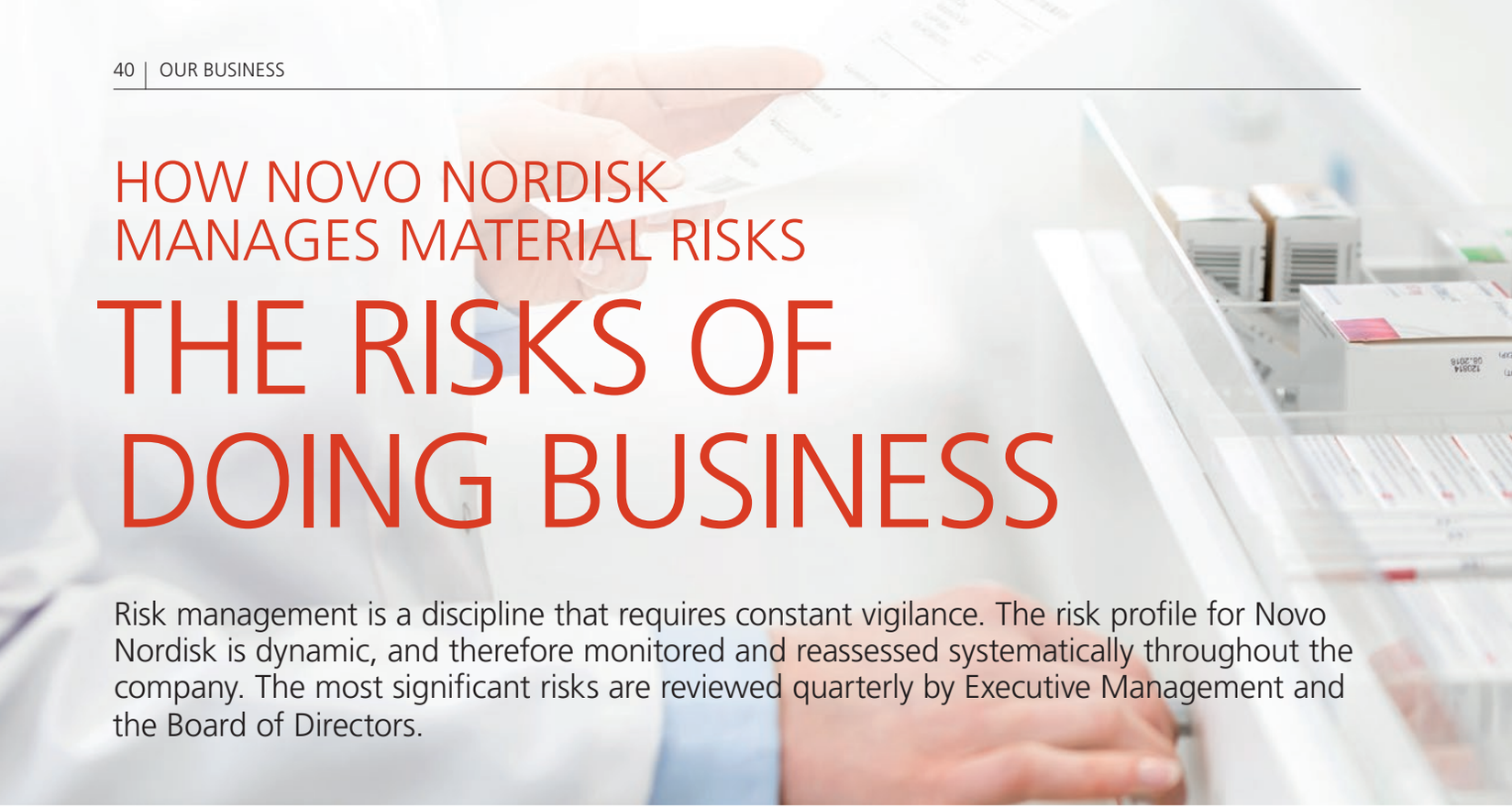
Region Japan & Korea has been resilient in the face of increased competitive pressures and a low-growth environment, particularly in Japan. In 2017, sales in the region grew by 2% in local currencies, driven by strong uptake and market share gains of new-generation insulins Tresiba® and Ryzodeg®. Tresiba® has established and cemented Novo Nordisk's basal leadership in both markets. Ryzodeg® has delivered strong growth in the mix segment in Japan. It was also launched in South Korea in November 2017 and is expected to provide further growth in the coming year. The GLP-1 segment has, however, become increasingly competitive. Given the propensity of prescribers to choose once-weekly formulations, Ozempic® is expected to be in a strong position to gain market share in the growing GLP-1 segment in the coming years. There will also be opportunities to continue to advance leadership in the company's biopharm business, with continued focus on growth disorders and expanding use of NovoEight® amongst people with haemophilia A.

REGION LATIN AMERICA

- Total population: 648m[10]
- Adults with diabetes: 40m[1]
- Adult diabetes prevalence: ~9.3%[1]
- Employees*: ~900

Region Latin America was elevated to a separate region in 2016 because of strong sales growth in the previous five years. The region was able to continue its upward trajectory in 2017, growing sales by 7% in local currencies and driven by strong performance in Brazil and Argentina as well as the robust uptake of Saxenda® across the region. This strong sales growth was achieved despite macroeconomic challenges in multiple markets, particularly in Venezuela and Argentina, and it is likely that these challenges will remain in 2018. Despite this, Region Latin America will continue to provide growth opportunities through increased volumes and a market access environment that remains conducive to further penetration with Novo Nordisk's novel portfolio. In particular, Tresiba® and Ryzodeg® will offer alternative treatment options for prescribers in multiple countries, and Saxenda® penetration will build on a strong market entry in countries such as Brazil, Mexico and Chile.

* Employee numbers only cover regional sales organisations.



HOW NOVO NORDISK MANAGES MATERIAL RISKS

THE RISKS OF DOING BUSINESS

Risk management is a discipline that requires constant vigilance. The risk profile for Novo Nordisk is dynamic, and therefore monitored and reassessed systematically throughout the company. The most significant risks are reviewed quarterly by Executive Management and the Board of Directors.

"We have a very structured process for identifying risks throughout the value chain, and also look for cross-functional correlations. On our 'heat map' are the risks that could cause significant disruptions to our business on a three-year horizon. For each risk, we assess likelihood and impact and determine what mitigating actions to take," explains Jesper Brandgaard, chief financial officer and chair of the Risk Management Board of Novo Nordisk.

"We also monitor emerging risks, although they are of course more difficult to assess in terms of both likelihood and potential impact. As part of our enterprise risk management system, we conduct risk-thinking exercises with management teams to identify emerging risks and trends and to think the unthinkable. Risks and opportunities arising from trends in our business environment and macro developments are factored into Novo Nordisk's strategy process. Here we assess the major risk factors to the financial outlook and undertake sensitivity analyses related to the pipeline, competitor advances and market dynamics in a 10-year perspective," Jesper Brandgaard continues.

RESEARCH & DEVELOPMENT RISKS

Specific to the pharmaceutical industry are risks associated with the testing of new medicines for safety and efficacy during a rigorous process that often takes more than 10 years. Throughout in the process, there is the risk of studies showing that new product candidates are not sufficiently efficacious or that they have unacceptable side effects. Furthermore, there is always the risk, during the regulatory approval process, that the authorities will request more data before they decide whether or not to approve the product.

In 2017, several Novo Nordisk products passed important regulatory milestones, in the form of first-time approval or updated labels, which strengthened the products' clinical profiles. This significantly reduced Novo Nordisk's near-term R&D risk profile during the year. Most important were the first regulatory approvals of Ozempic® (semaglutide for once-weekly injection) as a treatment for type 2 diabetes. Ozempic® was approved in the US and was recommended for approval by the European regulatory authorities, both in 2017, paving the way for its launch in the US and in Europe.

MARKET RISKS

"While the short-term R&D risk profile was overall lower at the end of 2017 than the year before, I can't say the same about market risks," says Jesper Brandgaard. "In the US, price pressure in the very competitive market for basal insulin continues, and in International Operations we see the same trend. The market for GLP-1 products isn't currently under the same pressure, but this may change when new products enter the market."

Within haemophilia, a well-known market risk for Novo Nordisk is the launch of a competitor product for the treatment of haemophilia impacting sales of NovoSeven®.

Market risks may also come from new legislation. "Healthcare reforms in the US are a potential risk, but so far attempts to replace and repeal the Affordable Care Act have not been successful, and federal lawmakers currently seem to be focusing on other priorities and the way forward seems highly uncertain," says Jesper Brandgaard. "This isn't to say there won't be reforms at federal level, but it will take longer than we thought a year ago. Meanwhile, several states have developed or are considering their own measures aimed at lowering costs for medicine."

SUPPLY, QUALITY AND PRODUCT SAFETY RISKS

In terms of Novo Nordisk's ability to ensure a steady supply of high-quality products to its customers, no significant risks materialised in 2017. During 2017, 34 audits and 47 inspections by authorities were conducted at the company's production sites, none of which failed. Further, to mitigate risks Novo Nordisk collaborates with suppliers, for example to avoid production of critical components relying on a single supplier or a single production site.

Product safety and quality must never be compromised. Hence, potential safety issues are acted upon immediately. Novo Nordisk did not have any critical product recalls in 2017, but a safety issue was detected with a cartridge holder in some batches of NovoPen Echo® and NovoPen® 5 injection devices, which could have led to some patients getting a smaller insulin dose than intended. Novo Nordisk recalled affected pens in stock at wholesalers and pharmacies in 40 markets and put in place measures whereby patients could have their cartridge holder exchanged.

IT SECURITY RISKS

Like any other business, Novo Nordisk is subject to computer virus and malware attacks, and in fact fends off millions of attacks on a daily basis. In light of the severe incidents that other companies have experienced in recent years, attacks on Novo Nordisk's IT systems are now assessed to present a greater risk than previously envisaged. If a virus or malware penetrates the different layers of security, it could have a significant adverse impact on key IT systems throughout the value chain.

"In recent years, we've upgraded our IT security capabilities and processes," says Jesper Brandgaard. "But we're not done, and probably never will be. We must continuously strengthen our ability to protect against, detect and respond to cyberattacks, which includes investing in business continuity measures."

LEGAL AND COMPLIANCE RISKS

At any point in time, a pharmaceutical company of Novo Nordisk's size could face legal and compliance risks, such as lawsuits filed by competitors or customers, or investigations by authorities into certain business practices. Investors do, and should, pay attention to such cases, as they can have significant financial or market impacts. A summary of Novo Nordisk's significant ongoing cases can be found on p 80.

Novo Nordisk has a comprehensive Business Ethics Code of Conduct and Framework, and all relevant employees are trained regularly. Unethical behaviour is not tolerated – a message that is consistently reinforced by senior management and underpinned by timely and appropriate action in cases where breaches have occurred (see p 17).

CONTINUED ▶

LONG-TERM RISKS

Novo Nordisk aspires to be a sustainable business, which requires a long-term perspective on value creation. In the context of risk management, it means taking an active role in addressing risks related to global economic development, geopolitics and long-term prosperity. These trends and macro developments are assessed in Novo Nordisk's rolling 10-year strategic planning process.

Detailed descriptions of how Novo Nordisk manages environmental and social risks through climate action initiatives, water stewardship, respect for human rights, access to health, diversity and inclusion, business ethics and responsible tax can be reviewed in the Communication on Progress at **novonordisk.com/annualreport**.

NOVO NORDISK'S RISK MANAGEMENT POLICY

At Novo Nordisk, we will proactively manage risk to ensure continued growth of our business and to protect our people, assets and reputation. This means that we will:

- utilise an effective and integrated risk management system while maintaining business flexibility
- identify and assess material risks associated with our business
- monitor, manage and mitigate risks.

Read more about Novo Nordisk's risk management governance at **novonordisk.com/about-novo-nordisk/corporate-governance/risk-management.html**.

RISK PROFILE AND MITIGATING ACTIONS

As a global business, Novo Nordisk is exposed to risks throughout its value chain – from early discovery of new medicines in the research laboratories to the homes of patients who take its life-saving medicines on a daily basis. The more specific the risk, the more concrete the mitigating action. For example, back-up facilities and inventories can be put in place to anticipate supply disruptions. Delays or failure in the pipeline, which may lead to abandoning a promising product candidate, can also be quantified, and actions can be taken throughout the process from discovery to commercialisation. Other risks may materialise suddenly or from unseen angles, such as a virus attack on data systems, and may cause business disruptions, if mitigating actions are not sufficient.

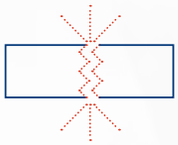
See an overview of Novo Nordisk's key risks in the table on **pp 42–43**.

ENTERPRISE RISK MANAGEMENT

Risk management is an enterprise-wide effort. Management teams in all organisational areas are responsible for continuous identification, assessment, mitigation and reporting of current and emerging risks. Risks are assessed in terms of potential financial loss and potential reputational damage. Through this process, risks can be anticipated and addressed proactively in order to protect and enhance the value of assets, people, performance and reputation. The most significant risks are those that would have a material negative impact on the business and a significant adverse impact on people. These key risks are presented to the Board of Directors on a quarterly basis.

Read more at **novonordisk.com/about-novo-nordisk/corporate-governance/risk-management.html**.

NOVO NORDISK'S KEY RISKS



DELAYS OR FAILURE OF PRODUCTS IN PIPELINE

WHAT IS THE RISK?

The development of a product candidate can take more than 10 years and may be delayed, or even abandoned, at substantial expense. The process involves non-clinical tests and clinical trials, commercial product planning and regulatory approval, including approval of the production facilities.

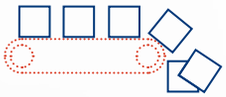
WHAT IS THE IMPACT?

Patients would not benefit from innovative treatments and Novo Nordisk's future position as a leader could be jeopardised if the company is unable to bring innovative products to market. Any delays or failures of new products could have an adverse impact on sales, profits and market position.

WHAT ACTIONS ARE TAKEN?

Insights into patients' unmet needs inform the selection of new product candidates. Clinical trials are run to demonstrate safety and efficacy. Assessments of commercial viability determine progress through stage gates. Consultations are held with regulators to review clinical findings and obtain guidance on clinical programmes.

See more on pp 20–23.



SUPPLY DISRUPTIONS

Failures or delays may occur at production sites or throughout the extensive global supply chain, relating to procurement of ingredients and components as well as distribution of products. This could be due to breakdowns or quality failures at company sites or at key suppliers' production facilities.

Pharmacies and hospitals could face product shortages, with potential implications for patients' daily treatment needs, if Novo Nordisk is prevented from supplying products to markets.

Annual inspections by regulatory authorities document GMP compliance, and alternative supply sites for critical raw materials and back-up facilities are in place for key production plants and safety inventories, to prevent and respond to accidents or other disruptions to supplies. Global production reduces supply risks.

See more on p 12.

COMPETITION AND MARKET DEVELOPMENTS

Governments and private payers take measures to limit spending on medicines by driving down prices, demanding higher rebates and restricting access to and reimbursement of new products. In some markets, political instability, conflict or weak enforcement of the rule of law may affect sales. At any time, established or new competitors may bring new products to market, leading to increased competition.

Patients would not have access to the clinical benefits of new products if Novo Nordisk is prevented from launching new products due to reimbursement restrictions. Lower average prices are expected in the US. In other markets, prices are also under pressure, and newer products could be niched for use in narrow sub-populations.

Clinical trial data demonstrate the added value of new products. Real-world evidence is introduced to show health economic benefits. Negotiations with payers aim to ensure patients' access to the clinical benefits of new products.

See more on pp 32–39.

COMPROMISES TO PRODUCT QUALITY AND PATIENT SAFETY

Product quality and patient safety may be compromised if, for example, a production facility is found to be in non-compliance, a product is not within specifications or if side effects that were not detected in clinical trials become apparent when a product is used for a longer period of time.

Patients' health and lives could be put at risk and Novo Nordisk's reputation and licence to operate could be damaged if regulatory compliance is not ensured.

A robust quality management system, improvement plans and systematic senior management reviews are in place. Authority inspections and internal quality audits are conducted at production sites. When issues are found with production processes or marketed products, root causes are identified and corrected and, if necessary, products are recalled.

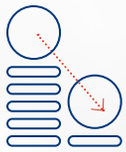
See more on p 12.

INFORMATION TECHNOLOGY SECURITY BREACHES

Disruption to IT systems, such as virus attacks, breaches of data security or failure to integrate new systems, may happen across the global value chain, where well-functioning IT systems and infrastructure are critical for the company's ability to operate effectively.

Patients' or other individuals' privacy could be compromised if confidential information is disclosed, and breaches of IT security could have a severe impact on Novo Nordisk's ability to maintain operations and hence on its financial situation. In production environments, for example, breaches of IT security could impact Novo Nordisk's ability to produce and safeguard product quality.

An information security strategy is in place to prevent intruders from causing damage to systems and gaining access to critical data and systems. Continuity plans are being prepared in the event of non-availability of IT systems. Awareness campaigns, access controls and intrusion detection and prevention systems have been implemented. Internal audits of IT security are conducted to detect and mitigate any breaches.



CURRENCY IMPACT AND TAX DISPUTES

Exchange rate fluctuations and transfer pricing disputes with tax authorities are external factors that may occur at any time. Novo Nordisk's foreign exchange risk is most significant in USD, CNY and JPY, while the ER exchange rate risk is regarded as low due to Denmark's fixed-rate policy vis-à-vis the euro.

Novo Nordisk's cash flow and income statement would be negatively impacted if the local currency value in key sales regions depreciated against the Danish krone. Loss of major tax cases could result in significant tax adjustments and fines and could lead to a higher-than-expected tax level for the company.

Expected future cash flows for selected currencies are hedged to mitigate exposures. An integrated treasury management system is in place. Applicable taxes are paid in jurisdictions where business activity generates profits. Multi-year advance pricing agreements (APAs) with tax authorities have been negotiated with the US, Canada and Japan. Hedging activities and calculation of transfer pricing are subject to internal audit.

See more on pp 13, 72–73 and 83–84.

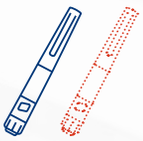
BREACH OF LEGISLATION OR ETHICAL STANDARDS

In a tightly regulated industry, breach of legislation, industry codes or company policies may occur in connection with business interactions, such as with healthcare professionals, business partners or other stakeholders. This could lead to lawsuits against Novo Nordisk or investigations by the authorities.

Breaches of legislation or ethical standards could compromise the integrity of the individuals involved and could cause damage to Novo Nordisk's reputation and financial situation.

Due diligence, standard procedures and training are in place to ensure compliance with laws and regulations and prevent breaches of standards, with legal defence where relevant. Compliance with business ethics standards is subject to internal audit.

See more on pp 16–17 and 102–103.



LOSS OF INTELLECTUAL PROPERTY RIGHTS

The validity of patents that are critical for protecting Novo Nordisk's commercial products and candidates in the R&D pipeline may be challenged by competitors.

Loss of exclusivity for existing and pipeline products could impact Novo Nordisk's market position, sales and profits.

Throughout the process of drafting, filing and prosecuting a patent application, internal controls are in place to minimise vulnerability to invalidity actions. Patents at high risk of invalidity challenge are proactively identified to defend Novo Nordisk's intellectual property rights.

See more on pp 74–75 and 101.

SHARES AND CAPITAL STRUCTURE

Through open and proactive communication, the company aims to provide the basis for fair and efficient pricing of its shares.

SHARE CAPITAL AND OWNERSHIP

Novo Nordisk's total share capital of DKK 500,000,000 is divided into an A share capital of nominally DKK 107,487,200 and a B share capital of nominally DKK 392,512,800.* The company's A shares are not listed and are held by Novo Holdings A/S, a Danish public limited liability company wholly owned by the Novo Nordisk Foundation. The Foundation has a dual objective: to provide a stable basis for the commercial and research activities conducted by the companies within the Novo Group (of which Novo Nordisk is the largest), and to support scientific and humanitarian purposes. According to the Articles of Association of the Foundation, the A shares cannot be divested. As of 31 December 2017, Novo Holdings A/S also held a B share capital of nominally DKK 32,762,800. Novo Nordisk's B shares are listed on Nasdaq Copenhagen and on the New York Stock Exchange (NYSE) as American Depository Receipts (ADRs). Novo Nordisk's A and B shares are calculated in units of DKK 0.20, resulting in 537,436,000 A shares and 1,962,564,000 B shares. Each A share carries 200 votes and each B share carries 20 votes.* No complete record of all shareholders exists; however, based on available sources of information about the company's shareholders, as of 31 December 2017 it is estimated that shares were geographically distributed as shown in the chart on the opposite page. As of 31 December 2017, the free float of listed B shares was 88.8% (of which approximately 11.8% are listed as ADRs), excluding the Novo Holdings A/S holding and Novo Nordisk's holding of treasury shares which, as of 31 December 2017, was DKK 43,871,211 nominally. For details about the share capital, see note 4.1 on pp 81–82.

CAPITAL STRUCTURE AND DIVIDEND POLICY

Novo Nordisk's Board of Directors and Executive Management consider that the current capital and share structure of Novo Nordisk serves the interests of the shareholders and the company well, providing strategic flexibility to pursue Novo Nordisk's vision. Novo Nordisk's capital structure strategy offers a good balance between long-term shareholder value creation and competitive shareholder return in the short term. Novo Nordisk's guiding principle is that any excess capital, after the funding of organic growth opportunities, investments and acquisitions, should be returned to investors. The company's dividend policy applies a pharmaceutical industry benchmark to ensure a competitive payout ratio for dividend payments, which are complemented by share repurchase programmes. As illustrated on the opposite page, Novo Nordisk has continuously increased both the payout ratio and the dividend paid over the last five years. The final dividend for 2016 paid in March 2017 was equal to DKK 4.60 per A and B share of DKK 0.20 as well as for ADRs. The total dividend for 2016 was DKK 7.60 per A and B share of DKK 0.20, corresponding to a payout ratio of 50.2%, which is on par with the 2016 pharma peer group average of 48.7%. In August 2017, an interim dividend was paid equalling DKK 3.00 per A and B share of DKK 0.20 as well as for ADRs. For 2017, the Board of Directors will propose a final dividend of DKK 4.85 to be paid in March 2018, equivalent to a total dividend for 2017 of DKK 7.85 and a payout ratio of 50.4%. The company expects to distribute an interim dividend in August 2018, and further information regarding such interim dividend will be announced in connection with the financial report for the first six months of 2018. Novo Nordisk does not pay a dividend on its holding of treasury shares. Shareholders' enquiries concerning dividend payments and shareholder accounts should be addressed to Investor Service. Read more on the back cover.

During the 12-month period beginning 2 February 2017, Novo Nordisk repurchased shares worth DKK 17 billion. The share repurchase programme has primarily been conducted in accordance with the safe harbour rules in the EU Market Abuse Regulation (MAR).

SHARE REPURCHASE PROGRAMME FOR 2017/2018

For the next 12 months, Novo Nordisk has decided to implement a new share repurchase programme. The expected total repurchase value of B shares amounts to a cash value of up to DKK 14 billion. The total programme may be reduced in size if significant product in-licensing or bolt-on acquisition opportunities arise during 2018. Novo Nordisk expects to conduct the majority of the new share repurchase programme according to the safe harbour rules in MAR. At the Annual General Meeting in March 2018, the Board of Directors will propose a further reduction in the company's B share capital, corresponding to approximately 2% of the total share capital, by cancelling 50,000,000 treasury shares. After the implementation of the share capital reduction, Novo Nordisk's share capital will amount to DKK 490,000,000, divided into A share capital of DKK 107,487,200 and B share capital of DKK 382,512,800.

SHARE PRICE DEVELOPMENT

Novo Nordisk's share price increased by 31.3% between its 2016 close of DKK 254.7 and the 29 December 2017 close of DKK 334.5. For comparison, the Danish OMXC20 CAP stock index increased by 12.1% and the pharma peer group increased by 1.3% during 2017. The total market value of Novo Nordisk's B shares, excluding treasury shares, was DKK 638 billion as of 31 December 2017.

COMMUNICATION WITH SHAREHOLDERS

To keep investors updated about performance and the progress of clinical development programmes, Novo Nordisk hosts conference calls with Executive Management following key events and the release of financial results. Executive Management and Investor Relations also travel extensively to ensure that all investors with a major holding of Novo Nordisk shares can meet with the company on a regular basis and that a number of other investors and potential investors also have access to the company's Executive Management and Investor Relations.

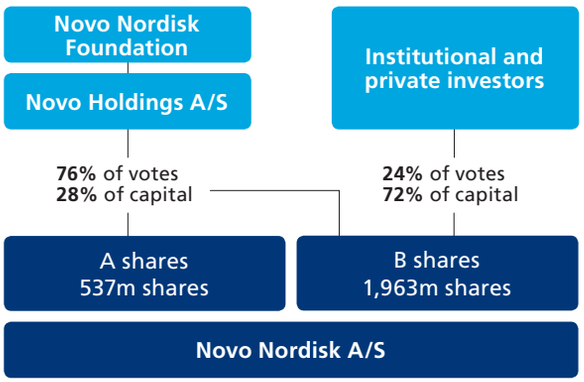
ANALYST COVERAGE

Novo Nordisk is currently covered by 33 sell-side analysts, including the major global investment banks that regularly produce research reports on Novo Nordisk. A list of analysts covering Novo Nordisk can be found under 'Investors' on novonordisk.com. Other information which can be accessed via this website includes company announcements from 1995 onwards, financial, social and environmental results, a calendar of investor-relevant events, investor presentations and background information.

* Special rights attached to A shares include pre-emptive subscription rights in the event of an increase in the A share capital and pre-emptive purchase rights in the event of a sale of A shares, while B shares take priority for liquidation proceedings. A shares take priority for dividends below 0.5%, and B shares take priority for dividends between 0.5 and 5%.

SHARE AND OWNERSHIP STRUCTURE

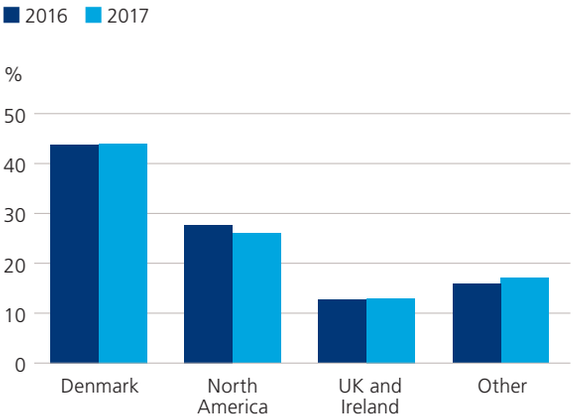
OWNERSHIP STRUCTURE



Note: Treasury shares are included in share capital but have no voting rights.

GEOGRAPHICAL SPLIT*

% of share capital

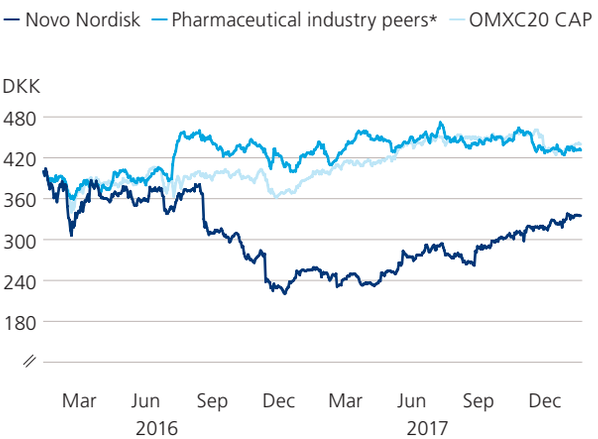


* Using shareholder' registered home countries.

SHARE PRICE PERFORMANCE

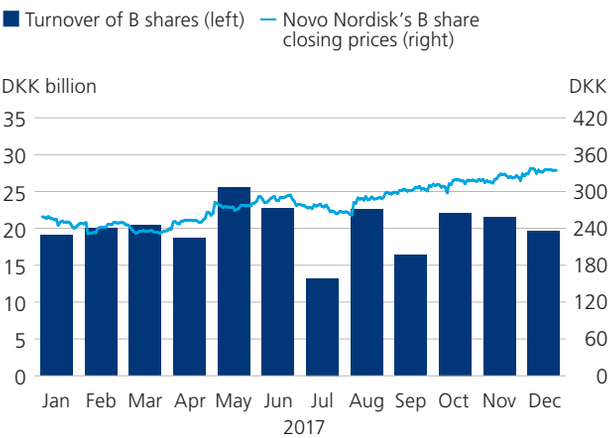
SHARE PRICE PERFORMANCE

Novo Nordisk share price and indexed peers



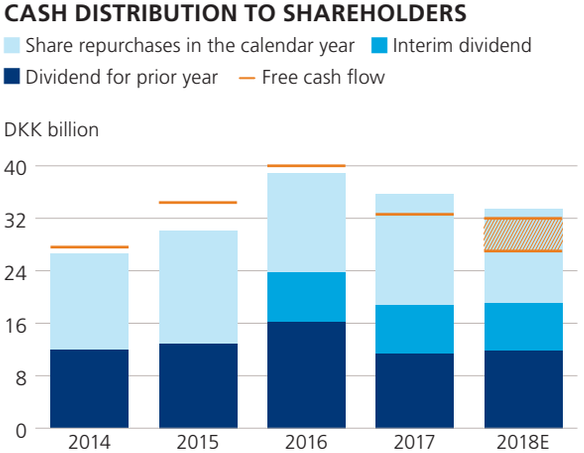
* Pharma peers comprise: AstraZeneca, Bristol-Myers Squibb, Eli Lilly, GlaxoSmithKline, J&J, Merck & Co, Novartis, Pfizer, Roche, Sanofi and Teva.

PRICE DEVELOPMENT AND MONTHLY TURNOVER OF NOVO NORDISK B SHARES



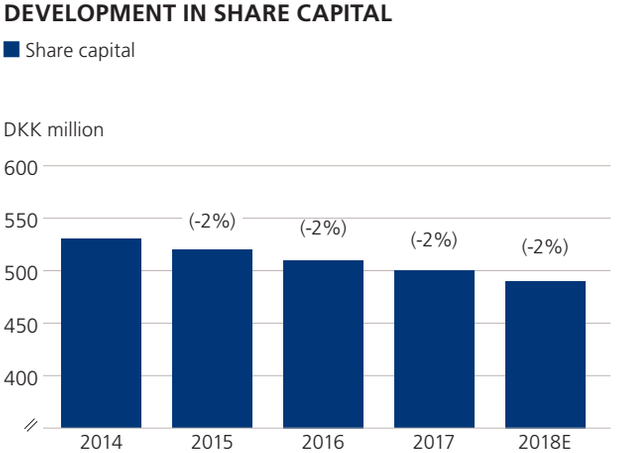
CASH DISTRIBUTION TO SHAREHOLDERS

CASH DISTRIBUTION TO SHAREHOLDERS



Note: Dividends are allocated to the year of dividend pay. Interim dividend for 2018 to be determined. For illustration only.

DEVELOPMENT IN SHARE CAPITAL



CORPORATE GOVERNANCE

The Board of Directors of Novo Nordisk focuses on good governance practices. In 2017, a temporary Research & Development Committee was established to provide oversight of the revised research and development strategy. The Board conducted a self-assessment facilitated by external consultants. Two board members joined the Board, and two members left.

GOVERNANCE STRUCTURE

SHAREHOLDERS

The shareholders of Novo Nordisk have ultimate authority over the company and exercise their right to make decisions at general meetings. At the annual general meeting, shareholders approve the annual report and any amendments to the company's Articles of Association. Shareholders also elect board members and the independent auditor.

Resolutions can generally be passed by a simple majority. However, resolutions to amend the Articles of Association require two-thirds of the votes cast and capital represented, unless other adoption requirements are imposed by the Danish Companies Act.

Novo Holdings A/S has the voting majority at the annual general meeting. However, all strategic and operational matters are decided solely by the Board of Directors and Executive Management of Novo Nordisk A/S. Read more about shares and capital structure on pp 44–45.

BOARD OF DIRECTORS

Novo Nordisk has a two-tier management structure consisting of the Board of Directors and Executive Management. The two bodies are separate, and no one serves as a member of both.

The Board of Directors determines the company's overall strategy and follows up on its implementation, supervises the performance, ensures adequate management and organisation and, as such, actively contributes to developing the company as a focused, sustainable, global pharmaceutical company. The Board of Directors supervises Executive Management. The Board of Directors may also distribute extraordinary dividends, issue new shares or repurchase shares in accordance with authorisations granted by the Annual General Meeting and recorded in the meeting minutes. For the minutes of annual general meetings, see novonordisk.com/about_us.

As of 31 December 2017, the Board of Directors had 11 members, seven of whom were elected by shareholders and four by employees in Denmark. The Board of Directors met seven times during 2017. At the Annual General Meeting in March 2017, Bruno Angelici did not seek re-election, and Kasim Kutay and Helge Lund were elected to the Board of Directors. In May 2017, Mary Szela stepped down from the Board of Directors due to a potential future conflict of interest.

Shareholder-elected board members serve for a one-year term and may be re-elected. Board members must retire at the first annual general meeting after reaching the age of 70. Two board members are members of the Board of Directors of Novo Holdings A/S, and one board member is chief executive officer of Novo Holdings A/S and may be regarded as representing the interests of the controlling shareholder, while four of the seven shareholder-elected board members are independent as defined by the Danish Corporate Governance Recommendations.

Under Danish law, employees in Denmark are entitled to be represented by half of the total number of board members elected at the annual general meeting. In 2014, employees elected four board members amongst themselves – two male and two female. Board members elected by employees serve for a statutory four-year term and have the same rights, duties and responsibilities as shareholder-elected board members. The employee-elected board members are up for election in 2018. Read more about the members of the Board of Directors on pp 54–55.

NOMINATION, SELF-ASSESSMENT AND DIVERSITY

A proposal for nomination of board members is presented by the Nomination Committee to the Board of Directors, taking into account required competences as defined by the competence profile and reflecting the results of a self-assessment process.

In order to support continued fulfilment of the Novo Nordisk Way, the criteria for board members described in the competence profile include integrity, accountability, fairness, financial literacy, commitment and desire for innovation. Board members are also expected to have experience of managing major companies that develop, manufacture and market products and services globally. The competence profile, which includes the nomination criteria, is available at novonordisk.com/about_us.

The Board of Directors conducts a self-assessment every year. The self-assessment includes all members of the Board of Directors and Executive Management. The chairman has overall responsibility for conducting the self-assessment. The self-assessment is facilitated every third year by external consultants, who interview all members of the Board of Directors and Executive Management as well as the secretaries to the Board and the board committees. For the subsequent two years, the self-assessment is facilitated by the secretary of the Nomination Committee and is based on written questionnaires to all members of the Board of Directors and Executive Management. The process, whether it is facilitated internally or by

external consultants, evaluates topics such as board dynamics, board agenda and discussions, strategy, culture, executive succession, board composition, succession and training. In addition, each individual member of the Board of Directors and Executive Management is provided with feedback from all other board members and executives on their individual performance. The self-assessment is conducted on an anonymous basis. Ratings and comments to individuals are only shared with that individual and the chairman in an anonymised version, while the remaining ratings and comments are consolidated and shared with the board members and executives in an anonymised version.

In 2017, the self-assessment was facilitated by external consultants and, in general, revealed a good performance by the Board of Directors as well as good collaboration between the Board of Directors and Executive Management. The process also resulted in increased focus on the process for strategy development, development of the company culture, executive succession and future board competences.

To ensure that discussions include multiple perspectives representing the complex, global pharmaceutical environment, the Board of Directors aspires to be diverse in gender and nationality. In 2016, the Board of Directors adjusted its diversity ambition and set out new targets with the aim of consisting, by 2020, of at least two shareholder-elected board members with Nordic nationality and at least two shareholder-elected board members with a nationality other than Nordic – and at least three shareholder-elected board members of each gender.

As of 31 December 2017, two shareholder-elected board members were female and five were male, while four of the seven shareholder-elected board members were non-Nordic and three were Nordic. Thus, the company did not fulfil the ambition of having at least three shareholder-elected board members of each gender on the Board by the end of 2017, given that Mary Szela stepped down from the Board of Directors in May 2017 due to a potential future conflict of interest. The company will strive to fulfil this ambition by 2020.

In accordance with section 99b of the Danish Financial Statements Act, Novo Nordisk discloses its diversity policy, targets and current performance in the UN Global Compact Communication on Progress, which is available at novonordisk.com/annualreport.

BOARD COMMITTEES

CHAIRMANSHIP

The annual general meeting elects the chairman and the vice chairman of the Board of Directors directly. The Chairmanship carries out administrative tasks, such as planning board meetings to ensure a balance between overall strategy setting and financial and managerial supervision of the company. Other tasks include reviewing the fixed asset investment portfolio.

In 2017, the Chairmanship particularly discussed the sales performance in the US and projections for 2018, the pipeline progress, the implementation of the revised research and development strategy, the establishment of the Research & Development Committee and the composition of and succession plan for Executive Management.

AUDIT COMMITTEE

The Audit Committee consists of four members. One member is an employee representative. Three members qualify as independent, including the chairman, and one member, the employee representative, qualifies as non-independent. In addition, two members have competences in accounting and auditing, and the members of the Audit Committee collectively have competences relevant to the healthcare industry, as required by the Danish Act on Approved Auditors and Audit Firms. Pursuant to the US Securities Exchange Act, the three shareholder-elected members qualify as independent, including the chairman, while the employee representative member relies on an exemption from the independence requirements. In addition, two members have been designated as financial experts as defined by the US Securities and Exchange Commission (SEC). The Audit Committee assists the Board of Directors with oversight of the external auditors, the internal audit function, handling hotline complaints, financial, social and environmental reporting, business ethics compliance, significant investment projects (post-completion review), long-term incentive programmes, information security and other tasks.

In 2017, the Audit Committee particularly discussed accounting policies and estimates, including the treatment and impact of the revised IFRS standards as well as the risk and provisions for ongoing tax and legal cases. Furthermore, the Audit Committee discussed key internal financial controls as well as business ethics compliance and information security.

NOMINATION COMMITTEE

The Nomination Committee consists of five members. Two members qualify as independent and three members qualify as non-independent, including the chairman. One member is an employee representative. The Nomination Committee assists the Board with oversight of the competence profile and composition of the Board, nomination of members and committees, and other tasks on an ad hoc basis, as specifically decided by the Board.

In 2017, the Nomination Committee particularly focused on supervising the process for chairman succession and on identifying and interviewing candidates with experience and competences within research and development, the US pharma market and general management.

REMUNERATION COMMITTEE

The Remuneration Committee consists of three members. All three members qualify as non-independent. One member is an employee representative. The Remuneration Committee assists the Board with oversight of the remuneration policy as well as the actual remuneration of board

CONTINUED ▶

members, board committees and Executive Management.

In 2017, the Remuneration Committee particularly focused on supplementing the executive remuneration benchmarks with additional benchmark data presented by an external remuneration consultant and, based on that, recommending an adjustment to the short-term cash-based incentive programme for 2018 for executive vice presidents and a modernisation of the maximum of the long-term share-based incentive programme to ensure that it is competitive. In addition, the Remuneration Committee focused on remuneration levels for executives being promoted.

RESEARCH & DEVELOPMENT COMMITTEE

The Research & Development Committee was established in March 2017 in light of the updated research and development strategy and priorities. The new Research & Development Committee is temporary and is expected to exist for 18–24 months while the company is implementing the new research and development strategy. The Research & Development Committee consists of four members. Two members qualify as independent and two members qualify as non-independent, including the chairman. One member is an employee representative. The Research & Development Committee assists the Board with oversight of the research and development strategy, the pipeline and other tasks on an ad hoc basis, as specifically decided by the Board.

In 2017, the Research & Development Committee particularly focused on the revised research and development strategy, and discussed how to raise the research innovation level within core Novo Nordisk therapy areas, how to expand into new therapy areas by exploring current assets, and progress of the intensified external innovation activities.

See novonordisk.com/about_us for a more detailed description of the board committees, their charters, their members and full reports on the board committees' activities in 2017.

EXECUTIVE MANAGEMENT

Executive Management is responsible for the overall day-to-day management, the organisation of the company, allocation of resources, determination and implementation of strategies and policies, direction setting, and ensuring timely reporting and provision of information to the Board of Directors and Novo Nordisk's stakeholders. Executive Management meets at least once a month, and often more frequently. The Board of Directors appoints members of Executive Management and determines their remuneration. The Chairmanship reviews the performance of the executives. To ensure the organisational implementation of the strategy, Executive Management has established a Management Board consisting of the chief executive officer, executive vice presidents and senior vice presidents.

On 1 January 2017, Lars Fruergaard Jørgensen became chief executive officer (CEO), succeeding Lars Rebien Sørensen, who retired from the company at the end of 2016. Jakob Riis left the company in March 2017 and was succeeded by Doug Langa as a member of Executive Management. Lars Green was appointed executive vice president in July 2017, and Camilla Sylvest was appointed executive vice president in October 2017.

The two executives who are based outside of Denmark and who have responsibility for International Operations and North America Operations respectively are not registered as executives with the Danish Business Authority.

ASSURANCE

The company's financial reporting and the internal controls of financial reporting processes are audited by an independent audit firm elected at the annual general meeting. As part of Novo Nordisk's commitment to its social and environmental responsibility, the company voluntarily includes an assurance report for social and environmental reporting in the annual report. The assurance provider reviews whether the social and environmental performance information covers aspects deemed to be material, and verifies the internal control processes for the information reported.

Novo Nordisk's internal audit function provides independent and objective assurance, primarily within internal control of financial processes, IT security and business ethics. To ensure that the internal financial audit function operates independently of Executive Management, its charter, audit plan and budget are approved by the Audit Committee. The Audit Committee must approve the appointment, remuneration and dismissal of the head of the internal audit function.

Three other types of assurance activity – quality audits, organisational audits and values audits, called facilitations – help ensure that the company adheres to high quality standards and operates in accordance with the Novo Nordisk Way. Read more about the Novo Nordisk Way on pp 16–17.

COMPLIANCE WITH CORPORATE GOVERNANCE CODES

Novo Nordisk's B shares are listed on Nasdaq Copenhagen and on the New York Stock Exchange (NYSE) as American Depository Receipts (ADRs). The applicable corporate governance codes for each stock exchange and a review of Novo Nordisk's compliance are available at novonordisk.com/about_us.

In accordance with section 107b of the Danish Financial Statements Act, Novo Nordisk discloses its Statutory Corporate Governance Report at novonordisk.com/about-novo-nordisk/corporate-governance/Recommendations-and-practices.html.

Today, Novo Nordisk adheres to all but the following three recommendations:

- 3.4.2 – Independence of board committees: the majority of the members of the Nomination Committee, the Remuneration Committee and the Research & Development Committee respectively are not independent.
- 3.4.7 – Tasks of the Remuneration Committee: responsibility for the remuneration policy applicable to employees in general resides with Executive Management and not with the Remuneration Committee.
- 4.1.5 – Termination payments: two executive employment contracts entered into before 2008 allow for severance payments of more than 24 months' fixed base salary plus pension contribution.

For more information, please refer to the Statutory Corporate Governance Report 2017.

Novo Nordisk complies with the corporate governance standards of NYSE applicable to foreign listed private issuers. As a controlled company, Novo Nordisk is not obliged to comply with all the standards established by NYSE. Furthermore, Novo Nordisk, as a foreign private issuer, is permitted to follow home country practice, which is the case in relation to independence requirements, audit committee, equity compensation plans, code of business conduct and ethics, and CEO certification. A summary of the significant ways in which Novo Nordisk's corporate governance practices differ from the NYSE corporate governance listing standards can be found in the Statutory Corporate Governance Report at novonordisk.com/about-novo-nordisk/corporate-governance/Recommendations-and-practices.html.

Novo Nordisk also adheres to the charter for companies in the Novo Group, as it is partially owned by Novo Holdings A/S. The charter is available on novoholdings.dk.

DISCLOSURE REGARDING CHANGE OF CONTROL

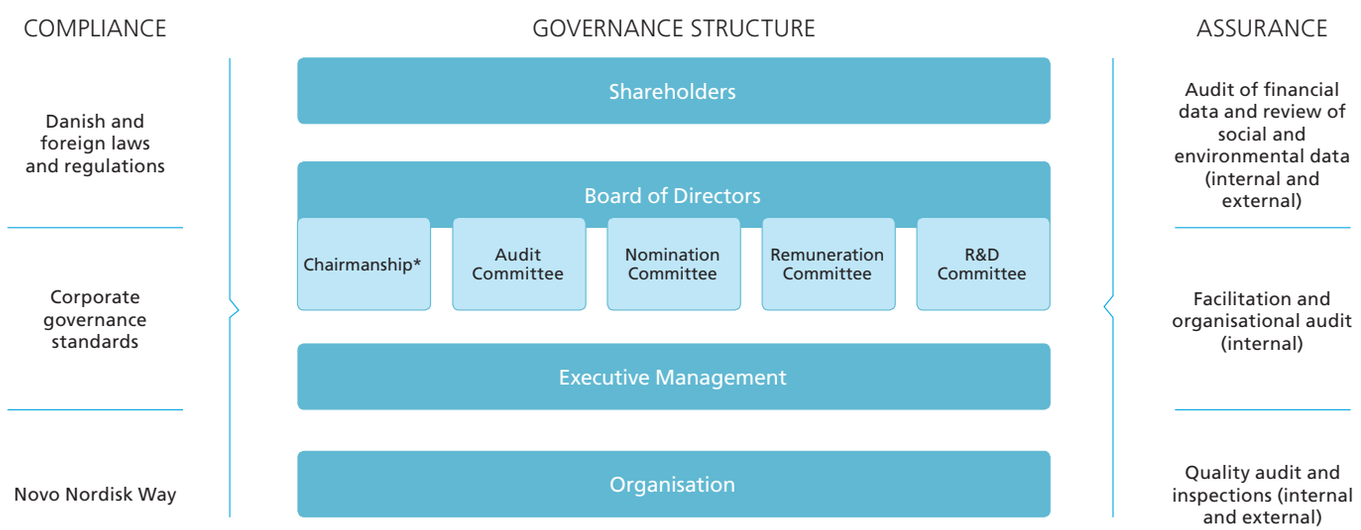
The EU Takeover Bids Directive, as partially implemented by the Danish Financial Statements Act, requires listed companies to disclose information that may be of interest to the market and potential takeover bidders, in particular in relation to disclosure of change-of-control provisions.

Novo Nordisk discloses that the Group does not have any significant agreements to which the Group is a party and that take effect, alter or terminate upon a change of control of the Group following implementation of a takeover bid.

In relation to Executive Management, the current employment contracts allow severance payments of up to 36 months' fixed base salary plus pension contribution in the event of a merger, acquisition or takeover of Novo Nordisk.

For information about the ownership structure of Novo Nordisk, please refer to Shares and capital structure on pp 44–45.

CORPORATE GOVERNANCE CODES AND PRACTICES



* The Chairmanship is directly elected by the annual general meeting.

REMUNERATION: BOARD OF DIRECTORS

At the Annual General Meeting in March 2017, it was decided to leave all components of the remuneration of Novo Nordisk's Board of Directors unchanged.

REMUNERATION COMPOSITION

The remuneration of Novo Nordisk's Board of Directors comprises a fixed base fee, a multiplier of the fixed base fee for the Chairmanship and members of the board committees, fees for ad hoc tasks and a travel allowance. In March 2017, the Annual General Meeting approved that the level for the fixed base fee for 2017 should be DKK 600,000. The fee for ad hoc tasks depends on the nature of the task. Further information on the remuneration of the Board of Directors is available at novonordisk.com/about_us.

TRAVEL AND EXPENSES

All Board members are paid a fixed travel allowance per board meeting and per board committee meeting of 5,000 euros per meeting in the member's home country involving travel of 5 hours or more, 5,000 euros per meeting outside the member's home country but on home country continent and 10,000 euros per meeting in a country outside the member's home continent.

Expenses such as travel and accommodation in relation to board meetings as well as those associated with continuing education are reimbursed and paid in addition to the travel allowance. Novo Nordisk also pays social security taxes imposed by foreign authorities. Further information on travel and expenses is available at novonordisk.com/about_us.

INCENTIVE PROGRAMMES

Board members are not offered stock options, warrants or participation in other incentive schemes.

The company's remuneration principles provide guidance for the remuneration of the Board of Directors and Executive Management. These principles are available at novonordisk.com/about-novo-nordisk/corporate-governance/remuneration.html.

BOARD AND COMMITTEE FEE LEVELS 2017

	BOARD		AUDIT COMMITTEE		NOMINATION COMMITTEE		REMUNERATION COMMITTEE		R&D COMMITTEE[1]	
	Multiplier	DKK	Multiplier	DKK	Multiplier	DKK	Multiplier	DKK	Multiplier	DKK
Chair	3.00	1,800,000	1.00	600,000	0.50	300,000	0.50	300,000	0.50	300,000
Vice chair	2.00	1,200,000	-	-	-	-	-	-	-	-
Member	1.00	600,000	0.50	300,000	0.25	150,000	0.25	150,000	0.25	150,000

1. The Research & Development Committee is temporary and is expected to exist for 18–24 months.

ACTUAL BOARD REMUNERATION 2017

	2017				2016			
DKK million	Fixed base fee	Fee for ad hoc tasks and committee work	Travel allowance	Total	Fixed base fee	Fee for ad hoc tasks and committee work	Travel allowance	Total
Göran Ando[3] (BC, NC and RDC)	1.8	0.6	0.6	3.0	1.8	0.5	0.5	2.8
Jeppe Christiansen (BV, RC)	1.2	0.3	0.2	1.7	1.2	0.4	0.2	1.8
Brian Daniels[1] (RDM)	0.6	0.1	0.5	1.2	0.5	-	0.3	0.8
Sylvie Grégoire (AM and RDM)	0.6	0.4	0.5	1.5	0.6	0.3	0.4	1.3
Liz Hewitt (AC and NM)	0.6	0.7	0.4	1.7	0.6	0.7	0.4	1.7
Liselotte Hyveled (RDM)	0.6	0.2	0.1	0.9	0.6	0.2	0.1	0.9
Kasim Kutay[1] (NM and RM)	0.5	0.2	0.2	0.9	-	-	-	-
Anne Marie Kverneland (RM)	0.6	0.2	0.1	0.9	0.6	-	0.1	0.7
Helge Lund[1] (AM and NM)	0.5	0.3	0.6	1.4	-	-	-	-
Søren Thuesen Pedersen (NM)	0.6	0.1	0.3	1.0	0.6	0.1	0.1	0.8
Stig Strøbæk (AM)	0.6	0.3	0.2	1.1	0.6	0.3	0.1	1.0
Bruno Angelici[2]	0.2	-	0.1	0.3	0.6	0.2	0.3	1.1
Mary Szela[2]	0.3	0.1	0.1	0.5	0.6	0.2	0.4	1.2
Former members[2]	-	-	-	-	0.2	-	0.1	0.3
Total	8.7	3.5	3.9	**16.1**[4]	8.5	2.9	3.0	14.4[4]

BC = Board chairman, BV = Board vice chairman, AC = Audit Committee chairman, AM = Audit Committee member, NC = Nomination Committee chairman, NM = Nomination Committee member, RC = Remuneration Committee chairman, RM = Remuneration Committee member, RDC = R&D Committee chairman, RDM = R&D Committee member.

1. Brian Daniels was first elected in March 2016. Kasim Kutay and Helge Lund were first elected in March 2017. **2.** Bruno Angelici resigned as of March 2017, and Mary Szela resigned as of May 2017. Former members also includes fees to Thomas Paul Koestler and Eivind Kolding, who resigned as of March 2016. **3.** Novo Nordisk provides secretarial assistance to the chairman in Denmark and the UK. **4.** Excluding social security taxes paid by Novo Nordisk amounting to less than DKK 1 million (less than DKK 1 million in 2016).

REMUNERATION: EXECUTIVE MANAGEMENT

In 2017, the cash bonus for the members of Executive Management under the short-term cash-based incentive programme was 100% of the maximum cash bonus, while it was adjusted for executives being promoted to Executive Management in second half of 2017. The members of Executive Management received 69% of their respective maximum share allocation under the long-term share-based incentive programme.

2017 PERFORMANCE

In March 2017, the Annual General Meeting approved a change in the structure of the long-term share-based incentive programme by increasing the importance of sales growth. The specific targets for 2017 were established by the Board of Directors in February 2017. The targets and structure of the programme have not been changed subsequently.

In 2017, Novo Nordisk exceeded the planned incentive target for economic value creation, with 4.8%, primarily due to higher operating profit, lower than planned net operating assets and a lower than planned effective tax rate and partly offset by an unfavourable net impact from currencies. Sales were 0.8% above the target level in local currencies. Two of the non-financial targets were not met: Novo Nordisk did not receive a label update in 2017 in the US for Tresiba® based on the SWITCH data and obtained a lower than targeted reputation score amongst key stakeholders. This will, however, not result in any deduction of the share allocation since at least 85% of non-financial targets have been met. On this basis, 69% of the maximum share allocation will be granted to the participants in the long-term share-based incentive programme. Thus, the chief executive officer will receive shares equalling 8.2 months' fixed base salary plus pension contribution, whereas executive vice presidents will receive shares equalling 6.2 months' fixed base salary plus pension contribution. The two executives being promoted to executive vice president after 1 July 2017 will receive shares equalling 5.5 months' fixed base salary plus pension contribution based on their previous status as senior vice president.

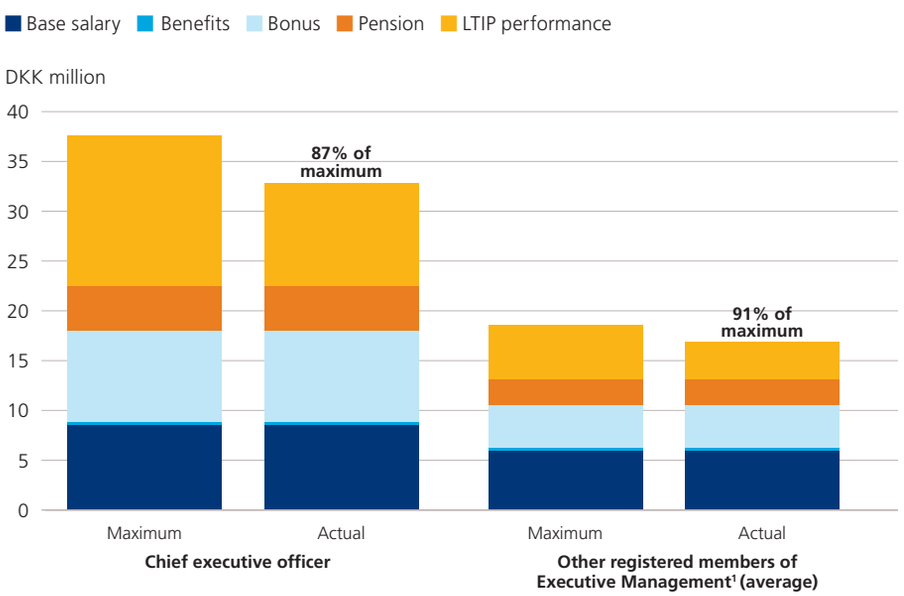
In 2017, the achievement of the predefined functional and individual business targets for the short-term cash-based incentive programme by each executive has been assessed. Consequently, the cash bonus for the chief executive officer for 2017 was 100% of the maximum cash bonus equalling 12 months' fixed base salary plus pension contribution. The cash bonus for the executive vice presidents was 100% of their maximum cash bonus equalling 8.5 and 8 months' fixed base salary plus pension contribution respectively, while it was adjusted for executives being promoted to Executive Management in second half of 2017.

LONG-TERM INCENTIVE – PERFORMANCE 2017

	Performance	Incentive impact	Months of base salary equivalent CEO	EVPs
Long-term incentive target basis (index 100)			3.0	2.3
Economic value creation[1] (50% of total target allocation)	104.8%	48%	1.5	1.1
A. Incentive performance based on economic value creation			**4.5**	**3.3**
Long-term incentive target basis (index 100)			3.0	2.3
Sales growth adjustment[2] (50% of total target allocation)	100.8%	26%	0.8	0.6
B. Incentive performance based on sales performance			**3.8**	**2.8**
A. + B. Total incentive based on financial targets			**8.2**	**6.2**
C. Non-financial targets achievement[3]	85%	-	-	-
Total incentive performance (A+B adjusted for C)			**8.2**	**6.2**
Maximum performance			12	9
Performance as percentage of maximum			*69%*	*69%*
Performance as percentage of target			*137%*	*137%*

1. ±10% incentive impact for each percentage point performance above/below 100% until max 110% and min 90%.
2. ±33% incentive impact for each percentage point performance above/below 100% until max 103% and min 97%.
3. Shortfall, if performance is below 85%, deducted from incentive performance.

TOTAL REMUNERATION COMPOSITION AND PERFORMANCE OVERVIEW FOR CEO AND EVPs – 2017



1. Includes executives who have been registered with the Danish Business Authority in 2017 full year.

CONTINUED ▶

REMUNERATION COMPOSITION

Novo Nordisk's Remuneration Principles provide the framework for the remuneration of the Executive Management. Remuneration has been designed to align the interests of the executives with those of the shareholders.

Based on benchmark data, the Board of Directors decided to maintain the structure of the remuneration packages for Executive Management in 2017. Remuneration packages for executives comprise a fixed base salary, a cash-based incentive, a long-term share-based incentive, a pension contribution and other benefits. The split between fixed and variable remuneration is intended to result in a reasonable part of the salary being linked to performance, while promoting sound business decisions to meet the company's objectives. All incentives are subject to claw-back if it is subsequently determined that payment was based on information that was manifestly misstated. The remuneration principles are available at novonordisk.com/about-novo-nordisk/corporate-governance/remuneration.html.

FIXED BASE SALARY

The fixed base salary is intended to attract and retain executives with the professional and personal competences required to drive the company's performance. Based on a review of benchmark data from European pharmaceutical companies which are similar in size and complexity to Novo Nordisk, the Board decided to increase the fixed base salary for Danish based members of Executive Management effective as of November 2017. Furthermore, the Board decided that the fixed base salary for Danish based members of Executive Management promoted in 2017 is to be phased in over a period of time and that the phase-in period for the chief executive officer is two years.

CASH-BASED INCENTIVE

The short-term cash-based incentive is designed to incentivise individual performance. The incentive is dependent on the achievement of predefined short-term financial, process, people and customer targets relating to the executive's functional area and linked to the company's Balanced Scorecard and the achievement of personal targets relating to the individual executive. The Chairmanship evaluates the degree of achievement for each member of Executive Management, based on input from the chief executive officer.

In February 2017, the Board of Directors determined that the 2017 maximum bonus would be a maximum of 12 months' fixed base salary plus pension contribution for the chief executive officer, a maximum of 8.5 months' fixed base salary plus pension contribution for executives on international assignments and a maximum of 8 months' fixed base salary plus pension contribution for the remaining executive vice presidents based in Denmark.

SHARE-BASED INCENTIVE

The long-term share-based incentive programme is designed to promote the collective performance of Executive Management and align the interests of executives and shareholders. Share-based incentives are linked to both financial and non-financial targets.

The allocation of shares is based on the degree of achievement of the planned economic value creation and on the degree of achievement of the planned level of sales growth. The allocation of shares may be reduced (but not increased) if certain non-financial targets are not met. Non-financial targets are determined on the basis of an assessment of the objectives regarded as particularly important for the fulfilment of the company's long-term performance. The non-financial targets are linked to the company's Balanced Scorecard within the categories of research and development, quality/compliance, people and sustainability. Targets within research and development related to specific milestones, such as submission of product files to the regulatory authorities in the US and Europe within a certain time frame, achievement of marketing authorisations, execution of trials and a defined number of product candidates to enter development from discovery. Targets within quality and compliance related to number of actual recalls, to quality compliance and to customer complaint rate. Targets within people related to certain activities to build capabilities for future growth and targets within sustainability related to the emissions of CO_2 from energy consumption for production and company reputation.

In February 2017, the Board determined that the 2017 maximum share allocation would be up to 12 months' fixed base salary plus pension contribution for the chief executive officer and up to 9 months' fixed base salary plus pension contribution for the executive vice presidents. If the targets for economic value creation and sales growth are met, and at least 85% performance is reached for non-financial targets, the allocation of shares will correspond to 6 months' base salary plus pension contribution for the chief executive officer and 4.5 months' base salary plus pension contribution for the executive vice presidents.

PENSION

The pension contribution is up to 25% of the fixed base salary including bonus.

SEVERANCE PAYMENT

Novo Nordisk may terminate employment by giving executives 12 months' notice. Executives may terminate their employment by giving Novo Nordisk 6 months' notice. In addition to the notice period, executives are entitled to a severance payment as described in the overview of the executive remuneration package components.

SHAREHOLDING REQUIREMENT

To further align the interests of the shareholders and Executive Management, the chief executive officer should hold Novo Nordisk B shares corresponding to two times the annual gross salary, and the executives should hold shares corresponding to one time the annual gross salary. For executives being promoted or employed from outside Novo Nordisk, the shareholding requirement is built up over a period of 5 years after promotion and employment respectively. All executives met the shareholding requirement as of 31 December 2017.

Further information on the remuneration of Executive Management is available at novonordisk.com/about_us.

REMUNERATION PACKAGE COMPONENTS

Remuneration	Board of Directors	Executive Management	Comments relating to Executive Management
Fixed fee/base salary	✓	✓	Accounts for approximately 25–50% of the total value of the remuneration package.*
Fee for committee work	✓	✗	
Fee for ad hoc tasks	✓	✗	
Cash-based incentive	✗	✓	Up to 12 months' fixed base salary + pension contribution per year.
Share-based incentive	✗	✓	Up to 12 months' fixed base salary + pension contribution per year typically based on base salary at the end of the year.
Pension	✗	✓	Up to 25% of fixed base salary and cash-based incentive.
Travel allowance and other expenses	✓	✗	
Other benefits	✗	✓	Executive Management receives non-monetary benefits such as company cars, phones etc. Executives on international assignments may receive relocation benefits.
Severance payment	✗	✓	Up to 24 months' fixed base salary + pension contribution. Executive Management contracts entered into before 2008 exceed the 24-month limit, though will not exceed 36 months' fixed base salary plus pension contribution.

* The interval 25–50% states the span between 'maximum performance' and 'on-target performance'.

REMUNERATION OF EXECUTIVE MANAGEMENT AND OTHER MEMBERS OF THE MANAGEMENT BOARD

DKK million	2017 Fixed base salary[7]	Cash bonus	Pension	Benefits	Share-based incentive[8]	Total	2016 Fixed base salary[7]	Cash bonus	Pension	Benefits	Share-based incentive[8]	Total
Executive Management												
Lars Fruergaard Jørgensen	8.5	9.2	4.4	0.3	-	22.4	5.5	1.8	1.8	0.3	-	9.4
Jesper Brandgaard	6.3	4.6	2.8	0.3	-	14.0	6.1	2.0	2.0	0.3	-	10.4
Lars Green[1]	2.2	1.3	0.9	0.2	-	4.6	-	-	-	-	-	-
Camilla Sylvest[1]	1.1	0.6	0.4	0.1	-	2.2	-	-	-	-	-	-
Mads Krogsgaard Thomsen	6.3	4.6	2.8	0.3	-	14.0	6.2	2.0	2.0	0.3	-	10.5
Henrik Wulff[3]	5.1	3.8	2.2	0.3	-	11.4	4.9	1.7	1.6	0.3	-	8.5
Non-registered members of Executive Management[1,2]	9.5	6.2	3.5	0.5	-	19.7	6.2	2.8	2.9	0.4	-	12.3
Former members of Executive Management:												
Lars Rebien Sørensen[3]	-	-	-	-	-	-	11.9	6.0	4.5	0.3	-	22.7
Jakob Riis[4]	-	-	-	-	-	-	3.6	1.8	1.4	0.2	-	7.0
Former non-registered members of Executive Management[5]	2.8	1.2	1.5	0.2	-	5.7	8.3	4.1	3.4	0.4	-	16.2
Share-based incentive	-	-	-	-	28.5	28.5	-	-	-	-	11.4	11.4
Executive Management in total	41.8 [7]	31.5	18.5	2.2	28.5	122.5	52.7 [7]	22.2	19.6	2.5	11.4	108.4
Other members of the Management Board in total[5,6]	79.5 [7]	31.7	26.8	21.7	34.1	193.8	77.7 [7]	22.5	25.2	20.1	15.0	160.5

1. In 2017, Novo Nordisk's Executive Management was expanded to include three new members, Doug Langa (effective 1 March 2017), Lars Green (effective 1 July 2017) and Camilla Sylvest (effective 1 October 2017), of whom Lars Green and Camilla Sylvest are registered with the Danish Business Authority as members of Executive Management of Novo Nordisk A/S. Respective amounts in the table include remuneration from the effective dates in 2017. Remuneration for Doug Langa is included within Non-registered members of Executive Management. **2.** Includes remuneration for Maziar Mike Doustdar and for the period March to December 2017 for Doug Langa. Amounts include taxes paid by Novo Nordisk to Maziar Mike Doustdar due to his international employment terms. In addition, Maziar Mike Doustdar received benefits in accordance with Novo Nordisk's International Assignment Guidelines, such as accommodation, children's school fees, international health insurance and other types of insurance, spouse allowance and tax-filing support, all offered net of tax to the assignees. Including tax paid by Novo Nordisk, the benefits received in 2017 not included in the above table amount to DKK 2.6 million (DKK 2.6 million in 2016). **3.** As of 31 December 2016, President and CEO Lars Rebien Sørensen retired from Novo Nordisk. The remuneration of Lars Rebien Sørensen for 2016 is included in the table above, whereas the severance payment of DKK 65.7 million, including participation in the share-based incentive programme for 2017, is not included. **4.** Effective 1 September 2016, Jakob Riis was appointed executive vice president and head of North America Operations. Amounts in the table for 2016 include remuneration from January to August 2016, whereas remuneration for September to December 2016 is included within Former non-registered members of Executive Management. **5.** Effective 1 March 2017, Jakob Riis decided to leave Novo Nordisk. Remuneration for Jakob Riis is included in the table above. In 2016, Jerzy Gruhn and Jesper Høiland stepped down from the Executive Management of Novo Nordisk A/S. Respective amounts in the table include remuneration for January to August 2016. Remuneration for September to December 2016 is included as part of Other members of the Management Board. In addition, Jakob Riis, Jerzy Gruhn and Jesper Høiland received benefits in accordance with Novo Nordisk's International Assignment Guidelines, such as accommodation, children's school fees, international health insurance and other types of insurance, spouse allowance and tax-filing support, all offered net of tax to the assignees. Including tax paid by Novo Nordisk, the benefits received in 2017 not included in the above table amount to DKK 1.2 million (DKK 5.0 million in 2016). **6.** The total remuneration for 2017 includes remuneration of 33 senior vice presidents (33 in 2016), 2 of whom have retired or left the company (four in 2016). The 2017 remuneration for the retired senior vice presidents is included in the table above, whereas severance payments of DKK 13.0 million (DKK 69.0 million in 2016) are not included. **7.** Excluding social security taxes paid amounting to DKK 0.3 million (DKK 1.9 million in 2016) for Executive Management and DKK 2.6 million (DKK 2.2 million in 2016) for other members of the Management Board. **8.** The shares are locked up for three years before they are transferred to the participants employed at the end of the three-year period. The value is the cash amount of the share bonus granted in the year using the grant-date market value of Novo Nordisk B shares. During the lock-up period, the amount of shares may potentially be reduced in the event of lower-than-planned value creation in subsequent years.

MANAGEMENT'S LONG-TERM INCENTIVE PROGRAMME

The shares allocated to the members of Executive Management were released to the individual participants subsequent to approval of the Annual Report 2017 by the Board of Directors and the announcement of the full-year financial result for 2017 on 1 February 2018. Based on the share price at the end of 2017, the value of the released shares is as follows:

Value as of 31 December 2017 of shares released on 1 February 2018	Number of shares[1]	Market value[2] (DKK million)
Executive Management		
Lars Fruergaard Jørgensen	11,866	4.0
Jesper Brandgaard	16,054	5.4
Lars Green	6,429	2.2
Camilla Sylvest	1,938	0.6
Mads Krogsgaard Thomsen	16,054	5.4
Henrik Wulff	8,659	2.9
Non-registered members of Executive Management[4]	8,429	2.8
Executive Management in total[3]	69,429	23.3
Other members of the Management Board in total[3]	100,196	33.5

1. Includes 293,542 shares released from the joint pool for 2014 to the individual participants for the Management Board and 3,938 shares released to members of Executive Management who was not included in the joint pool for 2014 for the Management Board. **2.** The market value of the shares released in 2018 is based on the Novo Nordisk B share price of DKK 334.50 at the end of 2017. **3.** In addition, 127,855 shares (market value: DKK 42.8 million) were released to retired Executive Management and Management Board members. **4.** Not registered with the Danish Business Authority as members of the Executive Management of Novo Nordisk A/S.

External board remuneration: Jesper Brandgaard serves as chairman of the board of SimCorp A/S, from which he received remuneration of DKK 1,092,305 in 2017 (DKK 1,035,257 in 2016); as chairman of the board of NNIT A/S until March 2017, from which he received remuneration of DKK 137,671 in 2017 (DKK 750,000 in 2016) and as board member of Chr. Hansen A/S (no remuneration received in 2017). The NNIT remuneration is included in the remuneration of Executive Management presented above. Lars Green serves as board member of Novozymes A/S, from which he received remuneration of DKK 1,000,000 in 2017. Camilla Sylvest serves as board member of Danish Crown A/S (no remuneration received in 2017). Mads Krogsgaard Thomsen serves as chairman of the board of the University of Copenhagen, from which he received remuneration of DKK 209,902 in 2017 (DKK 82,215 in 2016). Henrik Wulff serves as board member of AMBU A/S, from which he received remuneration of DKK 300,000 in 2017 (DKK 300,000 in 2016).

BOARD OF DIRECTORS

GÖRAN ANDO

Chairman

Former chief executive officer of Celltech Group plc, UK (retired). Member of the Board of Novo Nordisk A/S since 2005, vice chair since 2006, chair since 2013, chair of the Nomination Committee since 2013 and chair of the Research & Development Committee since 2017.

Management duties: Symphogen A/S, Denmark (chair), member of the boards of Novo Holdings A/S, Denmark, Molecular Partners AG, Switzerland, EUSA Pharma Ltd., UK, and ICMEC, US. Senior advisor to EW Healthcare Partners, UK.

Special competences: Medical qualifications and extensive executive background within the international pharmaceutical industry.

Education: Specialism in general medicine (1978) and degree in medicine (1973), both from Linköping Medical University, Sweden.

JEPPE CHRISTIANSEN

Vice chairman

Chief executive officer of Fondsmæglerselskabet Maj Invest A/S, Maj Invest Holding A/S and Emlika ApS, all in Denmark. Member of the executive management of Maj Invest Equity A/S, Denmark. Member and vice chair of the Board of Novo Nordisk A/S since 2013. Chair of the Remuneration Committee since 2017 (member since 2015).

Management duties: Haldor Topsøe A/S (chair), Maj Bank A/S (vice chair), and member of the boards of Novo Holdings A/S, KIRKBI A/S and Symphogen A/S, all in Denmark. Member of the board of governors of Det Kgl. Vajsenhus, Denmark. Adjunct professor, Department of Finance at Copenhagen Business School, Denmark.

Special competences: Executive background and extensive experience within the financial sector, in particular in relation to financial and capital market issues as well as insight into the investor perspective.

Education: MSc in Economics (1985) from the University of Copenhagen, Denmark.

BRIAN DANIELS

Senior advisor with the Boston Consulting Group and venture partner with 5AM Venture Management LLC, both in the US. Member of the Board of Novo Nordisk A/S since 2016 and member of the Research & Development Committee since 2017.

Special competences: Extensive experience in clinical development, medical affairs and corporate strategy across a broad range of therapeutic areas within the pharmaceutical industry, especially in the US.

Education: MD (1987) from Washington University, St. Louis, US, and BSc in Life Sciences (1981) and MA in Metabolism and Nutritional Biochemistry (1981), both from Massachusetts Institute of Technology, Cambridge, US.

SYLVIE GRÉGOIRE

Former president of Human Genetic Therapies Shire plc, US and Switzerland (retired). Member of the Board of Novo Nordisk A/S and of the Audit Committee since 2015. Member of the Research & Development Committee since 2017.

Management duties: Corvidia Therapeutics Inc., US (chair), and member of the boards of Vifor Pharma Ltd., Switzerland, and Perkin Elmer Inc., US.

Special competences: In-depth knowledge of the regulatory environment in both the US and the EU, having experience of all phases of the product life cycle, including discovery, registration, pre-launch and managing the life cycle while on the market. In addition, she has financial insight, including into P&L responsibility.

Education: Pharmacy Doctorate degree (1986) from the State University of NY at Buffalo, US, BA in Pharmacy (1984) from Laval University, Canada, and Science College degree (1980) from Séminaire de Sherbrooke, Canada.

LIZ HEWITT

Former Group Director in Corporate Affairs of Smith & Nephew plc, UK (retired). Member of the Board of Novo Nordisk A/S since 2012, chair of the Audit Committee since 2015 (member since 2012) and member of the Nomination Committee since 2013.

Management duties: Member of the boards of Savills plc and Melrose Industries plc, where she is chairman of both audit committees, both in the UK. External member of and chair of the audit committee of the House of Lords Commission, UK.

Special competences: Extensive experience within the field of medical devices, significant financial knowledge and knowledge of how large international companies operate.

Education: BSc (Econ) (Hons) (1977) from University College London, UK, and FCA (UK Institute of Chartered Accountants) (1982).

LISELOTTE HYVELED

Senior facilitator in Business Assurance. Member of the Board of Novo Nordisk A/S since 2014 and member of the Research & Development Committee since 2017.

Management duties: Member of the board of RSP Systems A/S, Denmark.

Education: MSc in pharmaceutical science (1992) from Copenhagen University, Master of Medical Business Strategies (2011) from Copenhagen Business School and certified board programme diploma from Copenhagen Business School (2018), all in Denmark.

						Meeting participation in 2017[2]					
Name (male/female)	**First elected**	**Term**	**Nationality**	**Born**	**Independence[1]**	**Board of Directors**	**Chairmanship**	**Audit Committee**	**Remuneration Committee**	**Nomination Committee**	**R&D Committee**
Göran Ando (m)	2005	2018	Swedish	Mar. 1949	Not independent[3]	7/7	7/7		1/1	8/8	3/3
Jeppe Christiansen (m)	2013	2018	Danish	Nov. 1959	Not independent[3]	7/7	6/7	1/1	5/5		
Brian Daniels (m)	2016	2018	American	Feb. 1959	Independent	7/7					3/3
Sylvie Grégoire (f)	2015	2018	Canadian/American	Nov. 1961	Independent[4, 5]	7/7		4/4			3/3
Liz Hewitt (f)	2012	2018	British	Nov. 1956	Independent[4, 5]	7/7		4/4		7/8	
Liselotte Hyveled (f)	2014	2018	Danish	Jan. 1966	Not independent[6]	7/7				1/1	3/3

1. As designated by Nasdaq Copenhagen in accordance with section 3.2.1 of Recommendations on Corporate Governance. 2. Number of meetings attended by each board member out of the total number of meetings within the member's term. 3. Member of the board or the management of Novo Holdings A/S. 4. Pursuant to the US Securities Exchange Act, Ms Hewitt, Ms Grégoire and Mr Lund qualify as independent Audit Committee members, while Mr Strøbæk relies on an exemption from the independence requirements.

Chief executive officer of Novo Holdings A/S, Denmark. Member of the Board of Novo Nordisk A/S, the Nomination Committee and the Remuneration Committee since 2017.

Management duties: Member of the boards of Novozymes A/S, Denmark, and ConvaTec plc, UK.

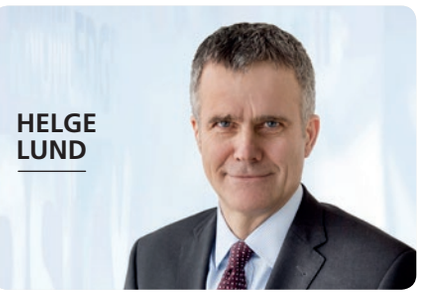
Special competences: Extensive experience as financial advisor to the pharmaceutical, biotechnology and medical device industries. He has also advised healthcare companies internationally, including companies based in Europe, the US, Japan and India.

Education: BSc in Economics and MSc in Economics, both from the London School of Economics, UK.

Laboratory technician and full-time union representative. Member of the Board of Novo Nordisk A/S since 2000 and member of the Remuneration Committee since 2017.

Management duties: Member of the board of the Novo Nordisk Foundation since 2014.

Education: Degree in Medical Laboratory Technology (1980) from Copenhagen University Hospital, Denmark.



Operating advisor to Clayton Dubilier & Rice, US. Member of the Board of Novo Nordisk A/S in 2014–2015 and again since 2017. Member of the Audit Committee and the Nomination Committee since 2017.

Management duties: Member of the boards of Schlumberger Ltd., Curaçao, and P/F Tjaldur, Faroe Islands. Member of the board of trustees of the International Crisis Group.

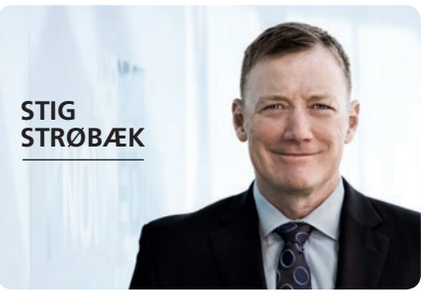
Special competences: Extensive executive and board experience of large multinational companies headquartered in Scandinavia within regulated markets, and significant financial knowledge.

Education: MA in Economics (1987) from the Norwegian School of Economics & Business Administration (NHH), Norway, and MBA (1991) from INSEAD, France.

External Affairs director in Quality Intelligence and Inspections. Member of the Board of Novo Nordisk A/S since 2006 and member of the Nomination Committee since 2017.

Management duties: Member of the boards of HOFOR A/S, HOFOR Forsyning Holding P/S, HOFOR Forsyning Komplementar A/S and HOFOR Forsyning A/S (Copenhagen Utilities), all in Denmark.

Education: BSc in Chemical Engineering (1988) from the Engineering Academy of Denmark.



Electrician and full-time union representative. Member of the Board of Novo Nordisk A/S since 1998 and member of the Audit Committee since 2013.

Education: Qualified electrician. Diploma in further training for board members (2003) from the Danish Employees' Capital Pension Fund (LD).

						Meeting participation in 2017[2]					
Name (male/female)	**First elected**	**Term**	**Nationality**	**Born**	**Independence[1]**	**Board of Directors**	**Chairmanship**	**Audit Committee**	**Remuneration Committee**	**Nomination Committee**	**R&D Committee**
Kasim Kutay (m)	2017	2018	British	May 1965	Not independent[3]	5/5			4/4	6/7	
Anne Marie Kverneland (f)	2000	2018	Danish	Jul. 1956	Not independent[6]	7/7			4/4		
Helge Lund (m)[7]	2017[8]	2018	Norwegian	Oct. 1962	Independent[4, 5]	5/5		3/3		7/7	
Søren Thuesen Pedersen (m)	2006	2018	Danish	Dec. 1964	Not independent[6]	7/7			1/1	7/7	
Stig Strøbæk (m)	1998	2018	Danish	Jan. 1964	Not independent[4,6]	7/7		4/4			

5. Ms Hewitt, Ms Grégoire and Mr Lund qualify as independent Audit Committee members as defined under part 8 of the Danish Act on Approved Auditors and Audit Firms. 6. Elected by employees of Novo Nordisk. 7. As part of the Board succession preparedness activities, Helge Lund has been invited to the chairmanship meetings as an observer since April 2017. 8. In addition, Helge Lund was a member of the Board for one year in 2014–2015.

EXECUTIVE MANAGEMENT

Lars Fruergaard Jørgensen joined Novo Nordisk in 1991 as an economist and has since completed postings in the Netherlands and overseas in the US and Japan. He was appointed executive vice president of IT, Quality & Corporate Development in January 2013, and in November 2014 he took over responsibility for Corporate People & Organisation and Business Assurance and became chief of staff. In January 2017, he was appointed president and chief executive officer (CEO).

Born: November 1966.

Jesper Brandgaard joined Novo Nordisk in 1999 as senior vice president of Corporate Finance. He was appointed executive vice president and chief financial officer in November 2000. In 2017, he took over responsibility for the Biopharm activities.

Other management duties: Chairman of the board of SimCorp A/S and member of the board of Chr. Hansen A/S, both in Denmark.

Born: October 1963.

Maziar Mike Doustdar joined Novo Nordisk in 1992 as an office clerk in Vienna, Austria. He was appointed senior vice president of International Operations in 2013 and executive vice president in 2015. In September 2016, he took on additional geographical responsibility and was promoted to executive vice president of an expanded International Operations, leading all commercial units globally, except for the US and Canada.

Born: August 1970.

Lars Green joined Novo Nordisk in 1992 as a graduate on the Finance Graduate Programme. In 2004, he was appointed senior vice president of Corporate Finance, and in 2014 he took up the position as senior vice president of Finance & Operations of Novo Nordisk Inc. in the US. In July 2017, he was promoted to executive vice president of Business Services & Compliance.

Other management duties: Member of the board of Novozymes A/S, Denmark, where he also chairs the audit committee.

Born: May 1967.

Doug Langa joined Novo Nordisk in 2011 as senior director of Management Markets. In 2015, he was appointed corporate vice president of Market Access in the US, and in 2016 he was promoted to senior vice president of Market Access in the US. In March 2017, he was appointed senior vice president, head of North America Operations and president of Novo Nordisk Inc. In August 2017, he was promoted to executive vice president, continuing his responsibilities.

Born: October 1966.

Camilla Sylvest joined Novo Nordisk as a trainee in 1996. From 2008 to 2015, she headed up affiliates and business areas of growing size and complexity in Europe and Asia. In 2015, she was appointed senior vice president and general manager of Novo Nordisk's Region China, and in October 2017, she was promoted to executive vice president of Commercial Strategy & Corporate Affairs.

Other management duties: Member of the board of Danish Crown A/S, Denmark.

Born: November 1972.

Mads Krogsgaard Thomsen joined Novo Nordisk in 1991 as head of Growth Hormone Research. He was appointed senior vice president of Diabetes R&D in 1994, and executive vice president and chief science officer in November 2000.

Other management duties: Chairman of the board of the University of Copenhagen, Denmark, and member of the editorial boards of international, peer-reviewed journals.

Born: December 1960.

Henrik Wulff joined Novo Nordisk in 1998 in the logistics and planning function. He was appointed senior vice president of Product Supply in 2013 and executive vice president of Product Supply in April 2015.

Other management duties: Chairman of the board of Novo Nordisk Pharmatech A/S and member of the boards of NNE A/S and Ambu A/S, all in Denmark.

Born: November 1970.

* Not registered as executives with the Danish Business Authority.

Novo Nordisk Headquarters, Bagsværd, north of Copenhagen, Denmark

CONSOLIDATED FINANCIAL, SOCIAL AND ENVIRONMENTAL STATEMENTS 2017

Novo Nordisk remains committed to reporting its performance through its integrated reporting. In line with the Novo Nordisk Triple Bottom Line principle, the Consolidated financial, social and environmental statements are presented along with the related notes.

Within each of the financial, social and environmental statements, the notes are grouped into sections based on how Novo Nordisk views its business. Each of the sections has an introduction explaining the link between long-term targets and business priorities, and how this is reflected in Novo Nordisk's financial, social and environmental statements. To provide transparency in the disclosed amounts, each note includes the relevant accounting policy, key accounting estimates and numerical disclosures.

INCOME STATEMENT

AND STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER

DKK million	Note	2017	2016	2015
INCOME STATEMENT				
Net sales	2.1, 2.2	111,696	111,780	107,927
Cost of goods sold	2.2	17,632	17,183	16,188
Gross profit		94,064	94,597	91,739
Sales and distribution costs	2.2	28,340	28,377	28,312
Research and development costs	2.2, 2.3	14,014	14,563	13,608
Administrative costs	2.2	3,784	3,962	3,857
Other operating income, net	2.2, 2.5	1,041	737	3,482
– Non-recurring income from the partial divestment of NNIT A/S	2.5	—	—	*2,376*
Operating profit		48,967	48,432	49,444
Financial income	4.8	1,246	92	85
Financial expenses	4.8	1,533	726	6,046
Profit before income taxes		48,680	47,798	43,483
Income taxes	2.6	10,550	9,873	8,623
Net profit for the year		**38,130**	37,925	34,860
EARNINGS PER SHARE				
Basic earnings per share (DKK)	4.1	15.42	14.99	13.56
Diluted earnings per share (DKK)	4.1	15.39	14.96	13.52

DKK million	Note	2017	2016	2015
STATEMENT OF COMPREHENSIVE INCOME				
Net profit for the year		38,130	37,925	34,860
Other comprehensive income:				
Items that will not be reclassified subsequently to the Income statement:				
Remeasurements of retirement benefit obligations	3.5	103	(205)	(37)
Items that will be reclassified subsequently to the Income statement:				
Exchange rate adjustments of investments in subsidiaries		(632)	(7)	(669)
Cash flow hedges, realisation of previously deferred (gains)/losses	4.3	1,955	682	2,216
Cash flow hedges, deferred gains/(losses) incurred during the period	4.3	1,987	(1,911)	(681)
Other items		(577)	(74)	366
Tax on other comprehensive income, income/(expense)	2.6	(1,041)	324	(87)
Other comprehensive income for the year, net of tax		**1,795**	(1,191)	1,108
Total comprehensive income for the year		**39,925**	36,734	35,968

CASH FLOW STATEMENT

FOR THE YEAR ENDED 31 DECEMBER

DKK million	Note	2017	2016	2015
CASH FLOW STATEMENT				
Net profit for the year		38,130	37,925	34,860
Reversal of non-cash items:				
Income taxes in the Income statement	2.6	10,550	9,873	8,623
Depreciation, amortisation and impairment losses	3.1, 3.2	3,182	3,193	2,959
Non-recurring income from the partial divestment of NNIT A/S included in Other operating income	2.5	—	—	(2,526)
Other non-cash items	4.6	2,027	3,882	5,908
Change in working capital	4.5	(3,634)	(3,708)	(2,157)
Interest received		101	114	55
Interest paid		(87)	(66)	(61)
Income taxes paid	2.6	(9,101)	(2,899)	(9,374)
Net cash generated from operating activities		**41,168**	48,314	38,287
Proceeds from the partial divestment of NNIT A/S	2.5	—	—	2,303
Purchase of intangible assets	3.1	(1,022)	(1,199)	(1,182)
Proceeds from sale of property, plant and equipment		9	7	15
Purchase of property, plant and equipment	3.2	(7,626)	(7,068)	(5,224)
Proceeds from sale of other financial assets		73	23	32
Purchase of other financial assets		(40)	(112)	(9)
Sale of marketable securities		2,009	2,064	1,500
Purchase of marketable securities		—	(531)	(3,533)
Dividend received from associated company	5.3	26	26	—
Net cash used in investing activities		**(6,571)**	(6,790)	(6,098)
Purchase of treasury shares, net	4.1	(16,845)	(15,057)	(17,196)
Dividends paid	4.1	(18,844)	(23,830)	(12,905)
Net cash used in financing activities		**(35,689)**	(38,887)	(30,101)
Net cash generated from activities		**(1,092)**	2,637	2,088
Cash and cash equivalents at the beginning of the year		18,461	15,850	13,676
Exchange gains/(losses) on cash and cash equivalents		(211)	(26)	86
Cash and cash equivalents at the end of the year	4.4	**17,158**	18,461	15,850

BALANCE SHEET
AT 31 DECEMBER

DKK million	Note	2017	2016
ASSETS			
Intangible assets	3.1	3,325	2,714
Property, plant and equipment	3.2	35,247	30,179
Investment in associated company	4.8	784	809
Deferred income tax assets	2.6	1,941	2,683
Other financial assets	4.7	978	1,388
Total non-current assets		**42,275**	37,773
Inventories	3.3	15,373	14,341
Trade receivables	3.4, 4.7	20,165	20,234
Tax receivables		958	1,552
Other receivables and prepayments	4.7	2,428	2,411
Marketable securities	4.2, 4.4, 4.7	—	2,009
Derivative financial instruments	4.2, 4.3, 4.7	2,304	529
Cash at bank	4.2, 4.4, 4.7	18,852	18,690
Total current assets		**60,080**	59,766
Total assets		**102,355**	97,539
EQUITY AND LIABILITIES			
Share capital	4.1	500	510
Treasury shares	4.1	(11)	(9)
Retained earnings		48,977	46,111
Other reserves		349	(1,343)
Total equity		**49,815**	45,269
Deferred income tax liabilities	2.6	846	13
Retirement benefit obligations	3.5	1,336	1,451
Provisions	3.6	3,302	3,370
Total non-current liabilities		**5,484**	4,834
Current debt	4.4, 4.7	1,694	229
Trade payables	4.7	5,610	6,011
Tax payables		4,242	3,976
Other liabilities	3.7, 4.7	14,446	14,181
Derivative financial instruments	4.3, 4.7	309	2,578
Provisions	3.6	20,755	20,461
Total current liabilities		**47,056**	47,436
Total liabilities		**52,540**	52,270
Total equity and liabilities		**102,355**	97,539

EQUITY STATEMENT
AT 31 DECEMBER

DKK million	Share capital	Treasury shares	Retained earnings	Other reserves: *Exchange rate adjustments*	Other reserves: *Cash flow hedges*	Other reserves: *Tax and other items*	Other reserves: Total other reserves	**Total**
2015								
Balance at the beginning of the year	530	(11)	41,277	*(248)*	*(2,221)*	*967*	(1,502)	40,294
Net profit for the year			34,860					34,860
Other comprehensive income for the year			(37)	*(669)*	*1,535*	*279*	1,145	1,108
Total comprehensive income for the year			34,823	*(669)*	*1,535*	*279*	1,145	35,968
Transactions with owners:								
Dividends (note 4.1)			(12,905)					(12,905)
Share-based payments (note 5.1)			442					442
Tax related to restricted stock units (note 2.6)			366					366
Purchase of treasury shares (note 4.1)		(10)	(17,219)					(17,229)
Sale of treasury shares (note 4.1)		1	32					33
Reduction of the B share capital (note 4.1)	(10)	10						—
Balance at the end of the year	520	(10)	46,816	*(917)*	*(686)*	*1,246*	(357)	46,969
2016								
Net profit for the year			37,925					37,925
Other comprehensive income for the year			(205)	*(7)*	*(1,229)*	*250*	(986)	(1,191)
Total comprehensive income for the year			37,720	*(7)*	*(1,229)*	*250*	(986)	36,734
Transactions with owners:								
Dividends (note 4.1)			(23,830)					(23,830)
Share-based payments (note 5.1)			368					368
Tax related to restricted stock units (note 2.6)			85					85
Purchase of treasury shares (note 4.1)		(9)	(15,048)					(15,057)
Reduction of the B share capital (note 4.1)	(10)	10						—
Balance at the end of the year	510	(9)	46,111	*(924)*	*(1,915)*	*1,496*	(1,343)	45,269
2017								
Net profit for the year			38,130					38,130
Other comprehensive income for the year			103	*(632)*	*3,942*	*(1,618)*	1,692	1,795
Total comprehensive income for the year			38,233	*(632)*	*3,942*	*(1,618)*	1,692	39,925
Transactions with owners:								
Dividends (note 4.1)			(18,844)					(18,844)
Share-based payments (note 5.1)			292					292
Tax related to restricted stock units (note 2.6)			18					18
Purchase of treasury shares (note 4.1)		(12)	(16,833)					(16,845)
Reduction of the B share capital (note 4.1)	(10)	10						—
Balance at the end of the year	500	(11)	48,977	*(1,556)*	*2,027*	*(122)*	349	**49,815**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Basis of preparation | Results for the year | Operating assets and liabilities | Capital structure and financing items | Other disclosures

SECTION 1 BASIS OF PREPARATION

SECTION 2 RESULTS FOR THE YEAR

SECTION 3 OPERATING ASSETS AND LIABILITIES

SECTION 4 CAPITAL STRUCTURE AND FINANCIAL ITEMS

SECTION 5 OTHER DISCLOSURES

SECTION 1 BASIS OF PREPARATION

All entities in the Novo Nordisk Group follow the same Group accounting policies. This section gives a summary of the significant accounting policies, Management's key accounting estimates, new International Financial Reporting Standards (IFRS) requirements and other accounting policies in general. A detailed description of accounting policies and key accounting estimates related to specific reported amounts is presented in each note to the relevant financial item.

1.1 PRINCIPAL ACCOUNTING POLICIES AND KEY ACCOUNTING ESTIMATES

The Consolidated financial statements included in this Annual Report have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and endorsed by the EU as well as further Danish disclosure requirements for annual reports of listed companies.

Measurement basis

The Consolidated financial statements have been prepared on the historical cost basis except for derivative financial instruments, equity investments and marketable securities, which are measured at fair value.

The principal accounting policies set out below have been applied consistently in the preparation of the Consolidated financial statements for all the years presented.

Principal accounting policies

Novo Nordisk's accounting policies are described in each of the individual notes to the Consolidated financial statements. Management regards the ones listed in the table below as the most significant accounting policies for the recognition and measurement of reported amounts.

Key accounting estimates and judgements

The use of reasonable estimates and judgements is an essential part of the preparation of the Consolidated financial statements. Given the uncertainties inherent in Novo Nordisk's business activities, Management must make certain estimates regarding valuation and judgements. Those affect the application of accounting policies and reported amounts of assets, liabilities, sales, costs, cash flows and related disclosures.

The key accounting estimates identified are those that have a significant risk of resulting in a material adjustment. Management bases its estimates on historical experience and various other assumptions that are held to be reasonable under the circumstances. The estimates and underlying assumptions are reviewed on an ongoing basis and, if necessary, changes are recognised in the period in which the estimate is revised. Management considers the key accounting estimates to be reasonable and appropriate based on currently available information. However, the actual amounts may differ from the amounts estimated as more detailed information becomes available.

In addition, Management makes judgements in the process of applying the entity's accounting policies, for example regarding recognition of deferred income tax assets or the classification of transactions.

Management regards those listed below as the key accounting estimates and judgements used in the preparation of the Consolidated financial statements.

Please refer to the specific notes for further information on the key accounting estimates and judgements as well as assumptions applied.

Principal accounting policies	Key accounting estimates and judgements	Note
Net sales and rebates	Estimate of sales deductions and provisions for sales rebates	2.1
Research and development	–	2.3, 3.1 and 3.2
Derivative financial instruments	–	4.3
Income taxes and deferred income taxes	Judgement regarding deferred income tax assets and provision for uncertain tax positions	2.6
Property, plant and equipment including impairment	–	3.2
Inventories	Estimate of indirect production costs capitalised	3.3
Trade receivables	Estimate of allowance for doubtful trade receivables	3.4
Provisions and contingent liabilities	Estimate of ongoing legal disputes, litigations and investigations	3.6

Applying materiality

The Consolidated financial statements are a result of processing large numbers of transactions and aggregating those transactions into classes according to their nature or function. When aggregated, the transactions are presented in classes of similar items in the Consolidated financial statements. If a line item is not individually material, it is aggregated with other items of a similar nature in the Consolidated financial statements or in the notes.

There are substantial disclosure requirements throughout IFRS. Management provides specific disclosures required by IFRS unless the information is considered immaterial to the economic decision-making of the users of these financial statements or not applicable.

1.2 CHANGES IN ACCOUNTING POLICIES AND DISCLOSURES

Adoption of new or amended IFRSs

Management assesses the impact of new or amended and revised accounting standards and interpretations (IFRSs) issued by the (IASB), and IFRSs endorsed by the European Union. It is assessed that application of new IFRSs effective on 1 January 2017 has not had a material impact on the Consolidated financial statements in 2017. Further, Management does not anticipate any significant impact on future periods from the adoption of these new IFRSs.

New or amended IFRSs that have been issued but have not yet come into effect and have not been early adopted

In addition to the above, IASB has issued a number of new or amended and revised accounting standards and interpretations that have not yet come into effect. In general, the following standards are expected to have the most significant impact on current accounting regulation:

Standard	Description	Implementation	Impact
IFRS 9 Financial Instruments (endorsed by the EU)	IFRS 9 is part of IASB's project to replace IAS 39, and the new standard will substantially change the classification and measurement of financial instruments. Further, the standard introduces a new hedge-accounting model that enables companies to better reflect their risk management activities in the financial statements.	Novo Nordisk will adopt the standard on the effective date, being 1 January 2018. The standard will be implemented following the specific transitional requirements listed in the standard related to classification and measurement, impairments and hedge accounting. This results in prospective application.	Novo Nordisk has assessed the impact of the standard and determined that it will not have any significant impact on the Consolidated financial statements.
IFRS 15 Revenue from contracts with customers (endorsed by the EU)	IFRS 15 is part of the convergence project with FASB to replace IAS 18 and other standards, and the new standard will establish a single, comprehensive framework for revenue recognition. The standard provides details on recognising revenue to reflect the transfer of control of goods to customers at a value that the entity expects to be entitled to.	Novo Nordisk will adopt the standard on the effective date, being 1 January 2018. The standard will be implemented using the modified retrospective approach.	Novo Nordisk has performed an analysis of the impact, including areas such as variable considerations, right of return, licensing arrangements and agent relationships. Based on the analysis, it is assessed that the standard will not have any significant impact on revenue recognition or measurement compared to current practice. Implementation might result in extended disclosures regarding disaggregation of revenue and accounting policies.
IFRS 16 Leases (endorsed by the EU)	IFRS 16 replaces IAS 17, and will change the accounting treatment of leases that are currently treated as operating leases. The standard requires all leases, regardless of type and with few exceptions, to be recognised in the balance sheet as an asset with a related liability. The Income statement will also be affected, as the annual lease costs will consist of both depreciation and interest expenses going forward. Currently, the annual costs relating to operating leases are recognised as a single expense amount in the Income statement.	Novo Nordisk will adopt the standard on the effective date, being 1 January 2019. The standard will be implemented using the modified retrospective approach, meaning that comparative information is not restated. The cumulative effect of initially applying IFRS 16 is presented as an adjustment to opening retained earnings under equity.	The changes require capitalisation of the majority of the Group's operating lease contracts, representing approximately 4-6% of the total assets. This will have an impact on the Group's assets and an equivalent impact on liabilities. Hence, it will affect the financial ratios related to the balance sheet. The lease payments will be split between a depreciation charge included in operating costs and an interest expense on lease liabilities included in financial expenses. The impact on operating profit will be insignificant.

1.3 GENERAL ACCOUNTING POLICIES

Principles of consolidation

The Consolidated financial statements incorporate the financial statements of the parent company Novo Nordisk A/S and entities controlled by Novo Nordisk A/S. Control exists when Novo Nordisk has effective power over the entity and has the right to variable returns from the entity.

Where necessary, adjustments are made to bring the financial statements of subsidiaries in line with the Novo Nordisk Group's accounting policies. All intra-Group transactions, balances, income and expenses are eliminated in full when consolidated.

The results of subsidiaries acquired or disposed of during the year are included in the Consolidated income statement from the effective date of acquisition and up to the effective date of disposal.

Translation of foreign currencies

Functional and presentation currency

Items included in the financial statements of Novo Nordisk's entities are measured using the currency of the primary economic environment in which the entity operates (functional currency). The Consolidated financial statements are presented in Danish kroner (DKK), which is also the functional and presentation currency of the parent company.

Translation of transactions and balances

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the transaction dates. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities are recognised in the Income statement.
Translation differences on non-monetary items are recognised in Other comprehensive income.

Translation of Group companies

Financial statements of foreign subsidiaries are translated into Danish kroner at the exchange rates prevailing at the end of the reporting period for balance sheet items, and at average exchange rates for income statement items.

All effects of exchange rate adjustments are recognised in the Income statement, except for the following, which are recognised in Other comprehensive income:

- The translation of foreign subsidiaries' net assets at the beginning of the year to the exchange rates at the end of the reporting period.
- The translation of foreign subsidiaries' statements of comprehensive income at average to year-end exchange rates.

SECTION 2 RESULTS FOR THE YEAR

This section comprises notes related to the results for the year and hence provides information related to Novo Nordisk's long-term financial target for growth in operating profit in local currencies. Operating profit increased by 1.1% in 2017 (decrease of 2.0% in 2016).

The article '2017 performance and 2018 outlook' on p 6 includes Management's review of the results for the year and the articles 'Performing while transforming: building a bolder and more competitive US business' and 'Opportunities and challenges: Novo Nordisk's international Operations' on pp 32-39 includes Management's perspective on the various markets, which is not part of the audited financial statements (unaudited).

Pricing mechanisms in the US market

In the US, sales rebates are paid in connection with public healthcare insurance programmes, namely Medicare and Medicaid, as well as rebates to pharmacy benefit managers (PBMs) and managed healthcare plans. Key customers in the US include private payers, PBMs and government payers. PBMs and managed healthcare plans play a role in negotiating price concessions with drug manufacturers on behalf of private payers for both the commercial and government channels, and determine which drugs are covered on their formularies (or 'preferred drug lists'). Specifically, Management views the rising healthcare cost trend and highly competitive environment as the primary drivers of payer pressure to reduce overall drug costs.

This has resulted in greater focus on negotiating higher rebates from drug manufacturers. As new products enter the market, private payers are increasingly likely to adopt narrow formularies that exclude certain drugs, while securing higher rebates from the preferred brand(s).

From Management's perspective, in 2017 payers have continued to leverage their size and influence to negotiate higher rebates. Moreover, intense competition in the diabetes space limits the impact of price increases, as much of it is given back to payers in the form of higher rebates and price protection, leading to continued downward pressure on prices.

2.1 NET SALES AND REBATES

Accounting policies

Revenue is recognised when Novo Nordisk has transferred the significant risks and rewards from products sold to the buyer, the Group no longer has managerial involvement, and the amount of revenue can be measured reliably.

Sales are measured at the fair value of the consideration received or receivable. When sales are recognised, Novo Nordisk also records estimates for a variety of sales deductions, including product returns as well as rebates and discounts to government agencies, wholesalers, health insurance companies, managed healthcare organisations and retail customers. Sales deductions are recognised as a reduction of gross sales to arrive at net sales. Where contracts contain customer acceptance provisions, Novo Nordisk recognises sales when the acceptance criteria are satisfied.

Revenue recognition for new product launches is based on specific facts and circumstances relating to those products, including estimated demand and acceptance rates for well-established products with similar market characteristics. Where shipments of new products are made on a sale-or-return basis, without sufficient historical experience for estimating sales returns, revenue is only recorded when there is evidence of consumption or when the right of return has expired.

Key accounting estimate of sales deductions and provisions for sales rebates

Sales deductions are estimated and provided for at the time the related sales are recorded. These estimates of unsettled obligations require use of judgement, as not all conditions are known at the time of sale, for example total sales volume to a given customer.

The estimates are based on analyses of existing contractual obligations and historical experience. Provisions are calculated on the basis of a percentage of sales for each product as defined by the contracts with the various customer groups. Provisions for sales rebates are adjusted to actual amounts as rebates, discounts and returns are processed.

Novo Nordisk considers the provisions established for sales rebates to be reasonable and appropriate based on currently available information. However, the actual amount of rebates and discounts may differ from the amounts estimated by Management as more detailed information becomes available.

2.1 NET SALES AND REBATES (CONTINUED)

GROSS-TO-NET SALES RECONCILIATION

DKK million	2017	2016	2015
Gross sales	216,174	198,924	182,779
US Managed Care and Medicare	(53,077)	(40,874)	(33,235)
US wholesaler charge-backs	(28,324)	(25,416)	(22,030)
US Medicaid rebates	(12,491)	(10,862)	(9,838)
Other US discounts and sales returns	(5,771)	(5,147)	(4,685)
Non-US rebates, discounts and sales returns	(4,815)	(4,845)	(5,064)
Total gross-to-net sales adjustments	(104,478)	(87,144)	(74,852)
Net sales	**111,696**	111,780	107,927

Sales discounts and sales rebates are predominantly issued in the US. As such, rebates amount to 64% of gross sales in the US (59% in 2016 and 56% in 2015). Novo Nordisk sales are impacted by exchange rate changes. For development in key currencies refer to note 4.2 on p 83.

US Managed Care and Medicare
For Managed Care and Medicare, rebates are offered to a number of PBMs and managed healthcare plans. These rebate programmes allow the customer to receive a rebate after attaining certain performance parameters relating to formulary status or pre-established market shares relative to competitors. Rebates are estimated according to the specific terms in each agreement, historical experience, anticipated channel mix, growth rates and market share information. Novo Nordisk adjusts the provision periodically to reflect actual sales performance.

US wholesaler charge-backs
Wholesaler charge-backs relate to contractual arrangements between Novo Nordisk and indirect customers in the US whereby products are sold at contract prices lower than the list price originally charged to wholesalers. A wholesaler charge-back represents the difference between the invoice price to the wholesaler and the indirect customer's contract price. Accruals are calculated for estimated charge-backs using a combination of factors such as historical experience, current wholesaler inventory levels, contract terms and the value of claims received but not yet processed. Wholesaler charge-backs are generally settled within 30 days of the liability being incurred.

US Medicaid rebates
Medicaid is a government insurance programme. Medicaid rebates have been calculated using a combination of historical experience, product and population growth, price increases, and the impact of contracting strategies. Further, the calculation involves interpretation of relevant regulations that are subject to changes in interpretative guidance from government authorities. Although provisions are made for Medicaid rebates at the time sales are recorded, the actual rebates related to the specific sale will typically be invoiced to Novo Nordisk 6-9 months later. Due to the time lag, the rebate adjustments to sales in any particular period may incorporate adjustments of provisions from prior periods.

Other US discounts and sales returns
Other discounts are provided to wholesalers, hospitals, pharmacies etc. They are usually linked to sales volume or provided as cash discounts. Accruals are calculated based on historical data and recorded as a reduction in gross sales at the time the related sales are recorded. Sales returns are related to damaged or expired products.

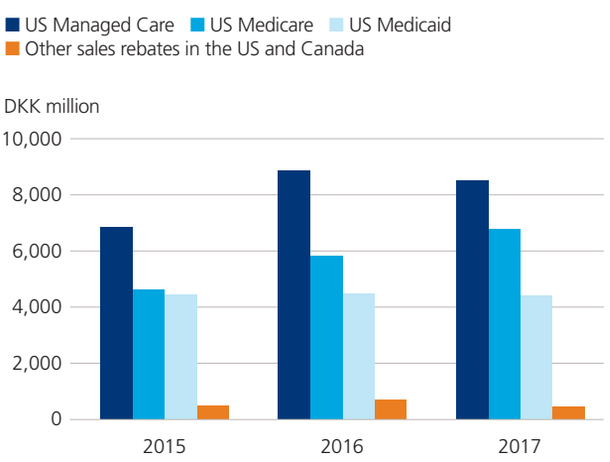
Arrangements with certain healthcare providers may require Novo Nordisk to make refunds to the healthcare providers if anticipated treatment outcomes do not meet predefined targets.

PROVISIONS FOR SALES REBATES

DKK million	2017	2016	2015
At the beginning of the year	19,971	16,508	11,002
Additional provisions, including increases to existing provisions	63,772	56,954	45,190
Amount used during the year	(61,017)	(53,217)	(40,958)
Adjustments, including unused amounts reversed during the year	(117)	(822)	—
Effect of exchange rate adjustment	(2,393)	548	1,274
At the end of the year	**20,216**	19,971	16,508

Unsettled rebates are recognised as Provisions when the timing or amount is uncertain (note 3.6). Where absolute amounts are known, the rebates are recognised as Other liabilities. Wholesaler charge-backs are netted against trade receivable balances. Hence, provisions for sales rebates include US Managed Care, Medicare, Medicaid and other minor US rebate types, as well as rebates in Canada.

PROVISIONS FOR SALES REBATES



2.2 SEGMENT INFORMATION

Accounting policies

Operating segments are reported in a manner consistent with the internal reporting provided to Executive Management and the Board of Directors.

We consider Executive Management to be the operating decision-making body, as all significant decisions regarding business development and direction are taken in that forum.

Business segments

Novo Nordisk operates in two business segments based on therapies: Diabetes care and obesity and Biopharmaceuticals.

The Diabetes care and obesity business segment includes research, development, manufacturing and marketing of products within the areas of insulin, GLP-1 and related delivery systems, oral antidiabetic products (OAD), obesity and other chronic diseases.

The Biopharmaceuticals business segment includes research, development, manufacturing and marketing of products within the areas of haemophilia, growth disorders and hormone replacement therapy.

Segment performance is evaluated on the basis of operating profit consistent with the Consolidated financial statements. Financial income and expenses and income taxes are managed at Group level and are not allocated to business segments. Further, non-recurring income from the partial divestment of NNIT A/S in 2015 was not allocated to segments.

There are no sales or other transactions between the business segments. Costs have been split between business segments according to a specific allocation. In addition, a minor number of corporate overhead costs are allocated systematically between the segments. Other operating income has been allocated to the two segments based on the same principle. Segment assets comprise the assets that are applied directly to the activities of the segment, including intangible assets, property, plant and equipment, inventories, trade receivables, and other receivables and prepayments.

No operating segments have been aggregated to form the reported business segments.

BUSINESS SEGMENTS

DKK million	2017	2016	2015	2017	2016	2015	2017	2016	2015
Segment sales	Diabetes care and obesity			Biopharmaceuticals			Total		
New-generation insulin	8,647	4,459	1,438						
- of which Tresiba®	7,327	4,056	1,278						
Total modern insulin	44,400	47,510	50,164						
NovoRapid® / NovoLog®	20,025	19,945	20,720						
NovoMix® / NovoLog® Mix	10,257	10,482	11,144						
Levemir®	14,118	17,083	18,300						
Human insulin	10,072	11,090	11,231						
Total insulin	63,119	63,059	62,833						
Victoza®	23,173	20,046	18,027						
Other diabetes care	4,023	4,267	4,270						
Total diabetes care	90,315	87,372	85,130						
Obesity (Saxenda®)	2,562	1,577	460						
Diabetes care and obesity total sales	**92,877**	88,949	85,590						
Haemophilia				10,469	10,472	10,647			
- of which NovoSeven®				9,206	9,492	10,064			
- of which NovoEight®				1,103	851	477			
Growth disorders				6,655	8,770	7,820			
Other biopharmaceuticals				1,695	3,589	3,870			
Biopharmaceuticals total sales				**18,819**	22,831	22,337			
Segment key figures									
Total net sales	92,877	88,949	85,590	18,819	22,831	22,337	111,696	111,780	107,927
Cost of goods sold	15,014	14,337	13,725	2,618	2,846	2,463	17,632	17,183	16,188
Sales and distribution costs	25,475	24,387	24,926	2,865	3,990	3,386	28,340	28,377	28,312
Research and development costs	11,358	11,481	10,475	2,656	3,082	3,133	14,014	14,563	13,608
Administrative costs	3,143	3,128	3,051	641	834	806	3,784	3,962	3,857
Other operating income, net	466	486	488	575	251	618	1,041	737	1,106
Income from partial divestment of NNIT A/S (not allocated to segments)	—	—	—	—	—	—	—	—	2,376
Operating profit	**38,353**	36,102	33,901	**10,614**	12,330	13,167	**48,967**	48,432	49,444
Operating margin	41.3%	40.6%	39.6%	56.4%	54.0%	58.9%	43.8%	43.3%	45.8%
Depreciation, amortisation and impairment losses expensed	2,536	2,674	2,514	646	519	445	3,182	3,193	2,959
Additions to Intangible assets and Property, plant and equipment	7,565	6,144	4,991	2,226	2,123	1,415	9,791	8,267	6,406
Assets allocated to business segments	61,542	55,081	46,444	14,994	14,798	11,759	76,536	69,879	58,203
Non-allocated assets[1]							25,819	27,660	33,596
Total assets							**102,355**	97,539	91,799

1. The part of total assets that remains unallocated to either of the two business segments includes Investment in associated company, Deferred income tax assets, Other financial assets, Tax receivables, Marketable securities, Derivative financial instruments and Cash at bank.

2.2 SEGMENT INFORMATION (CONTINUED)

GEOGRAPHICAL AREAS

Novo Nordisk operates in two main commercial units:

- North America Operations (US and Canada)
- International Operations
  - Region Europe: the EU, EFTA, Albania, Bosnia-Hercegovina, Macedonia, Serbia, Montenegro and Kosovo
  - Region AAMEO (Africa, Asia, Middle East & Oceania)
  - Region China: China, Hong Kong and Taiwan
  - Region Japan & Korea: Japan and South Korea
  - Region Latin America: countries in South America, Central America and Mexico

As of 1 January 2017, the geographical regions were changed to align with management structure as listed above. Comparative figures have been updated to reflect the new regional structure. Please refer to note 5.5 for an overview of subsidiaries.

Sales are attributed to geographical regions according to the location of the customer. Allocation of property, plant and equipment, trade receivables, allowance for trade receivables and total assets is based on the location of the assets.

The country of domicile is Denmark, which is part of Region Europe. Denmark is immaterial to Novo Nordisk's activities in terms of geographical size and the operational business segments. 99.6% of total sales are realised outside Denmark.

Sales to external customers attributed to the US are collectively the most material to the Group. The US is the only country where sales contribute more than 10% of total sales.

In 2017, Novo Nordisk had three major wholesalers distributing products, representing 21%, 13% and 12% respectively of total net sales (21%, 13% and 12% in 2016 and 21%, 12% and 11% in 2015). Sales to these three wholesalers are within both Diabetes care and obesity and Biopharmaceuticals.

Net sales will be impacted by exchange rate fluctuations. Conversely, Financial income and Financial expenses will be impacted by the corresponding results of hedging activities. Please refer to notes 4.2, 4.3 and 4.8 for more details on hedging.

For patent expiry in key markets by product, please refer to note 2.4 of the Consolidated social statement.

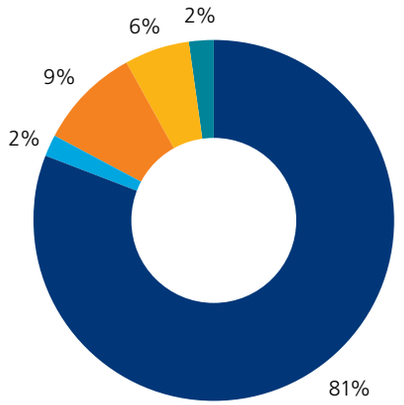
GEOGRAPHICAL AREAS

DKK million	■ North America Operations						International Operations					
	Total			Of which US			Total			■ Region Europe		
	2017	2016	2015	**2017**	2016	2015	**2017**	2016	2015	**2017**	2016	2015
Sales by business segment:												
New-generation insulin	5,152	2,246	33	5,132	2,246	33	3,495	2,213	1,405	1,643	886	545
- of which Tresiba®	4,982	2,246	33	4,970	2,246	33	2,345	1,810	1,237	966	665	441
Total modern insulin	22,364	26,043	28,708	21,651	25,337	27,945	22,036	21,467	21,456	8,496	8,728	9,349
NovoRapid® / NovoLog®	10,960	11,427	12,576	10,574	11,058	12,184	9,065	8,518	8,144	4,275	4,200	4,239
NovoMix® / NovoLog® Mix	1,790	2,080	2,837	1,743	2,032	2,779	8,467	8,402	8,307	1,852	2,025	2,181
Levemir®	9,614	12,536	13,295	9,334	12,247	12,982	4,504	4,547	5,005	2,369	2,503	2,929
Human insulin	1,937	2,011	2,094	1,766	1,827	1,884	8,135	9,079	9,137	1,770	2,103	2,014
Total insulin	29,453	30,300	30,835	28,549	29,410	29,862	33,666	32,759	31,998	11,909	11,717	11,908
Victoza®	17,465	14,624	13,014	16,929	14,146	12,570	5,708	5,422	5,013	3,451	3,391	3,394
Other diabetes care	943	930	950	782	776	785	3,080	3,337	3,320	605	649	679
Total diabetes care	47,861	45,854	44,799	46,260	44,332	43,217	42,454	41,518	40,331	15,965	15,757	15,981
Obesity (Saxenda®)	1,993	1,446	459	1,828	1,366	452	569	131	1	102	28	1
Diabetes care and obesity total	49,854	47,300	45,258	48,088	45,698	43,669	43,023	41,649	40,332	16,067	15,785	15,982
Haemophilia	5,023	4,934	5,208	4,852	4,710	5,086	5,446	5,538	5,439	2,828	2,520	2,405
- of which NovoSeven®	4,609	4,589	5,021	4,451	4,378	4,914	4,597	4,903	5,043	2,245	2,082	2,137
- of which NovoEight®	315	254	110	315	254	110	788	597	367	551	416	249
Growth disorders	2,550	4,498	3,625	2,543	4,495	3,625	4,105	4,272	4,195	1,572	1,661	1,675
Other biopharmaceuticals	582	2,510	2,765	348	2,291	2,559	1,113	1,079	1,105	722	716	736
Biopharmaceuticals total	8,155	11,942	11,598	7,743	11,496	11,270	10,664	10,889	10,739	5,122	4,897	4,816
Total sales by business and geographical segment	**58,009**	59,242	56,856	**55,831**	57,194	54,939	**53,687**	52,538	51,071	**21,189**	20,682	20,798
Total sales growth as reported	**(2.1%)**	4.2%	31.8%	**(2.4%)**	4.1%	32.9%	**2.2%**	2.9%	11.8%	**2.5%**	(0.6%)	3.2%
Property, plant and equipment	7,318	4,599	3,049	7,298	4,599	3,047	27,929	25,580	22,496	24,665	22,040	19,097
Trade receivables, net	10,742	10,604	6,619	10,517	10,426	6,456	9,423	9,630	8,866	3,273	3,304	3,203
Allowance for doubtful trade receivables	*(32)*	*(41)*	*(25)*	*(32)*	*(41)*	*(25)*	*(1,262)*	*(1,182)*	*(1,166)*	*(223)*	*(166)*	*(139)*
Total assets	20,612	18,684	12,830	20,180	18,349	12,594	81,743	78,855	78,969	65,600	63,407	64,590

SALES BY BUSINESS SEGMENT 2017

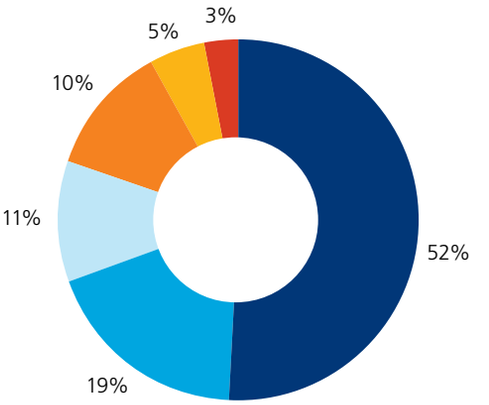
Diabetes care and obesity
- Diabetes care
- Obesity

Biopharmaceuticals
- Haemophilia
- Growth disorders
- Other biopharmaceuticals



SALES BY GEOGRAPHICAL AREA 2017

- North America Operations
- Region Europe
- Region AAMEO
- Region China
- Region Japan & Korea
- Region Latin America



GEOGRAPHICAL AREAS (CONTINUED)

	2017	2016	2015	2017	2016	2015	2017	2016	2015	2017	2016	2015
	International Operations (continued)											
	Region AAMEO			Region China			Region Japan & Korea			Region Latin America		
	451	279	162	2	—	—	992	769	495	407	279	203
	261	181	122	2	—	—	739	711	491	377	253	183
	5,725	5,284	5,099	5,500	4,969	4,312	1,518	1,787	1,713	797	699	983
	2,261	1,995	1,825	1,253	1,059	866	941	998	888	335	266	326
	2,503	2,291	2,297	3,555	3,363	3,036	444	619	632	113	104	161
	961	998	977	692	547	410	133	170	193	349	329	496
	2,201	2,494	2,431	3,096	3,361	3,537	232	302	324	836	819	831
	8,377	8,057	7,692	8,598	8,330	7,849	2,742	2,858	2,532	2,040	1,797	2,017
	858	715	584	309	255	213	590	623	470	500	438	352
	475	505	613	1,566	1,697	1,594	376	434	354	58	52	80
	9,710	9,277	8,889	10,473	10,282	9,656	3,708	3,915	3,356	2,598	2,287	2,449
	190	46	—	—	—	—	—	—	—	277	57	—
	9,900	9,323	8,889	10,473	10,282	9,656	3,708	3,915	3,356	2,875	2,344	2,449
	1,163	1,101	1,319	216	158	195	681	737	643	558	1,022	877
	1,097	1,082	1,310	215	158	195	497	559	524	543	1,022	877
	52	11	—	1	—	—	169	170	118	15	—	—
	676	906	818	15	15	15	1,579	1,469	1,339	263	221	348
	279	250	246	5	3	5	104	104	97	3	6	21
	2,118	2,257	2,383	236	176	215	2,364	2,310	2,079	824	1,249	1,246
	12,018	11,580	11,272	**10,709**	10,458	9,871	**6,072**	6,225	5,435	**3,699**	3,593	3,695
	3.8%	2.7%	15.1%	**2.4%**	5.9%	22.0%	**(2.5%)**	14.5%	10.8%	**3.0%**	(2.8%)	33.7%
	566	525	353	1,884	2,095	2,291	146	161	153	668	759	602
	3,468	3,164	2,620	1,541	1,773	1,541	279	305	466	862	1,084	1,036
	(823)	*(817)*	*(786)*	—	—	—	*(5)*	*(5)*	*(5)*	*(211)*	*(194)*	*(211)*
	5,876	4,937	4,160	5,927	5,697	5,603	1,304	1,248	1,338	3,036	3,566	3,278

2.3 RESEARCH AND DEVELOPMENT COSTS

Accounting policies

Novo Nordisk's research and development is mainly focused on:

- Insulins, GLP-1s and other therapeutic new anti-diabetic drugs for diabetes treatment
- GLP-1s, combinations and new modes of action for weight management
- Blood-clotting factors and new modes of action for haemophilia treatment
- Human growth hormone for treatment of growth disorders
- New modes of action including GLP-1 for treatment of NASH, cardiovascular- and chronic kidney disease

The research activities utilise biotechnological methods based on advanced protein chemistry and protein engineering. These methods have played a key role in the development of the production technology used to manufacture insulin, GLP-1, recombinant blood-clotting factors and human growth hormone.

In line with industry practice, Novo Nordisk expenses all internal research costs. Internal development costs are also expensed as incurred, due to regulatory and other uncertainties inherent in the development of new products. Hence, these do not qualify for capitalisation as intangible assets until marketing approval by a regulatory authority is obtained or highly probable.

Research and development activities are carried out by Novo Nordisk's research and development centres, mainly in Denmark, the US and China. Research and development trials are carried out all over the world. Novo Nordisk also enters into partnerships and licence agreements.

Research and development costs primarily comprise employee costs, and internal and external costs related to execution of studies, including manufacturing costs and facility costs of the research centres. Further, the costs comprise amortisation, depreciation and impairment losses related to intangible assets and property, plant and equipment used in the research and development activities.

A very limited part of the research and development activities is recognised outside Research and development costs:

- Up-front payments and milestone payments paid to partnerships prior to or upon regulatory approval are capitalised as intangible assets and amortised as Cost of goods sold over the useful life.
- Royalty expenses paid to partnerships after regulatory approval are expensed as Cost of goods sold.
- Royalty income received from partnerships is recognised as part of Other operating income, net.
- Contractual research and development obligations to be paid in the future are disclosed separately as Commitments in note 5.2.

RESEARCH AND DEVELOPMENT COSTS BY BUSINESS SEGMENT (NOTE 2.2)

DKK million	2017	2016	2015
Diabetes care and obesity	11,358	11,481	10,475
Biopharmaceuticals	2,656	3,082	3,133
Total	**14,014**	14,563	13,608

RESEARCH AND DEVELOPMENT COSTS

DKK million	2017	2016	2015
Internal and external Research and development costs	7,430	7,494	7,352
Employee costs (note 2.4)	5,848	6,149	5,584
Amortisation and impairment losses, intangible assets (note 3.1)	211	427	247
Depreciation and impairment losses, property, plant and equipment (note 3.2)	525	493	425
Total Research and development costs	**14,014**	14,563	13,608
As percentage of sales	12.5%	13.0%	12.6%

For a review of the development in Research and development costs, refer to p 7 and p 10, '2017 performance and 2018 outlook', which is not part of the audited financial statements.

Research costs comprise the very early stages of the drug development cycle from the initial drug discovery until the drug is ready for administration to humans. The activities initially focus on identifying a single drug candidate with a profile that will support a decision to initiate development activities. Before selection of the final drug candidate, it is tested in animals to gather efficacy, toxicity and pharmacokinetic information.

Development costs are incurred from the start of phase 1, when the drug is administered to humans for the first time; these are the projects captured in the pipeline overview on pp 22-23 (unaudited). The final product is developed, and subsequent clinical trials (phase 2 and 3) are conducted to further test the drug in humans, using the results from these trials to attempt to obtain marketing authorisation, permitting Novo Nordisk to market and sell the developed products.

2.4 EMPLOYEE COSTS

Accounting policies

Wages, salaries, social security contributions, annual leave and sick leave, bonuses and non-monetary benefits are recognised in the year in which the associated services are rendered by employees of Novo Nordisk. Where Novo Nordisk provides long-term employee benefits, the costs are accrued to match the rendering of the services by the employees concerned.

EMPLOYEE COSTS

DKK million	2017	2016	2015
Wages and salaries	23,869	24,651	23,289
Share-based payment costs (note 5.1)	292	368	442
Pensions – defined contribution plans	1,800	1,829	1,715
Pensions – defined benefit plans	165	145	154
Other social security contributions	1,910	1,853	1,783
Other employee costs	2,102	2,110	2,117
Total employee costs for the year	30,138	30,956	29,500
Employee costs capitalised as intangible assets and property, plant and equipment	(1,435)	(1,258)	(957)
Change in employee costs capitalised as inventories	(91)	(127)	(191)
Total employee costs in the Income statement	**28,612**	29,571	28,352
Included in the Income statement:			
Cost of goods sold	7,854	7,841	7,239
Sales and distribution costs	11,994	12,447	12,231
Research and development costs	5,848	6,149	5,584
Administrative costs	2,505	2,721	2,658
Other operating income, net	411	413	640
Total employee costs in the Income statement	**28,612**	29,571	28,352
Average number of full-time employees	41,665	41,993	40,342
Year-end number of full-time employees	42,076	41,971	40,638

REMUNERATION TO EXECUTIVE MANAGEMENT AND BOARD OF DIRECTORS

DKK million	2017	2016	2015
Salary and cash bonus	74	77	89
Pension	18	20	22
Benefits[4]	6	10	7
Share-based incentive[5]	7	11	44
Severance payments[1,4]	0	66	73
Executive Management in total[1,2,3]	**105**	184	235
Fee to Board of Directors	16	14	12
Total	**121**	198	247

1. Please refer to note 5.1 and 'Remuneration', pp 50-53 (unaudited), for further information.
2. President and CEO Lars Rebien Sørensen retired from Novo Nordisk on 31 December 2016. The 2016 remuneration for Lars Rebien Sørensen is included in the above table together with a severance payment of DKK 65.7 million. EVPs Jerzy Gruhn and Jesper Højland stepped down from Novo Nordisk´s Executive Management in 2016. The 2016 remuneration for Jerzy Gruhn and Jesper Høiland is included in the above table. EVP Kåre Schultz left Novo Nordisk on 30 April 2015. The 2015 remuneration for Kåre Schultz is included in the above table together with a severance payment of DKK 72.7 million.
3. Total remuneration for registered members of Executive Management and the Board of Directors amounts to DKK 90 million (DKK 152 million in 2016 and DKK 120 million in 2015).
4. Benefits are included in Other employee costs, and severance payments are included in Wages and salaries in the table above.
5. Until 2017 the cost of the programme was expensed when shares was granted as the pool was fixed. From 2017 onwards, the programme will be expensed equally over the grant year and the subsequent 3 years of vesting as the number of shares will be reduced if a participant terminates employment with Novo Nordisk.

2.5 OTHER OPERATING INCOME, NET

Accounting policies

Other operating income, net, comprises licence income and income of a secondary nature in relation to the main activities of Novo Nordisk. Licence income is recognised on an accrual basis in accordance with the terms and substance of the relevant agreement. Operating profit from the wholly owned subsidiary NNE A/S, not related to Novo Nordisk's main activities, is recognised as Other operating income. Other operating income also includes income from sale of intellectual property rights.

Divested subsidiaries are recognised in the Consolidated income statement until control is lost. Net gain or loss on divestments is determined as the difference between the sales proceeds and the carrying amount of net assets.

In March 2015, Novo Nordisk A/S disposed of 74.5% of its 100% interest in NNIT A/S. In total, DKK 2,376 million of non-recurring income from the partial divestment after costs of DKK 150 million was recorded as Other operating income in 2015. A total consideration of DKK 2,303 million was received and recorded in the cash flow statement.

2.6 INCOME TAXES AND DEFERRED INCOME TAXES

INCOME TAXES

Accounting policies

The tax expense for the period comprises current and deferred tax as well as interest on tax cases ongoing or settled during the year. Further, it includes adjustments to previous years and changes in provision for uncertain tax positions. Tax is recognised in the Income statement, except to the extent that it relates to items recognised in Equity or Other comprehensive income.

Ongoing tax disputes, primarily related to transfer pricing cases, are included as part of Deferred tax assets, Tax receivables and Tax payables.

Management judgement regarding recognition of deferred income tax assets and provision for uncertain tax positions

Novo Nordisk is subject to income taxes around the world. Significant judgement and estimates are required in determining the worldwide accrual for income taxes, deferred income tax assets and liabilities, and provision for uncertain tax positions.

Novo Nordisk recognises deferred income tax assets if it is probable that sufficient taxable income will be available in the future against which the temporary differences and unused tax losses can be utilised.

Management has considered future taxable income and used judgement in assessing whether deferred income tax assets should be recognised.

In the course of conducting business globally, tax and transfer pricing disputes with tax authorities may occur. Management judgement is applied to assess the possible outcome of such disputes. The 'most probable outcome' method is applied when making provisions for uncertain tax positions, and Novo Nordisk considers the provisions made to be adequate. However, the actual obligation may deviate and depends on the result of litigations and settlements with the relevant tax authorities.

US tax reform

The net deferred US tax asset has been reevaluated as a consequence of new US tax legislation, increasing the tax expense for 2017 by DKK 171 million.

INCOME TAXES EXPENSED

DKK million	2017	2016	2015
Current tax on profit for the year	10,562	8,981	9,648
Deferred tax on profit for the year	182	3,014	(1,130)
Tax on profit for the year	10,744	11,995	8,518
Adjustments recognised for current tax of prior years	(425)	(3,191)	3
Adjustments recognised for deferred tax of prior years	231	1,069	102
Income taxes in the Income statement	**10,550**	9,873	8,623
Current tax on Other comprehensive income for the year	(2)	(28)	—
Deferred tax on Other comprehensive income for the year	1,043	(296)	87
Tax on other comprehensive income for the year, (income)/expense	**1,041**	(324)	87

Adjustments recognised for prior years include adjustments caused by events that occurred in the current year related to current and deferred tax of prior years. Such adjustments predominantly arise from tax payments regarding tax disputes and reversal of the associated tax liability recognised in prior years.

DKK million	2017	2016	2015
Computation of effective tax rate:			
Statutory corporate income tax rate in Denmark	22.0%	22.0%	23.5%
Deviation in foreign subsidiaries' tax rates compared with the Danish tax rate (net)	0.0%	0.2%	(2.9%)
Non-taxable income from the partial divestment of NNIT A/S	—	—	(1.3%)
Non-taxable income less non-tax-deductible expenses (net)	0.1%	0.1%	0.1%
Others, including adjustment of prior years	(0.4%)	(1.6%)	0.4%
Effective tax rate	**21.7%**	20.7%	19.8%

The impact of the deviation in foreign subsidiaries' tax rates compared with the Danish tax rate is mainly driven by Swiss and US business activities.

2.6 INCOME TAXES AND DEFERRED INCOME TAXES (CONTINUED)

INCOME TAXES PAID

DKK million	2017	2016	2015
Income taxes paid in Denmark for current year	6,798	5,506	5,926
Income taxes paid outside Denmark for current year	2,639	2,645	3,040
Income taxes paid/ repayments relating to prior years	(336)	(5,252)	408
Total income taxes paid	**9,101**	2,899	9,374

The income taxes paid relating to prior years include repayments and adjustments arising from tax disputes primarily regarding transfer pricing.

DEFERRED INCOME TAXES

Accounting policies

Deferred income taxes arise from temporary differences between the accounting and taxable values of the individual consolidated companies and from realisable tax loss carry-forwards. The tax value of tax loss carry-forwards is included in deferred tax assets to the extent that these are expected to be utilised in future taxable income. The deferred income taxes are measured according to current tax rules and at the tax rates assumed in the year the assets are expected to be utilised. In general, the Danish tax rules related to company dividends provide exemption from tax for most repatriated profits. A provision for withholding tax is only recognised if a concrete distribution of earnings is planned.

The potential withholding tax amounts to DKK 343 million for 2017 (DKK 330 million in 2016).

The value of future tax deductions in relation to share programmes is recognised as deferred tax until the shares are paid out to the employees. Any estimated excess tax deduction compared to the costs realised in the Income statement is charged to Equity.

DEVELOPMENT IN DEFERRED INCOME TAX ASSETS AND LIABILITIES

DKK million	Property, plant and equipment	Intangible assets	Inventories	Provisions and other liabilities	Other[2]	Offset within countries	Total
2017							
Net deferred tax asset/(liability) at 1 January	(966)	(359)	1,176	2,005	814	—	2,670
Income/(charge) to the Income statement	61	(132)	(192)	(182)	32		(413)
Income/(charge) to Other comprehensive income	—	—	(151)	(26)	(866)		(1,043)
Income/(charge) to Equity[1]	—	—	—	—	17		17
Effect of exchange rate adjustment	37	(9)	—	(139)	(25)		(136)
Net deferred tax asset/(liability) at 31 December	(868)	(500)	833	1,658	(28)	—	**1,095**
Classified as follows:							
Deferred tax asset at 31 December	237	57	2,194	1,748	318	(2,613)	1,941
Deferred tax liability at 31 December	(1,105)	(557)	(1,361)	(90)	(346)	2,613	(846)

1. Deferred tax related to value adjustment of restricted stock units. In addition, DKK 1 million related to current tax has also been charged to Equity. The net charge to Equity is DKK 18 million.
2. Other includes hedging and tax loss carry forwards, etc.

DKK million	Property, plant and equipment	Intangible assets	Inventories	Provisions and other liabilities	Other[2]	Offset within countries	Total
2016							
Net deferred tax asset/(liability) at 1 January	(765)	(337)	3,593	2,559	1,750	—	6,800
Income/(charge) to the Income statement	(188)	(23)	(2,390)	(632)	(850)		(4,083)
Income/(charge) to Other comprehensive income	—	—	(27)	54	269		296
Income/(charge) to Equity[3]	—	—	—	—	(355)		(355)
Effect of exchange rate adjustment	(13)	1	—	24	—		12
Net deferred tax asset/(liability) at 31 December	(966)	(359)	1,176	2,005	814	—	2,670
Classified as follows:							
Deferred tax asset at 31 December	183	96	2,400	2,081	930	(3,007)	2,683
Deferred tax liability at 31 December	(1,149)	(455)	(1,224)	(76)	(116)	3,007	(13)

3. Deferred tax related to value adjustment of restricted stock units. In addition, DKK 440 million related to current tax has also been charged to Equity. The net charge to Equity is DKK 85 million.

SPECIFICATION OF TAX LOSS CARRY-FORWARDS AT 31 DECEMBER

DKK million	2017	2016
Recognised deferred tax on tax loss carry forwards	24	39
Unrecognised tax base of tax loss carry-forwards	364	235
Classified as follows:		
Expiry within one year	—	19
Expiry within two to five years	16	—
Expiry after more than five years	348	216

The total tax value of unrecognised tax loss carry forward amounts to DKK 93 million in 2017 (DKK 73 million in 2016).

SECTION 3 OPERATING ASSETS AND LIABILITIES

This section presents details of the operating assets that form the basis for the activities of Novo Nordisk, and related liabilities. These net assets impact Novo Nordisk's long-term target for `Operating profit after tax to net operating assets' (OPAT/NOA); for a definition please refer to pp 96-97 (unaudited).

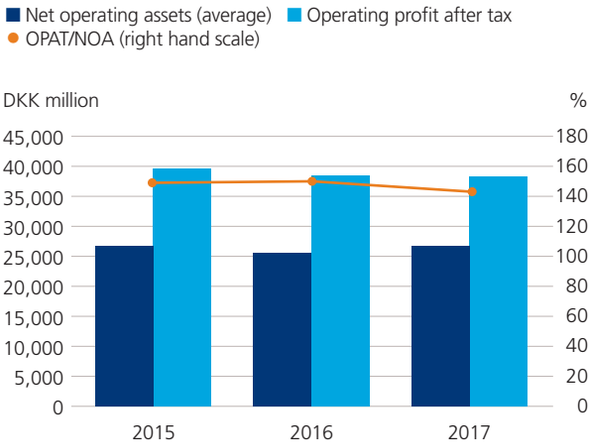
Novo Nordisk, in line with industry practice, does not capitalise internal development costs, which impacts OPAT/NOA. Novo Nordisk´s approach to managing operating assets is to retain assets for research, development and production activities under the company's own control, and to lease non-core assets related to administration and distribution. Management believes this is a significant factor in maintaining the quality of the company´s products. Further, being able to deliver products to customers with limited notice is a priority. Consequently, the total production capacity reflects this priority, and the inventory level includes a level of safety stock.

Impact of rebates in the US

Management believes that a significant factor in the development of net operating assets relates to the provision for sales rebates in the US, presented as Provisions under current liabilities in the Balance sheet.

The increase in 2017 reflects the combined increase in the Managed Care and Medicare Part D rebates, and is related to contract enhancements and price protection. This is partially countered by the effect of faster collection from pharmacy benefit managers and authorities.

DEVELOPMENT IN OPERATING PROFIT AFTER TAX TO NET OPERATING ASSETS



3.1 INTANGIBLE ASSETS

Accounting policies

Patents and licences, including acquired patents and licences for ongoing research and development projects, are carried at historical cost less accumulated amortisation and any impairment loss. Amortisation is based on the straight-line method over the estimated useful life. This is the shorter of the legal duration and the economic useful life, not exceeding 15 years. The amortisation of patents and licences begins after regulatory approval has been obtained.

Internal development of software for internal use is recognised as intangible assets if the recognition criteria are met, for example a significant business system where the expenditure leads to the creation of a durable asset. Amortisation is based on the straight-line method over the estimated useful life of 3-15 years. The amortisation begins when the asset is in the location and condition necessary for it to be capable of operating in the manner intended by Management.

Research and development projects

Internal research costs are charged in full to the Consolidated income statement in the period in which they are incurred. Consistent with industry practice, internal development costs are also expensed until regulatory approval is obtained or highly probable; please refer to note 2.3.

For acquired ongoing research and development projects, the probability effect is reflected in the cost of the asset, and the probability recognition criteria are therefore always considered satisfied. As the cost of acquired ongoing research and development projects can often be measured reliably, these projects fulfil the capitalisation criteria as intangible assets on acquisition. However, further internal development costs subsequent to acquisition are treated in the same way as other internal development costs.

Impairment of assets

Intangible assets with an indefinite useful life and intangible assets not yet available for use are not subject to amortisation. They are tested annually for impairment, irrespective of whether there is any indication that they may be impaired.

Assets that are not subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Factors considered material that could trigger an impairment test include the following:

- Development of a competing drug
- Changes in the legal framework covering patents, rights and licences
- Advances in medicine and/or technology that affect the medical treatments
- Lower-than-predicted sales
- Adverse impact on reputation and/or brand names
- Changes in the economic lives of similar assets
- Relationship to other intangible assets or property, plant and equipment
- Changes or anticipated changes in participation rates or reimbursement policies.

If the carrying amount of intangible assets exceeds the recoverable amount based on the existence of one or more of the above indicators of impairment, any impairment is measured based on discounted projected cash flows. Impairments are reviewed at each reporting date for possible reversal.

3.1 INTANGIBLE ASSETS (CONTINUED)

INTANGIBLE ASSETS

DKK million	2017	2016
Patents and licences	2,095	1,591
Ongoing and developed software	1,230	1,123
Total	**3,325**	2,714

Additions to intangible assets amount to DKK 1,103 million of which DKK 81 million have not yet been paid. The additions in 2017 are related to research and development projects within Diabetes care and obesity (DKK 389 million) and Biopharmaceuticals (DKK 714 million). In 2016 research and development projects were related to Biopharmaceuticals (DKK 1,199 million).

In 2017, an impairment loss of DKK 195 million (DKK 416 million in 2016) related to patents and licences was recognised. All impairments was related to the Diabetes care and obesity segment.

Intangible assets not yet in use amount to DKK 1,715 million (DKK 1,247 million in 2016), primarily patents and licences in relation to research and development projects. Impairment tests in 2017 and 2016 of patents and licences not yet in use are based on Management's projections and anticipated net present value of estimated future cash flows from marketable products. Terminal values used are based on the expected life of products, forecasted life cycle and cash flow over that period, and the useful life of the underlying assets.

AMORTISATION AND IMPAIRMENT LOSSES

DKK million	2017	2016
Cost of goods sold	193	186
Sales and distribution costs	15	11
Research and development costs	211	427
Administrative expenses	3	3
Other operating income, net	5	8
Total amortisation and impairment losses	**427**	635

3.2 PROPERTY, PLANT AND EQUIPMENT

Accounting policies

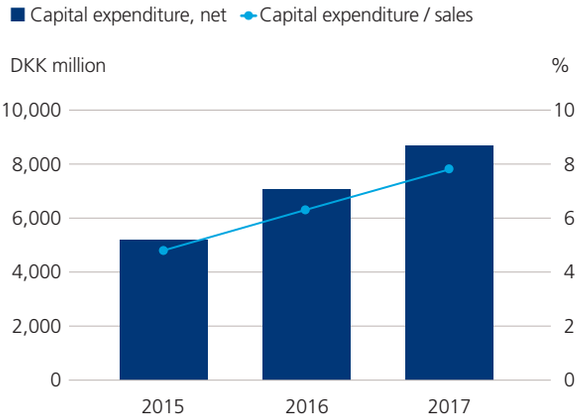
Property, plant and equipment is measured at historical cost less accumulated depreciation and any impairment loss. The cost of self-constructed assets includes costs directly and indirectly attributable to the construction of the assets. Any subsequent cost is included in the asset's carrying amount or recognised as a separate asset only when it is probable that future economic benefits associated with the item will flow to Novo Nordisk and the cost of the item can be measured reliably. In general, construction of major investments is self-financed and thus no interest on loans is capitalised as part of the cost. Depreciation is based on the straight-line method over the estimated useful lives of the assets:

- Buildings: 12-50 years
- Plant and machinery: 5-16 years
- Other equipment: 3-10 years
- Land: not depreciated.

The depreciation commences when the asset is available for use, in other words when it is in the location and condition necessary for it to be capable of operating in the manner intended by Management.

The assets' residual values and useful lives are reviewed and adjusted, if appropriate, at the end of each reporting period. If the asset's carrying amount is higher than its estimated recoverable amount, it is written down to the recoverable amount; please refer to note 3.1 for a description of impairment of assets.

DEVELOPMENT IN CAPITAL EXPENDITURE



Plant and equipment with no alternative use developed as part of a research and development project are expensed. However, plant and equipment with an alternative use or used for general research and development purposes are capitalised and depreciated over the estimated useful life as Research and development costs.

Capital expenditure in 2017 was primarily related to investments in new production facilities for active pharmaceutical ingredients for diabetes care, mainly the facility in Clayton, US. Further, it related to new diabetes care filling capacity, expansion of the manufacturing capacity for biopharmaceutical products and the construction of new research facilities.

In May 2015, Novo Nordisk initiated the construction of a new facility in Kalundborg, Denmark, for producing active pharmaceutical ingredients for NovoSeven® and future products for treating haemophilia.

In August 2015, Novo Nordisk announced its intention to construct new facilities in Clayton, US, and Måløv, Denmark. The facilities in Clayton will produce active pharmaceutical ingredients, and the facility in Måløv will be for tableting and packaging of oral products.

In November 2015, Novo Nordisk initiated the construction of a new insulin facility in Hillerød, Denmark. The ambition is that the facility will serve as a backup production facility for the US market and act as a launch site for new injectable diabetes products.

DEPRECIATION AND IMPAIRMENT LOSSES

DKK million	2017	2016
Cost of goods sold	2,091	1,952
Sales and distribution costs	76	51
Research and development costs	525	493
Administrative costs	57	57
Other operating income, net	6	5
Total depreciation and impairment losses	**2,755**	2,558

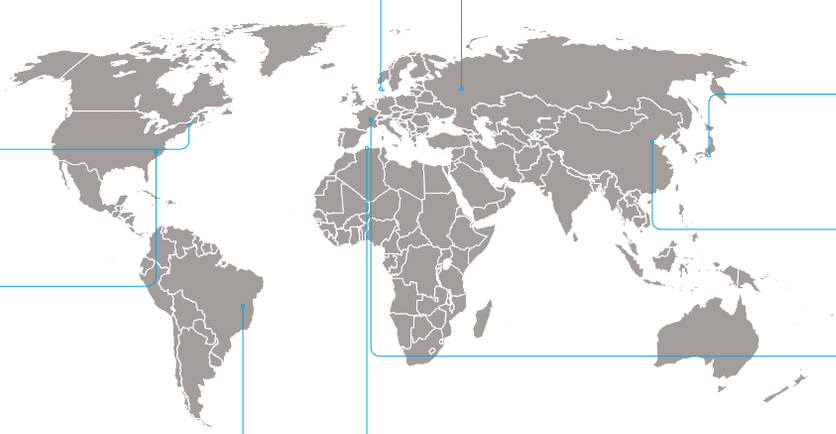
3.2 PROPERTY, PLANT AND EQUIPMENT (CONTINUED)

PROPERTY, PLANT AND EQUIPMENT

DKK million	Land and buildings	Plant and machinery	Other equipment	Assets under construction	**Total**
2017					
Cost at the beginning of the year	20,190	23,165	4,130	10,539	58,024
Additions during the year[1]	895	502	263	7,028	8,688
Disposals during the year	(133)	(367)	(186)	—	(686)
Transfer from assets under construction	1,516	964	401	(2,881)	—
Effect of exchange rate adjustment	(436)	(465)	(139)	(325)	(1,365)
Cost at the end of the year	22,032	23,799	4,469	14,361	64,661
Depreciation and impairment losses at the beginning of the year	8,182	17,079	2,584	—	27,845
Depreciation for the year	964	1,340	334	—	2,638
Impairment losses for the year	54	47	16	—	117
Depreciation and impairment losses reversed on disposals during the year	(100)	(343)	(178)	—	(621)
Effect of exchange rate adjustment	(166)	(315)	(84)	—	(565)
Depreciation and impairment losses at the end of the year	8,934	17,808	2,672	—	29,414
Carrying amount at the end of the year	13,098	5,991	1,797	14,361	**35,247**
2016					
Cost at the beginning of the year	18,003	22,035	3,516	7,616	51,170
Additions during the year	1,434	280	433	4,921	7,068
Disposals during the year	(196)	(429)	(111)	—	(736)
Transfer from assets under construction	738	1,069	243	(2,050)	—
Effect of exchange rate adjustment	211	210	49	52	522
Cost at the end of the year	20,190	23,165	4,130	10,539	58,024
Depreciation and impairment losses at the beginning of the year	7,448	15,900	2,277	—	25,625
Depreciation for the year	786	1,342	304	—	2,432
Impairment losses for the year	11	37	78	—	126
Depreciation and impairment losses reversed on disposals during the year	(174)	(392)	(104)	—	(670)
Effect of exchange rate adjustment	111	192	29	—	332
Depreciation and impairment losses at the end of the year	8,182	17,079	2,584	—	27,845
Carrying amount at the end of the year	12,008	6,086	1,546	10,539	30,179

1. The cash flow statement excludes additions of DKK 1,062 million for property, plant and equipment that has not yet been paid.

GLOBAL PRODUCTION SETUP



DENMARK (~9,750 FTE´s)
- Diabetes and biopharmacetutical active ingredient production
- Filling and packaging
- Moulding and assembly
- Tablet production

NEW HAMPSHIRE, USA (~180 FTE´s)
- Biopharmaceutical active ingredient production

CLAYTON, NC, USA (~1,030 FTE´s)
- Diabetes active ingredient production
- Filling and packaging
- Assembly

MONTE CLAROS, BRAZIL (~960 FTE´s)
- Filling and packaging
- Assembly

KALUGA, RUSSIA (~260 FTE´s)
- Filling and packaging
- Assembly

KORIYAMA, JAPAN (~70 FTE´s)
- Packaging

TIANJIN, CHINA (~990 FTE´s)
- Filling and packaging
- Assembly

CHARTRES, FRANCE (~1,130 FTE´s)
- Filling and packaging
- Assembly

TIZI OUZOU, ALGERIA (~170 FTE´s)
- Tablet production

3.3 INVENTORIES

Accounting policies

Inventories are stated at the lower of cost and net realisable value. Cost is determined using the first-in, first-out method. Cost comprises direct production costs such as raw materials, consumables and labour as well as indirect production costs. Production costs for work in progress and finished goods include indirect production costs such as employee costs, depreciation, maintenance etc.

If the expected sales price less completion costs to execute sales (net realisable value) is lower than the carrying amount, a write-down is recognised for the amount by which the carrying amount exceeds its net realisable value.

Inventory manufactured prior to regulatory approval (pre-launch inventory) is capitalised but immediately provided for, until there is a high probability of regulatory approval for the product. A write-down is made against inventory, and the cost is recognised in the Income statement as Research and development costs. Once there is a high probability of regulatory approval being obtained, the write-down is reversed, up to no more than the original cost.

Key accounting estimate of indirect production costs capitalised

Indirect production costs account for approximately 50% of the net inventory value, reflecting a lengthy production process compared with low direct raw material costs. The production of both diabetes care and obesity and biopharmaceutical products is highly complex from fermentation to purification and formulation, including quality control of all production processes. Furthermore, the process is very sensitive to manufacturing conditions. These factors all influence the parameters for capitalisation of indirect production costs at Novo Nordisk and the full cost of the products. Indirect production costs are measured using a standard cost method. This is reviewed regularly to ensure relevant measures of capacity utilisation, production lead time, cost base and other relevant factors, hence inventory is valued at actual cost. When calculating total inventory, Management must make judgements about cost of production, standard cost variances and idle capacity in estimating indirect production costs for capitalisation. Changes in the parameters for calculation of indirect production costs could have an impact on the gross margin and the overall valuation of inventories.

INVENTORIES

DKK million	2017	2016
Raw materials	2,420	2,285
Work in progress	10,992	9,379
Finished goods	4,180	4,035
Total inventories (gross)	17,592	15,699
Write-downs at year-end	2,219	1,358
Total inventories (net)	**15,373**	14,341
Indirect production costs included in work in progress and finished goods	7,768	7,103
Share of total inventories (net)	51%	50%

MOVEMENTS IN INVENTORY WRITE-DOWNS

Write-downs at the beginning of the year	1,358	1,419
Write-downs during the year	1,556	861
Utilisation of write-downs	(438)	(672)
Reversal of write-downs	(257)	(250)
Write-downs at the end of the year	**2,219**	1,358

All write-downs in both 2016 and 2017 relate to fully impaired inventory.

3.4 TRADE RECEIVABLES

Accounting policies

Trade receivables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest method, less allowance for doubtful trade receivables.

The allowance is deducted from the carrying amount of Trade receivables, and the amount of the loss is recognised in the Income statement under Sales and distribution costs. Subsequent recoveries of amounts previously written off are credited against Sales and distribution costs.

Key accounting estimate of allowance for doubtful trade receivables

Novo Nordisk's customer base comprises government agencies, wholesalers, retail pharmacies, Managed Care and other customers. Management makes allowance for doubtful trade receivables in anticipation of estimated losses resulting from the subsequent inability of customers to make required payments. If the financial circumstances of customers were to deteriorate, resulting in an impairment of their ability to make payments, an additional allowance could be required in future periods. When evaluating the adequacy of the allowance for doubtful trade receivables, Management analyses trade receivables and examines historical bad debt, customer concentrations, customer creditworthiness and payment history, current economic trends and changes in customer payment terms. Please refer to note 4.2 for a general description of credit risk.

Many of the countries within Region AAMEO have significant sales and low credit ratings. As such, this region has a relatively high impact on the allowance for doubtful trade receivables. Instability and sharp currency depreciation are impacting the political climate in Russia and Iran. Novo Nordisk is monitoring these developments closely. Payment history as well as current economic conditions and indicators are taken into account in the valuation of trade receivables.

Please refer to note 2.2 for a geographical split of trade receivables and allowance for doubtful trade receivables, and note 4.2 for the trade receivable programmes.

TRADE RECEIVABLES

DKK million	2017	2016
Trade receivables (gross)	21,459	21,457
Allowance for doubtful trade receivables	1,294	1,223
Trade receivables (net)	**20,165**	20,234
Trade receivables (net) equals a credit period of 66 days (66 days in 2016).		
Age analysis of trade receivables		
- Not yet due	19,034	18,980
- Overdue by between 1 and 179 days	1,095	1,079
- Overdue by between 180 and 360 days	36	175
Trade receivables with credit risk exposure	20,165	20,234

MOVEMENTS IN ALLOWANCE FOR DOUBTFUL TRADE RECEIVABLES

Carrying amount at the beginning of the year	1,223	1,166
Reversal of allowance on realised losses	(27)	(9)
Allowance for possible losses during the year	196	104
Effect of exchange rate adjustment	(98)	(38)
Allowance at the end of the year	**1,294**	1,223

Total realised losses in 2017 amount to DKK 27 million (DKK 13 million in 2016).

3.5 RETIREMENT BENEFIT OBLIGATIONS

Accounting policies

Defined contribution plans
Novo Nordisk operates a number of defined contribution plans throughout the world. These plans are externally funded in entities that are legally separate from the Group. Novo Nordisk's contributions to the defined contribution plans are charged to the Income statement in the year to which they relate.

Defined benefit plans
In a few countries, Novo Nordisk operates defined benefit plans. The plan in the US is structured as a post-retirement healthcare plan covering all employees. From 2012, this plan was frozen such that it no longer credited future service or admitted new participants, and a new defined contribution plan was established covering all employees in the US.

The defined benefit plans for Germany cover all employees employed before November 2003. Obligations relating to employees employed after 2003 are covered by a defined contribution plan.

In Switzerland, the employee pension scheme is set up as a combined defined benefit and defined contribution plan, and is mandatory. In Germany and Switzerland, the defined benefit plans are partly reimbursed by international insurance companies. The risk related to the plan assets in these countries is therefore limited to counterparty risk against these insurance companies.

The plan in Japan covers all employees and is set up as a combined defined benefit and defined contribution plan.

Recognition of defined benefit plans
The costs for the year for defined benefit plans are determined using the projected unit credit method. This reflects services rendered by employees to the valuation dates and is based on actuarial assumptions primarily regarding discount rates used in determining the present value of benefits and projected rates of remuneration growth. Discount rates are based on the market yields of high-rated corporate bonds in the country concerned.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to Other comprehensive income in the period in which they arise. Past service costs are recognised immediately in the Income statement.

Pension plan assets are only recognised to the extent that Novo Nordisk is able to derive future economic benefits such as refunds from the plan or reductions of future contributions. Novo Nordisk manages the allocation and investment of pension plan assets with the purpose of meeting the long-term objectives.

The Group's defined benefit plans are pension plans and medical plans and are usually funded by payments from Group companies and by employees to funds independent of Novo Nordisk. Where a plan is unfunded, a liability for the retirement benefit obligation is recognised in the Balance sheet. Costs recognised for retirement benefits are included in Cost of goods sold, Sales and distribution costs, Research and development costs, and Administrative costs.

The net obligation recognised in the Balance sheet is reported as non-current liabilities.

RETIREMENT BENEFIT OBLIGATIONS

DKK million	US	Germany	Switzerland	Japan	Other	**2017 total**	2016 total
At the beginning of the year	478	945	350	420	418	2,611	2,268
Current service costs	17	32	24	28	40	141	157
Past service costs and settlements	—	—	(43)	—	(2)	(45)	(49)
Interest costs	16	15	1	2	6	40	51
Remeasurement (gains)/losses[1]	8	(62)	(14)	(1)	(10)	(79)	200
Plan participant contributions etc	—	—	8	—	4	12	16
Benefits paid to employees	(14)	(6)	(14)	(20)	(12)	(66)	(67)
Effect of exchange rate adjustment	(57)	2	(29)	(36)	(16)	(136)	35
At the end of the year	448	926	283	393	428	**2,478**[2]	2,611

FAIR VALUE OF PLAN ASSETS

At the beginning of the year	—	497	246	319	98	1,160	1,082
Interest income	—	8	—	1	3	12	20
Settlements	—	—	(43)	—	—	(43)	(6)
Remeasurement gains/(losses)[1]	—	4	1	19	—	24	(5)
Employer contributions	14	21	19	24	18	96	102
Plan participant contributions etc	—	—	8	—	6	14	16
Benefits paid to employees	(14)	(6)	(14)	(20)	(12)	(66)	(67)
Effect of exchange rate adjustment	—	1	(20)	(27)	(9)	(55)	18
At the end of the year	—	525	197	316	104	**1,142**	1,160
Net retirement benefit obligations at the end of the year	448	401	86	77	324	**1,336**	1,451

1. Net remeasurement is a gain of DKK 103 million (loss of DKK 205 million in 2016), primarily related to changes in financial assumptions, is included in Other comprehensive income.
2. The present value of partly funded retirement benefit obligations amounts to DKK 1,778 million (DKK 1,887 million in 2016). The present value of unfunded retirement benefit obligations amounts to DKK 700 million (DKK 724 million in 2016).

3.5 RETIREMENT BENEFIT OBLIGATIONS (CONTINUED)

Please refer to note 5.2 for a maturity analysis of the net retirement benefit obligation. Novo Nordisk does not expect the contributions over the next five years to differ significantly from current contributions.

Actuarial valuations are performed annually for all major defined benefit plans. Assumptions regarding future mortality are based on actuarial advice in accordance with published statistics and experience in each country. Other assumptions such as medical cost trend rate and inflation are also considered in the calculation.

Significant actuarial assumptions for the determination of the retirement benefit obligation (not considering plan assets) are discount rate and expected future remuneration increases. The sensitivity analysis below has been determined based on reasonably likely changes in the assumptions occurring at the end of the period.

DKK million	1 %-point increase	1 %-point decrease
Discount rate (decrease)/increase	(375)	463
Future remuneration growth (decrease)/ increase	105	(95)

The sensitivities above consider the single change shown with the other assumptions assumed to be unchanged. The table shows the NPV impact of net retirement liabilities.

3.6 PROVISIONS AND CONTINGENT LIABILITIES

Accounting policies

Provisions for sales rebates and discounts granted to government agencies, wholesalers, retail pharmacies, Managed Care and other customers are recorded at the time the related revenues are recorded or when the incentives are offered. Provisions are calculated based on historical experience and the specific terms in the individual agreements. Unsettled rebates are recognised as Provisions when the timing or amount is uncertain. Where absolute amounts are known, the rebates are recognised as Other liabilities. Please refer to note 2.1 for further information on sales rebates and provisions.

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

Provisions are measured at the present value of the anticipated expenditure for settlement. This is calculated using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision for interest is recognised as a financial expense.

Novo Nordisk issues credit notes for expired goods as a part of normal business. Where there is historical experience or a reasonably accurate estimate of expected future returns can otherwise be made, a provision for estimated product returns is recorded. The provision is measured at gross sales value.

Key accounting estimate regarding ongoing legal disputes, litigations and investigations

Provisions for legal disputes consist of various types of provision linked to ongoing legal disputes. Management makes estimates regarding provisions and contingencies, including the probability of pending and potential future litigation outcomes. These are by nature dependent on inherently uncertain future events. When determining likely outcomes of litigations etc, Management considers the input of external counsels on each case, as well as known outcomes in case law.

Although Management believes that the total provisions for legal proceedings are adequate based on currently available information, there can be no assurance that there will not be any changes in facts or matters, or that any future lawsuits, claims, proceedings or investigations will not be material.

PROVISIONS

DKK million	Provisions for sales rebates	Provisions for legal disputes	Provisions for product returns	Other provisions[1]	**2017 total**	2016 total
At the beginning of the year	19,971	1,915	767	1,178	23,831	19,824
Additional provisions, including increases to existing provisions	63,772	743	314	384	65,213	58,688
Amount used during the year	(61,017)	(455)	(274)	(230)	(61,976)	(53,991)
Adjustments, including unused amounts reversed during the year	(117)	(287)	54	(56)	(406)	(1,291)
Effect of exchange rate adjustment	(2,393)	(135)	(14)	(63)	(2,605)	601
At the end of the year	20,216	1,781	847	1,213	**24,057**	23,831
Non-current liabilities	—	1,781	508	1,013	3,302	3,370
Current liabilities	20,216	—	339	200	20,755	20,461

1. Other provisions consist of various types of provision, including obligations in relation to employee benefits such as jubilee benefits, company-owned life insurance etc. Assets offsetting obligations related to company-owned life insurance are presented as part of Other financial assets.

For non-current liabilities, provisions for product returns will be utilised in 2019 and 2020. In the case of provisions for legal disputes, the timing of settlement cannot be determined.

3.6 PROVISIONS AND CONTINGENT LIABILITIES (CONTINUED)

Contingent liabilities

Novo Nordisk is currently involved in pending litigations, claims and investigations arising out of the normal conduct of its business. While provisions that Management deems to be reasonable and appropriate have been made for probable losses, there are uncertainties connected with these estimates. Novo Nordisk does not expect the pending litigations, claims and investigations, individually and in the aggregate, to have a material impact on Novo Nordisk's financial position, operating profit or cash flow in addition to the amounts accrued as provision for legal disputes.

Pending litigation against Novo Nordisk

As of 31 December 2017, Novo Nordisk, along with the majority of incretin-based product manufacturers in the US, is a defendant in product liability lawsuits related to use of incretin-based medications. To date, 250 plaintiffs have named Novo Nordisk in product liability lawsuits, predominantly claiming damages for pancreatic cancer that allegedly developed as a result of using Victoza® and other GLP-1/DPP-IV (incretin-based) products. 162 of the Novo Nordisk plaintiffs have also named other defendants in their lawsuits. Most Novo Nordisk plaintiffs have filed suit in California federal and state courts. In November 2015, all cases pending in the California federal and state courts were dismissed on Federal pre-emption grounds. Plaintiffs subsequently appealed these rulings to the Federal and California state appeals courts. In November 2017, the U.S. Court of Appeals for the Ninth Circuit reversed and vacated the Federal District Court Judge´s ruling, thereby reinstating the dismissed federal lawsuits and remanding them back to the Federal District Court in California for further proceedings. The ruling by the US Court of Appeals does not bind the California State Appeals Court, which is currently reviewing the state court judge's pre-emption ruling. Currently, Novo Nordisk does not have any individual trials scheduled in 2018. Novo Nordisk does not expect the pending claims to have a material impact on its financial position, operating profit or cash flow.

Since January 2017, several class action lawsuits have been filed against Novo Nordisk, former CEO Lars Rebien Sørensen, current CFO Jesper Brandgaard, and former President of Novo Nordisk Inc. Jakob Riis in the United States District Court for the District of New Jersey on behalf of all purchasers of Novo Nordisk American Depository Receipts between February 2015 and February 2017. All lawsuits have now been consolidated into one case. The lawsuit alleges that Novo Nordisk colluded with other insulin manufacturers to increase drug prices, artificially inflated its financial results, and made materially misleading statements to potential investors. Novo Nordisk has filed a Motion to Dismiss the case, and is currently awaiting the court's decision on this, expectedly within the first half of 2018. Novo Nordisk does not expect the litigation to have a material impact on Novo Nordisk's financial position, operating profit or cash flow.

Since January 2017, nine pricing-related class action lawsuits have been brought against Novo Nordisk, Sanofi, Eli Lilly and in some cases certain Pharmacy Benefit Managers ("PBMs") on behalf of classes of U.S. purchasers of diabetes products. Six of these lawsuits have been consolidated into one matter pending in the United States District Court for the District of New Jersey. Two of the three remaining lawsuits are also pending in the same Federal Court in New Jersey, while the other lawsuit is currently pending in the United States District Court for the Western District of Texas. All pending matters allege that the manufacturers and PBMs colluded to artificially inflate list prices paid by consumers for diabetes products, while offering reduced prices to PBMs through rebates used to secure formulary access. Novo Nordisk does not expect the lawsuits to have a material impact on Novo Nordisk's financial position, operating profit or cash flow.

Pending claims against Novo Nordisk and investigations involving Novo Nordisk

In March 2016, the United States Department of Justice ("DOJ") served Novo Nordisk with a Civil Investigative Demand ("CID") calling for the production of documents and information regarding Novo Nordisk's haemophilia-related patient support programmes, as well as information relating to the marketing and promotion of NovoSeven®RT. The investigation is being conducted by DOJ in conjunction with the U.S. Attorney's Office for the Western District of Oklahoma. Furthermore, two CIDs from the Washington State Attorney General's ("WAG") office have been served on Novo Nordisk in 2014 and 2016, each calling for the production of documents and information regarding Novo Nordisk's haemophilia-related patient support programme, SevenSECURE®, as well as information relating to the marketing and promotion of NovoSeven®RT. The WAG has recently decided to cease further investigation under its CIDs and defer to the related investigation being conduct by the DOJ under its March 2016 CID. Novo Nordisk continues to cooperate with DOJ and the U.S. Attorneys' Office in this investigation. Novo Nordisk does not expect the investigation to have a material impact on Novo Nordisk's financial position, operating profit or cash flow.

In March 2016, the US Attorney's Office for the Southern District of New York served Novo Nordisk with a Civil Investigative Demand calling for the production of documents and informationregarding Novo Nordisk's contracts and business relationships with Pharmacy Benefit Managers concerning NovoLog®, Novolin® and Levemir®. Novo Nordisk continues to cooperate with the U.S. Attorney's Office in this investigation. Novo Nordisk does not expect the investigation to have a material impact on Novo Nordisk's financial position, operating profit or cash flow.

On 18 January 2017, the Minnesota State Attorney General's Office served Novo Nordisk with a Civil Investigative Demand calling for the production of documents and information relating to pricing and trade practices for Novo Nordisk's long acting insulin products, including Levemir® and Tresiba®, from 1 January 2008 through the present date. Novo Nordisk is cooperating with the Minnesota Attorney General in this investigation. Novo Nordisk does not expect the investigation to have a material impact on Novo Nordisk's financial position, operating profit or cash flow.

On 7 March 2017, the Washington State Attorney General's Office served Novo Nordisk with a Civil Investigative Demand calling for the production of documents and information relating to pricing and trade practices for Novo Nordisk's insulin products from 1 January 2005 through the present date. Novo Nordisk is cooperating with the Washington State Attorney General in this investigation. Novo Nordisk does not expect the investigation to have a material impact on Novo Nordisk's financial position, operating profit or cash flow.

On 26 April 2017, the New Mexico State Attorney General's Office served Novo Nordisk with a Civil Investigative Demand calling for the production of documents and information regarding the trade practice and pricing of Novo Nordisk's insulin products, namely NovoLog® and Novolin®, for the period of 1 January 2012 through the present date. Novo Nordisk is cooperating with the New Mexico Attorney General in this investigation. Novo Nordisk does not expect the investigation to have material impact on Novo Nordisk's financial position, operating profit or cash flow.

Other contingent liabilities

In addition to the above, the Novo Nordisk Group is engaged in certain litigation proceedings and various ongoing audits and investigations. In the opinion of Management, neither settlement or continuation of such proceedings, nor such pending audits and investigations are expected to have a material effect on Novo Nordisk's financial position, operating profit or cash flow.

3.7 OTHER LIABILITIES

OTHER LIABILITIES

DKK million	2017	2016
Employee costs payable	5,617	6,069
Sales rebates payable	1,528	2,071
Healthcare fees payable	990	1,193
VAT and duties payable	1,182	1,088
Payables regarding clinical trials	402	359
Payables regarding promotion activities	325	203
Rent and leases payable	300	200
Legal and consultancy costs payable	164	127
Amount owed to associated company	223	245
Payables related to non-current assets	1,143	—
Other payables	2,572	2,626
Total other liabilities	**14,446**	14,181

SECTION 4 CAPITAL STRUCTURE AND FINANCIAL ITEMS

This section provides an insight into Novo Nordisk's capital structure, earnings per share, free cash flow and financing items. The free cash flow impacts Novo Nordisk's long-term target for 'Cash to earnings (three-year average)'. Cash to earnings is defined as 'free cash flow as a percentage of net profit'. Free cash flow is the cash amount generated that is available for future investments in Novo Nordisk and distribution to shareholders without consuming prior years' cash creation retained in the company.

Novo Nordisk has a low debt-to-equity ratio due to limited debt financing. Further information on the company's capital structure can be found in `Shares and capital structure' on pp 44-45 (unaudited).

Management considers foreign exchange exposure to be one of the main financial risks. Novo Nordisk aims to reduce the short-term impact from movements in key currencies by hedging future cash flows. Notes 4.2 and 4.3 include more information in this respect.

4.1 SHARE CAPITAL, DISTRIBUTION TO SHAREHOLDERS AND EARNINGS PER SHARE

SHARE CAPITAL

DKK million	A share capital	B share capital	**Total share capital**
Development in share capital:			
Share capital 2013	107	443	550
Cancelled in 2014	—	(20)	(20)
Cancelled in 2015	—	(10)	(10)
Cancelled in 2016	—	(10)	(10)
Share capital at the beginning of the year	107	403	510
Cancelled in 2017	—	(10)	(10)
Share capital at the end of the year	107	393	**500**

At the end of 2017, the share capital amounted to DKK 107 million in A share capital and DKK 393 million in B share capital (equal to 1,963 million B shares of DKK 0.20).

CASH DISTRIBUTION TO SHAREHOLDERS

After introducing interim dividend payments in 2016, Novo Nordisk paid out an interim dividend of DKK 3.00 per share in August 2017. The net cash distribution to shareholders in the form of dividends and share repurchases amounts to DKK 35.7 billion, compared with a free cash flow of DKK 32.6 billion. This is in line with the guiding principle of paying out excess capital to investors after funding organic growth and potential acquisitions.

DKK million	**2017**	2016	2015
Interim dividend for the year	7,396	7,600	—
Dividend for prior year	11,448	16,230	12,905
Share repurchases for the year	16,845	15,057	17,196
Total	**35,689**	38,887	30,101

The total dividend for 2017 amounts to DKK 19,206 million (DKK 7.85 per share). At the end of 2017, a final dividend of DKK 11,810 million (DKK 4.85 per share) is expected to be distributed pending approval at the Annual General Meeting. The interim dividend of DKK 7,396 million (DKK 3.00 per share) was paid in August 2017. The total dividend for 2016 was DKK 19,048 (DKK 7.60 per share), of which the final dividend of DKK 11,448 million (DKK 4.60 per share) was paid in March 2017. No dividend is declared on treasury shares.

4.1 SHARE CAPITAL, DISTRIBUTION TO SHAREHOLDERS AND EARNINGS PER SHARE (CONTINUED)

TREASURY SHARES

Accounting policies

Treasury shares are deducted from the share capital on cancellation at their nominal value of DKK 0.20 per share. Differences between this amount and the amount paid to acquire or received for disposing of treasury shares are deducted directly in Equity.

	Market value, DKK million	As % of share capital before cancellation	As % of share capital after cancellation	2017 Number of B shares of DKK 0.20 (million)	2016 Number of B shares of DKK 0.20 (million)
Holding at the beginning of the year	11,631	1.8%		46	52
Cancellation of treasury shares	(12,735)	(2.0%)		(50)	(50)
Transfer regarding restricted stock units	(152)			—	(4)
Purchase during the year	16,845			60	48
Value adjustment	2,990			—	—
Holding at the end of the year	18,579		2.2%	**56**	46

Treasury shares are primarily acquired to reduce the company's share capital. In addition, a limited part is used to finance Novo Nordisk's long-term share-based incentive programme (restricted stock units) and restricted stock units to employees.

Novo Nordisk's guiding principle is that any excess capital, after the funding of organic growth opportunities and potential acquisitions, should be returned to investors. Novo Nordisk applies a pharmaceutical industry payout ratio to dividend payments, which are complemented by share repurchase programmes.

The purchase of treasury shares during the year relates to the remaining part of the 2016 share repurchase programme totalling DKK 1.5 billion and the DKK 17 billion Novo Nordisk B share repurchase programme for 2017, of which DKK 1.7 billion was outstanding at year-end. The programme ended on 30 January 2018. Transfer of treasury shares relates to the long-term share-based incentive programme and restricted stock units to employees.

EARNINGS PER SHARE

Accounting policies

Earnings per share is presented as both basic and diluted earnings per share. Basic earnings per share is calculated as net profit divided by the average number of shares outstanding. Diluted earnings per share is calculated as net profit divided by the sum of average number of shares outstanding, including the dilutive effect of the outstanding share pool. Please refer to 'Financial definitions' on pp 96-97 for a description of calculation of the dilutive effect.

DKK million		2017	2016	2015
Net profit for the year		38,130	37,925	34,860
Average number of shares outstanding	in 1,000 shares	2,473,218	2,529,945	2,571,219
Dilutive effect of average outstanding share pool[1]	in 1,000 shares	4,875	4,784	6,479
Average number of shares outstanding, including dilutive effect of outstanding share pool	in 1,000 shares	2,478,093	2,534,729	2,577,698
Basic earnings per share	DKK	**15.42**	14.99	13.56
Diluted earnings per share	DKK	**15.39**	14.96	13.52

1. For further information on the outstanding share pool, please refer to note 5.1.

4.2 FINANCIAL RISKS

Novo Nordisk has centralised management of the Group's financial risks. The overall objectives and policies for the company's financial risk management are outlined in an internal Treasury Policy, which is approved by the Board of Directors. The Treasury Policy consists of the Foreign Exchange Policy, the Investment Policy, the Financing Policy and the Policy regarding Credit Risk on Financial Counterparts, and includes a description of permitted use of financial instruments and risk limits.

Novo Nordisk only hedges commercial exposures and consequently does not enter into derivative transactions for trading or speculative purposes. Novo Nordisk uses a fully integrated Treasury Management System to manage all financial positions. All positions are marked-to-market based on real-time quotes. Management has assessed the following key risks:

Type	Financial risk
Foreign exchange risk	High
Interest rate risk	Low
Liquidity risk	Low
Credit risk	Low

Foreign exchange risk

Foreign exchange risk is an important financial risk for Novo Nordisk and can have a significant impact on the Income statement, Statement of comprehensive income, Balance sheet and Cash flow statement.

The overall objective of foreign exchange risk management is to reduce the short-term negative impact of exchange rate fluctuations on earnings and cash flow. Consequently, this is likely to increase the predictability of the financial results.

The majority of Novo Nordisk's sales are in USD, EUR, CNY, JPY, GBP and CAD. The foreign exchange risk is most significant in USD, CNY and JPY, while the EUR exchange rate risk is regarded as low because of Denmark's fixed-rate policy towards EUR.

Novo Nordisk hedges existing assets and liabilities in key currencies as well as future expected cash flows up to a maximum of 24 months forward. Hedge accounting is applied to match the impact of the hedged item and the hedging instrument in the Consolidated income statement. Management has chosen to classify the result of hedging activities as part of financial items.

During 2017, the hedging horizon varied between 5 and 14 months for USD, CNY, JPY, GBP and CAD. Currency hedging is based on expectations of future exchange rates and mainly uses foreign exchange forwards and foreign exchange options matching the due dates of the hedged items. Expected cash flows are continually assessed using historical inflows, budgets and monthly sales forecasts. Hedge effectiveness is assessed on a regular basis.

The financial contracts existing at year-end cover the expected future cash flow for the following number of months:

	2017	2016
USD	12 months	12 months
CNY[1]	6 months	9 months
JPY	12 months	14 months
GBP	13 months	12 months
CAD	11 months	11 months

1. Chinese yuan traded offshore (CNH) is used when hedging Novo Nordisk's CNY currency exposure.

KEY CURRENCIES

Exchange rate DKK per 100	**2017**	2016	2015
USD			
Average	660	673	673
Year-end	621	706	683
Year-end change	(12.0%)	3.4%	11.6%
CNY			
Average	98	101	107
Year-end	95	102	105
Year-end change	(6.9%)	(2.9%)	6.1%
JPY			
Average	5.88	6.21	5.56
Year-end	5.51	6.03	5.67
Year-end change	(8.6%)	6.3%	10.7%
GBP			
Average	849	911	1,028
Year-end	839	869	1,011
Year-end change	(3.5%)	(14.0%)	6.2%
CAD			
Average	508	508	527
Year-end	495	524	492
Year-end change	(5.5%)	6.5%	(6.6%)

Foreign exchange sensitivity analysis:
A 5% immediate increase/decrease in the following currencies would impact Novo Nordisk's operating profit as outlined in the table below:

DKK million	Estimated for **2018**	2017
USD	1,900	2,100
CNY	325	320
JPY	170	200
GBP	90	90
CAD	80	80

4.2 FINANCIAL RISKS (CONTINUED)

At year-end, a 5% increase/decrease in all other currencies versus EUR and DKK would affect the hedging instruments' impact on Other comprehensive income and the Income statement as outlined in the table below:

DKK million	5% increase in all other currencies against DKK and EUR	5% decrease in all other currencies against DKK and EUR
2017		
Other comprehensive income	(1,994)	2,098
Income statement	210	(255)
Total	**(1,784)**	**1,843**
2016		
Other comprehensive income	(2,477)	2,478
Income statement	94	(89)
Total	(2,383)	2,389

The foreign exchange sensitivity analysis comprises effects from the Group's cash, Trade receivables and Trade payables, current and non-current loans, current and non-current financial investments, foreign exchange forwards and foreign exchange options at year-end. Anticipated currency transactions, investments and non-current assets are not included.

Interest rate risk

Changes in interest rates affect Novo Nordisk's financial instruments. At the end of 2017, a 1 percentage point increase in the interest rate level would, all else being equal, result in a change in the fair value of Novo Nordisk's financial instruments of DKK 0 million (a decrease of DKK 3 million in 2016).

The financial instruments included in the sensitivity analysis consist of marketable securities and non-current loans. Foreign exchange forwards and foreign exchange options are not included because of the limited effect that a parallel shift in interest rates in all currencies would have on these instruments.

Liquidity risk

The liquidity risk is considered to be low, and Novo Nordisk has limited debt financing. Novo Nordisk ensures the availability of the required liquidity through a combination of cash management, highly liquid investment portfolios and uncommitted as well as committed facilities. Novo Nordisk uses cash pools for optimisation and centralisation of cash management.

Credit risk

Credit risk arises from the possibility that transactional counterparties may default on their obligations, causing financial losses for the Group. Novo Nordisk considers its maximum credit risk on financial counterparties to be DKK 21,158 million (2016: DKK 21,228 million). In addition, Novo Nordisk considers its maximum credit risk on Trade receivables, Other receivables less prepayments and Other financial assets to be DKK 22,602 million (2016: DKK 22,974 million). Please refer to note 4.7 for details of the Group's total financial assets.

To manage credit risk on financial counterparties, Novo Nordisk only enters into derivative financial contracts and money market deposits with financial counterparties possessing a satisfactory long-term credit rating from two out of the three selected ratings agencies: Standard and Poor's, Moody's and Fitch. Furthermore, maximum credit lines defined for each counterparty diversify the overall counterparty risk. The credit risk on bonds is limited, as investments are made in highly liquid bonds with solid credit ratings. The table below shows Novo Nordisk's credit exposure on cash, fixed-income marketable securities and financial derivatives.

Credit exposure on Cash at bank, Marketable securities and Derivative financial instruments (market value)

DKK million	Cash at bank	Marketable securities[1]	Derivative financial instruments	Total
2017				
AA-range	12,369		935	13,304
A-range	5,967		1,369	7,336
BBB-range	438			438
Not rated or below BBB-range	78			78
Total	18,852	—	2,304	**21,156**
2016				
AAA-range		2,007		2,007
AA-range	12,442		309	12,751
A-range	5,971		220	6,191
BBB-range	83			83
Not rated or below BBB-range	194	2		196
Total	18,690	2,009	529	21,228

1. Net yield on the bond portfolio in 2016 was -0.05%.

Novo Nordisk has no significant concentration of credit risk related to Trade receivables or Other receivables and prepayments, as the exposure is spread over a large number of counterparties and customers. Novo Nordisk continues to monitor the credit exposure in Region AAMEO due to the increasing sales and low credit ratings of many countries in this region.

Trade receivable programmes

Novo Nordisk's subsidiaries in the US and Japan employ trade receivable programmes where trade receivables are sold on full non-recourse terms to optimise working capital.

At year-end, the Group had derecognised receivables without recourse having due dates after 31 December amounting to:

DKK million	**2017**	2016	2015
US	3,328	2,754	945
Japan	2,024	2,259	1,899

In addition, full non-recourse off-balance sheet factoring arrangement programmes are occasionally applied by Novo Nordisk affiliates around the world, with limited impact on the Group's trade receivables.

Please refer to note 2.2 for the split of allowance for trade receivables by geographical segment.

4.3 DERIVATIVE FINANCIAL INSTRUMENTS

Accounting policies

Novo Nordisk uses financial instruments to reduce the impact of foreign exchange and interest rate fluctuations on financial results.

Use of derivative financial instruments
The derivative financial instruments are used to manage the exposure to market risk. None of the derivatives are held for trading.

Novo Nordisk uses forward exchange contracts and currency options to hedge forecast transactions, assets and liabilities. The overall policy is to hedge the majority of total currency exposure.

Currently, net investments in foreign subsidiaries are not hedged.

Initial recognition and measurement
On initiation of the contract, Novo Nordisk designates each derivative financial contract that qualifies for hedge accounting as one of:

- hedges of the fair value of a recognised asset or liability (fair value hedge)
- hedges of the fair value of a forecast financial transaction (cash flow hedge).

All contracts are initially recognised at fair value and subsequently remeasured at fair value at the end of the reporting period.

Gains and losses on currency options that do not meet the criteria for hedge accounting are recognised directly in the Income statement under Financial income or Financial expenses.

Fair value hedges
Value adjustments of fair value hedges are recognised in the Income statement along with any value adjustments of the hedged asset or liability that are attributable to the hedged risk.

Cash flow hedges
Value adjustments of the effective part of cash flow hedges are recognised directly in Other comprehensive income. The cumulative value adjustment of these contracts is transferred from Other comprehensive income to the Income statement under Financial income or Financial expenses when the hedged transaction is recognised in the Income statement. For options, this cumulative value adjustment is reflected in the value of the option.

Discontinuance of cash flow hedging
When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the Income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the Income statement under Financial income or Financial expenses.

Fair value determination
The fair value of derivative financial instruments is measured on the basis of quoted market prices of financial instruments traded in active markets. If an active market exists, the fair value is based on the most recently observed market price at the end of the reporting period.

If a financial instrument is quoted in a market that is not active, Novo Nordisk bases its valuation on the most recent transaction price. Adjustment is made for subsequent changes in market conditions, for instance by including transactions in similar financial instruments assumed to be motivated by normal business considerations.

If an active market does not exist, the fair value of standard and simple financial instruments, such as foreign exchange forward contracts, interest rate swaps, currency swaps and unlisted bonds, is measured according to generally accepted valuation techniques. Market-based parameters are used to measure the fair value.

HEDGING ACTIVITIES

	2017			2016		
DKK million	Contract amount at year-end	Positive fair value at year-end	Negative fair value at year-end	Contract amount at year-end	Positive fair value at year-end	Negative fair value at year-end
Forward contracts USD	33,273	1,664	8	36,579	16	2,081
Forward contracts CNH, JPY, GBP and other currencies	7,677	222	37	10,070	199	110
Forward contracts, cash flow hedges	40,950	1,886	45	46,649	215	2,191
Currency options USD	2,152	180	—	588	50	—
Currency options JPY	112	6	—	190	11	—
Currency options, cash flow hedges[1]	2,264	186	—	778	61	—
Forward contracts USD	11,519	260	239	9,953	223	300
Forward contracts CNH, JPY, GBP and other currencies	2,680	120	25	3,087	79	87
Forward contracts, fair value hedges	14,199	380	264	13,040	302	387
Time value of currency options (hedge accounting not applied)	—	34	—	—	2	—
Currency options GBP (hedge accounting not applied)	125	1	—			
Total hedging activities	**57,538**	**2,487**	**309**	60,467	580	2,578
Recognised in the Income statement		415	264		304	387
Recognised in Other comprehensive income[2]		2,072	45		276	2,191
Presented in the Balance sheet as:						
Derivative financial instruments (current assets/liabilities)		2,304	309		529	2,578
Cash at bank		183			51	

1. Includes expired currency options of DKK 183 million deferred for realisation in 2018.
2. Realisation in 2017 of previously deferred loss amounts to DKK 1,955 million (DKK 1,915 million adjusted for DKK 40 million to be realised in 2018). Furthermore, an additional gain of DKK 1,987 million (DKK 2,027 million adjusted for DKK 40 million from prior years) as of 31 December 2017 has been deferred for realisation in 2018.

4.3 DERIVATIVE FINANCIAL INSTRUMENTS (CONTINUED)

The above financial contracts regarding cash flow hedging are expected to impact the Income statement within the periods shown below. The split is based on an estimate of when the cash flow hedges are expected to be reclassified to fair value hedges with the fair value then being transferred to Financial income or Financial expenses. The cash flow impact is an immediate consequence of the reclassification.

	2017		2016	
DKK million	Positive fair value at year-end	Negative fair value at year-end	Positive fair value at year-end	Negative fair value at year-end
Expected timing of Income statement impact				
0–12 months	2,072	45	236	2,191
More than 12 months	—	—	40	—
Total cash flow hedges for which hedge accounting is applied	**2,072**	**45**	276	2,191

4.4 CASH AND CASH EQUIVALENTS, FINANCIAL RESOURCES AND FREE CASH FLOW

Accounting policies

The Cash flow statement shows how income and changes in balance sheet items affect cash and cash equivalents, in other words the cash generated or used in the period.

The Cash flow statement is presented in accordance with the indirect method commencing with Net profit for the year. Cash flows in foreign currencies are translated to DKK at the average exchange rate for the respective year.

Cash from operating activities converts income statement items from the accrual basis of accounting to cash basis. As such, starting with net profit, non-cash items are reversed and actual payments included. Further, the change in working capital is taken into account, as this shows the development in money tied up in the Balance sheet. Cash from investing activities shows payments related to the purchase and sale of Novo Nordisk's long-term investments. This includes fixed assets such as construction of new production sites, intangible assets such as patents and licences, and financial assets.

Cash and cash equivalents consist of cash offset by short-term bank loans. Financial resources consist of cash and cash equivalents, marketable securities with original maturity of less than three months and undrawn committed credit facilities expiring after more than one year.

DKK million	2017	2016	2015
CASH AND CASH EQUIVALENTS			
Cash at bank (note 4.2)	18,852	18,690	16,923
Current debt (bank overdrafts)	(1,694)	(229)	(1,073)
Cash and cash equivalents	**17,158**	18,461	15,850
FINANCIAL RESOURCES			
Cash and cash equivalents	17,158	18,461	15,850
Marketable securities (note 4.2)	—	2,009	3,542
Undrawn committed credit facility[1]	8,190	8,178	8,209
Financial resources[2]	**25,348**	28,648	27,601

1. The undrawn committed credit facility in 2017 is a EUR 1,100 million facility (EUR 1,100 million in 2016 and EUR 1,100 million in 2015) committed by a portfolio of international banks. The facility matures in 2019.
2. Additional non-IFRS measure; please refer to pp 96-97 for definition.

FREE CASH FLOW

DKK million	2017	2016	2015
Net cash generated from operating activities	41,168	48,314	38,287
Net cash used in investing activities	(6,571)	(6,790)	(6,098)
Net purchase of marketable securities	(2,009)	(1,533)	2,033
Free cash flow[3]	**32,588**	39,991	34,222

3. Additional non-IFRS measure; please refer to pp 96-97 for definition.

4.5 CHANGE IN WORKING CAPITAL

Accounting policies

Working capital is defined as current assets less current liabilities and measures the liquid assets Novo Nordisk has available for the business.

CHANGE IN WORKING CAPITAL

DKK million	2017	2016	2015
Inventories	(1,032)	(1,583)	(1,401)
Trade receivables	69	(4,749)	(2,444)
Other receivables and prepayments	(17)	(154)	493
Trade payables	(401)	1,084	(23)
Other liabilities	265	1,526	1,604
Adjustment for payables related to non-current assets	(1,143)	—	—
Adjustment for the partial divestment of NNIT A/S	—	—	(207)
Change in working capital before exchange rate adjustments	**(2,259)**	(3,876)	(1,978)
Exchange rate adjustments	(1,375)	168	(179)
Cash flow change in working capital	**(3,634)**	(3,708)	(2,157)

4.6 OTHER NON-CASH ITEMS

For the purpose of presenting the Cash flow statement, non-cash items with effect on the Income statement must be reversed to identify the actual cash flow effect from the Income statement. The adjustments are specified as follows:

OTHER NON-CASH ITEMS

DKK million	2017	2016	2015
Reversals of non-cash income statement items			
Interest income and interest expenses, net (note 4.8)	21	13	11
Capital gain/(loss) on investments etc (note 4.8)	25	(16)	(15)
Result of associated company (note 4.8)	(14)	(24)	(14)
Share-based payment costs (note 5.1)	292	368	442
Changes in non-cash balance sheet items			
Increase/(decrease) in provisions (note 3.6)	226	4,007	6,193
Increase/(decrease) in retirement benefit obligations (note 3.5)	(115)	265	155
Remeasurements of retirement benefit obligations (note 3.5)	103	(205)	(37)
Other adjustments			
Exchange rate adjustments on working capital (note 4.5)	1,375	(168)	179
Other, primarily exchange rate adjustments	114	(358)	(1,006)
Total other non-cash items	**2,027**	3,882	5,908

4.7 FINANCIAL ASSETS AND LIABILITIES

Accounting policies

Depending on the purpose, Novo Nordisk classifies investments into the following categories:

- Available-for-sale financial assets
- Loans and receivables
- Financial assets at fair value through the Income statement (derivatives).

Management determines the classification of its investments on initial recognition and re-evaluates this at the end of every reporting period to the extent that such a classification is permitted and required.

Recognition and measurement
Purchases and sales of investments are recognised on the settlement date. Investments are initially recognised at fair value.

Available-for-sale financial assets and financial assets at fair value are subsequently carried at fair value.

Fair value disclosures are made separately for each class of financial instruments at the end of the reporting period.

Disposal of investments
Investments are removed from the Balance sheet when the rights to receive cash flows from the investments have expired or have been transferred, and Novo Nordisk has transferred substantially all the risks and rewards of ownership.

Available-for-sale financial assets
Available-for-sale financial assets consist of equity investments and marketable securities. Equity investments are included in Other financial assets unless Management intends to dispose of the investment within 12 months of the end of the reporting period. In that case, the current part is included in Other receivables and prepayments.

Unrealised gains and losses arising from changes in the fair value of financial assets classified as available for sale are recognised in Other comprehensive income. When financial assets classified as available for sale are sold or impaired, the accumulated fair value adjustments are included in the Income statement.

The fair values of quoted investments (including marketable securities) are based on current bid prices at the end of the reporting period. Financial assets for which no active market exists are carried at fair value based on a valuation methodology or at cost if no reliable valuation model can be applied.

Loans and receivables
Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in an active market. If collection is expected within one year (or in the normal operating cycle of the business if longer), they are classified as Current assets. If not, they are presented as Non-current assets.

Trade receivables and Other receivables are recognised initially at fair value. Subsequently they are measured at amortised cost using the effective interest method, less provision for allowance.

4.7 FINANCIAL ASSETS AND LIABILITIES (CONTINUED)

FINANCIAL ASSETS BY CATEGORY

DKK million	Available-for-sale financial assets at fair value	Financial assets measured at fair value through the Income statement	Loans and receivables	Cash and cash equivalents	**Total**
2017					
Other financial assets	411		567		978
Trade receivables (note 3.4)			20,165		20,165
Other receivables			2,428		2,428
- less prepayments and VAT receivables			(1,613)		(1,613)
Derivative financial instruments (note 4.3)		2,304			2,304
Cash at bank (note 4.4)				18,852	18,852
Total financial assets at the end of the year by category[1]	411	2,304	21,547	18,852	**43,114**
Total financial assets at the end of the year by category, 2016	2,708	529	21,750	18,690	43,677

1. Financial assets are all due within one year except for DKK 30 million due in 2019.

FINANCIAL LIABILITIES BY CATEGORY

DKK million	Financial liabilities measured at fair value through the Income statement	Financial liabilities measured at amortised cost	**Total**
2017			
Current debt (note 4.4)		1,694	1,694
Trade payables		5,610	5,610
Other liabilities (note 3.7)		14,446	14,446
- less VAT and duties payable (note 3.7)		(1,182)	(1,182)
Derivative financial instruments (note 4.3)	309		309
Total financial liabilities at the end of the year by category[2]	309	20,568	**20,877**
Total financial assets at the end of the year by category, 2016	2,578	19,349	21,927

2. All financial liabilities are due within one year except for DKK 1 million due in 2019.

For a description of the credit quality of financial assets such as Trade receivables, Cash at bank, Marketable securities, Current debt and Derivative financial instruments, refer to notes 4.2 and 4.3.

FAIR VALUE MEASUREMENT HIERARCHY

DKK million	**2017**	2016
Active market data	338	2,675
Directly or indirectly observable market data	2,304	529
Not based on observable market data	73	33
Total financial assets at fair value	**2,715**	3,237
Active market data	—	—
Directly or indirectly observable market data	309	2,578
Not based on observable market data	—	—
Total financial liabilities at fair value	**309**	2,578

Financial assets and liabilities measured at fair value can be categorised using the fair value measurement hierarchy above. There have not been any transfers between the categories 'Active market data' and 'Directly or indirectly observable market data' during 2017 or 2016. There are no intangible assets or items of property, plant and equipment measured at fair value.

4.8 FINANCIAL INCOME AND EXPENSES

Accounting policies

As described in note 4.2, Management has chosen to classify the result of hedging activities as part of financial items in the Income statement. Financial items are primarily related to foreign exchange elements and are mainly impacted by the cumulative value adjustment of cash flow hedges transferred from Other comprehensive income to the Income statement when the hedged transaction is recognised in the Income statement. Further, value adjustments of fair value hedges are recognised in Financial income and Financial expenses along with any value adjustments of the hedged asset or liability that are attributable to the hedged risk. Finally, value adjustments of assets and liabilities in non-hedged currencies will impact Financial income and Financial expenses.

FINANCIAL INCOME

DKK million	**2017**	2016	2015
Interest income	69	52	56
Foreign exchange gain (net)[1]	1,163	—	—
Capital gain on investments etc	—	16	15
Result of associated company[2]	14	24	14
Total financial income	**1,246**	92	85

FINANCIAL EXPENSES

DKK million	**2017**	2016	2015
Interest expenses	90	65	67
Foreign exchange loss (net)[1]	—	335	504
Financial loss from forward contracts (net)	1,346	158	5,232
Financial loss from currency options (net)	4	83	162
Capital loss on investments etc	25	—	—
Other financial expenses	68	85	81
Total financial expenses	**1,533**	726	6,046

1. Primarily related to Trade receivables, Other receivables and Trade payables.
2. Based on the share price as of 31 December 2017, the market value of the investment in NNIT A/S (corresponding to 26% of the share capital) amounts to DKK 1,109 million (DKK 1,364 million at 31 December 2016 and DKK 1,186 million at 31 December 2015).

FINANCIAL IMPACT FROM FORWARD CONTRACTS AND CURRENCY OPTIONS, SPECIFIED

DKK million	**2017**	2016	2015
Forward contracts			
Income/(loss) transferred from Other comprehensive income	(2,016)	(705)	(2,237)
Value adjustment of transferred contracts	2,477	62	(3,212)
Unrealised fair value adjustments of forward contracts	116	(85)	(412)
Foreign exchange gain/(loss) on forward contracts	(1,923)	570	629
Financial income/(expense) from forward contracts	**(1,346)**	(158)	(5,232)
Currency options			
Realised income/(loss) transferred from Other comprehensive income	61	23	21
Value adjustment of transferred options	(9)	—	(12)
Foreign exchange gain/(loss) on currency options	(56)	(106)	(171)
Financial income/(expense) from currency options	**(4)**	(83)	(162)

SECTION 5 OTHER DISCLOSURES

This section provides details on notes that are statutory or by their nature of secondary importance for understanding the financial performance of Novo Nordisk. A list of subsidiaries in the Novo Nordisk Group is also included here.

5.1 SHARE-BASED PAYMENT SCHEMES

Accounting policies

Share-based compensation

Novo Nordisk operates equity-settled, share-based compensation plans. The fair value of the employee services received in exchange for the grant of shares is recognised as an expense and allocated over the vesting period.

The total amount to be expensed over the vesting period is determined by reference to the fair value of the shares granted, excluding the impact of any non-market vesting conditions. The fair value is fixed at the grant date, and adjusted for expected dividends during the vesting period. Non-market vesting conditions are included in assumptions about the number of shares that are expected to vest. At the end of each reporting period, Novo Nordisk revises its estimates of the number of shares expected to vest. Novo Nordisk recognises the impact of the revision of the original estimates, if any, in the Income statement and in a corresponding adjustment to Equity (change in proceeds) over the remaining vesting period. Adjustments relating to prior years are included in the Income statement in the year of adjustment.

SHARE-BASED PAYMENT

Expensed in the Income statement

DKK million	2017	2016	2015
Restricted stock units to employees	169	245	135
Long-term share-based incentive programme (Management Board)[2]	19[1]	29	108
Long-term share-based incentive programme (management group below Management Board)[3]	102	94	199
Shares allocated to individual employees	2	—	—
Share-based payment expensed in the Income statement	**292**	368	442

1. The expense for 2017 reflects the value at launch (adjusted for expected dividend) of the programme, amortised over four years. The expense for 2015 and 2016 reflects the full value of the programme (adjusted for expected dividend) for the year, as vesting conditions were met.
2. The programme includes payments to former members of the Management Board at a total value of DKK 3 million (DKK 3 million in 2016 and DKK 16 million in 2015).
3. The expense for the year reflects the value at launch (adjusted for expected dividend) of the last four programmes, amortised over four years.

Restricted stock units to employees

To commemorate the Group's net sales passing DKK 100 billion for the first time in 2015, all employees in the company (excluding NNE A/S and Steno Diabetes Center A/S) as of January 2016 were offered 50 restricted stock units. A restricted stock unit gives the holder the right to receive one Novo Nordisk B share free of charge in February 2019 subject to continued employment. The cost of the DKK 508 million programme is amortised over the vesting period.

Long-term share-based incentive programme

For a description of the programme, please refer to 'Remuneration' in 'Governance, leadership and shares', pp 50-53 (unaudited).

Management Board

On 1 February 2018, the Board of Directors approved the transfer of a total of 356,195 Novo Nordisk B shares to the pool for members of Management Board for the financial year 2017. The value at launch of the programme (adjusted for expected dividends) was DKK 76 million. On average, this corresponds to 8.2 months' fixed base salary plus pension contribution for the CEO, 6.2 months' fixed base salary plus pension contribution per member of Executive Management as of 1 March 2017 and 5.5 months' fixed base salary for Senior Vice Presidents. For 2017, the shares will no longer remain in the pool if a member of the Management Board leaves Novo Nordisk, why the cost of the 2017 programme is amortised over the vesting period 2017-2020 at an annual amount of DKK 19 million.

The grant date of the programme was February 2017, and the share price used for the conversion was the average share price (DKK 237) for Novo Nordisk B shares on Nasdaq Copenhagen in the period 2-16 February 2017, adjusted for expected dividend. Based on the split of participants when the pool was established, approximately 38% of the pool will be allocated to members of Executive Management and 62% to other members of the Management Board.

The shares allocated to the joint pool for 2014 were released to the individual participants subsequent to approval of the Annual Report 2017 by the Board of Directors and after the announcement of the 2017 full-year financial results on 1 February 2018. The shares allocated correspond to a value at launch of the programme of DKK 66 million, expensed in 2014.

Management group below Management Board

The management group below the Management Board has a share-based incentive programme with similar performance criteria. For 2017, a total of 761,826 shares were allocated to the pool for this group, corresponding to a value at launch of the programme (adjusted for expected dividends) of DKK 162 million. The cost of the 2017 programme is amortised over the vesting period 2017-2020 at an annual amount of DKK 40 million.

The shares allocated to the pool for 2014 were released to the individual participants subsequent to approval of the Annual Report 2017 by the Board of Directors and after the announcement of the 2017 full-year financial results on 1 February 2018. The shares allocated correspond to a value at launch of the programme of DKK 155 million amortised over the period 2014-2017. The number of shares to be transferred (518,079 shares) is lower than the original number of shares allocated to the share pool, as some participants had left the company before the programme's release conditions were met.

5.1 SHARE-BASED PAYMENT SCHEMES (CONTINUED)

GENERAL TERMS AND CONDITIONS OF LAUNCHED PROGRAMMES

	Restricted stock units to employees			Shares for Management Board			Shares for Management group below Management Board		
	2017	2016	2015	**2017**	2016	2015	**2017**	2016	2015
Number of shares awarded in the year	—	1,465,411	—	356,195	96,705	378,943	761,826	224,055	879,988
Value per share at launch (DKK)	—	346	—	213	304	285	213	304	285
Vesting period	—	3 years	—	3 years	3 years	3 years	3 years	3 years	3 years
Allocated to recipients		Feb. 2019		Feb. 2021	Feb. 2020	Feb. 2019	Feb. 2021	Feb. 2020	Feb. 2019
Total market value at launch (DKK million)	—	508	—	76	29	108	162	68	251
Expensed in the Income statement (DKK million)	—	169	—	19	29	108	40	17	63
Amortisation period of the programme	—	2016 to 2019	—	2017 to 2020	Expensed in 2016	Expensed in 2015	2017 to 2020	2016 to 2019	2015 to 2018

OUTSTANDING RESTRICTED STOCK UNITS

	2017	2016
Outstanding at the beginning of the year	4,591,526	7,158,636
Released restricted stock units to employees	(9,200)	(2,590,000)
Released shares from 2012 and 2013 Management pool	(749,658)	(1,808,729)
Cancelled shares from Management pool	(157,724)	(174,552)
Adjustments	5,423	—
Allocated restricted stock units to employees (2013 programme)	—	220,000
Allocated restricted stock units to employees (2016 programme)	—	1,465,411
Shares allocated to Management pools	1,118,021	320,760
Shares allocated to individual employees	35,494	—
Outstanding at the end of the year	**4,833,882**	4,591,526

OUTSTANDING RESTRICTED STOCK UNITS

	Issued[1]	Released	Cancelled	**Outstanding**	Value at launch date DKK million	Vesting date
Restricted stock units to employees						
2016 Restricted stock units	1,465,411	(9,200)	—	1,456,211	508	Q1 2019
Outstanding restricted stock units to employees	1,465,411	(9,200)	—	1,456,211		
Shares allocated to pools for Management Board						
2013 Shares allocated to joint pool	254,513	(249,678)	(4,835)[4]	—	51	Q1 2017
2014 Shares allocated to joint pool	298,467	(9,369)[2]	(4,925)[4]	284,173	66	Q1 2018
2015 Shares allocated to joint pool	378,943	—	(522)	378,421	108	Q1 2019
2016 Shares allocated to joint pool	96,705	—	—	96,705	29	Q1 2020
2017 Shares allocated to pool[3]	356,195	—	—	356,195	76	Q1 2021
Outstanding shares in joint pool for Management Board	1,384,823	(259,047)	(10,282)	1,115,494		
Shares allocated to pools for management group below Management Board						
2012 Shares allocated to pool	1,559,235	(1,376,973)	(182,262)	—	234	Q1 2016
2013 Shares allocated to pool	622,190	(521,214)	(100,976)	—	126	Q1 2017
2014 Shares allocated to pool	683,728	(34,061)[2]	(131,588)	518,079	155	Q1 2018
2015 Shares allocated to pool	879,988	—	(139,235)	740,753	251	Q1 2019
2016 Shares allocated to pool	224,055	—	(18,030)	206,025	68	Q1 2020
2017 Shares allocated to pool[3]	761,826	—	—	761,826	162	Q1 2021
Outstanding shares in pool for Management group below Management Board	4,731,022	(1,932,248)	(572,091)	2,226,683		
Shares allocated to individual employees	35,494	—	—	35,494	11	2018-2020
Outstanding at the end of 2017	7,616,750	(2,200,495)	(582,373)	**4,833,882**		

1. All restricted stock units and shares allocated to Management pools are hedged by treasury shares.
2. Released shares from 2014 Management pools relate to NNIT employees following the IPO of NNIT A/S.
3. 2017 programme granted subsequent to approval of the Annual Report 2017 on 1 February 2018. For 2017, the shares allocated to pools for Management Board will no longer remain in the pool if a member of the Management Board leaves Novo Nordisk, why the cost of the 2017 programme is amortised over the vesting period 2017-2020.
4. Cancellation is related to individuals who were compensated in cash instead of shares upon resignation.

5.2 COMMITMENTS

Commitments

Total contractual obligations and recognised non-current debt can be specified as follows (payments due by period):

2017

DKK million	Within 1 year	1-3 years	3-5 years	More than 5 years	Total
Retirement benefit obligations	27	54	51	1,204	1,336
Total obligations recognised in the Balance sheet	27	54	51	1,204	1,336
Operating leases[1]	1,220	1,730	1,411	2,094	6,455
Research and development obligations	1,912	767	95	—	2,774
Research and development - potential milestone payments[2]	193	725	166	1,628	2,712
Purchase obligations relating to investments in property, plant and equipment	1,663	—	—	—	1,663
Other purchase obligations	5,192	2,552	1,474	14	9,232
Total obligations not recognised in the Balance sheet	10,180	5,774	3,146	3,736	22,836
Total contractual obligations	10,207	5,828	3,197	4,940	**24,172**

2016

DKK million	Within 1 year	1-3 years	3-5 years	More than 5 years	Total
Retirement benefit obligations	43	83	78	1,247	1,451
Total obligations recognised in the Balance sheet	43	83	78	1,247	1,451
Operating leases[1]	1,214	2,061	1,697	2,329	7,301
Research and development obligations	2,199	1,069	138	—	3,406
Research and development - potential milestone payments[2]	176	267	282	431	1,156
Purchase obligations relating to investments in property, plant and equipment	521	—	—	—	521
Other purchase obligations	4,335	2,166	926	—	7,427
Total obligations not recognised in the Balance sheet	8,445	5,563	3,043	2,760	19,811
Total contractual obligations	8,488	5,646	3,121	4,007	21,262

1. No material finance lease obligations existed in 2017 or 2016.
2. Potential milestone payments are associated with uncertainty as they are linked to successful achievements in research activities.

The operating lease commitments are related to non-cancellable operating leases primarily for premises, company cars and office equipment. Approximately 74% of the commitments are related to leases outside Denmark. The lease costs for 2017 and 2016 were DKK 1,392 million and DKK 1,513 million respectively.

The purchase obligations primarily relate to purchase agreements regarding medical equipment and consumer goods. Novo Nordisk expects to fund these commitments with existing cash and cash flow from operations.

Research and development obligations entail uncertainties in relation to the period in which payments are due because a proportion of the obligations is dependent on milestone achievements. The due periods disclosed are based on Management's best estimate. Novo Nordisk has engaged in research and development projects with a number of external enterprises.

DKK million	2017	2016
Other guarantees		
Other guarantees primarily related to guarantees issued by Novo Nordisk in relation to rented property	752	808
Security for debt		
Land, buildings and equipment etc at carrying amount	3	68

World Diabetes Foundation (WDF)

At the Annual General Meeting in 2014, a donation to WDF was agreed. For the years 2018-2024, the donation is 0.1% of the Group´s net insulin sales. The annual donation in this period cannot exceed the lower of DKK 90 million or 15% of the taxable income of Novo Nordisk A/S in the financial year in question.

For 2017, the total donation amounts to DKK 85 million (DKK 85 million in 2016 and DKK 86 million in 2015), which is recognised in Administrative costs in the Income statement.

5.3 RELATED PARTY TRANSACTIONS

Novo Nordisk A/S is controlled by Novo Holdings A/S (incorporated in Denmark), which owns 28.1% of the share capital in Novo Nordisk A/S, representing 76.1% of the total number of votes, excluding treasury shares. The remaining shares are widely held. The ultimate parent of the Group is the Novo Nordisk Foundation (incorporated in Denmark). Both entities are considered related parties.

Being an associated company of Novo Nordisk A/S, NNIT Group is considered a related party. Due to joint ownership, associated companies and Management of Novo Nordisk A/S, the Novozymes Group and Xellia Pharmaceuticals are also considered related parties.

The Group has had the following material transactions with related parties:

DKK million	2017	2016	2015
Novo Nordisk Foundation			
Donations to Steno Diabetes Center A/S via Novo Nordisk	—	(69)	(69)
Services provided by Novo Nordisk	(4)	(3)	(3)
Services provided by Novo Nordisk Foundation	—	31	—
Novo Holdings A/S			
Services provided by Novo Nordisk	(3)	(2)	(3)
Sale of NNIT B shares	—	—	(797)
Dividend payment to Novo Holdings A/S	4,085	5,052	2,687
NNIT Group			
Services provided by Novo Nordisk	(25)	(30)	(32)
Services provided by NNIT	1,231	1,239	1,316
Dividend payment from NNIT	(26)	(26)	—
Novozymes Group			
Services provided by Novo Nordisk	(145)	(163)	(185)
Services provided by Novozymes	163	150	165
Xellia Pharmaceuticals			
Services provided by Novo Nordisk	(13)	(108)	(11)

Novo Nordisk has transferred the activities of Steno Diabetes Center A/S to the Capital Region of Denmark as of 1 January 2017.

In Novo Nordisk A/S, there have been no transactions with the Board of Directors or Executive Management besides remuneration. There have not been any other transactions with the Board of Directors or Executive Management of NNIT A/S, Novozymes A/S, Novo Holdings A/S, the Novo Nordisk Foundation, Xellia Pharmaceuticals ApS or associated companies.

For information on remuneration to the Management of Novo Nordisk, please refer to `Remuneration´ on pp 50-53 (unaudited) and note 2.4, 'Employee costs'. There are no loans to the Board of Directors or Executive Management in 2017, nor were there in 2016 or 2015.

There are no material unsettled transactions with related parties at the end of the year.

5.4 FEE TO STATUTORY AUDITORS

DKK million	2017	2016	2015
Statutory audit	24	24	24
Audit-related services	4	4	4
Tax advisory services	10	9	8
Other services	5	4	7
Total fee to statutory auditors	43	41	43

Fees for other services than statutory audit of the financial statements amounts to DKK 19 million (DKK 17 million in 2016 and DKK 19 million in 2015). PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab (PricewaterhouseCoopers Denmark) provided other services in the amount of DKK 8 million (DKK 7 million in 2016 and DKK 7 million in 2015). Other services than statutory audit of the financial statements provided by PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab (PricewaterhouseCoopers Denmark) comprise services relating to tax compliance and transfer pricing, educational training, review of Social and Environmental information, due diligence, other assurance opinions and agreed-upon procedures, as well as accounting advice.

5.5 COMPANIES IN THE NOVO NORDISK GROUP

Activity: • Sales and marketing • Production • Research and development • Services/investments

Company and country	Percentage of shares owned	Activity
Parent company		
Novo Nordisk A/S, Denmark		• • • •
Subsidiaries by region		
North America Operations		
Novo Nordisk Canada Inc., Canada	100	•
Novo Nordisk Inc., United States	100	•
Novo Nordisk US Bio Production, Inc., United States	100	•
Novo Nordisk US Holdings Inc., United States	100	•
Novo Nordisk Pharmaceutical Industries Inc., United States	100	•
Novo Nordisk Research Center Indianapolis, Inc., United States	100	•
Novo Nordisk Research Center Seattle, Inc., United States	100	•
International Operations		
Novo Nordisk Pharma Operations A/S, Denmark	100	• •
Novo Nordisk Region International Operations A/S, Denmark	100	•
Region Japan & Korea		
Novo Nordisk Region Japan & Korea A/S, Denmark	100	•
Novo Nordisk Pharma Ltd., Japan	100	• •
Novo Nordisk Pharma Korea Ltd., South Korea	100	•
Region Europe		
Novo Nordisk Pharma GmbH, Austria	100	•
S.A. Novo Nordisk Pharma N.V., Belgium	100	•
Novo Nordisk Pharma d.o.o., Bosnia-Hercegovina	100	•
Novo Nordisk Pharma EAD, Bulgaria	100	•
Novo Nordisk Hrvatska d.o.o., Croatia	100	•
Novo Nordisk s.r.o., Czech Republic	100	•
Novo Nordisk Pharmatech A/S, Denmark	100	• •
Novo Nordisk Region Europe A/S, Denmark	100	•
Novo Nordisk Region Europe Pharmaceuticals A/S, Denmark	100	•
Novo Nordisk Farma OY, Finland	100	•
Novo Nordisk, France	100	•
Novo Nordisk Production SAS, France	100	•
Novo Nordisk Pharma GmbH, Germany	100	•
Novo Nordisk Hellas Epe., Greece	100	•
Novo Nordisk Hungária Kft., Hungary	100	•
Novo Nordisk Limited, Ireland	100	•
Novo Nordisk S.P.A., Italy	100	•
UAB Novo Nordisk Pharma, Lithuania	100	•
Novo Nordisk Farma dooel, Macedonia	100	•
Novo Nordisk B.V., Netherlands	100	•
Novo Nordisk Scandinavia AS, Norway	100	•
Novo Nordisk Pharmaceutical Services Sp. z o.o., Poland	100	•
Novo Nordisk Comércio de Produtos Farmacêuticos Lda., Portugal	100	•
Novo Nordisk Farma S.R.L., Romania	100	•
Novo Nordisk Pharma d.o.o. Belgrade (Serbia), Serbia	100	•
Novo Nordisk Slovakia s.r.o., Slovakia	100	•
Novo Nordisk, d.o.o., Slovenia	100	•
Novo Nordisk Pharma S.A., Spain	100	•
Novo Nordisk Scandinavia AB, Sweden	100	•
Novo Nordisk Health Care AG, Switzerland	100	• •
Novo Nordisk Pharma AG, Switzerland	100	•
Novo Nordisk Holding Limited, United Kingdom	100	•
Novo Nordisk Limited, United Kingdom	100	•

Company and country	Percentage of shares owned	Activity
Region AAMEO		
Aldaph SpA, Algeria	100	• •
Novo Nordisk Pharmaceuticals Pty. Ltd., Australia	100	•
Novo Nordisk Pharma (Private) Limited, Bangladesh	100	•
Novo Nordisk Egypt LLC, Egypt	100	•
Novo Nordisk India Private Limited, India	100	•
Novo Nordisk Service Centre (India) Pvt. Ltd., India	100	•
PT. Novo Nordisk Indonesia, Indonesia	100	•
Novo Nordisk Pars, Iran	100	•
Novo Nordisk Ltd, Israel	100	•
Novo Nordisk Kazakhstan LLP, Kazakhstan	100	•
Novo Nordisk Kenya Ltd., Kenya	100	•
Novo Nordisk Pharma SARL, Lebanon	100	•
Novo Nordisk Pharma (Malaysia) Sdn Bhd, Malaysia	100	•
Novo Nordisk Pharma Operations (BAOS) Sdn Bhd, Malaysia	100	•
Novo Nordisk Pharma SAS, Morocco	100	•
Novo Nordisk Pharmaceuticals Ltd., New Zealand	100	•
Novo Nordisk Pharma Limited, Nigeria	100	•
Novo Nordisk Pharma (Private) Limited, Pakistan	100	•
Novo Nordisk Pharmaceuticals (Philippines) Inc., Philippines	100	•
Novo Nordisk Limited Liability Company, Russia	100	•
Novo Nordisk Production Support LLC, Russia	100	•
Novo Investment Pte Limited, Singapore	100	•
Novo Nordisk Pharma (Singapore) Pte Ltd., Singapore	100	•
Novo Nordisk (Pty) Limited, South Africa	100	•
Novo Nordisk Lanka (PVT) Ltd, Sri Lanka	100	•
Novo Nordisk Pharma (Thailand) Ltd., Thailand	49	•
Novo Nordisk Tunisie SARL, Tunisia	100	•
Novo Nordisk Saglik Ürünleri Tic. Ltd. Sti., Turkey	100	•
Novo Nordisk Ukraine, LLC, Ukraine	100	•
Novo Nordisk Pharma Gulf FZ-LLC, United Arab Emirates	100	•
Region China		
Novo Nordisk (China) Pharmaceuticals Co., Ltd., China	100	• •
Beijing Novo Nordisk Pharmaceuticals Science & Technology Co., Ltd., China	100	•
Novo Nordisk Hong Kong Limited, Hong Kong	100	•
Novo Nordisk Pharma (Taiwan) Ltd., Taiwan	100	•
Region Latin America		
Novo Nordisk Pharma Argentina S.A., Argentina	100	•
Novo Nordisk Produção Farmacêutica do Brasil Ltda., Brazil	100	•
Novo Nordisk Farmacêutica do Brasil Ltda., Brazil	100	•
Novo Nordisk Farmacéutica Limitada, Chile	100	•
Novo Nordisk Colombia SAS, Colombia	100	•
Novo Nordisk Mexico S.A. de C.V., Mexico	100	•
Novo Nordisk Panama S.A., Panama	100	•
Novo Nordisk Peru S.A.C., Peru	100	•
Novo Nordisk Venezuela Casa de Representación C.A., Venezuela	100	•
Other subsidiaries and associated company		
NNE A/S, Denmark	100	•
NNIT A/S, Denmark	26	•

Companies without significant activities are not included in the list. NNE A/S subsidiaries are not included in the list.

MANAGEMENT'S HOLDINGS OF NOVO NORDISK SHARES

The internal rules for trading in Novo Nordisk securities by board members, executives and certain employees only permit trading in the 15-calendar-day period following each quarterly announcement.

MANAGEMENT'S HOLDING OF SHARES	At the beginning of the year[1]	Additions during the year	Sold/transferred during the year	At the end of the year	Market value[2] DKK million
Göran Ando	15,000			15,000	5.0
Jeppe Christiansen	8,279	15,500		23,779	8.0
Brian Daniels	1,200	900		2,100	0.7
Sylvie Grégoire	875	1,000		1,875	0.6
Liz Hewitt	2,725	625		3,350	1.1
Liselotte Hyveled	5,955	473	(2,040)	4,388	1.5
Kasim Kutay	—			—	—
Anne Marie Kverneland	10,289		(369)	9,920	3.3
Helge Lund	3,000			3,000	1.0
Søren Thuesen Pedersen	1,815	150		1,965	0.7
Stig Strøbæk	2,050			2,050	0.7
Board of Directors in total	51,188	18,648	(2,409)	67,427	22.6
Lars Fruergaard Jørgensen	110,125	10,637		120,762	40.4
Jesper Brandgaard	186,305	14,392	(14,392)	186,305	62.3
Lars Green	132,333			132,333	44.3
Camilla Sylvest	195			195	0.1
Mads Krogsgaard Thomsen	297,720	14,392	(14,392)	297,720	99.6
Henrik Wulff	87,575	5,708	(5,708)	87,575	29.3
Non-registered members of Executive Management	31,080	1,785	(16,865)	16,000	5.3
Executive Management in total	845,333	46,914	(51,357)	840,890	281.3
Other members of the Senior Management Board	489,057	89,944	(144,012)	434,989	145.5
Pool for Executive Management and other members of the Senior Management Board[3]	560,223	293,689	(126,044)	727,868[4]	243.4
Total	1,945,801	449,195	(323,822)	**2,071,174**	692.8

1. Following the change in the Board of Directors and the retirement of members of Executive Management and the Senior Management Board, the holding of shares at the beginning of the year has been updated compared with the Annual Report 2016. For new members shareholdings are included from the day they became member of Executive Management.
2. Calculation of market value is based on the quoted share price of DKK 334.50 at the end of the year.
3. The annual allocation to the pool is locked up for three years before it is transferred to the participants employed at the end of each three-year period. Based on the split of participants when the pool was established, approximately 38% of the pool will be allocated to the members of Executive Management and approximately 62% to other members of the Senior Management Board. In the lock-up period, the pool may potentially be reduced in the event of lower-than-planned value creation in subsequent years.
4. The pool includes the 2014 programme released on 1 February 2018, but excludes 367,648 shares assigned to retired Executive Management and Senior Management Board members.

FINANCIAL DEFINITIONS

Financial ratios have been calculated in accordance with the guidelines from the Danish Society of Financial Analysts, and supplemented by certain key ratios for Novo Nordisk. Financial ratios are described below and in the section 'Non-IRFS financial measures'.

ADR
An American Depositary Receipt (or ADR) represents ownership of the shares of a non-US company and trades in US financial markets.

Basic earnings per share (EPS)
Net profit divided by the average number of shares outstanding.

Diluted earnings per share
Net profit divided by average number of shares outstanding, including the dilutive effect of the outstanding restricted stock units.

Effective tax rate
Income taxes as a percentage of profit before income taxes.

Equity ratio
Total equity at year-end as a percentage of total assets at year-end.

Gross margin
Gross profit as a percentage of sales.

Net profit margin
Net profit as a percentage of sales.

Number of shares outstanding
The total number of shares, excluding the holding of treasury shares.

Operating margin
Operating profit as a percentage of sales.

Other comprehensive income (OCI)
Other comprehensive income comprises all items recognised in Equity for the year other than those related to transactions with owners of the company. Examples of items that are required to be presented in OCI are:

- Exchange rate adjustments of investments in subsidiaries
- Remeasurements of defined benefit plans
- Changes in fair value of financial instruments in a cash flow hedge.

Payout ratio
Total dividends for the year as a percentage of net profit.

Return on equity (ROE)
Net profit for the year as a percentage of shareholders' equity (average).

NON-IFRS FINANCIAL MEASURES

In the Annual Report, Novo Nordisk discloses certain financial measures of the Group's financial performance, financial position and cash flows that reflect adjustments to the most directly comparable measures calculated and presented in accordance with IFRS. These non-IFRS financial measures may not be defined and calculated by other companies in the same manner, and may thus not be comparable.

The non-IFRS financial measures presented in the Annual Report are:

- Sales and operating profit in local currencies
- Operating profit after tax to net operating assets
- Financial resources
- Free cash flow
- Cash to earnings

IFRS refers to an IFRS financial measure.

Sales and operating profit growth in local currencies
'Growth in local currencies' means that the effect of changes in exchange rates is included. The measure is defined as sales/operating profit for the year measured at prior-year average exchange rates compared with sales/operating profit for the prior year. Growth in local currencies is considered to be relevant information for investors in order to understand the underlying development in sales and operating profit by adjusting for the impact of currency fluctuations.

SALES IN LOCAL CURRENCIES

DKK million	2017	2016	2015
Net sales IFRS	111,696	111,780	107,927
Effect of exchange rate	2,609	2,110	(11,672)
Sales in local currencies	**114,305**	113,890	96,255

OPERATING PROFIT IN LOCAL CURRENCIES

DKK million	2017	2016	2015
Operating profit IFRS	48,967	48,432	49,444
Effect of exchange rate	1,770	1,099	(7,838)
Operating profit in local currencies	**50,737**	49,531	41,606

Operating profit after tax to net operating assets (OPAT/NOA)
Operating profit after tax to net operating assets is defined as 'operating profit after tax (using the effective tax rate) as a percentage of average inventories, receivables, property, plant and equipment, intangible assets and deferred tax assets less non-interest-bearing liabilities including provisions and deferred tax liabilities (where average is the sum of the above assets and liabilities at the beginning of the year and at year-end divided by two)'.

Management believes Operating profit after tax to net operating assets is a useful measure in providing investors and Management with information regarding the Group's performance. The calculation of the financial target 'Operating profit after tax to net operating assets' is a widely accepted measure of earnings efficiency in relation to total capital employed.

The following table shows the calculation of Operating profit after tax to net operating assets:

OPERATING PROFIT AFTER TAX TO NET OPERATING ASSETS

DKK million	2017	2016	2015
Operating profit after tax	38,341	38,407	39,654
/ Average net operating assets	26,776	25,578	26,668
Operating profit after tax to net operating assets in %	**143.2%**	150.2%	148.7%

OPAT/NOA NUMERATOR

Reconciliation of Operating profit to operating profit after tax:

DKK million	2017	2016	2015
Operating profit IFRS	48,967	48,432	49,444
Tax on operating profit (using effective tax rate)	(10,626)	(10,025)	(9,790)
Operating profit after tax	**38,341**	38,407	39,654

OPAT/NOA DENOMINATOR

Reconciliation of Average net operating assets IFRS

DKK million	2017	2016	2015
Intangible assets	3,325	2,714	2,158
Property, plant and equipment	35,247	30,179	25,545
Deferred income tax assets	1,941	2,683	6,806
Inventories	15,373	14,341	12,758
Trade receivables	20,165	20,234	15,485
Tax receivables	958	1,552	3,871
Other receivables and prepayments	2,428	2,411	2,257
Deferred tax liabilities	(846)	(13)	(6)
Retirement benefit obligations	(1,336)	(1,451)	(1,186)
Provisions (non-current)	(3,302)	(3,370)	(2,765)
Trade payables	(5,610)	(6,011)	(4,927)
Tax payables	(4,242)	(3,976)	(3,777)
Other liabilities	(14,446)	(14,181)	(12,655)
Provisions (current)	(20,755)	(20,461)	(17,059)
Net operating assets	**28,900**	24,651	26,505
Average net operating assets	**26,776**	25,578	26,668

Financial resources

Financial resources at the end of the year is defined as the sum of cash and cash equivalents at the end of the year, bonds with original term to maturity exceeding three months and undrawn committed credit facilities. Management believes that Financial resources at the end of the year is an important measure of the Group's financial strength from an investor's perspective, capturing the robustness of the Group's financial position and its financial preparedness for unforeseen developments.

The following table reconciles total financial resources with Cash and cash equivalents, the most directly comparable IFRS financial measure:

FINANCIAL RESOURCES

DKK million	2017	2016	2015
Cash and cash equivalents IFRS	17,158	18,461	15,850
Marketable securities IFRS	—	2,009	3,542
Undrawn committed credit facilities	8,190	8,178	8,209
Financial resources	**25,348**	28,648	27,601

Free cash flow

Novo Nordisk defines free cash flow as 'net cash generated from operating activities' less 'net cash used in investing activities' excluding net change in marketable securities. A positive free cash flow shows that the Group is able to finance its activities and that external financing is thus not necessary for the Group's operating activities. This non-IFRS liquidity measure is therefore believed to provide useful information to investors in addition to the most directly comparable IFRS financial measure, 'Net cash generated from operating activities'.

The following table shows a reconciliation of Free cash flow with Net cash generated from operating activities, the most directly comparable IFRS financial measure:

FREE CASH FLOW

DKK million	2017	2016	2015
Net cash generated from operating activities IFRS	41,168	48,314	38,287
Net cash used in investing activities IFRS	(6,571)	(6,790)	(6,098)
Net purchase of marketable securities IFRS	(2,009)	(1,533)	2,033
Free cash flow	**32,588**	39,991	34,222

Cash to earnings

Cash to earnings is defined as 'free cash flow as a percentage of net profit'.

Management believes that Cash to earnings is an important performance metric because it measures the Group's ability to turn earnings into cash. Hence it is considered a meaningful measure for investors to understand the development of the Group's net cash generated from operating and investing activities. Since Management wants this measure to capture the ability of the Group's operations to generate cash, free cash flow is used as the numerator instead of net cash flow.

The following table shows the calculation of Cash to earnings:

CASH TO EARNINGS

DKK million	2017	2016	2015
Free cash flow	32,588	39,991	34,222
/ Net profit IFRS	38,130	37,925	34,860
Cash to earnings	**85.5%**	105.4%	98.2%

STATEMENT OF SOCIAL PERFORMANCE
FOR THE YEAR ENDED 31 DECEMBER

	Note	2017	2016	2015
PATIENTS				
Patients reached with Novo Nordisk diabetes care products (estimate in millions)	2.1	27.7	28.0	26.8
Patients reached with Novo Nordisk diabetes care products via the Access to Insulin Commitment (estimate in millions)[1]	2.1	0.3	—	—
Donations (DKK million)	2.2	103	106	105
Animals purchased for research	2.3	67,623	77,920	67,240
New patent families (first filings)	2.4	65	74	77
EMPLOYEES				
Employees (total)	3.1	42,682	42,446	41,122
Employee turnover	3.1	11.0%	9.7%	9.2%
Sustainable engagement score[1]		90%	—	—
Gender in Management (ratio men:women)	3.1	60:40	59:41	59:41
Frequency of occupational accidents (number per million working hours)	3.2	2.7	3.0	3.0
ASSURANCE				
Relevant employees trained in business ethics		99%	99%	98%
Business ethics reviews	4.1	34	52	49
Fulfilment of action points from facilitations of the Novo Nordisk Way	4.2	97%	95%	94%
Supplier audits	4.3	246	223	240
Product recalls	4.4	6	6	2
Failed inspections	4.5	0	0	0
Company reputation (scale 0–100)[1]	4.6	79.3	77.8	81.1

1. Updated disclosure. See p 100 'Changes to accounting policies and disclosures' for additional information.

NOTES TO THE CONSOLIDATED SOCIAL STATEMENT

Basis of preparation | Patients | Employees | Assurance

In the Consolidated social statement, Novo Nordisk reports on three dimensions of performance: patients, employees and assurance. Progress is reported on one long-term target, namely company reputation (see pp 12,15 and note 4.6, p 103).

The Consolidated social statement contains additional performance information of strategic importance, such as patients reached with diabetes care products, employee turnover, employee engagement, gender diversity, training of employees in business ethics, supplier audits and product quality.

A long-term commitment to provide access to affordable insulin

The Novo Nordisk Way states that 'our key contribution is to discover and develop innovative biological medicines and make them accessible to patients throughout the world'.

Novo Nordisk's Access to Insulin Commitment guarantees provision of low-priced human insulin to ensure access to quality treatments for patients in the poorest parts of the world for many years to come. The guarantee applies to Least Developed Countries as defined by the UN and other low-income countries as defined by the World Bank as well as selected organisations providing relief in humanitarian situations.

The ceiling price for 2017 was set at 4 US dollars per vial, which is a level not exceeding 20% of the human insulin list prices in the western world. At this price, the cost for insulin treatment per patient per day was 16 cents. The average realised price for insulin sold under the programme was 3 dollars per vial, corresponding to 12 cents per patient per day.

In 2017, Novo Nordisk sold human insulin according to the Access to Insulin Commitment in 30 of the world's 50 poorest countries. In total, 0.3 million patients were treated with insulin sold at or below the ceiling price.

Outside this scheme, Novo Nordisk also sold human insulin below the ceiling price in other countries, reaching an estimated 5 million patients in 2017 compared to an estimated 6.5 million patients in 2016. The decline was caused by lower sales of human insulin, mainly due to an impact from lower tender volumes of human insulin in some large tender markets in 2017, partly offset by growth in sales of modern and new-generation insulin as well as Victoza®.

Novo Nordisk is unable to guarantee that the price at which the company sells the insulin will be reflected in the price to the consumer. Printing the price on the actual products is one initiative to avoid mark-ups on price.

SECTION 1 BASIS OF PREPARATION

General reporting standards and principles

Novo Nordisk adheres to the following internationally recognised voluntary reporting standards and principles (for overview, see p 113):

- The International Integrated Reporting Framework, <IR>, developed by the International Integrated Reporting Council. The framework consists of a set of content elements and guiding principles intended to improve the quality of information available to providers of financial capital.
- The UN Global Compact, a strategic policy initiative for businesses that are committed to aligning their operations and strategies with 10 universally accepted principles in the areas of human rights, labour, environment, anti-corruption and broader UN Goals. As a participant, Novo Nordisk reports on progress during 2017 in its Communication on Progress, which can be found at novonordisk.com/annualreport.
- The framework AA1000APS(2008) and AA1000AS(2008), which states that reporting must provide a complete, accurate, relevant and balanced picture of the organisation's approach to and impact on society.

Novo Nordisk applies AA1000APS(2008) as a component in creating a generally applicable approach to assessing and strengthening the credibility of the Group's public reporting of social and environmental information. Novo Nordisk has designed processes to ensure that the qualitative and quantitative information that documents the social and environmental dimensions of performance is assured, as well as the systems that underpin the data and performance. The principles outlined in AA1000APS(2008) have been applied as described below.

Inclusivity

As a pharmaceutical business with global reach, Novo Nordisk is committed to being accountable to those stakeholders who are impacted by the organisation. From a social responsibility perspective, the key stakeholder groups are patients who rely on Novo Nordisk products, employees at Novo Nordisk and throughout the Group's value chain, and local communities. Novo Nordisk maps its stakeholders and has processes in place to ensure inclusion of stakeholder concerns and expectations. In addition, Novo Nordisk continuously develops its stakeholder engagement and capacity to be a sustainable business at corporate, regional and affiliate levels.

Materiality

Key issues are identified through ongoing stakeholder engagement and trendspotting, informed by data-driven analysis and addressed by programmes or action plans with clear and measurable targets. Long-term targets are set to guide performance in strategic areas. The issues presented in the Annual Report are deemed to have a significant impact on the Group's future business performance and may support stakeholders in their decision-making.

Responsiveness

The report reaches out to a wide range of stakeholders, each with specific needs and interests. The management report is prepared with the retail investors in mind. To most stakeholders, however, the Annual Report is just one element of interaction and communication with the company. The Annual Report reflects how the company is managing operations in ways that respond to and consider stakeholder concerns and interests.

Applying materiality

The Consolidated social statement is a result of assessing legal requirements and disclosure commitments applicable to Novo Nordisk. It is further assessed whether information is tied directly or indirectly to Novo Nordisk's ability to create value over the short, medium and long term.

When assessing whether a disclosure is material to include in the Consolidated social statement, Executive Management considers whether the matter could substantively affect the company's strategy, business model, ability to access required resources or key stakeholders. The disclosures included in the Consolidated social statement are approved by the Audit Committee.

The conclusion from the external assurance provider is available in the Independent assurance report on p 111.

Principles of consolidation
The Consolidated social statement and disclosures cover the Novo Nordisk Group comprising Novo Nordisk A/S and entities controlled by Novo Nordisk A/S.

SOCIAL ACCOUNTING POLICIES
The accounting policies set out below and in the notes have been applied consistently in the preparation of the Consolidated social statement for all the years presented.

Changes to accounting policies and disclosures
The following disclosure changes have been made to align with Management priorities:

- 'Patients reached with diabetes care products via the Access to Insulin Commitment' is added as a separate line item to disclose progress on expanding access to care via the new commitment replacing the disclosure of 'Least developed countries (LDCs) where Novo Nordisk sells insulin according to the differential pricing policy'. The number of LDCs with sales has been added to the note as additional information.
- 'Sustainable engagement score' replaces 'Working the Novo Nordisk Way' to align with a new methodology.
- The calculation of 'Company reputation' has been adjusted due to implementation of a new methodology for tracking 'Sustainable engagement score'. This methodology does not allow for comparison with the RepTrak® methodology used for measuring company reputation among external stakeholder groups. Historical data have been restated accordingly.

OTHER ACCOUNTING POLICIES
Sustainable engagement score
Sustainable engagement score is measured on a scale of 1–5 and based on questions in the annual employee survey, OurVoice, related to sustainable engagement. The score is calculated as the share of employees who responded favourably (4 or 5) to relevant questions. For 2017, the response rate was 94%.

Relevant employees trained in business ethics
The mandatory business ethics training is based on globally applicable e-learning, the Business Ethics Code of Conduct and related tests released annually by the Novo Nordisk Business Ethics Compliance Office. The target groups for the individual tests vary in size and are defined by Novo Nordisk. The target groups are all employees of Novo Nordisk at the end of the reporting period except employees on leave, student assistants, PhDs and postdocs. The percentage of employees completing the training is calculated as the percentage of completion of both the Code of Conduct and the related tests, based on internal registrations.

SECTION 2 PATIENTS

2.1 PATIENTS REACHED WITH NOVO NORDISK DIABETES CARE PRODUCTS (ESTIMATE)

Accounting policies
The number of full-year patients reached with Novo Nordisk diabetes care products, excluding devices and PrandiMet®, is estimated by dividing Novo Nordisk's annual sales volume by the annual usage dose per patient for each product class as defined by the World Health Organization (WHO). PrandiMet® is not included as no WHO-defined dosage exists.

The number of full-year patients reached with Novo Nordisk diabetes care products via the Access to Insulin Commitment is estimated by dividing Novo Nordisk's annual sales volume in the least developed countries as defined by the United Nations and other low-income countries as defined by the World Bank as well as selected organisations providing relief in humanitarian situations by the annual usage dose per patient for human insulin in vials as defined by WHO.

The WHO-defined daily dosage has not changed since 1982 and may not reflect the recommended or prescribed daily dose accurately. Actual doses are based on individual characteristics (eg age and weight) and pharmacokinetic considerations. Despite this uncertainty, Novo Nordisk assesses this to be the most consistent way of reporting.

Development
The estimated number of full-year patients reached with Novo Nordisk's diabetes care products decreased from 28.0 million in 2016 to 27.7 million in 2017. The decline was caused by lower sales of human insulin, mainly due to an impact from lower tender volumes of human insulin in some large tender markets in 2017, partly offset by growth in sales of modern and new-generation insulin as well as Victoza®. An additional 0.9 million people were reached with modern and new-generation insulin.

In 2017, the estimated number of patients reached via the Access to Insulin Commitment was 0.3 million, and Novo Nordisk sold insulin according to this commitment in 30 countries. Beyond this scheme, Novo Nordisk also sold human insulin below the ceiling price in other countries, as well, reaching an estimated 5 million patients in 2017.

2.2 DONATIONS

Accounting policies
Donations by Novo Nordisk to the World Diabetes Foundation (WDF) and the Novo Nordisk Haemophilia Foundation are recognised as an expense when the donation is paid out or when an unconditional commitment to donate has been made. The WDF donation is recognised in Administrative costs in the Income statement. For additional information regarding WDF, see note 5.2 in the Consolidated financial statements.

DONATIONS

DKK million	2017	2016	2015
World Diabetes Foundation	85	85	86
Novo Nordisk Haemophilia Foundation	18	21	19
Total	103	106	105

2.3 ANIMALS PURCHASED FOR RESEARCH

Accounting policies
The record of animals purchased for research comprises the number of animals purchased for all research undertaken by Novo Nordisk either in-house or by external contractors. The number of animals purchased is based on internal registration of purchased animals and yearly reports from external contractors.

ANIMALS PURCHASED

Number	2017	2016	2015
Mice, rats and other rodents	65,869	76,049	65,335
Pigs	835	891	939
Rabbits	493	347	443
Dogs	63	227	214
Non-human primates	241	406	302
Other vertebrates	122	0	7
Total animals purchased	**67,623**	77,920	67,240

The number of animals purchased for research in 2017 decreased by 13% compared with 2016 and reflect the changes in stages of the different research projects. In all, 97% of the animals purchased were rodents. The variation in the purchase of large animals from year to year reflects the different development phases the research projects have reached.

2.4 NEW PATENT FAMILIES (FIRST FILINGS)

Accounting policies
The number of new patent families (first filings) is based on new patent applications that were filed during the year.

Development
A total of 65 new patent families were established in 2017, a decrease of 12% compared with filing activity in 2016, when 74 patent families were established.

The patent expiry dates for the product portfolio are shown in the table below. The dates provided are for expiry in the US, Germany, China and Japan of patents on the active ingredient, unless otherwise indicated, and include extensions of patent term (including for paediatric extension, where applicable). For several products, in addition to the compound patent, Novo Nordisk holds other patents on manufacturing processes, formulations or uses that may be relevant for exclusivity beyond the expiration of the active ingredient patent. Furthermore, regulatory data protection may apply.

2.4 MARKETED PRODUCTS IN KEY MARKETS (ACTIVE INGREDIENTS)

	US	Germany	China	Japan
Diabetes care:				
NovoRapid® (NovoLog®)	Expired	Expired	Expired	Expired
NovoMix® 30 (NovoLog® Mix 70/30)	Expired	Expired	Expired	Expired
NovoNorm® (Prandin®)	Expired	Expired	Expired	Expired
Levemir®	2019	2019	Expired	2019
Victoza®	2022	2022	Expired	2022
Tresiba®	2029	2028	2024	2027
Ryzodeg®	2029	2028	2024	2024[1]
Xultophy®	2029	2028	2024	2024[1]
Fiasp®	(2030)[2]	(2030)[2]	(2030)[2]	(2030)[2]
Ozempic®	2031[3]	2031[3]	2026	2031[3]
Obesity:				
Saxenda®	2022	2022	Expired	Expired[7]
Biopharmaceuticals:				
Norditropin® (Norditropin® SimpleXx®)	Expired	Expired	Expired	Expired
NovoSeven®	Expired[4]	Expired[4]	Expired[4]	Expired[4]
NovoEight®	N/A	N/A	N/A	N/A
NovoThirteen® (TRETTEN®)	2021	Expired	N/A	Expired
Vagifem® 10 mcg	2022[5,6]	2021[5]	N/A	2021[5]
Refixia® (REBINYN®)	2028[3]	2027[3]	2022	2027[3]

1. Patent term extension until 2027 may apply.
2. Protected by formulation patent, which expires in 2030; compound patent has expired.
3. Current estimates.
4. Room temperature-stable formulation patent until 2023 in China, Germany and Japan and until 2025 in the US.
5. Patent covers low-dose treatment regimen.
6. Licensed to several generic manufacturers from October 2016.
7. Protected by formulation patent, which expires in 2024.

SECTION 3 EMPLOYEES

3.1 EMPLOYEES

Accounting policies

The number of employees is recorded as all employees except externals, employees on unpaid leave, interns, bachelor and master thesis employees, and substitutes at year-end.

Employees are attributed to geographical regions according to their primary workplace across the commercial units, research and development, manufacturing and support functions. Employees in corporate functions are included in Region Europe and employees in the global service centre are included in Region AAMEO.

The rate of turnover is measured as the number of employees, excluding temporary employees, who left the Group during the financial year divided by the average number of employees, excluding temporary employees.

Diversity at Novo Nordisk is reported as the percentage split by gender in all managerial positions and for newly appointed managers. Managerial positions are defined as all managers at Novo Nordisk (global job level incl CEO, EVP, SVP, CVP, VP, Director, Manager and Team Leader). New managers are defined as all employees who have moved to a managerial position within the last 12 months – both promoted and externally hired.

EMPLOYEES

Numbers	2017	2016	2015
North America	6,391	6,394	6,439
Region Europe	21,920	22,529	21,871
- of which in Denmark	17,510	18,221	17,398
Region AAMEO	6,767	6,200	5,606
Region China	4,482	4,356	4,389
Region Japan & Korea	1,252	1,190	1,119
Region Latin America	1,870	1,777	1,698
Total employees	**42,682**	42,446	41,122
Full-time employees	42,076	41,971	40,638
Employee turnover	**11.0%**	9.7%	9.2%
Increase in employees	1%	3%	(1%)
Gender split among all managers	**60:40**	59:41	59:41
Share of women among newly appointed managers	43%	43%	44%

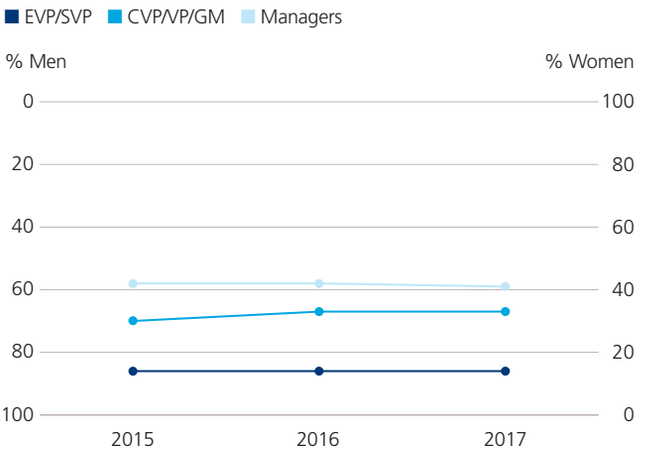
The growth in employees was mainly driven by the global service centre in Bangalore, India. Employee turnover increased from 9.7% in 2016 to 11.0% in 2017. The increased employee turnover in 2017 was mainly due to the workforce reduction at the end of 2016; as a part of this workforce was still employed at the end of 2016 it affects the 2017 employee turnover.

All management teams, from entry level upwards, are encouraged to focus on enhanced diversity, with the aim of ensuring a robust pipeline of talent for management positions.

Among employees as a whole, the gender split was 49% women and 51% men in 2017.

The graph below shows the gender split among managers for the last three years.

GENDER IN MANAGEMENT



3.2 FREQUENCY OF OCCUPATIONAL ACCIDENTS

Accounting policies

The frequency of occupational accidents with absence is measured as the internally reported number of accidents using full-time employees, excluding externals, employees on unpaid leave, interns, bachelor and master thesis employees, and substitutes, per million nominal working hours. An occupational accident with absence is any work-related accident causing at least one day of absence in addition to the day of the accident.

Development

The average frequency rate of occupational accidents with absence was 2.7 per million working hours in 2017, compared with 3.0 in 2016, corresponding to a 10% decrease. There were no work-related fatalities in 2017, compared with one fatality in 2016. The performance improvement is mainly attributed to the mandatory training in product supply. Novo Nordisk works with a zero-injury mindset and has a long-term commitment to continuously improving safety performance.

SECTION 4 ASSURANCE

4.1 BUSINESS ETHICS REVIEWS

The number of business ethics reviews is recorded as the number of business ethics reviews and trend reports performed by Group Internal Audit in affiliates, production sites and headquarter areas. Any gaps between procedures and behaviour are identified and presented to Management and the Board of Directors as findings. An action plan for the closure of findings is agreed upon, and Group Internal Audit follows up on the implementation of the agreed actions before closing the findings.

Development

A total of 34 business ethics reviews were completed in 2017 with 130 findings, compared with 52 reviews with 234 findings in 2016. It is Group Internal Audit's assessment that the overall business ethics compliance level is sound. Closure of findings progressed as planned, and there were no overdue findings as of 31 December 2017.

4.2 FULFILMENT OF ACTION POINTS FROM FACILITATIONS OF THE NOVO NORDISK WAY

Accounting policies

Facilitation is the internal audit process for assessing compliance with the Novo Nordisk Way. The assessment is based on review of documentation followed by an on-site visit where randomly selected employees, Management and stakeholders are interviewed. Any identified gaps related to the Novo Nordisk Way are presented to Management as findings. The facilitator and Management agree on an action plan to close the findings. The percentage of fulfilment of action points is measured as an average of timely closure of action points issued in the current year and the two previous years. The reason for using a three-year average as the basis for the calculation is that action lead times typically vary from a few months to more than a year.

FACILITATIONS AND FINDINGS

	2017	2016	2015
Fulfilment of action points	**97%**	95%	94%
Facilitations	65	84	65
Findings	264	283	257

A total of 65 units were facilitated covering approximately 21,000 employees, of whom almost 3,000 were interviewed. In addition, feedback on those units was collected from almost 700 stakeholders. Overall, the facilitations in 2017, as in 2016, showed a 'high level' of compliance with the Novo Nordisk Way. Corrective actions and corresponding deadlines were agreed with local management for all actions. The main areas of improvement identified, covering approximately 60% of all findings, concerned Essential 2 'We set ambitious goals and strive for excellence', Essential 5 'We build and maintain good relations with our key stakeholders' and Essential 7 'We focus on personal performance'. The 10 Essentials are part of the Novo Nordisk Way. See p 17 for additional information.

4.3 SUPPLIER AUDITS

Accounting policies

The number of supplier audits concluded by Novo Nordisk's Supplier Audit department includes the number of responsible sourcing audits and quality audits conducted in the areas of direct- and indirect-spend materials.

SUPPLIER AUDITS

Numbers	**2017**	2016	2015
Responsible sourcing audits	28	27	28
Quality audits	218	196	212
Total supplier audits	**246**	223	240

The number of audits concluded in 2017 increased by 10% compared with 2016. The increase in quality audits was mainly due to an expanded focus on outsourced services. There were no critical findings in 2017.

4.4 PRODUCT RECALLS

Accounting policies

The number of product recalls is recorded as the number of times Novo Nordisk has instituted a recall and includes recalls in connection with clinical trials. A recall can affect various countries but only counts as one recall.

Development

Novo Nordisk had six product recalls from the market in 2017, which is the same level as in 2016. None of these recalls were critical. Local health authorities were informed in all instances to ensure that distributors, pharmacies, doctors and patients received appropriate information.

4.5 FAILED INSPECTIONS

Accounting policies

The number of failed inspections is measured in relation to the US Food & Drug Administration (USFDA), the European Medicines Agency (EMA), the Japanese Pharmaceuticals & Medical Devices Agency (PMDA), Lloyd's Register Quality Assurance (LRQA) and domestic authorities for strategic manufacturing sites. Failed inspections are defined as inspections where Warning Letters or EMA non-compliance letters related to GMP inspections are received, GMP/ISO certificates for strategic sites are lost, pre-approval inspections result in a Warning Letter, study conclusions are changed due to GCP/GLP inspection issues, or marketing or import authorisations are withdrawn due to inspection issues. Strategic sites are defined as the manufacturing sites in Brazil, China, Denmark, France and the US.

Development

In 2017, as in 2016, there were no failed inspections among those resolved at year-end. In 2017, 83 inspections were conducted compared with 74 in 2016. At year-end, 54 inspections had been passed and 29 were unresolved, as final inspection reports had not been received or the final authority acceptance was pending, which is normal. Follow-up on unresolved inspections will continue in 2018.

4.6 COMPANY REPUTATION

Accounting policies

Company reputation is measured annually using the RepTrak® methodology developed by Reputation Institute. The total score is measured as the mean company reputation score among people with diabetes, general practitioners and diabetes specialists across key markets. Reputation is measured on a scale of 0–100, with 100 being the best possible score. A score above 80 is considered excellent; a score between 70 and 80 is considered strong. Data were collected between June and September 2017.

The data are collected through annual surveys carried out by external consultancy firms.

COMPANY REPUTATION

By stakeholder group	**2017**	2016	2015
People with diabetes	77.2	73.7	73.9
General practitioners	79.1	78.9	83.9
Diabetes specialists	81.7	80.9	85.3
Total score	**79.3**	77.8	81.1

STATEMENT OF ENVIRONMENTAL PERFORMANCE
FOR THE YEAR ENDED 31 DECEMBER

	Note	2017	2016	2015
RESOURCES				
Energy consumption (1,000 GJ)	2.1	2,922	2,935	2,778
Share of renewable power for production	2.1	79%	78%	78%
Water consumption (1,000 m^3)	2.2	3,276	3,293	3,131
EMISSIONS AND WASTE				
CO_2 emissions from energy consumption (1,000 tons)	3.1	90	92	107
CO_2 emissions from product distribution (1,000 tons)	3.1	39	38	43
Waste (1,000 tons)	3.2	157	153	159
COMPLIANCE				
Breaches of regulatory limit values	4.1	23	42	28

NOTES TO THE CONSOLIDATED ENVIRONMENTAL STATEMENT

Basis of preparation | Resources | Emissions and waste | Compliance

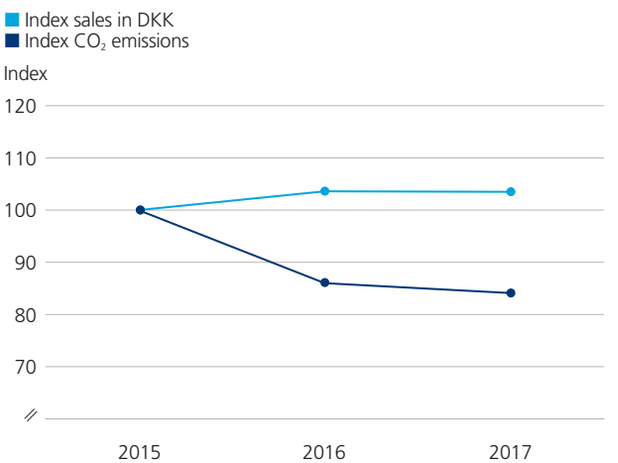
In the Consolidated environmental statement, Novo Nordisk reports on performance in terms of resources, and emissions and waste. Progress is reported against long-term targets to continuously reduce environmental impacts. See pp 13 and 15.

The Statement of environmental performance contains additional performance information of strategic importance, such as energy and water consumption, CO_2 emissions, waste and breaches of regulatory limit values.

Steady progress on reducing CO_2 emissions from production sites

In 2017, 79% of the power used at production sites came from renewable sources, such as wind, hydropower and biomass. With planned initiatives, the company is well on track to meet the target that all production sites are to be 100% powered by renewable energy by 2020. The target is in line with the Paris Agreement. The graph shows how CO_2 emissions and sales have been decoupled.

SALES AND CO_2 EMISSIONS (2015 = INDEX 100)



SECTION 1 BASIS OF PREPARATION

General reporting standards and principles
The Consolidated environmental statement has been prepared in accordance with the same standards as those for the Consolidated social statement. See section 1 'Basis of preparation' of the Consolidated social statement on p 99.

Principles of consolidation
The Consolidated environmental statement covers the production sites including office buildings and R&D facilities at the sites, except for CO_2 emissions from product distribution, which covers external suppliers used to distribute Novo Nordisk products.

ENVIRONMENTAL ACCOUNTING POLICIES
The accounting policies set out below have been consistently applied in the preparation of the Consolidated environmental statement for all the years presented.

Changes to accounting policies and disclosures
The following disclosure changes have been made to align with Management priorities:

- 'Organic residues' and 'Waste' were previously reported as two separate line items. As of 2017, organic residues will be reported as part of the disclosure of waste, and the note has been updated accordingly.
- 'Non-hazardous waste' is no longer reported as a separate line item but included as part of the information in note 3.2 Waste.

SECTION 2 RESOURCES

2.1 ENERGY CONSUMPTION AND SHARE OF RENEWABLE POWER

Accounting policies
Energy consumption is measured as both direct supply of energy (internally produced energy), which is energy Novo Nordisk produces from mainly biogas, natural gas and wood, and indirect supply of external energy (externally produced energy), which is power, steam and district heat. The consumption of fuel (internally produced energy) and externally produced energy is based on meter readings and invoices.

Share of renewable power is reported according to the Greenhouse Gas (GHG) Protocol Scope 2 Guideline. It is calculated as the sum of power in each country that comes from 100% renewable sources, either sourced from the market or self-produced.

ENERGY CONSUMPTION

1,000 GJ	2017	2016	2015
Diabetes care and obesity	2,015	2,050	2,006
Biopharmaceuticals	482	460	322
Not allocated[1]	425	425	450
Total energy consumption	**2,922**	2,935	2,778
Share of renewable power for production	**79%**	78%	78%

1. Not allocated consists of consumption that cannot be directly linked to the production of either Diabetes care and obesity or Biopharmaceuticals, ie office buildings and research activities.

In 2017, energy consumption decreased slightly. Novo Nordisk continues to focus on energy efficiency, and projects implemented in 2017 are expected to give annual savings of more than 18,000 GJ.

The share of renewable power increased slightly to 79% in 2017 from 78% in 2016. Novo Nordisk has a target to reach 100% power from renewable sources by 2020 and at year-end, 11 out of 16 production sites use power from renewable sources.

2.2 WATER CONSUMPTION

Accounting policies
Water consumption is measured based on meter readings and invoices. It includes drinking water, industrial water and steam.

WATER CONSUMPTION

1,000 m^3	2017	2016	2015
Diabetes care and obesity	2,808	2.866	2.753
Biopharmaceuticals	290	260	213
Not allocated[1]	178	167	165
Total water consumption	**3,276**	3,293	3,131

1. Not allocated consists of consumption that cannot be directly linked to the production of either Diabetes care and obesity or Biopharmaceuticals, ie office buildings and research activities.

In 2017, water consumption decreased slightly. Water-saving projects remain in focus, and projects implemented in 2017 are expected to give annual water savings of more than 100,000m^3, which corresponds to 3% of the total water use. More than half of the water-saving projects were implemented at a production site located in an area subject to high seasonal variations in water availability.

7% of Novo Nordisk's water consumption is in areas subject to high water stress.

SECTION 3 EMISSIONS AND WASTE

3.1 CO_2 EMISSIONS

Accounting policies
CO_2 emissions from energy consumption
The amount of CO_2 emissions from energy consumption covers consumption at production sites measured in metric tons. CO_2 emissions from energy consumption are calculated according to the GHG Protocol and based on emission factors from the previous year.

CO_2 emissions from product distribution
CO_2 emissions from product distribution are calculated by external transportation suppliers as the estimated emissions from product distribution in metric tons. CO_2 emissions are calculated based on the worldwide distribution of semi-finished and finished products, raw materials and components by air, sea and road between production sites and from production sites to affiliates, direct customers and importing distributors. CO_2 emissions from product distribution from affiliates to pharmacies, hospitals and wholesalers are not included.

3.1 CO_2 EMISSIONS (CONTINUED)

CO_2 EMISSIONS

1,000 TONS	2017	2016	2015
CO_2 emissions from energy consumption	90	92	107
- Diabetes care and obesity	76	78	88
- Biopharmaceuticals	12	11	6
- Not allocated[1]	2	3	13
CO_2 emissions from product distribution	39	38	43
Total CO_2 emissions	**129**	130	150

1. Not allocated consists of consumption that cannot be directly linked to the production of either Diabetes care and obesity or Biopharmaceuticals, ie office buildings and research activities.

CO_2 emissions from energy consumption at production sites decreased slightly by 2% due to reduced energy use at production sites using fossil fuel-based energy.

Emissions from product distribution increased by 3% compared with 2016. Emissions from air and ground transport remained stable. More products were distributed by sea. Distributing as many products as possible by sea remains a priority for Novo Nordisk, as sea transport reduces both CO_2 emissions and costs relative to product volume.

3.2 WASTE

Accounting policies

Waste is measured as the sum of all the waste disposed of based on weight receipts.

WASTE

1,000 TONS	2017	2016	2015
Recycling	122	116	123
- Organic residues[1]	116	109	114
- Other (paper, cardboard, metals etc)	6	7	9
Energy recovery[2]	28	30	28
- Ethanol waste[3]	21	24	21
- Other (various combustible waste)	7	6	7
No energy recovery[4]	6	6	7
- Water waste	5	5	6
- Other	1	1	1
Landfill	1	1	1
Total waste	**157**	153	159

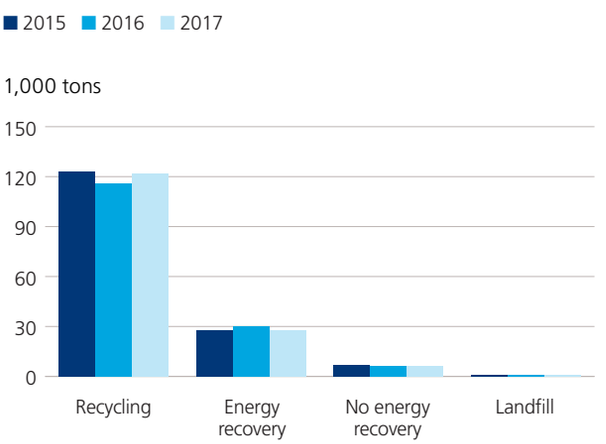
1. Organic residues for recycling is waste from the production of the active pharmaceutical ingredients, where the energy is recovered in biogas plants and the digested slurry is used on local farmland as fertiliser.
2. Energy recovery is waste disposed of at incineration plants with energy recovery and at biogas plants.
3. Ethanol is used in purification of diabetes and biopharmaceutical products. The ethanol is recovered in own regeneration plants and re-used many times. The ethanol waste reported here is from production with no regeneration or residues from the regeneration process.
4. Water waste and other waste not suitable for other disposal methods, such as hazardous waste for incineration and various other types of waste.

The total waste volume increased by 3% compared with 2016, which was mainly due to an increase in the organic residues from the fermentation of insulin. Ethanol waste decreased due to process optimisations and increased regeneration of ethanol.

18% of all the waste was categorised as hazardous waste, a decrease from 20% in 2016. This is mainly a result of the decrease in ethanol waste.

At Novo Nordisk, it is a priority to recycle as much waste as possible or ensure energy recovery when recycling is not possible. 96% of total waste is either recycled, used for biogas production or incinerated at plants where the energy is used for heat and power production.

WASTE DISPOSAL



SECTION 4 COMPLIANCE

4.1 BREACHES OF REGULATORY LIMIT VALUES

Accounting policies

Breaches of regulatory limit values cover all breaches reported to the environmental authorities.

Development

Incidents with breaches of regulatory limit values decreased from 42 in 2016 to 23 in 2017, primarily due to improved control of the pH and Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) at one facility. The majority of the breaches were related to wastewater, with minor impacts on the environment.

STATEMENT BY THE BOARD OF DIRECTORS AND EXECUTIVE MANAGEMENT ON THE ANNUAL REPORT

Today, the Board of Directors and Executive Management approved the Annual Report of Novo Nordisk A/S for the year 2017. The Board of Directors and Executive Management are jointly responsible for ensuring the integrity and quality of the report.

The Annual Report has been prepared in accordance with the International Integrated Reporting Framework.

The Consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

Further, the Financial statements of the parent company and Management's review have been prepared in accordance with the Danish Financial Statements Act.

In our opinion, the Consolidated financial statements and the Financial statements of the parent company give a true and fair view of the financial position at 31 December 2017, the results of the Group's and parent company's operations, and consolidated cash flows for the financial year 2017. Furthermore, in our opinion, Management's review includes a true and fair account of the development in the operations and financial circumstances, of the results for the year and of the financial position of the Group and the parent company as well as a description of the most significant risks and elements of uncertainty facing the Group and the parent company.

Novo Nordisk's Consolidated social and environmental statements have been prepared in accordance with the reporting principles of materiality, inclusivity and responsiveness of AA1000APS(2008), and social and environmental accounting policies. They give a true and fair account and a balanced and reasonable presentation of the organisation's social and environmental performance in accordance with these principles.

We recommend that the Annual Report be adopted at the Annual General Meeting.

Bagsværd, 1 February 2018

Registered Executive Management

Lars Fruergaard Jørgensen
President and CEO

Jesper Brandgaard
CFO

Lars Green

Camilla Sylvest

Mads Krogsgaard Thomsen

Henrik Wulff

Board of Directors

Göran Ando
Chairman

Jeppe Christiansen
Vice chairman

Brian Daniels

Sylvie Grégoire

Liz Hewitt

Liselotte Hyveled

Kasim Kutay

Anne Marie Kverneland

Helge Lund

Søren Thuesen Pedersen

Stig Strøbæk

INDEPENDENT AUDITOR´S REPORT

To the shareholders of Novo Nordisk 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 2017 and of the results of the Group's operations and cash flows for the financial year 1 January to 31 December 2017 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 2017 and of the results of the Parent Company's operations for the financial year 1 January to 31 December 2017 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 of Novo Nordisk A/S for the financial year 1 January to 31 December 2017, pp. 58-94, comprise the income statement and statement of comprehensive income, cash flow statement, balance sheet, equity statement and the notes, including summary of significant accounting policies.

The Parent Company Financial Statements of Novo Nordisk A/S for the financial year 1 January to 31 December 2017, pp. 114-118, comprise the income statement, balance sheet, equity statement and the notes, including summary of significant accounting policies.

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 Novo Nordisk A/S in April 1982 for the financial year 1982. We have been reappointed annually by shareholder resolution for a total period of uninterrupted engagement of 36 years including the financial year 2017.

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 2017. These matters were addressed in the context of our audit of the Financial Statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Key audit matter	How our audit addressed the key audit matter
Revenue recognition relating to rebates and discounts in the US business The Group sells to various customers in the US, which can fall under certain commercial and government mandated contracts and reimbursement arrangements, of which the most significant are Managed Care, Medicare, Medicaid and charge-backs to wholesalers. These arrangements result in deductions to gross sales in arriving at net sales and give rise to obligations for the Group to provide customers with rebates, discounts and allowances, which for unsettled amounts are recognised as an accrual. We have focused on this area because rebates, discounts and allowances are complex and because establishing an appropriate accrual requires significant judgment and estimation by Management. This judgment is particularly complex in a US healthcare environment in which competitive pricing pressure and product discounting are growing trends. Refer to Note 2.1 and Note 3.6.	We have obtained Management's calculations for accruals under applicable schemes and assessed the significance of assumptions applied by comparing them to the Group's stated commercial policies, the terms of the applicable contracts, third party data and historical levels of paid rebates and discounts in the US business. We have compared the assumptions to contracted prices, historical rebates, discounts, allowances and to current payment trends. We have also considered the historical accuracy of the Group's estimates in previous years. We have formed an independent assessment of the most significant elements of the accrual at 31 December 2017 using third party data and compared this expectation to the actual accrual recognised by the Group.

Litigations

The pharmaceuticals industry is heavily regulated which increases inherent litigation risk and litigation and contingent liabilities may arise from product-specific and general legal proceedings, from guarantees, marketing practices, unethical behaviour or government investigations connected with the Group's activities.

We have focused on this area as the amounts involved are potentially material and the valuation of the provision is based on application of material judgment and estimation and therefore is associated with uncertainty. Accordingly, unexpected adverse outcomes could significantly impact the Group's reported profit and statement of financial position.

Refer to Note 3.6.

We have discussed the status of significant known actual and potential litigation with in-house legal counsel. We have obtained and substantively tested evidence to support the decisions and rationale for provisions held or decisions not to recognise provisions, including correspondence with external legal counsel and other counter-parties to litigations and considered Management's assessment of the probability of defending any litigation and the reliability of estimating any provisions.

We have developed an independent expectation of the litigation provision based on litigation history and other available evidence to assess the valuation and completeness of the provisions recognised by the Group. We have obtained confirmations from external legal counsel to confirm our understanding of settled and outstanding litigation and asserted claims. We have evaluated significant adjustments to legal provisions recorded during the year to determine if they were indicative of management bias.

We have tested the completeness of the external legal counsels from whom we have asked for direct confirmation by testing legal expenses on a sample basis and comparing to internal documents.

Statement on Management's Review

Management is responsible for Management's Review, pp 1-56 and pp 95-97.

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 Statement Act. We did not identify any material misstatement in Management's Review.

Management's responsibilities for the Financial Statements

Management is responsible for the preparation of consolidated financial statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act and for the preparation of parent company financial statements that give a true and fair view in accordance with the Danish Financial Statements Act, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the Financial Statements, Management is responsible for assessing the Group's and 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 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 under Danish audit regulation, 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 (the Board of Directors) 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.

Bagsværd, 1 February 2018

PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab (CVR no 3377 1231)

Mogens Nørgaard Mogensen
State Authorised Public Accountant
mne21404

Torben Jensen
State Authorised Public Accountant
mne18651

INDEPENDENT LIMITED ASSURANCE REPORT ON THE CONSOLIDATED SOCIAL AND ENVIRONMENTAL REPORTING

To the Stakeholders of Novo Nordisk A/S

Novo Nordisk A/S engaged us to provide limited assurance on the information described below and set out in the Annual Report of Novo Nordisk for the year ended 31 December 2017.

Our conclusion

Based on the procedures we have performed and the evidence we have obtained:

- A) Nothing has come to our attention that causes us to believe that the Consolidated social and environmental statement of Novo Nordisk's Annual Report for the year ended 31 December 2017 has not been prepared, in all material respects, in accordance with the Reporting Criteria.
- B) Nothing has come to our attention that causes us to believe that the description of Novo Nordisk's alignment with AA1000APS (2008) (AA1000ApS) principles of Inclusivity, Materiality and Responsiveness is not fairly stated.

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

What we are assuring

The scope of our work was limited to assurance over:

A) the Statement of social and environmental performance and associated Notes on pages 98 to 106 in the Annual Report of Novo Nordisk (the "Selected Information").
B) Novo Nordisk's description of alignment with the AA1000APS principles of Inclusivity, Materiality and Responsiveness for the year ended 31 December 2017, which is set out on pages 99 to 100 (the "Stakeholder Engagement description") of the 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' and AA1000AS (Type 2, moderate, which is the equivalent to ISAE 3000 limited assurance). 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. We also qualify as independent as defined by the AA1000 Assurance Standard (2008) (AA1000AS). 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

The Selected Information needs to be read and understood together with the Reporting Criteria (page 99 to 106), which Novo Nordisk A/S 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

A) We are required to plan and perform our work in order to consider the risk of material misstatement of the Selected Information. In doing so, we:

- conducted interviews with data owners to understand the key processes and controls for reporting site performance data;
- obtained an understanding of the key processes and controls for managing, recording and reporting the Selected Information.
- performed limited substantive testing on a selective basis of the Selected Information at corporate head office to check that data had been appropriately measured, recorded, collated and reported;
- performed analysis of data from reporting sites, selected on the basis of risk and materiality to the group; and
- considered the disclosure and presentation of the Selected Information.

B) In respect of Novo Nordisk's description of alignment with AA1000APS principles of Inclusivity, Materiality and Responsiveness we performed the following activities:

- interviewed members of Novo Nordisk's Executive Management, Communication, Relations & Corporate Affairs and Global Market Access to determine their understanding of their stakeholders, the mechanisms used to engage them and key issues that are of interest to each stakeholder group;
- interviewed external stakeholders to determine their perception of Novo Nordisk's capabilities in relation to stakeholder engagement, in particular, in relation to being inclusive and responsive to stakeholders on material topics;
- reviewed evidence on a selective basis to support the assertions made in these interviews and in the Stakeholder Engagement description;
- confirmed the existence of systems and procedures to support Novo Nordisk's Triple Bottom Line governance and stakeholder relationships. Our work focused on access and affordability, including a review of Novo Nordisk's Access to insulin commitment, pricing policy and strategy in the US and in International Operations; and
- assessed the disclosure and presentation of the Stakeholder Engagement description.

Novo Nordisk's responsibilities

Novo Nordisk's management are responsible for:

- designing, implementing and maintaining internal controls over information relevant to the preparation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- establishing objective Reporting Criteria for preparing the Selected Information;
- measuring and reporting the Selected Information based on the Reporting Criteria; and
- reporting the Stakeholder Engagement description; and
- the content of the Annual Report 2017.

Our responsibility

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Selected Information and the Stakeholder Engagement description is 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 Novo Nordisk A/S.

Observations and recommendations

According to AA1000AS, we are required to include observations and recommendations for improvements in relation to adherence to the AA1000APS principles. We have no significant recommendations regarding Inclusivity, Materiality and Responsiveness. We have communicated a number of minor recommendations for improvement to the management of Novo Nordisk.

Bagsværd, 1 February 2018

PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab (CVR no. 3377 1231)

Mogens Nørgaard Mogensen
State Authorised Public Accountant
mne21404

Torben Jensen
State Authorised Public Accountant
mne18651

PRODUCT OVERVIEW

A selection of Novo Nordisk's injection devices

DIABETES CARE

NEW-GENERATION INSULIN AND COMBINATIONS
- Tresiba®, insulin degludec
- Ryzodeg®, insulin degludec/insulin aspart
- Fiasp®, fast-acting insulin aspart
- Xultophy®, insulin degludec/liraglutide

MODERN INSULIN
- Levemir®, insulin detemir
- NovoRapid®, insulin aspart
- NovoRapid® PumpCart®, pre-filled insulin pump cartridge
- NovoMix® 30, biphasic insulin aspart
- NovoMix® 50, biphasic insulin aspart
- NovoMix® 70, biphasic insulin aspart

HUMAN INSULIN
- Insulatard®, isophane (NPH) insulin
- Actrapid®, regular human insulin
- Mixtard® 30, biphasic human insulin
- Mixtard® 40, biphasic human insulin
- Mixtard® 50, biphasic human insulin

GLUCAGON-LIKE PEPTIDE-1
- Victoza®, liraglutide

OTHER PRE-FILLED INSULIN DELIVERY SYSTEMS
- FlexTouch®, U100, U200
- FlexPen®
- InnoLet®

OTHER INSULIN DELIVERY SYSTEMS
- PumpCart®, NovoRapid® cartridge to be used in pump
- Cartridge
- Vial

INSULIN PENS
- NovoPen® 5 PLUS
- NovoPen® 5
- NovoPen® 4
- NovoPen® 3
- NovoPen Echo®, with memory function

NEEDLES
- NovoFine® Plus
- NovoFine®
- NovoTwist®
- NovoFine® AutoCover

ORAL ANTIDIABETIC AGENTS
- NovoNorm®, repaglinide

GLUCAGON
- GlucaGen®, glucagon for diagnostic use
- GlucaGen® Hypokit, glucagon emergency kit for severe hypoglycaemia

OBESITY

GLUCAGON-LIKE PEPTIDE-1
- Saxenda®, liraglutide 3 mg

BIOPHARMACEUTICALS

HAEMOPHILIA
- NovoSeven®, recombinant factor VIIa, also available with pre-filled syringe in an increasing number of countries
- NovoEight®, recombinant factor VIII
- NovoThirteen®, recombinant factor XIII

HUMAN GROWTH HORMONE
- Norditropin®, somatropin (rDNA origin)
- Norditropin® FlexPro®, pre-filled multidose delivery system
- Norditropin® NordiFlex®, pre-filled multidose delivery system
- Norditropin® NordiLet®, pre-filled multidose delivery system
- Norditropin® SimpleXx®, durable multidose delivery system
- NordiPen®
- PenMate®, automatic needle inserter (for NordiPen® and NordiFlex®)

HORMONE REPLACEMENT THERAPY
- Vagifem®, estradiol hemihydrate
- Activelle®, estradiol/norethisterone acetate
- Kliogest®, estradiol/norethisterone acetate
- Novofem®, estradiol/norethisterone acetate
- Trisequens®, estradiol/norethisterone acetate
- Estrofem®, estradiol

The product overview on this page makes reference to our 2017 product offering. The names used are European product trade names with accompanying generic names. Trade and generic names may differ in other markets.

MORE INFORMATION AND REFERENCES

ADDITIONAL REPORTING

Novo Nordisk provides additional disclosure to satisfy legal requirements and stakeholder interests. Additional reports can be downloaded from novonordisk.com/annualreport.

MATERIALITY

Novo Nordisk leans on the International Integrated Reporting Council's definition of materiality. Information deemed material for providers of financial capital in their decision-making is included in the Annual Report, ie of such relevance and importance that it could substantively influence their assessments of Novo Nordisk's ability to create value over the short, medium and long term.

ANNUAL REPORT

The full statutory Annual Report is available online novonordisk.com/annualreport.

A printed extract excluding the financial statements of the parent company is available in English.

This Annual Report is prepared in accordance with the International Financial Reporting Standards and the Danish Financial Statements Act. Moreover, it meets the requirements of an integrated report, as per the International Integrated Reporting Framework.

A shortened, printed version, consisting of the Management review and excerpts from the consolidated statements, is available in Danish.

FORM 20-F

The Form 20-F is filed using a standardised reporting form so that investors can evaluate the company alongside US domestic equities. It is an annual reporting requirement by the US Securities and Exchange Commission (SEC) for foreign private issuers with equity shares listed on exchanges in the United States.

CORPORATE GOVERNANCE REPORT

The corporate governance report discloses Novo Nordisk's compliance with Danish Corporate Governance Recommendations to meet the requirements of the Danish Financial Statements Act.

COMMUNICATION ON PROGRESS

The Communication on Progress to the UN Global Compact is a voluntary reporting on performance towards its 10 principles on human rights, labour rights, environment and anti-corruption and additional progress reporting on corporate sustainability leadership and UN goals. It complements the Annual Report to meet the requirements of the Danish Financial Statements Act, sections 99a and 99b, on corporate responsibility and gender diversity. It also adheres to the UN Guiding Principles Reporting Framework on respect of human rights.

NEWS AND UPDATES

FOR MORE NEWS FROM NOVO NORDISK, VISIT
novonordisk.com/investors
novonordisk.com/media
novonordisk.com/sustainable-business

REFERENCES

1. International Diabetes Federation. *IDF Diabetes Atlas*, 7th edn. Brussels, Belgium. International Diabetes Federation 2015. **2.** Jönsson, Linus, et al. Cost of Hypoglycemia in Patients with Type 2 Diabetes in Sweden. Value in Health, vol. 9, No 3, 2006, pp 193–198., doi:10.1111/j.1524-4733.2006.00100.x. **3.** World Health Organization. Obesity and Overweight. Fact sheet No 311. Updated October 2017. **4.** World Obesity Day data released. World Obesity, World Obesity Federation, 2015, www.worldobesity.org/news/world-obesity-day-data-released/. Accessed 23 January 2017. **5.** McCullough AJ. Epidemiology of the metabolic syndrome in the USA. Journal of Digestive Diseases 2011; 12:333–340. **6.** Marso SP, et al. Liraglutide and Cardiovascular Outcomes in Type 2 Diabetes. *New England Journal of Medicine* 2016; 375(18):1797–1799. **7.** Marso, Steven P., et al. Efficacy and Safety of Degludec versus Glargine in Type 2 Diabetes. *New England Journal of Medicine*, vol. 377, No 8, 24 Aug. 2017, pp 723–732., doi:10.1056/nejmoa1615692. **8.** Hart JT. Rule of Halves: implications of increasing diagnosis and reducing dropout for future workload and prescribing costs in primary care. *Br J Gen Pract* 1992; 42(356):116-119. **9.** Cities Changing Diabetes. Diabetes Projection Model, Global. Data on file. Novo Nordisk. Incentive, ed. Holte, Denmark 2017. **10.** United Nations, Department of Economic and Social Affairs, Population Division (2015). World Urbanization Prospects: The 2014 Revision, (ST/ESA/SER.A/366). **11.** Kaplan L, Golden A, Jinnett K, et al. Perceptions of Barriers to Effective Obesity Care: Results from the National ACTION Study. *Obesity* 2017; DOI:10.1002/oby.22054. **12.** "Obesity." Rethink Obesity, Novo Nordisk, 2017, global.rethinkobesity.com/. Accessed 1 August 2017. **13.** Michele M Yuen, et al. T-P-3166: A systematic review and evaluation of current evidence reveals 236 obesity-associated disorders (ObAD). **14.** Obesity and Overweight. Centers for Disease Control and Prevention website. https://www.cdc.gov/nchs/fastats/obesityoverweight.htm. Updated June 13, 2016. Accessed 1 August 2017. **15.** Trust for America's Health. F as in Fat: How obesity threatens America's future. http://healthyamericans.org/assets/-files/2012_f_as_in_fat_FINAL%20ES%209-22-12.pdf. Published September 2012. Accessed May 2017. **16.** Waters, Hugh, and Ross DeVoL. "Weighing Down America: The Health and Economic Impact of Obesity." Milken Institute, 30 Nov. 2016, www.milkeninstitute.org/publications/view/833.

Market data on pp 6–8, 19, 30, 34, and 37–39 are from IMS MIDAS Health 2017.

Design and production: ADtomic Communications. **Printing:** Bording PRO as, February 2018. **Photography:** Martin Juul, Willi Hansen, Jesper Edvardsen, Jesper Westley Jørgensen, Andreas Houmann, Anders Bøggild, Ulrik Jantzen, Teresa Flanigan and Jens Lindhe.

FINANCIAL CALENDAR 2018

22 MARCH 2018
Annual General Meeting 2018

23 MARCH 2018
Ex-dividend

26 MARCH 2018
Record date

27 MARCH 2018
Payment, B shares

3 APRIL 2018
Payment, ADRs

2 MAY 2018
Financial Statements for the first three months of 2018

8 AUGUST 2018
Financial Statements for the first six months of 2018

17 AUGUST 2018
Ex-dividend

20 AUGUST 2018
Record date

21 AUGUST 2018
Payment, B shares

28 AUGUST 2018
Payment, ADRs

1 NOVEMBER 2018
Financial Statements for the first nine months of 2018

FINANCIAL CALENDAR 2019

1 February 2019
Financial statements for the full year 2018

FINANCIAL STATEMENTS OF THE PARENT COMPANY 2017

The following pages comprise the financial statements of the parent company, being the legal entity Novo Nordisk A/S. Apart from ownership of the subsidiaries in the Novo Nordisk Group, activity within the parent company mainly comprises sales, research and development, production, corporate activities and support functions.

INCOME STATEMENT

FOR THE YEAR ENDED 31 DECEMBER

DKK million	Note	2017	2016
Sales	2	76,887	68,671
Cost of goods sold	3	13,357	11,496
Gross profit		63,530	57,175
Sales and distribution costs	3	18,969	19,768
Research and development costs	3	12,785	11,974
Administrative costs	3	1,532	1,736
Other operating income, net		2,432	1,861
Operating profit		32,676	25,558
Profit in subsidiaries, net of tax	8	12,561	17,817
Financial income	4	1,678	192
Financial expenses	4	1,962	847
Profit before income taxes		44,953	42,720
Income taxes		7,080	4,929
Net profit for the year		**37,873**	37,791

BALANCE SHEET

AT 31 DECEMBER

DKK million	Note	2017	2016
ASSETS			
Intangible assets	6	2,446	1,775
Property, plant and equipment	7	23,414	20,825
Financial assets	8	28,614	22,166
Total fixed assets		**54,474**	44,766
Raw materials		1,846	1,809
Work in progress		8,222	7,284
Finished goods		2,096	2,090
Inventories		12,164	11,183
Trade receivables		1,677	1,648
Amounts owed by affiliated companies		10,653	13,112
Tax receivables		783	1,209
Other receivables		627	807
Receivables		13,740	16,776
Deferred income tax assets	5	—	268
Marketable securities		—	2,007
Derivative financial instruments		2,304	529
Cash at bank		17,511	17,560
Total current assets		**45,719**	48,323
Total assets		**100,193**	93,089
EQUITY AND LIABILITIES			
Share capital		500	510
Net revaluation reserve according to the equity method		14,585	8,948
Development costs reserve		1,072	962
Retained earnings		33,127	34,278
Total equity		**49,284**	44,698
Deferred income tax liabilities	5	856	—
Other provisions	9	863	800
Total provisions		**1,719**	800
Current debt		1,262	19
Derivative financial instruments		309	2,578
Trade payables		2,476	2,266
Amounts owed to affiliated companies		39,533	37,134
Tax payables		114	163
Other liabilities	9	5,496	5,431
Current liabilities		**49,190**	47,591
Total liabilities		**49,190**	47,591
Total equity and liabilities		**100,193**	93,089

EQUITY STATEMENT

DKK million	Share capital	Net revaluation reserve	Development costs reserve	Retained earnings	2017	2016
Balance at the beginning of the year	510	8,948	962	34,278	44,698	46,358
Appropriated from Net profit for the year				13,030	13,030	14,772
Total dividend for the year				19,206	19,206	19,048
Appropriated from Net profit for the year to Net revaluation reserve		5,637			5,637	3,971
Effect of cash flow hedges transferred to the Income statement				1,742	1,742	614
Fair value adjustments of cash flow hedges for the year				1,820	1,820	(1,742)
Interim dividends paid during the year				(7,396)	(7,396)	(7,600)
Dividends paid for previous year				(11,448)	(11,448)	(16,230)
Share-based payments (note 3)				115	115	163
Tax credit related to restricted stock units				14	14	102
Purchase of treasury shares				(16,845)	(16,845)	(15,057)
Reduction of the B share capital	(10)			10	—	—
Exchange rate adjustments of investments in subsidiaries				(632)	(632)	(7)
Development costs			110	(110)	—	—
Other adjustments				(657)	(657)	306
Balance at the end of the year	500	14,585	1,072	33,127	**49,284**	44,698
Proposed appropriation of net profit:						
Interim dividend for the year					7,396	7,600
Final dividend for the year					11,810	11,448
Appropriated to Net revaluation reserve					5,637	3,971
Transferred to Retained earnings					13,030	14,772
Distribution of net profit					**37,873**	37,791

Please refer to note 4.1 to the Consolidated financial statements regarding average number of shares, treasury shares and total number of A and B shares in Novo Nordisk A/S.

NOTES

1 ACCOUNTING POLICIES

The financial statements of the parent company have been prepared in accordance with the Danish Financial Statements Act (Class D) and other accounting regulations for companies listed on Nasdaq Copenhagen.

The accounting policies for the financial statements of the parent company are unchanged from the last financial year. The accounting policies are the same as for the Consolidated financial statements with the adjustments described below. For a description of the accounting policies of the Group, please refer to the Consolidated financial statements, pp 63-64.

No separate statement of cash flows has been prepared for the parent company; please refer to the Statement of cash flows for the Group on p 59.

SUPPLEMENTARY ACCOUNTING POLICIES FOR THE PARENT COMPANY

Financial assets

In the financial statements of the parent company, investments in subsidiaries are recorded under the equity method, using the respective share of the net asset values in subsidiaries. Net profit of subsidiaries less unrealised intra-Group profits is recorded in the Income statement of the parent company.

To the extent that net profit exceeds declared dividends from such companies, net revaluation of investments in subsidiaries is transferred to Net revaluation reserve under Equity according to the equity method. Profits in subsidiaries are disclosed as profit after tax.

Fair value adjustments of financial assets categorised as 'Available for sale' are recognised in the Income statement.

Tax

For Danish tax purposes, the parent company is assessed jointly with its Danish subsidiaries. The Danish jointly taxed companies are included in a Danish on-account tax payment scheme for Danish corporate income tax. All current taxes under the scheme are recorded in the individual companies. Novo Nordisk A/S and its Danish subsidiaries are included in the joint taxation of the parent company, Novo Holdings A/S.

Uncertain tax positions are presented individually as part of Tax receivables/ Tax payables.

Novo Nordisk recognises deferred income tax assets if it is probable that sufficient taxable income will be available in the future against which the temporary differences can be utilised.

2 SALES

DKK million	2017	2016
Sales by business segment		
Diabetes care and obesity	76,661	68,472
Biopharmaceuticals	226	199
Total sales	**76,887**	68,671
Sales by geographical segment		
North America Operations	42,332	34,768
Region Europe	13,911	13,197
Region AAMEO	8,542	7,936
Region China	7,308	7,234
Region Latin America	2,437	2,339
Region Japan & Korea	2,357	3,197
Total sales	**76,887**	68,671

Sales are attributed to geographical segment based on location of the customer. For definitions of segments, please refer to note 2.2 to the Consolidated financial statements.

3 EMPLOYEE COSTS

DKK million	2017	2016
Wages and salaries	10,550	11,032
Share-based payment costs	115	163
Pensions	993	996
Other social security contributions	230	230
Other employee costs	376	326
Total employee costs for the year	12,264	12,747
Employee costs capitalised as intangible assets and property, plant and equipment	(306)	(236)
Change in employee costs capitalised as inventories	(90)	(145)
Total employee costs in the Income statement	**11,868**	12,366

For information regarding remuneration to the Board of Directors and Executive Management, please refer to 'Remuneration' on pp 50-53 and note 2.4 to the Consolidated financial statements.

Average number of full-time employees in Novo Nordisk A/S	**16,267**	16,683

4 FINANCIAL INCOME AND FINANCIAL EXPENSES

DKK million	2017	2016
Interest income relating to subsidiaries	212	111
Income from associated company	54	64
Foreign exchange gain (net)	1,380	—
Other financial income	32	17
Total financial income	**1,678**	192
Interest expenses relating to subsidiaries	230	50
Foreign exchange loss (net)	—	324
Financial loss from forward contracts (net)	1,031	262
Other financial expenses	701	211
Total financial expenses	**1,962**	847

5 DEFERRED INCOME TAX ASSETS/ (LIABILITIES)

DKK million	2017	2016
Net deferred tax asset/(liability) at 1 January	268	1,653
Income/(charge) to the Income statement	(229)	(1,375)
Income/(charge) to Equity	(895)	(10)
Net deferred tax asset/(liability) at 31 December	**(856)**	268

The Danish corporate tax rate was 22.0% in 2017 (22.0% in 2016).

6 INTANGIBLE ASSETS

DKK million	2017	2016
Cost at the beginning of the year	3,777	3,363
Additions during the year	1,016	414
Disposals during the year	(28)	—
Cost at the end of the year	4,765	3,777
Amortisation at the beginning of the year	2,002	1,445
Amortisation during the year	150	141
Impairment losses for the year	195	416
Amortisation and impairment losses reversed on disposals during the year	(28)	—
Amortisation at the end of the year	2,319	2,002
Carrying amount at the end of the year	**2,446**	1,775

Intangible assets primarily relate to patents and licences, internally developed software and costs related to major IT projects.

7 PROPERTY, PLANT AND EQUIPMENT

DKK million	Land and buildings	Plant and machinery	Other equipment	Assets in course of construction	2017	2016
Cost at the beginning of the year	14,495	17,282	2,716	7,677	42,170	37,955
Additions during the year	531	145	112	3,643	4,431	4,784
Disposals during the year	(88)	(287)	(127)	—	(502)	(569)
Transfer from/(to) other items	1,318	770	307	(2,395)	—	—
Cost at the end of the year	16,256	17,910	3,008	8,925	46,099	42,170
Depreciation and impairment losses at the beginning of the year	6,136	13,419	1,790		21,345	20,158
Depreciation for the year	684	867	172		1,723	1,603
Impairment losses for the year	27	42	—		69	107
Depreciation reversed on disposals during the year	(62)	(266)	(124)		(452)	(523)
Depreciation and impairment losses at the end of the year	6,785	14,062	1,838	—	22,685	21,345
Carrying amount at the end of the year	9,471	3,848	1,170	8,925	**23,414**	20,825

8 FINANCIAL ASSETS

DKK million	Investments in subsidiaries	Amounts owed by affiliates	Investment in associated company	Other securities and investments	2017	2016
Cost at the beginning of the year	8,854	3,440	153	369	12,816	10,766
Investments during the year	79	3,105		318	3,502	2,717
Divestments during the year	—	(1,878)		(35)	(1,913)	(667)
Cost at the end of the year	8,933	4,667	153	652	14,405	12,816
Value adjustments at the beginning of the year	25,879	(16)	85	333	26,281	28,023
Profit/(loss) before tax	16,129				16,129	17,050
Share of result after tax in associated company			54		54	64
Income taxes on profit for the year	(3,554)				(3,554)	(4,936)
Market value adjustment				(590)	(590)	(77)
Dividends received	(6,514)		(39)		(6,553)	(13,613)
Divestments during the year	—			22	22	38
Effect of exchange rate adjustment	(1,195)	(222)		(3)	(1,420)	(16)
Other adjustments	222				222	(252)
Value adjustments at the end of the year	30,967	(238)	100	(238)	30,591	26,281
Unrealised internal profit at the beginning of the year	(16,931)				(16,931)	(22,732)
Change for the year – charged to Income statement	(14)				(14)	5,703
Effect of exchange rate adjustment	563				563	98
Unrealised internal profit at the end of the year	(16,382)	—	—	—	(16,382)	(16,931)
Carrying amount at the end of the year	23,518	4,429	253	414	**28,614**	22,166

Carrying amount of investments in subsidiaries does not include capitalised goodwill at the end of the year. For a list of companies in the Novo Nordisk Group, please refer to note 5.5 to the Consolidated financial statements.

9 OTHER PROVISIONS

DKK million	2017	2016
Non-current	863	800
Current	272	241
Total other provisions	**1,135**	1,041

Provisions for pending litigations are recognised as Other provisions. Furthermore, as part of normal business Novo Nordisk issues credit notes for expired goods. Consequently, a provision for future returns is made, based on historical product return statistics.

For information on pending litigations, please refer to note 3.6 to the Consolidated financial statements.

10 RELATED PARTY TRANSACTIONS

For information on transactions with related parties, please refer to note 5.3 to the Consolidated financial statements.

11 FEE TO STATUTORY AUDITORS

DKK million	2017	2016
Statutory audit	8	8
Audit-related services	2	3
Tax advisory services	3	3
Other services	3	1
Total fee to statutory auditors	**16**	15

12 COMMITMENTS AND CONTINGENCIES

DKK million	2017	2016
Commitments		
Operating leases	1,455	1,303
Research and development obligations	2,774	3,406
Research and development - potential milestone payments[1]	2,712	1,156
Purchase obligations relating to investments in property, plant and equipment	345	818
Other purchase obligations	6,281	4,485
Guarantees given for subsidiaries	9,269	10,661
Other guarantees	168	192
Operating leases expiring within the following periods from the balance sheet date		
Within one year	226	228
Between one and five years	708	709
After five years	521	366
Total operating leases	**1,455**	1,303
The operating lease costs for 2017 and 2016 were DKK 279 million and DKK 327 million respectively.		
Security for debt		
Land, buildings and equipment etc at carrying amount	—	64

1. Potential milestone payments are associated with uncertainty as they are linked to successful achievements in research activities.

Novo Nordisk A/S and its Danish subsidiaries are jointly taxed with the Danish companies in the Novo Holdings A/S. The joint taxation also covers withholding taxes in the form of dividend tax, royalty tax and interest tax. The Danish companies are jointly and individually liable for the joint taxation. Any subsequent adjustments to income taxes and withholding taxes may lead to a larger liability. The tax for the individual companies is allocated in full on the basis of the expected taxable income.

For information on pending litigation and other contingencies, please refer to notes 3.6 and 5.2 to the Consolidated financial statements.

Headquarters
Novo Nordisk A/S
Novo Allé
2880 Bagsværd
Denmark
Tel +45 4444 8888
CVR number 24 25 67 90
novonordisk.com

Investor Service
Enquiries and feedback concerning the Annual Report should be addressed to:
annualreport@novonordisk.com

Shareholders' enquiries concerning dividend payments and shareholder accounts should be addressed to:
shareholder@novonordisk.com

ADR holders' enquiries concerning dividend payments, transfer of ADR certificates, consolidation of accounts and tracking of ADRs should be addressed to:

JP Morgan Chase Bank, N.A.
PO Box 64504
St. Paul
Minnesota, MN, 55164-0504, US
Attention: Depositary Receipts Group
Tel +1 800 990 1135
Tel +1 651 453 2128
(From outside the United States)
jpmorgan.adr@wellsfargo.com

SILVER
PurePrint® by KLS
5041 0016 Printer
MIX
Paper from responsible sources
FSC® C022933

Shirley Adelia Stewart lives in New Orleans, Louisiana, US, and has type 2 diabetes