Novo Nordisk

Annual Report 2021

Morten Kruse-Jacobsen (to the right), Senior Director at Novo Nordisk and married to Anders. Being a sustainable employer is a key priority for Novo Nordisk. This includes fostering a diverse and inclusive workplace. From January 2022, Novo Nordisk will offer a minimum of eight weeks paid parental leave to all non-birthing parents globally, regardless of gender.

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Letter from the Chair

Building for the future

We have made good progress as a company in the past year – despite the pandemic which continues to impact the world and the initial challenges in meeting the unprecedented demand for our new obesity treatment. We continued to broaden our technology platforms and product pipeline to strengthen the basis for long-term growth whilst investing significantly in expanding our future production capacity.

Our long-standing aspiration of creating value for society and for our future business is more relevant than ever, given the mounting threats to people's lives and livelihoods posed by the health and environmental challenges dominating today's global agenda. The past two years have underscored the essential role of science in tackling these challenges, whether managing a rogue virus or reducing emissions.

Continued investment in innovation is vital for patients, the future of our company and for the wider benefits we can offer to society. It is therefore gratifying to see the strides that have been made in 2021 with the launch of new products – most notably Wegovy® for obesity. Production challenges meant that we struggled to meet the high patient demand for the treatment – a situation that served to underline the vital importance of investments made in our global production capacity during 2021.

The opportunity for the coming years is to execute on the commercial potential of our innovative, new treatments while ensuring that as many people as possible have access to quality medicines. At the same time, we must succeed in developing the medicines of the future. This means looking beyond our existing focus areas and our successful GLP-1 molecule semaglutide, towards other therapy areas and new technology platforms to address unmet medical needs related to serious chronic diseases.

To serve more patients with high quality medicines and to continue to grow sustainably, we will evolve and challenge ourselves in how we work and innovate. This also entails combining our company's deep in-house expertise with the best science from outside, through partnerships with other businesses, with universities around the world and with research institutions. If we succeed, Novo Nordisk will look very different a decade from now, by which time we will not only be serving people living with diabetes and obesity but also making a positive impact in new therapeutic areas.

Our stable ownership structure with the Novo Nordisk Foundation as the main shareholder will help in this transition by supporting us through investment in research and development for the long-term while maintaining a focus on high quality operations and financial performance.

We must also ensure that Novo Nordisk has a diverse and truly inclusive culture if we are to become a better and more innovative company. With this in mind, we have set new 2025 aspirational targets for achieving a balanced gender representation across managerial levels. We believe that this will also stimulate and inspire the work we are doing to enhance other diversity dimensions.

At Board level, we are also committed to ensuring strong diversity and having the right competences to meet future challenges. In 2021, the Board was delighted to welcome the election of Henrik Poulsen, whose deep experience in corporate transformations and strong ESG credentials will be invaluable. I would also like to thank Brian Daniels and Liz Hewitt, who stepped down from the Board in 2021, for their significant contributions to Novo Nordisk.

On behalf of the Board of Directors, I would like to offer my sincere thanks to all Novo Nordisk employees for their dedication and contribution to the good operational and strategic progress in 2021; to CEO Lars Fruergaard Jørgensen and his team for their leadership and to our shareholders and other stakeholders for continued support.

Helge Lund
Chair of the Board of Directors

Letter from the CEO

Strong progress and new learnings

During 2021 we exceeded expectations – growing our business, serving more patients than ever and expanding our pipeline for long-term success. But we also disappointed patients and prescribers alike due to supply challenges that we must learn from as we look to the future.

Our company's strong commercial performance against a backdrop of continued disruption caused by the pandemic would not have been possible without the resilience and collaborative spirit shown by colleagues across the organisation and our many partners.

This momentum was driven by our portfolio of GLP-1 based therapies where buoyant demand for our semaglutide-based medicines Ozempic® and Rybelsus® contributed to a total GLP-1 growth of 28% in 2021, thereby strengthening our global leadership in diabetes in the process.

Such was the demand in the US for another semaglutide product Wegovy®, that five weeks after launch, as many prescriptions were written for the anti-obesity medication as in the four years that followed the launch of its predecessor Saxenda®. This underscored the high unmet need among people living with obesity but also presented initial challenges for us in supply capacity – exacerbated when a key partner experienced issue with Good Manufacturing Practices (GMP) in December.

Whilst we continue to focus on providing treatment to already-initiated patients, we are taking steps within our global production to enable us to fully meet US demand in the second half of this year and to enable much-anticipated launches in broader markets.

Importantly, we continue to reach more patients in need around the world. Our Changing Diabetes® in Children partnership, for example, has provided free, holistic diabetes care to nearly 32,000 children and adolescents living with type 1 diabetes in low- and middle-income countries. Our diabetes products now reach 34.6 million people worldwide, with more than 5 million receiving them through our access and affordability programmes.

We are also doing more than ever to mitigate our impact on the environment, with a 43% reduction in CO_2 emissions compared to pre-pandemic, and an action plan to drive emissions down further in transportation, which is our largest residual source of CO_2. This includes converting our fleet of cars to electric vehicles, as well as working with a shipping partner to increasingly transport our products using biofuel.

We have bold ambitions to diversify our product pipeline into adjacent therapy areas such as NASH (non-alcoholic steatohepatitis) and cardiovascular disease, where we believe we can be among the best in the world. Our collaboration with Heartseed for stem cell-based heart failure therapy reflects these efforts and we expect to take a significant step forward by initiating the first human trials this year.

Our acquisition of Dicerna, which develops RNAi-based therapies to selectively silence genes that cause or contribute to disease, demonstrates our ambition to innovate within both established and new therapy areas for Novo Nordisk. Our commitment to achieving further breakthroughs within diabetes remains as strong as ever. Driving this innovation requires creativity – something I am convinced is fostered through inclusion. To enable this, we are making Novo Nordisk a more diverse and inclusive workplace in which both new and long-serving employees have the opportunity to achieve their full potential.

I would like to thank all my colleagues around the globe for their hard work and commitment during another demanding year, as well as the Board of Directors and our shareholders for their continued support.

Lars Fruergaard Jørgensen
President & Chief Executive Officer

Novo Nordisk at a glance

Novo Nordisk is a global healthcare company, headquartered in Denmark. 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.

140,800
DKK million in net sales

168
countries with marketed products

58,644
DKK million in operating profit

80
countries with affiliates

29,319
DKK million in free cash flow

5
countries with R&D facilities

48,478
employees worldwide

Our corporate strategy

Our corporate strategy has four distinct focus areas in which we operate. It is built on our purpose, the Novo Nordisk Way and our ambition to be a sustainable business. We aim to strengthen our leadership and treatment options in Diabetes and Obesity care, secure leading positions within Biopharm and establish a strong presence in other serious chronic diseases such as NASH, cardiovascular disease and Alzheimer's disease. Succeeding in this will drive sustainable growth for Novo Nordisk.

Diabetes care

Strengthen leadership by offering innovative medicines and driving patient outcomes

Obesity care

Strengthen treatment options through market development and by offering innovative medicines and driving patient outcomes

Novo Nordisk Way

Driving change to defeat diabetes and other serious chronic diseases

Sustainable business

Biopharm

Secure a leading position by leveraging full portfolio and expanding into adjacent areas

Other serious chronic diseases

Establish presence by building competitive pipeline and scientific leadership

Resources

Our business model

How we create value for society

Value

* Number of unique HCPs educated by independent medical education activities supported through educational grants

2021 Highlights

Strategic Aspirations **2025**

Purpose and sustainability (ESG)

Adding value to society:
- Medical treatment provided to 34.6 million people living with diabetes in 2021
- 46 new vulnerability assessments conducted enabling access to insulin to around 82,000 people living with diabetes
- Reaching 18 countries and around 32,000 children in Changing Diabetes® in Children

Progress towards zero environmental impact:
- 43% reduction in CO_2 emissions compared to 2019

Evolve culture and ensure distinct core capabilities:
- Launch of an aspirational gender diversity target

- Being respected for adding value to society
- Progress towards zero environmental impact
- Ensure distinct core capabilities and evolve culture

Innovation and therapeutic focus

Further raise innovation bar for diabetes treatment:
- Approval of Xulthophy® and Ozempic® in China for the treatment of type 2 diabetes
- Resubmission of semaglutide 2.0 mg in the US and approval in the EU in January 2022
- Phase 1 trial completed with a glucose-sensitive insulin

Develop superior treatment solutions for obesity:
- Approval of Wegovy®, semaglutide 2.4 mg, in the US and approval in the EU in January 2022
- Phase 3a development initiated with 50 mg oral semaglutide in obesity

Strengthen and progress Biopharm pipeline:
- Sogroya® phase 3 programme in children with growth hormone deficiency successfully completed
- First Mim8 phase 1/2 trial cohorts successfully completed

Establish presence in other serious chronic diseases:
- Phase 3a development initiated with ziltivekimab in cardiovascular disease and semaglutide in NASH and Alzheimer's disease

Acquisition of Dicerna Pharmaceuticals and its RNAi platform to be applied across therapy areas

- Further raise the innovation bar for diabetes treatment
- Develop a leading portfolio of superior treatment solutions for obesity
- Strengthen and progress the Biopharm pipeline
- Establish presence in other serious chronic diseases focusing on cardiovascular disease (CVD), NASH and chronic kidney disease (CKD)

Commercial execution

Strengthen diabetes leadership to more than one-third:
- Diabetes value market share increased by 0.8 percentage point to 30.1% (MAT)

Strengthen obesity leadership and double sales:
- Obesity care sales increased by 55% (CER) to DKK 8.4 billion

Secure a sustained growth outlook for Biopharm:
- Biopharm sales increased by 4% (CER) to DKK 19.2 billion

- Strengthen diabetes leadership – aim at global value market share of more than 1/3
- Strengthen obesity leadership and double 2019 reported sales
- Secure a sustained growth outlook for Biopharm

Financials

Deliver solid sales and operating profit growth:
- Sales growth at 14% (CER)
- International Operations sales growth of 14% (CER)
- US sales growth of 13% (CER) with 60% of sales coming from products launched since 2015
- Operating profit growth of 13% (CER)

Drive operational efficiencies:
- Continued productivity gains in Product Supply

Enable attractive capital allocation to shareholders:
- Free cash flow of DKK 29.3 billion
- Share buyback of DKK 20 billion
- Total dividend of DKK 10.40 per share and payout ratio of 49.6%

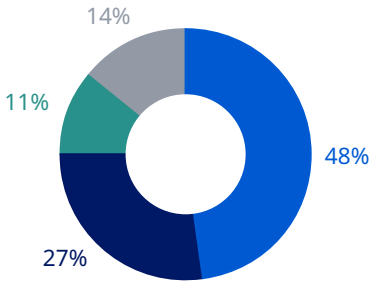
- Deliver solid sales and operating profit growth:
  - Deliver 6–10% sales growth in IO
  - Transform 70% of sales in the US (from 2015 to 2022)
- Drive operational efficiencies across the value chain to enable investments in future growth assets
- Deliver free cash flow to enable attractive capital allocation to shareholders

Performance highlights

Financial highlights

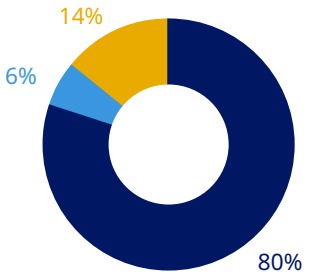
Sales by geographic area

North America | EMEA | Region China | Rest of World



Sales by therapeutic area

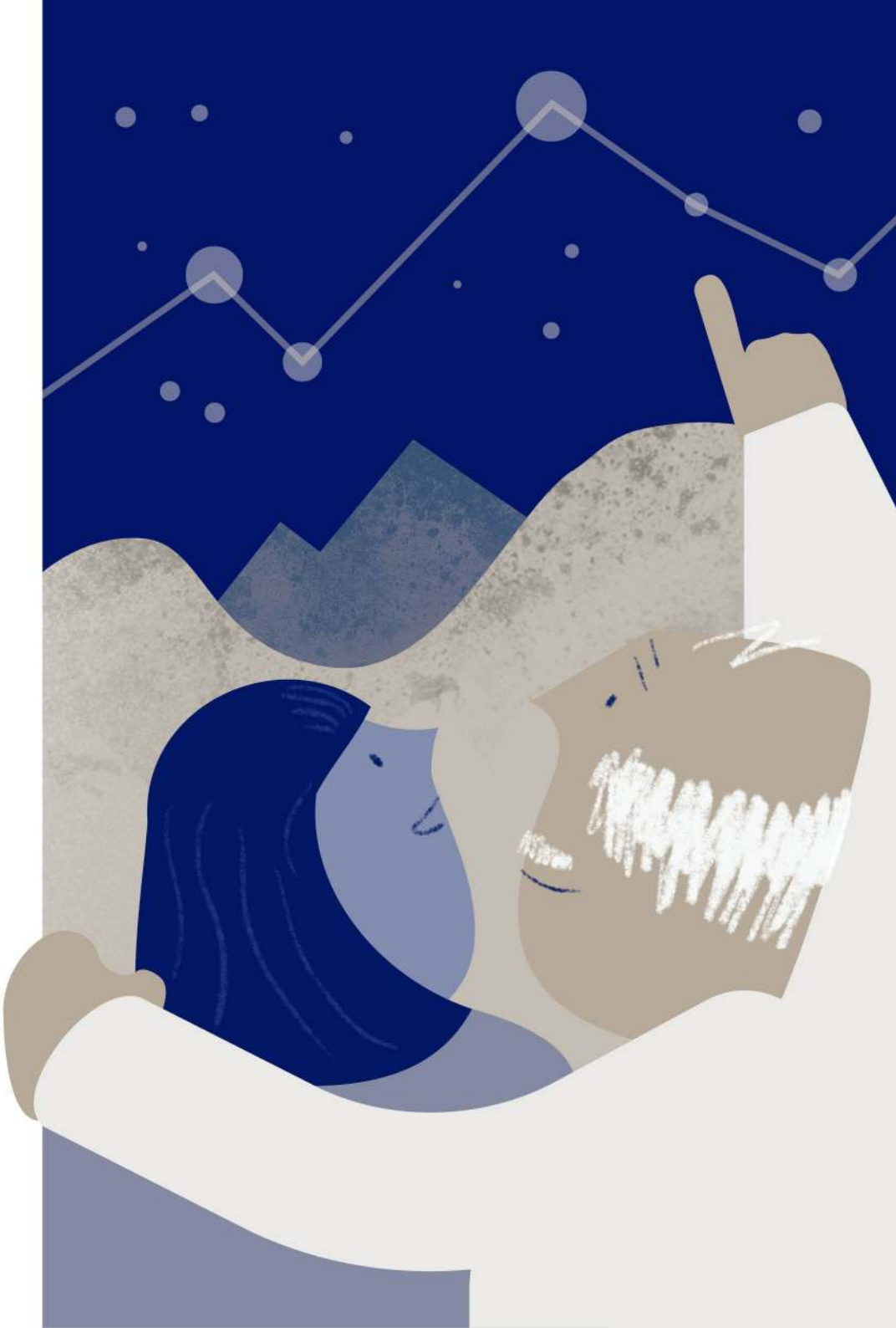
Diabetes care | Obesity care | Biopharm



DKK million	2017	2018	2019	2020	**2021**	2020-21
Financial performance						**Change**
Net sales	111,696	111,831	122,021	126,946	140,800	11%
Sales growth as reported	(0.1%)	0.1%	9.1%	4.0%	10.9%	
Sales growth in constant exchange rates (CER)[1]	2.3%	4.6%	5.6%	6.7%	13.8%	
Operating profit	48,967	47,248	52,483	54,126	58,644	8%
Operating profit growth as reported	1.1%	(3.5%)	11.1%	3.1%	8.3%	
Operating profit growth in constant exchange rates (CER)[1]	4.8%	2.8%	5.6%	6.8%	12.7%	
Depreciation, amortisation and impairment losses	3,182	3,925	5,661	5,753	6,025	
Net financials	(287)	367	(3,930)	(996)	436	
Profit before income taxes	48,680	47,615	48,553	53,130	59,080	11%
Effective tax rate[2]	21.7%	18.9%	19.8%	20.7%	19.2%	
Net profit	38,130	38,628	38,951	42,138	47,757	13%
Purchase of intangible assets[2]	1,022	2,774	2,299	16,256	1,050	(94%)
Purchase of property, plant and equipment[2]	7,626	9,636	8,932	5,825	6,335	9%
Cash used for acquisition of businesses	—	—	—	—	18,283	
Free cash flow[1]	32,588	32,536	34,451	28,565	29,319	3%
Total assets	102,355	110,769	125,612	144,922	194,508	34%
Equity	49,815	51,839	57,593	63,325	70,746	12%
Financial ratios						
Gross margin[2]	84.2%	84.2%	83.5%	83.5%	83.2%	
Sales and distribution costs in percentage of sales	25.4%	26.3%	26.1%	25.9%	26.3%	
Research and development costs in percentage of sales	12.5%	13.2%	11.7%	12.2%	12.6%	
Operating margin[2]	43.8%	42.2%	43.0%	42.6%	41.7%	
Net profit margin[2]	34.1%	34.5%	31.9%	33.2%	33.9%	
Cash to earnings[1]	85.5%	84.2%	88.4%	67.8%	61.4%	
Operating profit after tax to net operating assets[1]	143,2%	116,7%	98.0%	82.8%	69.0%	
Dividend payout ratio[2]	50.4%	50.6%	50.5%	50.0%	49.6%	
Share performance						
Basic earnings per share/ADR in DKK[2]	15.42	15.96	16.41	18.05	20.79	15%
Diluted earnings per share/ADR in DKK[2]	15.39	15.93	16.38	18.01	20.74	15%
Total number of shares (million), 31 December	2,500	2,450	2,400	2,350	2,310	(2%)
Dividend per share in DKK	7.85	8.15	8.35	9.10	10.40[3]	14%
Total dividend (DKK million)	19,206	19,547	19,651	21,066	23,711[3]	13%
Share repurchases (DKK million)	16,845	15,567	15,334	16,855	19,447	15%
Closing share price (DKK)	335	298	387	427	735	72%

1. See 'Non-IFRS financial measures' 2. See 'Financial definitions'. 3. Total dividend for the year including interim dividend of DKK 3.50 per share, corresponding to DKK 8,021 million, which was paid in August 2021. The remaining DKK 6.90 per share, corresponding to DKK 15,690 million, will be paid subject to approval at the Annual General Meeting.

Strategic Aspirations



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Purpose and sustainability (ESG)

Driving a Sustainable Business

43%

decrease in our overall CO_2 emissions compared to pre-COVID levels in 2019

31,846

children reached through our Changing Diabetes® in Children programme in 2021. This corresponds to an increase of 13% compared to 2020

Expectations of what it means to be a sustainable business are evolving rapidly. The COVID-19 pandemic, access to care and the climate crisis have accelerated demands for the private sector to demonstrate how it adds value to society and mitigates long-term risks. Given Novo Nordisk's central position in the healthcare ecosystem, our company is at the forefront of these challenges – and we are stepping up our commitments to patients and society as we further integrate sustainability into everything we do.

Our key ESG topics

In 2021, we completed a thorough process aimed at addressing materiality and prioritising our key Environmental, Social and Governance (ESG) topics. We identified key ESG topics across two dimensions: (1) how our activities impact society and planet and (2) how society and planet impact our activities. Those ESG topics that are of highest impact and materiality are covered in this integrated annual report. All applicable remaining ESG topics are covered via our reporting on relevant ESG standards and frameworks (please refer to the Sustainability Standards section on pages 22 and 23).

The "Key ESG priorities" overview is meant to inform our ESG reporting in the future and will be refreshed regularly. Overall, we aim to progress towards zero environmental impact, be respected for adding value to society and ensure distinct core capabilities, evolve culture as well as maintain and build trust across the E, S and G dimensions.

Novo Nordisk **Society & planet**

Topics

Key ESG priorities

Environmental
- CO_2 emissions
- Energy consumption
- Environmental management
- Plastic
- Waste & circularity
- Water

Social
- Access & affordability
- Diversity & inclusion
- Employees
- Human rights
- Innovation
- Prevention of serious chronic diseases
- Sustainable tax

Governance
- Bioethics
- Business ethics
- Corporate governance
- Culture & values
- Product safety
- Remuneration
- Risk management
- Suppliers

Our environmental responsibility: progressing towards zero environmental impact

The sixth assessment report from the Intergovernmental Panel on Climate Change from August 2021 delivered the starkest warning yet about the impact of climate change on lives and livelihoods.

The message is clear: climate change is resulting in poorer health outcomes and increasing mortality and constitutes a driver for health inequities globally. It adversely affects people who are already living with chronic diseases in particular. Health systems worldwide are increasingly acting on the urgent need to reduce their emissions and are working to become more resilient to climate change. All with a view to better adapt to future climate scenarios and protect populations from their impacts. In the fall of 2021, the COP26 Health Programme was launched to spearhead this transformation at a global level – and we look forward to contributing our part.

It is clear that fast-growing and successful companies like Novo Nordisk have an obligation and a vital role to play in addressing the climate crisis and in helping to reverse the accumulation of greenhouse gas emissions responsible for today's warming world and an even warmer future. In 2021, we made a clear and ambitious pledge to reach net-zero emissions across our entire value chain by 2045.

Our environmental performance in 2021 showed good progress compared to our 2019 baseline year by minimising the impact despite increasing production globally. We have made particular progress in the reduction of CO_2 emissions and the use of water in water scarce areas.

Ambitious emission targets

We are assessing, preparing for and mitigating the risks from climate change and have set ambitious emission reduction targets with an emissions trajectory in line with the 1.5 degree pathway in the Paris Agreement. Action is required now, which is why we have defined several ambitious climate and environmental targets in the near to medium-term future, leading to 2030.

In 2021, Novo Nordisk's CO_2 emissions from in-house operations and transport decreased by 43% compared to the 2019 level, bringing total emissions down to 174,000 tonnes of CO_2. This reduction was driven by our renewable energy projects and the impact of COVID-19 on travelling. 2019 is used as the baseline for CO_2 emissions as 2020 was impacted by the pandemic.

Total CO_2 emissions from operations and transportation

Operations

We are building on our landmark 2020 achievement of using 100% renewable power across our global production network. The next step is to transform our business processes to eliminate the negative environmental footprint from all our operations. We plan to have zero net emissions of CO_2 from our own production facilities, global office buildings and laboratories by 2030, and are striving to reduce our emissions year-on-year.

Transportation

Transportation is an important element in the environmental equation. We have made good progress towards achieving our target of transitioning to 100% electric company cars by 2030, with 50% of vehicles in our home market of Denmark now using electrical or plug-in technology. Entering into an agreement with Maersk to transport our products with CO_2 neutral ships was another important milestone. We are also minimising emissions from business air travel by using digital platforms for virtual collaboration wherever possible.

Supply Chain

We are now stepping up our work with supply chain partners to ensure they also use renewable power when producing for Novo Nordisk. Currently, direct suppliers representing 41% of supply chain CO_2 emissions have committed to using renewable power. 18% of these emissions have already been reduced due to an early shift to renewable power, cutting our supply chain emissions by approximately 50,000 tonnes. We expect all our direct suppliers to source 100% renewable power by 2030. Successful conversion to renewable power among all our suppliers would result in a further 300,000 tonnes of CO_2 being eliminated every year.

As part of our drive to encourage greater environmental responsibility among all the partners we do business with,

50% of vehicles in our home market of Denmark now using electrical or plug-in technology

we made a significant commitment in 2021 to reach net-zero emissions across our entire value chain by 2045. Achieving this reduction calls for an ambitious plan to tackle Scope 3 CO_2 emissions, e.g., purchased goods and services, capital goods and employee commuting, among others. With more than 60,000 suppliers in our value chain, engaging with them all to progress towards net-zero emissions is a major undertaking. Our role in sharing lessons learnt with peers on

the use of renewable power was recognised during Climate Week New York City in September 2021, when Novo Nordisk was awarded the RE100 Key Collaborator Award for its work in accelerating the global transition to 100% renewable energy.

Stepping up to the plastic challenge

Cutting CO_2 emissions is only a part of our ambitious goal of creating a business with zero environmental impact. We also recognise the need to minimise the use of fossil-based plastic, which is one of our major challenges, as we produce more than 600 million pre-filled pens every year, which are an essential daily companion for people living with diabetes. We must find good solutions to minimise the use of fossil-based plastic by innovating new products, shifting to more sustainable material and establishing recycling opportunities for our pre-filled pens globally.

We use more than 12,000 tonnes of plastic every year in the production of our devices. As medical waste, they are difficult to recycle. However, a pioneering take-back initiative piloted over the past year in Denmark shows that it is possible to reclaim and reuse the plastic that makes up three-quarters of these devices. Material from scrapped insulin pens has already been successfully used for the manufacture of lamps and office furniture. Over the next three years, we also aim to roll out pen recycling pilots in other markets, starting with the UK, France and Brazil.

Further out, we are investigating the potential to develop non fossil fuel-derived plastics by harnessing waste carbon and hydrogen from energy supply processes, including through the use of carbon capture.

Please refer to the Sustainability Standards section on pages 22 and 23 for more information on our reporting in the environmental dimension.

What are Scope 1, 2 & 3 emissions?

A company's greenhouse gas emissions can be classified into three scopes. These scopes are defined with reference to how directly a company influences the emissions – with Scope 3 being the hardest to monitor and address. Novo Nordisk's reporting of Scope 3 emissions is currently limited to product distribution and business flights. This means that the data shown below do not include a significant proportion of the Scope 3 emissions from our value chain.

Scope 1

Direct emissions from company-owned and controlled resources (including emissions from production processes and transport)

77,000 tonnes of CO_2

Scope 2

Indirect emissions from the generation of energy purchased from a utility provider (including electricity, steam, heat and cooling)

16,000 tonnes of CO_2

Scope 3

All indirect emissions – not included in Scope 2 – that occur in the value chain of the reporting company (including both upstream and downstream emissions)

Novo Nordisk's reporting of Scope 3 emissions is currently limited to product distribution and business flights

81,000 tonnes of CO_2

Total CO_2 emissions from operations and transportation 174,000 tonnes

Our social responsibility: being respected for adding value to society

We are driven by our purpose to defeat diabetes and other serious chronic diseases including obesity, haemophilia and growth hormone disorders. While innovation is our core contribution to this fight, we know that complex inequalities in healthcare remain the biggest barrier. By playing an active role in improving access to innovative and affordable solutions for people with chronic conditions across the globe, our aim is to deliver real change in the communities we serve.

Rebecca Commanda has type 2 diabetes and lives in Canada

With approximately 537 million adults in the world living with diabetes – a figure that is projected to rise to 783 million by 2045 if no action is taken – our Defeat Diabetes strategy is a cornerstone of our social responsibility work. We are striving to bend the curve of diabetes through product innovations that will improve lives, while at the same time working with partners to prevent the rise of new cases of both type 2 diabetes and obesity, as well as ensuring that vulnerable patients in every country can access and afford the care they need. With a growing health challenge of this magnitude, we know that we are nowhere close to defeating diabetes, but we are committed to doing nothing short of that and fortunately, we are not alone in this fight.

Improving access to life-changing care in low- and middle-income countries

Given our dedication to improve the lives of people with diabetes and other serious chronic diseases, including obesity, haemophilia and growth hormone disorders, we strive not only to identify new innovative treatments but also to support a strong healthcare system that ensures patient access and affordability for the medications they need.

We recognise that access to affordable medicines is a challenge for many people, and not only in low-income countries. This is why we are expanding our initiatives and partnerships to reach more underserved people with affordable care worldwide. Each initiative is tailored to the local context, unmet needs and health system challenges. Our access and affordability efforts now reach more than 5 million patients out of the 34.6 million who use our diabetes care products around the world.

Ensuring not only that access to care for patients is achieved but that it is done in a sustainable manner is the most important consideration in our initiatives. This is why we always aim to include local health authorities, partners and civil society in all implementation activities. Shared ownership and involvement are critical to value creation for the end users and the health system, as well as for the sustainability of the solution.

5+ million

patients reached via our access and affordability efforts, corresponding to approximately

14%

of all our diabetes patients

The Changing Diabetes® in Children partnership is one example of this work. The programme has to date provided free care to nearly 32,000 children and youth living with type 1 diabetes in low- and middle-income countries, putting it almost one-third along the way towards achieving our aspiration of reaching 100,000 children in low-resource settings by 2030. The partnership is present in 18 countries, following the addition of Ghana, Indonesia, Pakistan and Peru in 2021. Five more countries (Mozambique, Rwanda, Malawi, Jordan and Lebanon) are launching in early 2022 as part of an expanded partnership project with the World Diabetes Foundation.

For the many other vulnerable people who are living with both type 1 and type 2 diabetes and who are struggling to access the care they need, we are leveraging our global organisation and using our presence on the ground to develop and implement country-based solutions. An example of this is the iCARE to Defeat Diabetes strategy launched in our Sub-Saharan business unit.

The strategy adopts an ambitious and holistic approach to addressing barriers to access to care, and it engrains the objective of reaching more people with diabetes into the organisational incentives of the business unit. Globally, vulnerability assessments were made in a total of 67 countries in 2021, up from 21 assessments in 2020. Based on these assessments, affordability plans are being implemented and around 82,000 people with diabetes have obtained access to diabetes care across Ethiopia, Ghana, Ivory Coast, Kenya, Nigeria, Syria, Peru and Panama.

As the world's leading supplier of insulin, we reaffirm our Access to Insulin Commitment ensuring affordable insulin for vulnerable patients. Under this commitment, we offer human insulin vials at a ceiling price of USD 3 to 76 countries, as well as to selected humanitarian organisations and UN agencies providing humanitarian relief. Long-term agreements are currently in place with 10 organisations. An estimated 1.7 million patients accessed care under this commitment in 2021, and an additional estimated 2.2 million patients were reached at or below the ceiling price in countries outside the commitment.

Improving access and affordability in the United States

Affording healthcare is not only a challenge in low- and middle-income countries. In the United States, some people are also finding it increasingly hard to pay for treatments, including insulin. Ensuring access and affordability is a responsibility we share with all stakeholders in the United States' healthcare system. We are committed to doing our part, focusing on three main tenets.

The first tenet is finding ways to lower the out-of-pocket cost to patients with high-deductible health plans or those with no insurance. The issues driving patient affordability challenges are complex, and there is no single solution. In 2021, we provided 30 billion USD in sales discounts and rebates, amounting to 75% of US gross sales (74% in 2020), which primarily helped to secure broad formulary access for most patients with reasonable copays. In addition, we have continued to provide a full suite of affordability offerings through which we helped more than one million patients with diabetes in the US afford Novo Nordisk insulin in 2021. These affordability options include:

My$99Insulin: 30-day supply of a combination of Novo Nordisk insulin products (up to three vials or two packs of pens) for 99 USD for eligible patients.

NNPI Unbranded Biologics: Unbranded versions of fast-acting (NovoLog®) and premix insulin (NovoLog® Mix), available from Novo Nordisk Pharma, Inc. (NNPI), at a 50% list price discount versus branded versions.

Human insulin: Available for about 25 USD per vial at national pharmacies, including Walmart and CVS. Nearly 500,000 Americans are obtaining Novo Nordisk human insulin through these retailers.

Patient Assistance Program: Offers free diabetes medication to people in need who meet certain eligibility criteria, including annual household income at or below 400% of government-defined poverty level. Over 50,000 Americans received free insulin annually from this program in 2021. This was expanded during the pandemic to offer 90-day free insulin to those impacted by COVID-19 job loss.

Immediate Supply Program: A free, one-time, immediate supply of Novo Nordisk insulin (up to 3 vials or 2 packs of pens) to eligible patients who may be at risk of rationing.

Copay Savings Cards: Defray high out-of-pocket costs for commercially insured patients. In 2021, Novo Nordisk provided ~$100 million in copay assistance for insulin to patients.

Reaching people where they are is vital, so we invested in broad communications to ensure awareness. We also made enhancements to create a positive user experience and make NovoCare.com, our one-stop patient access and affordability support resource, easy to use. NovoCare® helps support one patient every ten seconds.

The second tenet is working with all stakeholders to simplify and transform the healthcare system, while we work towards longer-term reform. We support policies that make insurance work better for patients. These include first-dollar coverage for chronic medications and changes to Part D, such as capping annual out-of-pocket costs, smoothing cost-sharing over the benefit year and passing manufacturer discounts on to patients.

The third tenet is limiting any potential future list price increases to no more than single-digit percentages annually.

US Product Portfolio[1] %, Change vs. Prior Year

	2017	2018	2019	2020	**2021**
List Price Change - Avg.[2]	6.9%	5.0%	5.5%	2.3%	2.0%
Net Price Change - Avg.[2]	-9.0%	-8.6%	-13.2%	-16.9%	-12.3%

Total US Insulin Portfolio %, Change vs. Prior Year

	2017	2018	2019	2020	**2021**
List Price Change - Avg.[2]	6.3%	4.5%	4.4%	0.2%	0.0%
Net Price Change - Avg.[2]	-13.5%	-14.8%	-17.4%	-27.7%	-10.2%

1. NN US Product Portfolio is inclusive of Diabetes, Obesity and BioPharm products
2. % change represents a sales weighted average list and net price for the respective calendar year compared to the sales weighted average list and net price for the prior year and is not reflective of the magnitude of individual list price actions

Alejandro Treviño is living with obesity in Mexico

Improving access in resource-poor settings

Further to the description of our US specific initiatives above, improved access can also be driven by better science. We are leveraging our expertise in research to bring life-saving products to more people in resource-poor settings. This includes ongoing work to deliver insulins with extended storage time outside of refrigeration in order to improve access and benefit patients and healthcare professionals living and working in humanitarian settings or countries with challenging weather conditions and limited access to refrigeration. As a first step, in 2021 we filed for EMA assessment of label updates on two of our human insulins to potentially enable them to be kept outside of refrigeration for up to four weeks before use.

Strengthening our prevention efforts

Prevention is the other vital pillar in our strategy to defeat diabetes. Diabetes and obesity prevalence continue to grow on all continents and the burden on individuals, families, workplaces and society is large and growing. Ensuring access to our medicines will help reduce the burden for people with chronic disease but we must also work to prevent these diseases from developing in the first place. Our aim is to find, pilot and scale effective interventions to prevent both diabetes and obesity. These efforts, which explore innovations in place-based interventions, digital solutions and new ways of collaborating with financial services sector participants in support of common objectives, are evidence-based and partnership-driven for the greatest possible impact.

Our work in collaboration with UNICEF to prevent childhood overweight and obesity is one example of this. However, we also continue to expand our successful public-private partnership, Cities Changing Diabetes, which is designed to address diabetes and obesity prevention amongst vulnerable populations in urban settings. In 2021, Cities Changing Diabetes reached more places than ever before, with 41 cities now participating in the initiative, up from 36 in 2020. These cities are home to more than 220 million people. In Cities Changing Diabetes, some of the activities that cities engage in include health promotion, COVID-19 response, working with community organisations to reach isolated and vulnerable populations, improving bicycling and walking infrastructure and addressing challenges in access to healthy food.

A diverse and inclusive workplace

As a global employer, we are of the view that offering an inclusive and diverse working environment is an integrated part of being a sustainable business. We fundamentally believe that diversity of people and inclusive leadership drive value for Novo Nordisk by increasing innovation, enabling a diverse line of thought and providing all employees with equitable opportunities to realise their potential.

Launching aspirational targets

At Novo Nordisk, we believe that diversity is any dimension that differentiates people and enables a diverse line of thought - for example background, education, experience, ethnicity, race or age, nationality, disability status or sexual orientation. Whilst legal constraints mean we currently do not have consistent global measures on all the aspects of diversity, gender diversity is a space in which we have identified a need to set an aspirational target to ensure accountability among leaders and accelerate progress. As of 2021, women fill 43% of all leadership positions and 36% of senior leadership positions[1] at Novo Nordisk. While several initiatives have been launched to progress gender diversity in senior leadership positions, we are not yet satisfied with the current state.

1. Defined as vice presidents, corporate vice presidents, senior vice presidents and executive management

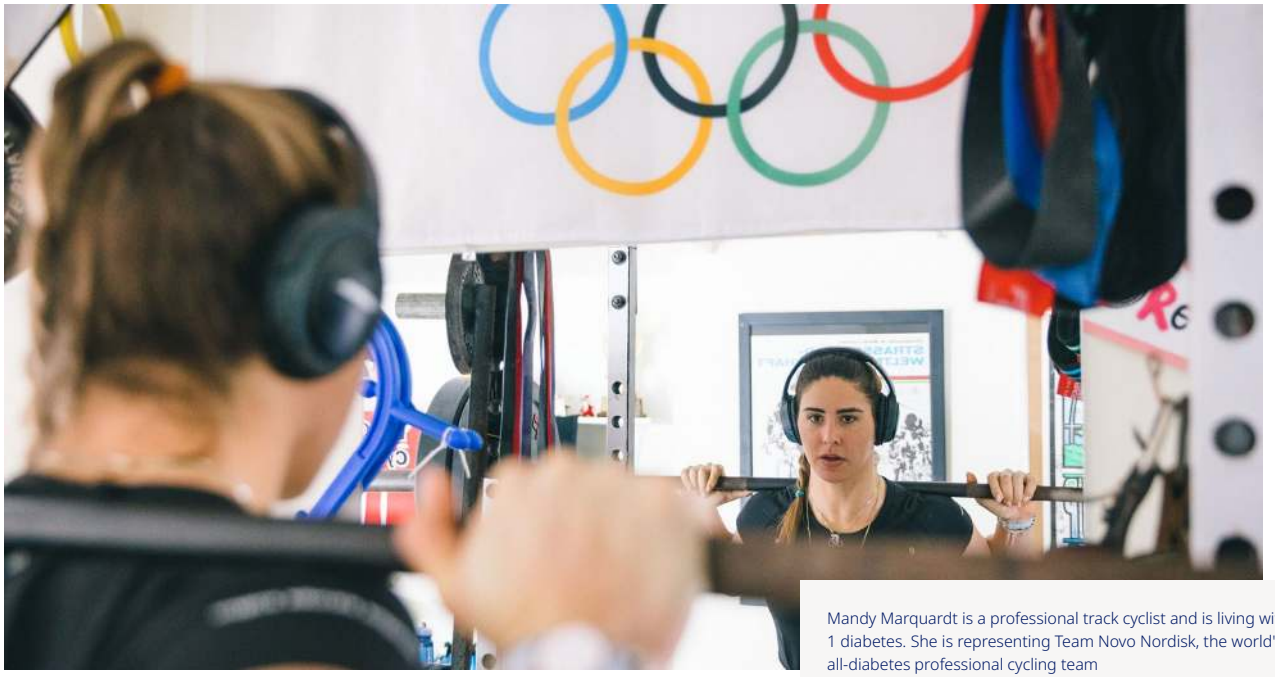
Our aspirational target was announced alongside two others in 2021:

- Create an inclusive culture where all employees have a sense of belonging and equitable opportunities to realise their potential
- Achieve a balanced gender representation across all managerial levels
- Achieve a minimum of 45% women and a minimum of 45% men in senior leadership positions by the end of 2025

We define balance as the range between 45%-55% to leave up to 10% flexibility for women and men while also allowing for non-binary gender, recognising that some employees may not wish to be categorised.

Women in leadership

	2017	2018	2019	2020	**2021**
EVP/SVP	14%	13%	18%	24%	28%
CVP	28%	31%	33%	37%	39%
VP	33%	35%	35%	36%	36%
Senior leadership	31%	32%	33%	35%	**36%**
Director	42%	41%	43%	41%	44%
Manager	40%	40%	40%	42%	43%
All leaders	40%	40%	40%	41%	**43%**



Mandy Marquardt is a professional track cyclist and is living with type 1 diabetes. She is representing Team Novo Nordisk, the world's first all-diabetes professional cycling team

Driving progress in diversity and inclusion

To create an inclusive workplace, we continuously review our processes and policies. In 2021, we announced a new global parental leave policy. From January 2022, we will offer a minimum of eight weeks paid leave within the first year of becoming a parent to all non-birthing parents globally, regardless of gender. Our ambition is that recognition of the non-birthing parents' right to leave will result in greater inclusion and equality for parents - both at work and at home.

In addition, we conduct yearly equal pay reviews and take mitigating actions in case of any identified pay gaps. Out of the 34,000 positions[2] covered in the pay review in 2021, we identified 1% with an equal pay gap[3] and have taken corrective action. Of the positions where an equal pay gap was identified, 152 are occupied by female employees and 131 are occupied by male employees, indicating that there is no structural gender bias in the way we pay.

Finally, in 2021 we introduced our global "Inclusion Index" as part of our annual employee engagement survey. The index is a numerical indicator of how our employees rate the state of inclusion at Novo Nordisk. In 2021, 78% of employees rated the statements about inclusion favourably. The score is below average when benchmarked against other highly engaged organisations. As a result, we have encouraged all leaders to engage their employees in dialogue around how to improve local inclusion and to identify concrete actions.

2. Excluding some populations and locations due to local regulations such as in the US where a local process is in place
3. "Equal Pay gap" is defined as the employee's pay being significantly above or below the expected pay given the employee's job level, tenure, job family and other parameters

Diversity and inclusion challenges and opportunities vary depending on the local context and the societies that we serve. To ensure we consider the local context, drive impact at all levels and hold our leaders accountable for driving progress, all our senior leaders across the company have been asked to define local diversity and inclusion aspirations and associated action plans.

We expect all our leaders to embrace their role as inclusive leaders by being committed to building diverse teams of complementary strengths, valuing diverse perspectives and creating a psychologically safe space in which all employees feel free to speak up.

Progress of diversity and inclusion has been anchored in both short-term and long-term incentive programmes and we follow up and track progress on a regular basis.

Please refer to note 8.5 on Gender diversity on page 89 for further information. Please refer to the Corporate Governance Report available at novonordisk.com for further information on D&I targets regarding the Board of Directors.

Sustainable tax approach

Our overall guiding principle within taxation is to have a 'sustainable tax approach', emphasising our business anchored approach to managing the impact of taxes while remaining true to the Novo Nordisk values of operating our business in a responsible and transparent manner. This means that we pay tax where value is generated and always respect international and domestic tax rules.

As a global business, we conduct cross-border trading, which is subject to transfer pricing regulations. We apply a 'Principal structure' in line with OECD principles, meaning all legal entities perform their functions under contract on behalf of the principals and are allocated an activity-based profit according to a benchmarked profit margin. The tax outcome of this operational model is reflected in the overview above, which shows our corporate income taxes by region. To ensure alignment between taxing authorities about the allocation of profit between our entities, we have Advance Pricing Agreements in place for geographies representing around 65% of our revenue worldwide.

Our tax policy has been approved by the Board of Directors. Read more about this topic at novonordisk.com.

In addition to corporate income taxes, we also pay other taxes. Please refer to note 8.6 on Total tax contribution on page 90 for further information.

Corporate income taxes by region – three year average

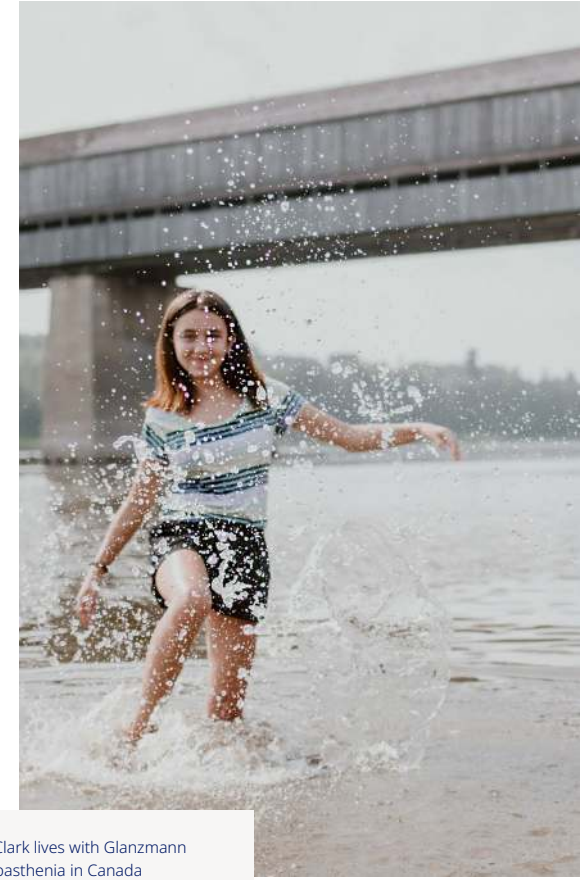
◔ Share of category

Region	Intellectual property rights[1]	Production[2]	Sales[3]	2021 Corporate income taxes (DKK billion)
International Operations	●	◕	◑	9.3
– Denmark	◕	◑	◔	8.0
– EMEA (excluding Denmark)	◔	◔	◔	0.6
– China	○	◔	◔	0.4
– Rest of World	○	◔	◔	0.3
North America Operations	○	◔	◑	1.3
– Of which the US	○	◔	◑	1.2
Total				10.6

1. Intellectual property rights based on sales from where intellectual property rights are located
2. Production based on production employees in the region
3. Sales based on the location of the customer

Human rights' risk management

We are committed to respecting human rights as per the UN Guiding Principles on Business and Human Rights (please refer to the Governance section on page 20 and novonordisk.com). We continue to integrate human rights risks into our risk management process, across our operations and business relationships.



Sierra Clark lives with Glanzmann Thrombasthenia in Canada

Our governance responsibility: maintaining and building trust

At Novo Nordisk, we categorise governance into three dimensions. The first dimension is Corporate Governance and covers our governance and ownership structure. Governing Processes, the second dimension, refers to how we run our business. Sustainability Standards, which is about how we oversee and prioritise our sustainability and ESG agenda, is the third dimension.

Corporate Governance

Governance Structure

The shareholders of Novo Nordisk exercise their rights at the general meeting, which is the supreme governing body of the company. The general meeting inter alia adopts the company's Articles of Association, approves the annual report and elects the Board of Directors.

Any shareholder has the right to raise questions at general meetings. 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 Nordisk has a two-tier management structure consisting of the Board of Directors and Executive Management. The governance structure and rules of Novo Nordisk are further described in our Articles of Association and our Corporate Governance Report, both of which are available at novonordisk.com.

Foundation ownership

Novo Holdings A/S, a Danish company wholly owned by the Novo Nordisk Foundation, holds the majority of votes at general meetings.

The combination of foundation ownership and stock listing enables Novo Nordisk to embark on long-term sustainable strategies while maintaining short-term transparency on performance. Our foundation ownership supports the overarching imperative to be both commercially successful and responsive to the wider needs of society.

The objective of the Novo Nordisk Foundation is to provide a stable basis for the commercial and research activities of Novo Nordisk as well as Novozymes and support broader scientific, humanitarian and social purposes. Please refer to page 7 for an illustration of how we create value for society in conjunction with the Novo Nordisk Foundation. For more information about the ownership structure of Novo Nordisk, see page 37.

Corporate Governance Reporting

Novo Nordisk reports in accordance with the Danish Corporate Governance Recommendations designated by Nasdaq Copenhagen as well as the Corporate Governance Standards of the New York Stock Exchange applicable to foreign private issuers. In 2021 Novo Nordisk complied with the Danish Corporate Governance Recommendations as we either complied with or explained our approach to the recommendations. You can find further information about our corporate governance practices in our 2021 Corporate Governance Report.

Corporate Governance Report in accordance with section 107b of the Danish Financial Statements Act: www.novonordisk.com/about/corporate-governance.html

Novo Nordisk has prepared a separate Remuneration Report describing the remuneration awarded or due during 2021 to the Board and Executives registered with the Danish Business Authority. The Remuneration Report is submitted to the Annual General Meeting for an advisory vote.

The Remuneration Policy and Remuneration Report are available at: www.novonordisk.com/about/corporate-governance.html

Reporting on diversity is included in the social responsibility section on pages 17 to 19, in the social performance section on page 89, and for the Board of Directors also in the Corporate Governance Report. Novo Nordisk's diversity policy is available at novonordisk.com.

Disclosure regarding change of control provisions

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 take-over bidders, in particular in relation to disclosure of change-of-control provisions in material contracts.

Novo Nordisk discloses that the Group has one significant agreement with a US payer which takes effect, alters or terminates upon a change of control of the Group. If effected, a takeover could – at the discretion of the relevant counterparty – lead to the termination of such agreement. Given the ownership structure of Novo Nordisk, the risk is considered to be remote.

In relation to the registered management of Novo Nordisk A/S, the current employment contracts allow for severance payments of up to 24 months' fixed base salary plus pension contributions in the event of a merger, acquisition or takeover of Novo Nordisk.

Governing Processes

Novo Nordisk Way

The Novo Nordisk Way is a set of guiding principles which underpins every decision we make. We use a unique, systematic approach known as facilitation to ensure that everyone lives up to the Novo Nordisk Way. In 2021, 34 facilitations and eight special assignments were completed. Any issues are addressed locally and a consolidated report is shared with the Board of Directors and Executive Management.

In 2021, five units were found not to be operating in full accordance with the Novo Nordisk Way, a similar percentage to 2020 but still a concern. In most cases the root causes were grounded in leadership style and behaviours not living up to the Novo Nordisk Way. There were no findings around quality or business ethics mindset.

Company reputation

The Novo Nordisk reputation score among key stakeholders (i.e., the informed general public, people with diabetes, people with obesity, healthcare professionals and diabetes specialists) is an indicator of the extent to which we live up to society's expectations.

We achieved a reputation score of 82.6 points in 2021 measured on a scale of 0-100. As the only company among our selected peers, Novo Nordisk enjoys a score above 80 points for Products & Services, which is the most important driver of reputation across all stakeholder groups, and thus the key driver of the positive overall result.

Business ethics

Our approach to business ethics is acting with integrity and in compliance with the Novo Nordisk Way, our Business Ethics Code of Conduct and international and local standards for responsible business conduct. Business ethics covers anti-fraud, anti-bribery, anti off-label promotion, transparency in dealing with healthcare professionals and healthcare organisations, the protection of personal data, as well as respect for human rights with the aim of minimising any potential risks to our patients, business, people and stakeholders.

Annual training in business ethics is mandatory for all employees, including all new hires. In 2021, 98% of employees completed and documented their training, with the remaining 2% missing mainly due to employees being on leave. In 2021, 37 business ethics reviews were completed with 129 findings, compared with 32 reviews with 107 findings in 2020. Consolidated findings are reported to our Executive Management and the Audit Committee.

Group Internal Audit assesses that the level of business ethics compliance is sound. Management action plans and closure of findings progressed as planned and there were no overdue management actions or findings at the end of the year.

In 2021, data ethics principles were enhanced and will be implemented through policies and trainings across the organisation in 2022. Our data ethics principles support ethical decision-making when using data across the value chain. We further strengthened the global integration of data protection and human rights risks in the business ethics risk management process. Please find more information at novonordisk.com.

The Novo Nordisk Way – 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.

Product quality and supplier audits

In 2021, as in 2020, Novo Nordisk had no failed inspections among those resolved by the relevant health authority at year-end. However, a contract manufacturer filling syringes for Wegovy® failed an inspection causing disruption in the supply of Wegovy®. During the year, 97 inspections were conducted, compared with 77 in 2020. At year-end, 86 inspections were passed and 11 were unresolved, as final inspection reports had not been received or the final authority acceptance was pending. Follow-up on unresolved inspections continues in 2022. Please see note 9.4 on page 91 for further information.

In 2021, a total of 253 supplier audits were conducted to assess compliance levels with our supplier standards.

In 2021, we had 1 product recall from the market. Please see note 9.3 on page 91 for further information.

Financial and ESG assurance

We are committed to ensuring the accuracy of our financial and ESG reporting. Our 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 our ESG responsibility, we voluntarily include an Assurance Report from an independent external auditor for ESG reporting in the Annual Report. The assurance provider reviews whether the ESG performance information covers aspects that are deemed to be material and verifies the internal control processes for the information reported.

Our 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. As part of our ESG responsibility, the Audit Committee also oversees our ESG reporting. We thereby ensure that our ESG reporting is subject to the same robust governance that applies to our financial reporting.

Sustainability Standards

Sustainability standards and performance

We report on our ESG performance in accordance with relevant disclosure standards, including those of the Value Reporting Foundation (VRF)/ Sustainability Accounting Standards Board (SASB), the Taskforce on Climate-related Financial Disclosures (TCFD) and the Carbon Disclosure Project (CDP).

We strive to adhere to the disclosure requirements of the VRF/ SASB, as they apply to the pharmaceuticals industry. We do this to demonstrate our commitment to being transparent and accountable for how we operate. Having further assessed our adherence and disclosure in 2021, we are now fully or partially aligned with 23 of 25 metrics. Our VRF/ SASB adherence document is available on our ESG Portal at novonordisk.com.

Using the TCFD framework, we continue to take a stepwise approach to incorporating material climate-related risk-assessments into our governance, strategy and execution on climate and environmentally related initiatives. This includes the consideration of operational risks related to the environment, such as current and emerging environmental and climate-related litigation, access to resources, such as water and raw materials, and exposure to acute physical risks that could disrupt production. As recommended by the TCFD, we work to identify, assess and mitigate short-, medium- and long-term climate-related risks within our operations and supply chain.

In addition to the TCFD, we have been working with the Science Based Targets initiative (SBTi) for a number of years, where our CO_2 emissions reduction targets for 2030 are validated. We believe external validation and transparency are paramount measures to ensure rapid progress towards a decarbonised future. We therefore welcome that SBTi launched a new net-zero standard in October 2021 and we have committed to have our net-zero CO_2 emissions in 2045 target validated by them in 2022.

For the United Nations Sustainable Development Goals (SDGs), we focus our efforts on Goal 3, 'health' and Goal 12, 'responsible consumption and production', as this is where we believe we can maximise our positive impact.

We will publish further information on our adherence to selected standards on our ESG Portal on an ongoing basis. This applies to the VRF/ SASB, TCFD and WEF's Stakeholder Capitalism Metrics in particular. Please also refer to the consolidated ESG statement in this Annual Report and to novonordisk.com for more information on our sustainability governance.

ESG "rankers and raters"

We perform on par with peers according to selected raters but with room to improve, particularly with respect to S&P Global and Access to Medicine Index.

	novo nordisk	● High ● Medium
MSCI ESG RATINGS AAA	●	MSCI's ESG Rating is designed to measure a company's resilience to long-term, industry-material ESG risks. Novo Nordisk continued to hold an AAA leadership ESG rating in line with the past five years.
SUSTAINALYTICS a Morningstar company	●	Sustainalytics' ESG Risk Ratings score the ESG performance of more than 12,000 companies, from "negligible" to "severe". Novo Nordisk received an ESG risk rating of 24.1 ("medium"). Novo Nordisk ranked among the top 10% in the Industry Group 'Pharmaceuticals', with a ranking of 94 out of 1028 based on those companies reviewed.
	●	CDP scores companies from "D-" to "A". In 2021, Novo Nordisk continued to hold an "A" leadership ranking in CDP Climate, and a "B" ranking in CDP Water.
	●	The ATMI evaluates 20 of the world's largest pharmaceutical companies in areas where they have the biggest potential and responsibility to make change, such as R&D. Novo Nordisk ranked 10th, with a score of 2.96 and strong performance in Governance of Access and Product Delivery.

We follow and adhere to legal requirements, international standards, recommendations and commitments including:

Standards

- Value Reporting Foundation/ Sustainability Accounting Standards Board
- Taskforce on Climate-related Financial Disclosures
- Science Based Targets initiative
- World Economic Forum's Stakeholder Capitalism Metrics

Legal requirements

- The Danish Financial Statements Act
- UK Bribery Act
- UK and Australian Modern Slavery Acts
- US Foreign Corrupt Practices Act

Recommendations and commitments

- UN Global Compact Ten Principles
- UN Guiding Principles on Business and Human Rights
- UN Political Declaration on Universal Health Coverage
- UN Sustainable Development Goals
- OECD Guidelines for Multinational Enterprises on Responsible Business Conduct

For more information, see novonordisk.com.

Regulatory compliance

We are committed to comply with all applicable rules and regulations. As a listed company with more than 500 employees, we are in scope of the EU Taxonomy Regulation. We do not currently consider our core economic activities to be in scope of the EU Taxonomy Regulation's technical annexes on climate change mitigation and climate change adaptation. Based on our current understanding, available data and assessment of requirements, we have zero eligible activities to report on within revenue, Opex and Capex. We note that the EU Taxonomy Regulation will keep evolving and that we will continue to consider its impact as well as future reporting obligations.

Remuneration

As described in the Remuneration Report, executive remuneration is linked to performance on financials as well as non-financials (e.g., innovation, sustainability).

Strategic Aspirations 2025 **Purpose and sustainability**

- Being respected for adding value to society
- Progress towards zero environmental impact
- Ensure distinct core capabilities and evolve culture

Innovation and therapeutic focus

In pursuit of life-changing innovation

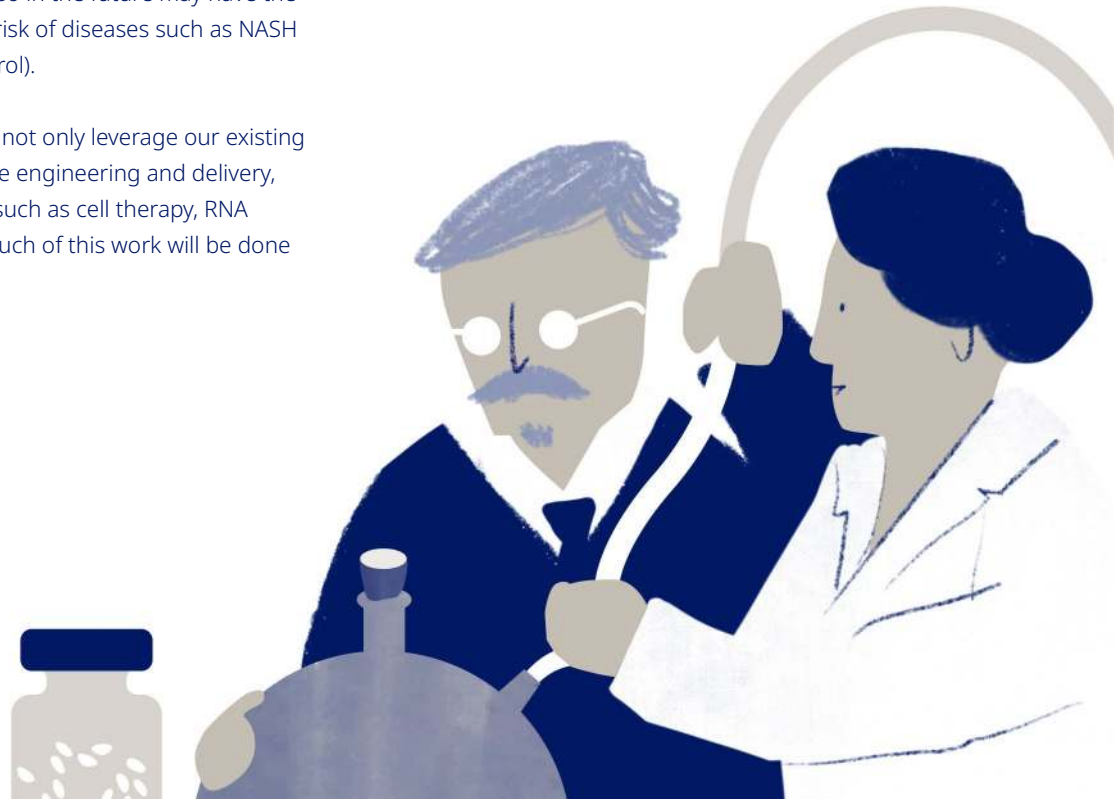
We are active in late stage assets across **all our therapy areas**

Since 1923, Novo Nordisk has pursued scientific breakthroughs within serious chronic diseases. To enable us to drive change for society throughout another century, we are exploring higher levels of innovation by deploying novel technology platforms across more therapy areas than at any point in our history. In doing so, we are building on our heritage within diabetes care with the ambition to become the world's foremost cardiometabolic disease company.

The COVID-19 pandemic has exacerbated the mounting social, economic and human burden of serious chronic diseases that affect hundreds of millions of people. By exposing the vulnerability of these populations, it has highlighted the complex interactions between communicable and non-communicable diseases, underscoring the need for ground-breaking innovation.

We are meeting the challenge by creating an increasingly broad pipeline of life-changing products in areas including diabetes, obesity, cardiovascular disease, non-alcoholic steatohepatitis (NASH), and Alzheimer's disease. The innovations we are pursuing today take our company into more therapy areas and more technologies than ever before, not least within the rapidly evolving cardiometabolic disease space. This journey can deliver for those who for decades have relied on our innovation within diabetes and haemophilia, but also in the future may have the potential to deliver for others at risk of diseases such as NASH and dyslipidaemia (high cholesterol).

To achieve our ambitions, we will not only leverage our existing capabilities in protein and peptide engineering and delivery, but also invest in new platforms such as cell therapy, RNA interference and gene editing. Much of this work will be done through partnerships.



Towards holistic, integrated healthcare

Our Research and Development (R&D) strategy has led us to a point in time where we now have more clinical programmes with more participants than at any time in our 99-year history. To make this possible, we have re-organised R&D operations, creating a Research & Early Development unit to fuel and validate our early pipeline, and a patient solutions-focused Development organisation to take our most promising candidates forward.

Throughout this work, we are focused on the power of digitalisation and connected healthcare. We are evolving from a molecule-focused pharmaceutical company to a patient solutions-oriented enterprise where drug, device, digital, diagnostics and data are fully integrated to deliver leading treatment solutions to patients. This '5D' approach will bring improvements right along the value chain, from more convenient and better products and devices for patients – who can check and track their health status in real time via apps and other systems – to faster, more efficient product development.

Our electronic Patient Interaction Device, for example, allows the collection of real-time clinical trial data. This technology is already being used by more than 4,000 patients in 36 countries and forms a central plank of our 'moonshot' aspiration of being able to submit new products for market authorisation in four key markets within four days of the last patient visiting a pivotal trial site.

This is a journey that will take time to complete, but it is already creating an innovative pipeline of differentiated projects that has the potential to secure long-term sustainable growth of our offering to patients beyond 2030.

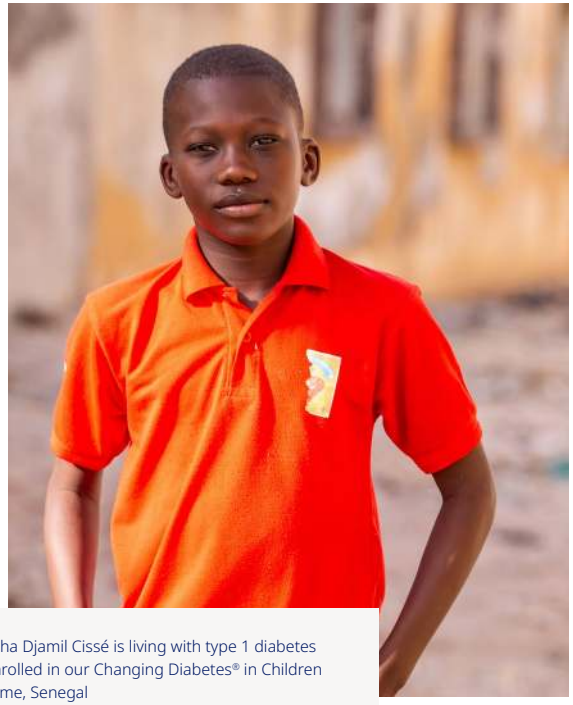
In the meantime, our R&D is continuing to deliver significant advances. Major milestones in the past year include the US approval of Wegovy® – a pivotal new treatment of obesity and the initiation of phase 3 clinical trials investigating oral semaglutide for both obesity and Alzheimer's disease.

Entering a new century of diabetes innovation

In the 101 years since the discovery of insulin, there have been many advances in the treatment of diabetes, yet the number of people living with the condition continues to climb. As a result, there remains an urgent need for better, more patient-focused therapies to continue to reduce the burden of diabetes.

Our potential future treatment and device innovations may offer this step change in care. They include the once-weekly basal insulin icodec, which entered final-stage phase 3 development in November 2020, which has the potential to offer patients greater convenience than the current option of once-daily basal insulins. We have also progressed our work on glucose-sensitive insulin, which is designed to activate when glucose levels rise, thereby potentially providing better disease control and a lower risk of hypoglycaemia.

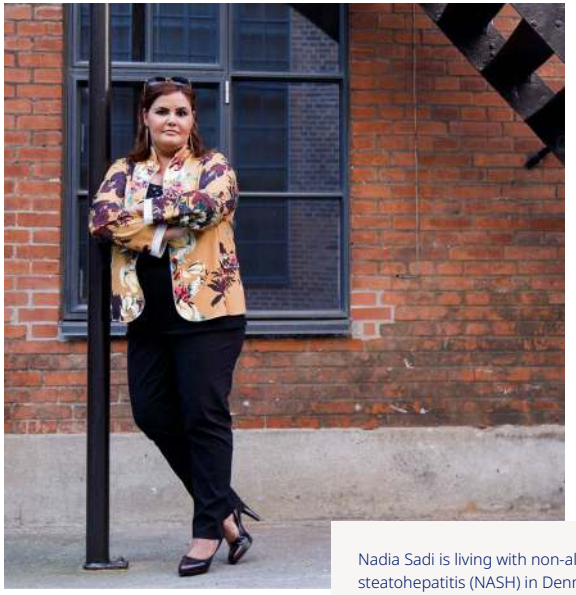
Beyond insulin, we have continued the rollout of Rybelsus®, our once-daily oral GLP-1 therapy, while once-weekly semaglutide 2.0 mg for type 2 diabetes received a positive opinion recommending marketing authorisation in the EU in November 2021, and has been re-submitted for US regulatory approval following the receipt of a Refusal to File letter from the US Food & Drug Administration in March 2021. We have also launched two phase 2 trials investigating fixed-dose combination therapies for type 2 diabetes – one focusing on semaglutide in combination with cagrilintide (which is also being explored for patients living with obesity), and the other looking at combination of semaglutide and GIP (gastric inhibitory polypeptide).



Moustapha Djamil Cissé is living with type 1 diabetes and is enrolled in our Changing Diabetes® in Children programme, Senegal

Leading the treatment of obesity

We are making major strides in tackling obesity, both with the successful launch of our pioneering injectable GLP-1 product Wegovy® in the US and the advancement in our pipeline of next-generation therapies that we hope will deliver even greater weight loss efficacy.



Nadia Sadi is living with non-alcoholic steatohepatitis (NASH) in Denmark

Wegovy®, once-weekly subcutaneous semaglutide 2.4 mg, takes the medical treatment of obesity to a new level, as an adjunct to diet and exercise, with an average sustained weight loss from baseline of 17-18%[4] sustained over 68 weeks in clinical trials. The implications of such weight loss can be profound since people with obesity face a range of health risks, from cancer, type 2 diabetes and heart disease, to severe symptoms and complications of COVID-19.

Our ultimate aspiration is to close the gap between current pharmacological treatment options and bariatric surgery through combination therapies. This work will take a significant step forward next year with the planned initiation of a large phase 3 study looking at a combination of cagrilintide and semaglutide. Cagrilintide, a long-acting amylin analogue, works by reducing the signaling of hunger to the brain, and early phase 1b data suggests that its combination with semaglutide provides additive weight loss efficacy without compromising gastrointestinal tolerability.

Alongside this, we have initiated a phase 3 trial of high-dose semaglutide 50 mg as an oral treatment for obesity. This would offer patients a new option and could potentially address issues associated with injections.

Innovating in rare diseases

The rare blood and endocrine disorders that our Biopharm business seeks to treat are areas of continuing high unmet need, and we are advancing several key new products in our pipeline. This includes the planned initiation of phase 3 development of Mim8, a next-generation subcutaneous prophylactic treatment for haemophilia A, in 2022. We are also awaiting the results from phase 3 trials with concizumab in patients with haemophilia A or B, with or without inhibitors, while a phase 3 trial investigating the efficacy and safety of concizumab for pediatric use is expected to be initiated in 2022.

Furthermore, we are seeking to harness disruptive technologies such as gene editing and RNA interference to develop next-generation treatments for rare diseases. In December, we announced the completion of the acquisition of Dicerna Pharmaceuticals – a Boston-based biotech firm specialising in RNAi therapeutics for rare and common diseases. The acquisition builds on a successful collaboration initiated with Dicerna in 2019 to discover and develop selective gene-silencing therapies for liver-related cardio-metabolic diseases using Dicerna's proprietary RNAi technology platform, and we will now seek to expand the application of this innovative technology across all our therapy areas.

Broadening our horizons across serious chronic diseases

We are actively widening our therapeutic focus as we explore a more holistic approach to cardiometabolic diseases – a trend exemplified by the potential of semaglutide to improve outcomes in a wide range of disorders.

Significantly, the push into new areas includes the treatment of Alzheimer's disease, where we are testing oral semaglutide 14 mg in two phase 3a trials that will run for three years. We have also started a phase 3 programme with semaglutide in patients with NASH, while two major phase 3 trials are exploring the potential of semaglutide in treating heart disease.

Beyond semaglutide, our antibody drug ziltivekimab has entered phase 3 development for atherosclerotic cardiovascular disease and we are exploring a novel oral PCSK9i agent for high cholesterol in phase 2. Meanwhile, new partnerships with Prothena and Heartseed have strengthened our pipeline in cardiovascular disease, with the latter building our expertise in the exciting new field of cell therapy.

Strategic Aspirations 2025 **Innovation and therapeutic focus**

- Further raise the innovation-bar for diabetes treatment
- Develop a leading portfolio of superior treatment solutions for obesity
- Strengthen and progress the Biopharm pipeline
- Establish presence in other serious chronic diseases focusing on Cardiovascular disease (CVD); Non-alcoholic steatohepatitis (NASH)

4. Based on the trial product estimand (secondary statistical approach): treatment effect if all people adhered to treatment and did not initiate other anti-obesity therapies. When using a treatment policy estimand, 15-17% weight loss was reported

Pipeline overview

Diabetes care

Project	Indication	Description	Phase
Semaglutide 2.0 mg NN9535	Type 2 diabetes	A long-acting GLP-1 analogue for once-weekly treatment.	
Oral semaglutide HD[1] NN9924	Type 2 diabetes	A long-acting oral GLP-1 analogue, 25 and 50 mg, intended for once-daily oral treatment.	● ○
Icodec NN1436	Type 1 and 2 diabetes	A long-acting basal insulin analogue intended for once-weekly treatment.	○
Icosema NN1535	Type 2 diabetes	A combination of GLP-1 analogue semaglutide and insulin icodec intended for once-weekly treatment.	● ● ○
FDC Sema – OW GIP NN9389	Type 2 diabetes	A combination of semaglutide and novel GIP intended for once-weekly treatment.	● ○ ○
CagriSema in T2D NN9388	Type 2 diabetes	A combination of amylin analogue and GLP-1 analogue semaglutide intended for once-weekly treatment.	● ● ○ ○
Insulin 965 NN1965	Type 1 and 2 diabetes	A novel basal insulin analogue intended for once-daily treatment.	○ ○ ○
Glucose-sensitive insulin NN1845	Type 1 and 2 diabetes	A glucose-sensitive insulin analogue intended for once-daily treatment.	○ ○ ○
Ideal Pump Insulin NN1471	Type 1 diabetes	A novel insulin analogue ideal for use in a closed loop pump device as delivery.	○ ○ ○
DNA Immunotherapy NN9041	Type 1 diabetes	A novel plasmid encoding pre- and pro-insulin intended for preservation of beta cell function.	○ ○ ○

Obesity care

Oral Sema Obesity NN9932	Obesity	A long acting GLP-1 analogue intended for once-daily treatment.	● ● ● ○
PYY1875 NN9775	Obesity	A novel analogue of the appetite-regulating hormone, PYY, intended for once-weekly treatment.	● ○ ○
Cagrilintide NN9838	Obesity	A novel long-acting amylin analogue intended for once-weekly treatment.	○ ○
CagriSema NN9838	Obesity	A combination of amylin analogue cagrilintide and GLP-1 analogue semaglutide intended for once-weekly treatment.	○ ○ ○
LA-GDF15 NN9215	Obesity	A long-acting GDF15 analogue intended for appetite regulation leading to weight loss.	○ ○ ○

2020 ● 2021 ● ○ ○ ○ Phase 1 ● ● ○ ○ Phase 2 ● ● ● ○ Phase 3 ● ● ● ● Submission and/or approval

Biopharm

Project	Indication	Description	Phase
Sogroya® NN8640	Adult GHD[2]	A long-acting HGH[3] derivative intended for once-weekly subcutaneous administration in adults.	
Somapacitan NN8640	GHD[2]	A long-acting HGH[3] derivative intended for once-weekly subcutaneous administration in children.	○
Concizumab NN7415	Haemophilia A and B w/wo inhibitors	A monoclonal antibody against tissue factor pathway inhibitor (TFPI) intended for subcutaneous prophylaxis treatment.	○
Macimorelin EX2020	GHD[2]	An oral diagnostic agent used for the diagnosis of GHD in adolescents and children.	● ○
Mim8 NN7769	Haemophilia A with or without inhibitors	A next generation FVIII mimetic bispecific antibody for subcutaneous prophylaxis of haemophilia A regardless of inhibitor status.	● ○
Nedosiran[7]	Primary Hyperoxaluria	An siRNA targeting lactate dehydrogenase A (or LDHA) for once monthly subcutaneous treatment.	● ○
Eclipse NN7533	Sickle cell disease	An oral combination treatment of sickle cell disease and beta thalassaemia. Project is developed in collaboration with EpiDestiny.	○ ○ ○

Other serious chronic diseases

Semaglutide[8] NN9931	NASH[4]	A long-acting GLP-1 analogue for once-weekly treatment of NASH[4].	● ○
Semaglutide Alzheimer NN6535	Alzheimer's	A long-acting GLP-1 analogue for once-daily treatment of Alzheimer's disease.	● ○
Ziltivekimab NN6018	CVD[5]	A novel once-monthly monoclonal antibody intended for inhibition of IL-6 activity.	● ○
Belcesiran[7]	AATD[6]	An siRNA targeting Alpha-1-AntiTrypsin (AAT) for once monthly subcutaneous treatment.	● ○ ○
Oral PCSK9i NN6435	CVD[5]	A long-acting PCSK9 inhibitor for oral treatment.	● ● ○ ○
FGF-21 NASH NN9500	NASH[4]	A long-acting FGF21 analogue for once-weekly treatment of NASH.	● ● ○ ○
PRX004 NN6019	CVD[5]	An anti-amyloid immunotherapy treatment for ATTR5.	● ○ ○ ○
DCR-AUD[7]	Alcohol Use Disorder	An siRNA targeting ALDH2 for once monthly subcutaneous treatment.	● ○ ○ ○

1. High dose 2. GHD: Growth hormone deficiency 3. HGH: Human growth hormone 4. NASH: Non-alcoholic steatohepatitis
5. CVD: Cardiovascular disease 6. Alpha-1-AntiTrypsin Deficiency related liver disease 7. Asset without NN project ID
8. This project also includes a phase 2b study in F4 in a collaboration with Gilead

Research and development progress

Diabetes

Regulatory events

- A market authorisation application was resubmitted to the FDA for approval of semaglutide 2.0 mg May 2021.
- Approval by the EU of Ozempic 2.0 mg.
- Xultophy® was approved in China for diabetes management.
- Ozempic® was approved in China for diabetes management.
- A label extension for Insulatard® and Actrapid® was submitted to EMA to increase the non-refrigerated storage time prior to opening by 4 weeks.

Clinical progress

- A phase 3b trial was initiated with high dose Rybelsus®, 25 and 50 mg, in people with type 2 diabetes (T2D).
- The phase 3a programme, COMBINE, was initiated investigating the once-daily combination of Icodec and semaglutide in people with T2D.
- Phase 3a, ONWARDS trials were initiated investigating once-weekly Icodec in people with type 1 (T1D) and (T2D).
- A Phase 2 trial was initiated to investigate the effects of the combination of semaglutide and novel GIP in people with T2D.
- A Phase 2 trial was initiated to investigate the effects of the combination of semaglutide and cagrilintide in people with (T2D).
- A Phase 1 trial for glucose sensitive insulin was completed.
- A Phase 1 trial was initiated to investigate tolerogenic DNA plasmid in for preventive treatment of diabetes in people with T1D.

Obesity

Regulatory events

- Once-weekly sc semaglutide 2.4 mg was approved under the brand name Wegovy® for weight management in adults with obesity or overweight and at least one weight-related comorbidity in the US. A marketing authorisation application for semaglutide 2.4 mg obesity was submitted to the Japanese Health Authorities and approved in the EU.
- Saxenda® was granted a label expansion to include the use in adolescents (aged 12 to <18 years) with obesity or overweight in the US and Europe.

Clinical progress

- A phase 3a trial was initiated to investigate the effects of once-weekly sc semaglutide 2.4 mg on physical function, symptoms and body weight in people with obesity-related heart failure with preserved ejection fraction (HFpEF).
- A phase 3a trial OASIS-1 was initiated to investigate oral semaglutide 50 mg in people with obesity.

Biopharm

Regulatory events

- The once-weekly growth hormone derivative, somapacitan, was approved in Japan and Europe for adults with growth hormone deficiency.
- Regulatory file to support a prophylaxis indication for Rebinyn® was submitted.
- Regulatory file to support a new indication for NovoSeven® in women with Postpartum haemorrhage was submitted.

Clinical progress

- Initial results from the phase 3a programme, REAL 4; investigating the once-weekly growth hormone derivative, somapacitan, in children with Growth Hormone Deficiency (GHD) were compiled.
- Results from a phase 2 trial, REAL 5, in children, with short stature and born short for gestational age were compiled.
- First cohorts of phase 1/2 trial with Mim8 successfully completed.
- A phase 3a trial for macimorelin was initiated investigating an oral diagnostic agent used for the diagnosis of GHD in adolescents and children.

Other serious chronic diseases

Clinical progress

- A phase 3a programme, ESSENCE, was initiated investigating once-weekly semaglutide in people with Non-alcoholic steatohepatitis (NASH).
- A phase 3a programme, EVOKE, was initiated investigating once-weekly semaglutide in people with Alzheimer's Disease.
- A phase 3a cardiovascular outcome trial, ZEUS, was initiated investigating once-monthly monoclonal antibody Ziltivekimab in people with Atherosclerotic Cardiovascular Disease (ASCVD), Chronic Kidney Disease (CKD) and residual inflammatory risk.
- In collaboration with Gilead, a phase 2b trial was initiated investigating semaglutide in combination with Gileads investigational FXR agonist cilofexor and investigational ACC inhibitor firsocostat in people with compensated cirrhosis (F4) due to NASH.
- A phase 2 trial was initiated investigating orally administrated PCSK9i for LDL-cholesterol lowering in people with ASCVD or general CV risk.
- Novo Nordisk acquired phase 2 ready antibody PRX004 for the rare heart disease ATTR cardiomyopathy from Prothena Corporation PLC.
- A phase 2 trial was initiated investigating once-weekly FGF21 in people with NASH. As part of phase 2 trial an additional treatment arm with Cagrilintide in combination with semaglutide is included in the trial.
- Collaboration with Staten Biotechnology terminated.

Patent status for marketed products

The patent expiry dates for the products are shown in the table on the right. The dates provided are for expiry in the US, China, Japan and Europe of patents on the active ingredient, unless otherwise indicated, and include actual and estimated extensions of patent term, when applicable. For several products, in addition to the active ingredient 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 and/or orphan exclusivity may apply.

Key marketed products in main markets (active ingredients)

Diabetes:	**US**	**China**	**Japan**	**Europe[8]**
Human insulin and Modern insulins[1]	Expired	Expired	Expired	Expired
NovoNorm® (Prandin®)	Expired	Expired	Expired	Expired
Victoza®[9]	2023	Expired	2022	2023
Tresiba®	2029	2024	2027	2028
Ryzodeg®	2029	2024	2024[2]	2028
Xultophy®	2029	2024	2024[2]	2028
Fiasp®	2030[3]	2030[3]	2030[3]	2030[3]
Ozempic®	2032	2026	2031	2031
Rybelsus®	2032[4]	2026[4]	2031[4]	2031[4]
Obesity:				
Saxenda®	2023	Expired	Expired	2023
Wegovy®	2032	2026	2031	2031
Biopharm:				
Norditropin® (SimpleXx®)	Expired	Expired	Expired	Expired
Sogroya®	2034	2031	2036	2036
NovoSeven®	Expired[5]	Expired[5]	Expired[5]	Expired[5]
NovoEight®	No patent	No patent	No patent	No patent
NovoThirteen® (TRETTEN®)	Expired	No patent	No patent	No patent
Refixia® (REBINYN®)	2028	2022	2027	2027
Esperoct®	2032	2029	2034	2034
Vagifem® 10 mcg	2022[6,7]	No patent	Expired	Expired

1. Modern insulins are NovoRapid® (NovoLog®), NovoMix® 30 (NovoLog® Mix 70/30) and Levemir® 2. Patent term extension until 2027 may apply 3. Formulation patent; active ingredient patent has expired 4. Tablet formulation and once-daily treatment regimen are protected by additional patents expiring in 2031-2034 5. Room temperature-stable formulation patent until 2023 in China, Japan and Germany and until 2025 in the US 6. Patent covers low-dose treatment regimen 7. Licensed to several generic manufacturers from October 2016 8. Patent status varies from country to country. The figures in the table are based on Germany 9. We have granted and pending patents covering the Victoza® formulation. These patents generally expire in November 2024, except for the US where the formulation patent expires in February 2026

Commercial execution

Maintaining commercial excellence

30.1%

Value market share for diabetes

8,400

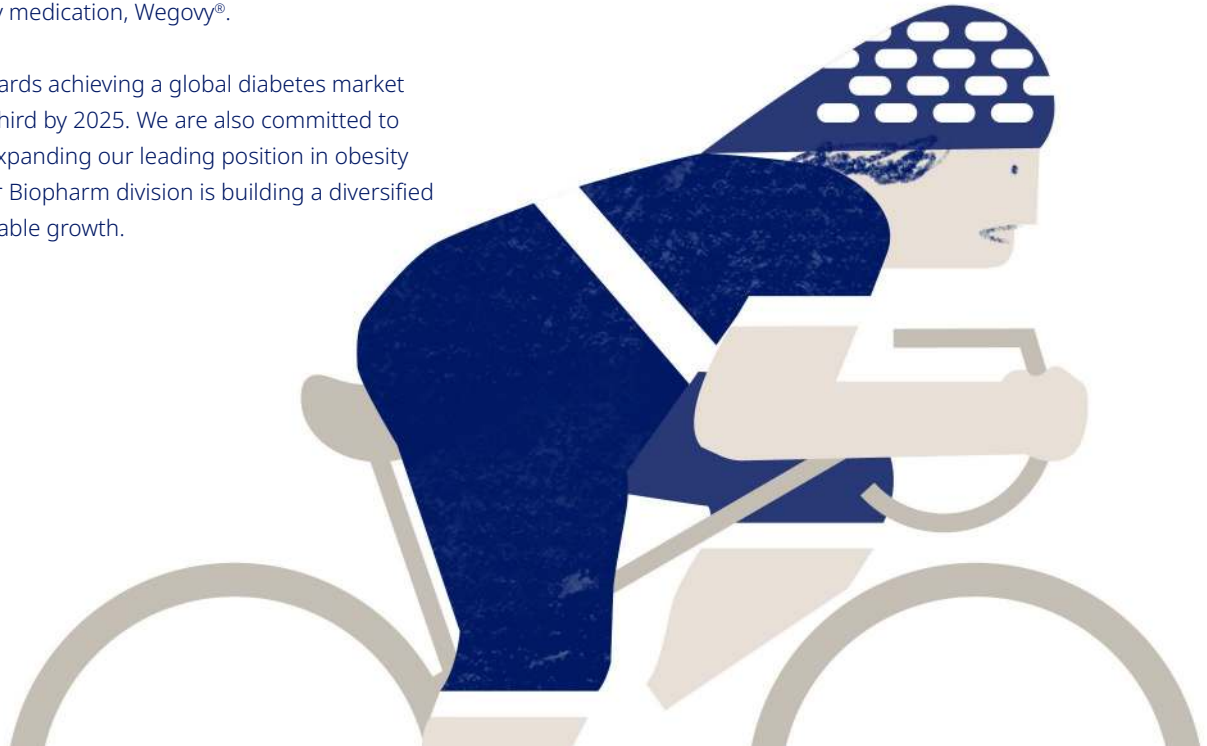
DKK million sales in obesity treatment

The COVID-19 pandemic provided the backdrop to Novo Nordisk's commercial operations in 2021. The increased risk of serious illness from coronavirus among people living with diabetes and obesity and other serious chronic diseases – and the growing incidence of these conditions around the world – has made delivering our products to patients more imperative than ever.

We are increasingly providing a holistic solution to the challenges of inter-linked cardiometabolic diseases – such as diabetes, obesity and other serious chronic diseases – by offering products to patients, healthcare professionals and payers. In this way we are driving change and adding value for society, while at the same time building a sustainable business for the future.

Despite the economic and social disruptions caused by the pandemic, we successfully launched important new products and grew market share in 2021, allowing us to make progress across our strategic aspirations. This robust performance was underpinned by strong demand for our diabetes treatments and our new obesity medication, Wegovy®.

We are working towards achieving a global diabetes market value share of one third by 2025. We are also committed to consolidating and expanding our leading position in obesity treatment, while our Biopharm division is building a diversified platform for sustainable growth.



Delivering on our ambitions even during these exceptional times has required our commercial teams to rapidly adopt new ways of doing business and increase their use of digital tools. This shift was necessitated by the pandemic, but it has now become standard practice across the organisation. Today, we are embracing virtual customer interactions in multiple settings and developing new digital competences as we apply a market-fit approach to our operations.

A watershed year in obesity therapy

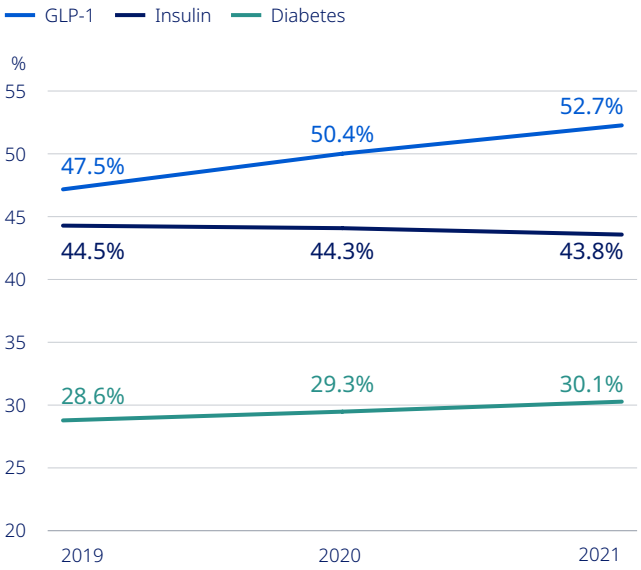
Obesity was an important stand-out in 2021, both for patients and for our business. The US launch of Wegovy® in June 2021 marked the start of a new era in obesity care and underscored the value that our innovations can bring to society. The exceptional demand for the therapy – exceeding all expectations – was testament to the high unmet need among people living with the disease, while the fact that our medicine helps patients achieve unprecedented weight loss, fuelled extensive media attention. Acceptance by payers was also highly encouraging, with US commercial formulary access now around 73%.

As a result of this exceptional interest, initial demand for Wegovy® exceeded supply, requiring careful management to ensure continuity of care for individual patients who had already started treatment. Despite increasing production efforts, additional supply chain challenges encountered towards the end of 2021 mean we do not expect to be able to meet demand in the US until the second half of 2022 - with relatively few new patients expected to be able to initiate treatment as a result.

Outside the US, our first-generation obesity product Saxenda® has now been launched in 62 countries. Better understanding of the need to address obesity is winning healthcare system reimbursement in select sub-populations across a growing number of markets, creating a solid platform for the increasing uptake of anti-obesity medications.

We are the global leader in obesity treatment, with a value market share of 77.8% of branded prescription sales, and there is substantial scope for further growth in the years ahead. There are currently around 650 million people living with obesity, and in 10 years the total is likely to be closer to 1 billion.

Diabetes value market share



Source: IQVIA data

Kara Richadrson Whitely lives with obesity in the US. She has hiked Mount Kilimanjaro three times

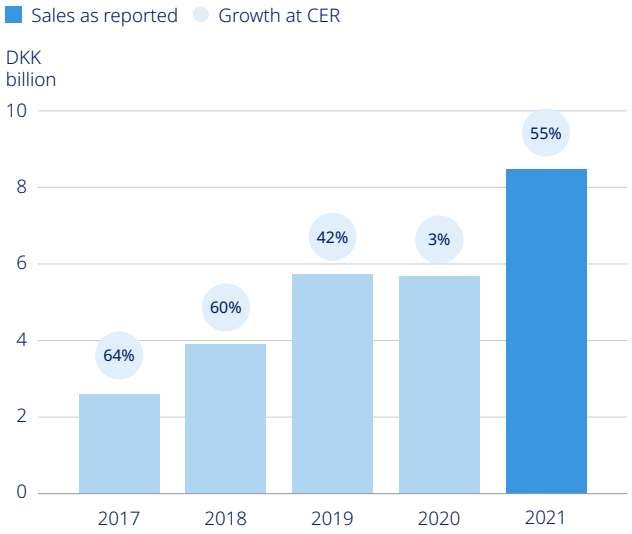
Growing value market share in diabetes

In the highly competitive diabetes market, we improved our value market share by 0.8 percentage points to 30.1%, reflecting strong demand for GLP-1 products across both North American and International Operations. There is a clear shift to greater use of GLP-1 therapies around the world and this segment's value share of the total diabetes market has increased to 26.5% compared with 21.9% 12 months ago. We continue to be the global market leader with our type 2 diabetes products Rybelsus®, Ozempic® and Victoza®, with a 52.7% share by value. Ozempic®, our once-weekly injectable semaglutide, is now available in 69 countries – including China – and Rybelsus®, our oral formulation of semaglutide, has been launched in 30 countries.

Increasingly, healthcare providers are demanding diabetes treatments that not only control blood glucose levels but also have cardiovascular benefits. The fact that Ozempic® has been shown to significantly reduce the risk of major adverse cardiovascular events compared with placebo in people living with type 2 diabetes and ASCVD (atherosclerotic cardiovascular disease) is particularly important in this regard.

Insulin sales in 2021 were mixed, with the growth driven by International Operations partially offset by lower sales in the US However, 2021 was a landmark year for digital health in our diabetes business, with the first launch of our smart insulin pens in Sweden and Germany followed by the UK launch in January 2022. By automatically recording insulin dosing information and viewing this alongside blood sugar information, the pens allow patients to better manage their disease with greater accuracy. This is a key part of our drive to provide more personalised treatment guidance to ensure patients using insulin maximise their time in the correct glycaemic range.

Obesity sales



Biopharm sales

The smart pen initiative also paves the way for the digitalisation of the patient journey in other therapy areas in the future. The aim is simple: to use smart technology to help patients lead as normal a life as possible.

Further growth in Biopharm

In Biopharm, sales growth across International and North America Operations was driven by our treatments for rare blood disorders, including the newly launched products Esperoct® and Refixia®, as well as NovoEight® and NovoSeven®. Sales of haemophilia A and haemophilia B products increased by 23% and 23% respectively.

Overall demand for rare endocrine disorder products was flat, with an increase in international sales offset by a decline in North America. We remain the market leader in the global human growth disorder market with a value share of 36.3%, against 35.6% a year ago, reflecting the new indications that have been approved for our products and the global roll-out of our next-generation injection device.

Strategic Aspirations 2025 **Commercial execution**

- Strengthen Diabetes leadership – aim at global value market share of more than 1/3
- Strengthen Obesity leadership and double current sales (based on reported sales in 2019)
- Secure a sustained growth outlook for Biopharm

Financials

2021 performance and 2022 outlook

Financial performance

Sales increased by 11% measured in Danish kroner and by 14% at CER to DKK 140,800 million in 2021. Sales in International Operations increased by 12% measured in Danish kroner and by 14% at CER. The strategic aspiration for International Operations is sales growth between 6-10%. Sales in North America Operations increased by 10% measured in Danish kroner and by 14% at CER. The strategic aspiration of transforming 70% of sales in the US has progressed, and 60.3% of sales are now derived from products launched since 2015.

Geographic sales development

Sales in International Operations increased by 12% measured in Danish kroner and by 14% at CER. Sales in EMEA increased by 10% measured in Danish kroner and by 12% at CER. Sales in Region China increased by 14% measured in Danish kroner and by 11% at CER. Sales in Rest of World increased by 14% measured in Danish kroner and by 19% at CER.

Sales in North America Operations increased by 10% measured in Danish kroner and by 14% at CER.

Sales development across therapeutic areas

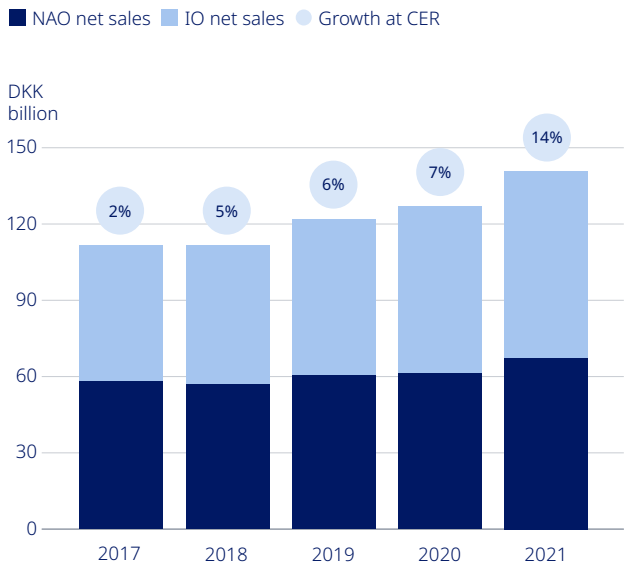
Sales in Diabetes care increased by 11% measured in Danish kroner and by 13% at CER. Sales of Obesity care products, Saxenda® and Wegovy®, increased by 50% measured in Danish kroner and by 55% at CER. Sales of Biopharm products increased by 1% measured in Danish kroner and by 4% at CER.

In the following sections, unless otherwise noted, market data are based on moving annual total (MAT) from November 2021 and November 2020 provided by the independent data provider IQVIA.

Diabetes care

Sales in Diabetes care increased by 11% measured in Danish kroner and by 13% at CER to DKK 113,197 million driven by GLP-1 growth. Novo Nordisk has improved the global diabetes value market share over the last 12 months from 29.3% to 30.1%. The market share increase was driven by market share gains in both International Operations and North America Operations.

Financials performance



GLP-1 therapy for type 2 diabetes
Sales of GLP-1 products for type 2 diabetes (Rybelsus®, Ozempic® and Victoza®) increased by 28% measured in Danish kroner and by 32% at CER to DKK 53,597 million. The GLP-1 segment's value share of the total diabetes market has increased to 26.5% compared with 21.9% 12 months ago.

Rybelsus® sales increased by 158% measured in Danish kroner and by 168% at CER to DKK 4,838 million. Sales growth was driven by North America Operations as well as EMEA and Rest of World. Rybelsus® has now been launched in 29 countries.

Ozempic® sales increased by 59% measured in Danish kroner and by 64% at CER to DKK 33,705 million. Sales growth was driven by both North America Operations and International Operations. Ozempic® has now been launched in 72 countries.

Victoza® sales decreased by 20% measured in Danish kroner and by 18% at CER to DKK 15,054 million as the GLP-1 market is moving towards once-weekly and tablet-based treatments. The sales decline was driven by North America Operations, EMEA and Rest of World, partially offset by higher sales in Region China.

Insulin sales
Sales of insulin decreased by 1% measured in Danish kroner and increased by 1% at CER to DKK 56,006 million. Sales growth at CER was driven by increased sales in International Operations, partially offset by declining sales in the US.

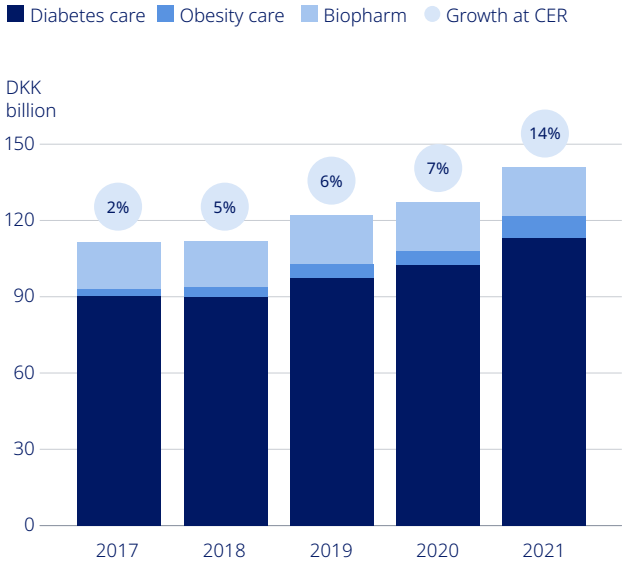
Obesity care
Sales of Obesity care products, Saxenda® and Wegovy®, increased by 50% measured in Danish kroner and by 55% at CER to DKK 8,400 million. Sales growth was driven by North America Operations and International Operations. Saxenda® has been launched in 65 countries, and Wegovy® was launched in the US in June 2021. Novo Nordisk currently has a value market share of 77.8% of the global branded obesity prescription drug market. The strategic aspiration for Obesity care is to more than double reported sales from the base in 2019 of DKK 5,679 million by 2025.

Biopharm
Sales of Biopharm products increased by 1% measured in Danish kroner and by 4% at CER to DKK 19,203 million in line with the strategic aspiration of sustained growth in Biopharm. The sales growth at CER was driven by both North America Operations and International Operations. Sales growth was driven by Rare blood disorders.

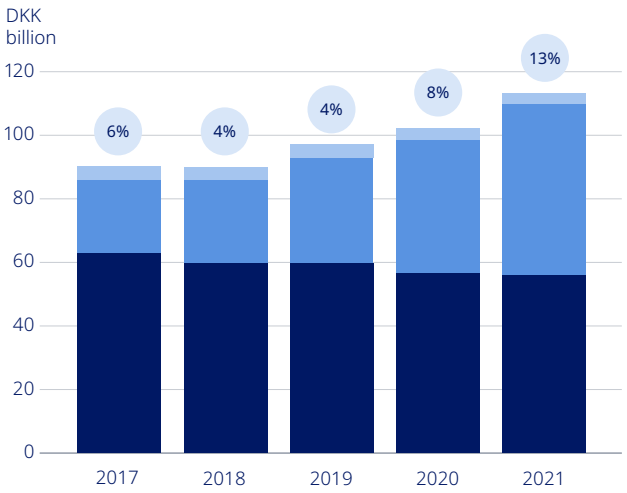
Rare blood disorders
Sales of Rare blood disorder products increased by 6% measured in Danish kroner and by 9% at CER to DKK 10,217 million. The increasing sales were driven by the launch products Esperoct® and Refixia® as well as NovoSeven® and NovoEight®.

Rare endocrine disorders
Sales of Rare endocrine disorder products decreased by 5% measured in Danish kroner and by 2% at CER to DKK 7,303 million. The sales development was driven by North America Operations' sales decreasing by 12% at CER, partially offset by International Operations sales increasing by 5% at CER. Novo Nordisk is the leading company in the global human growth disorder market with a value market share of 36.3% compared to 35.6% a year ago.

Sales by therapeutic area



Sales split in Diabetes care

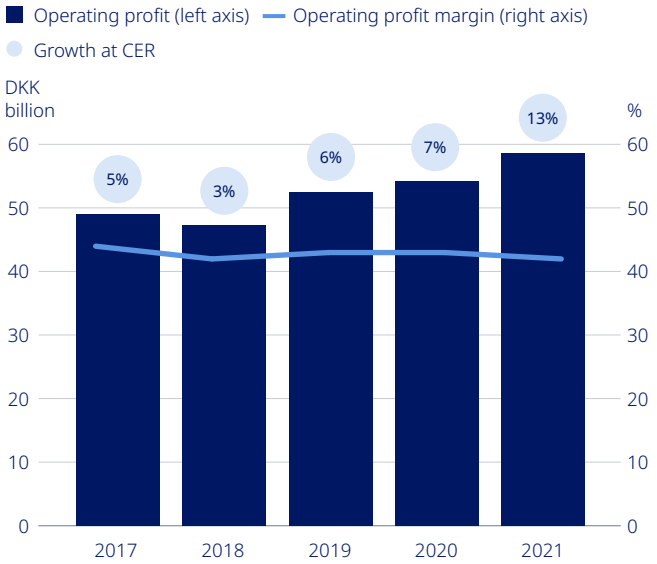


Development in costs and operating profit

The cost of goods sold increased by 13% measured in Danish kroner and by 15% at CER to DKK 23,658 million, resulting in a gross margin of 83.2% measured in Danish kroner compared with 83.5% in 2020. The decline in gross margin reflects lower realised prices in the US, a negative currency impact of 0.2 percentage points and amortisation of intangible assets related to the acquisition of Emisphere Technologies Inc. in 2020. This is countered by a positive product mix driven by increased GLP-1 sales and productivity improvements in line with the strategic aspiration of driving operational efficiencies.

Sales and distribution costs increased by 12% measured in Danish kroner and by 15% at CER to DKK 37,008 million. The increase in costs is driven by International Operations and North America Operations. In International Operations, promotional spend is related to launch activities for Rybelsus® and Ozempic® as well as Obesity care market development activities. In North America Operations, the cost increase is driven by promotional activities for Rybelsus® and Ozempic® as well as market development activities for Obesity care and launch costs for Wegovy®, partially offset by lower promotional spend related to insulin.

Operating profit and margin



Research and development costs increased by 15% measured in Danish kroner and by 16% at CER to DKK 17,772 million. Increased activities within Other serious chronic diseases are driving the cost increase reflecting the progression of the pipeline within cardiovascular disease and NASH. The growth is impacted by amortisation of the priority review voucher for Wegovy® in the US in 2020.

Administration costs increased by 2% measured in Danish kroner and by 4% at CER to DKK 4,050 million, reflecting low spend in 2020 due to COVID-19 impact on activities.

Other operating income and expenses (net) was DKK 332 million compared with DKK 460 million in 2020.

Operating profit increased by 8% measured in Danish kroner and by 13% at CER to DKK 58,644 million.

Financial items (net) and tax

Financial items (net) showed a net gain of DKK 436 million compared with a net loss of DKK 996 million in 2020.

In line with Novo Nordisk's treasury policy, the most significant foreign exchange risks for Novo Nordisk have been hedged, primarily through foreign exchange forward contracts. The foreign exchange result was a net gain of DKK 344 million compared with a net loss of DKK 747 million in 2020. This reflects gains on hedged currencies, primarily the US dollar.

As per the end of December 2021, a negative market value of financial contracts of approximately DKK 1.7 billion has been deferred for recognition in 2022.

The effective tax rate is 19.2% in 2021 compared with an effective tax rate of 20.7% in 2020, mainly reflecting non-recurring impact from acquisitions in 2020 and 2021.

Net profit increased by 13% to DKK 47,757 million and diluted earnings per share increased by 15% to DKK 20.74 DKK.

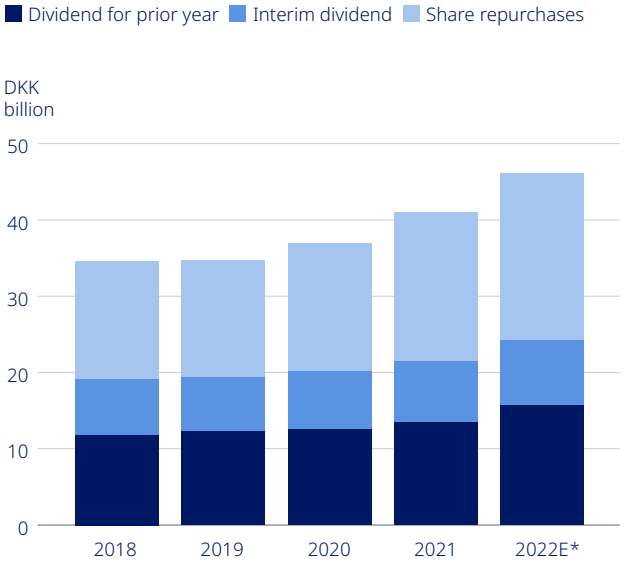
Cash flow and capital allocation

Free cash flow was DKK 29.3 billion compared with DKK 28.6 billion in 2020 supporting the strategic aspiration to deliver attractive capital allocation to shareholders. The increase is driven by higher net profit and higher provisions for rebates in the US partially driven by changed distribution policy for the 340B programme. This increase is partially countered by an unfavourable impact from change in working capital.

Capital expenditure for property, plant and equipment was DKK 6.3 billion compared with DKK 5.8 billion in 2020.

Novo Nordisk's financial reserves were DKK 16.1 billion by end of December 2021 comprising cash at bank, marketable securities (measured at fair value based on active market data) and undrawn credit facilities less overdrafts and loans repayable within 12 months.

Cash flow and capital allocation



*Expectations for 2022

2022 outlook

For 2022, sales growth is expected to be 6% to10% at CER. The guidance reflects expectations for sales growth in both International Operations and in North America Operations, mainly driven by Diabetes and Obesity care. Within Obesity care, the guidance reflects an expectation of meeting the demand for Wegovy® in the US in the second half of 2022.

Intensifying competition within both Diabetes care and Biopharm as well as an estimated negative impact on global sales growth of around 3 percentage points from Volume Based Procurement of insulin in China are also reflected in the guidance. Furthermore, continued pricing pressure within Diabetes care, especially in the US, is expected to negatively impact sales development. Given the current exchange rates versus the Danish krone, growth reported in DKK is now expected to be around 5 percentage points higher than at CER.

Operating profit growth is expected to be 4% to 8% at CER. The expectation for operating profit growth primarily reflects the sales growth outlook and continued investments in current and future growth drivers within research and development and commercial. Across the operating units, commercial investments are related to the continued roll-out of Ozempic® and Rybelsus® as well as global investments in building the anti-obesity market and the launch of Wegovy®. Furthermore, resources are allocated to both early and late-stage pipeline activities. The acquisition of Dicerna Pharmaceuticals Inc. is negatively impacting operating profit growth by around 3 percentage points due to higher operating costs and amortisations of intangible assets . Given the current exchange rates versus the Danish krone, growth reported in DKK is expected to be around 7 percentage points higher than at CER.

For 2022, Novo Nordisk expects financial items (net) to amount to a loss of around DKK 2.8 billion, mainly reflecting losses associated with foreign exchange hedging contracts.

The effective tax rate for 2022 is expected to be in the range of 20-22%.

Capital expenditure is expected to be around DKK 12 billion in 2022 primarily relating to investments in additional capacity for active pharmaceutical ingredient (API) production at existing manufacturing sites. The expected increase in capital expenditure reflects progress of R&D projects based on the oral technology platform.

Depreciation, amortisation and impairment losses are expected to be around DKK 6.5 billion.

The free cash flow is expected to be DKK 50-55 billion. The increase in free cash flow compared to 2021 reflects the impact from the acquisition of Dicerna Pharmaceuticals in 2021.
All of the above expectations are based on assumptions that the global or regional macroeconomic and political environment will not significantly change business conditions for Novo Nordisk during 2022, including the potential implications from major healthcare reforms and legislative changes as well as outcome of legal cases including litigations related to the 340B Drug Pricing Programme in the US, and that the currency exchange rates, especially the US dollar, will remain at the current level versus the Danish krone. Neither does the guidance include the financial implications of any significant business development transactions during the remainder of 2022.

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 note 4.3 in the financial statements.

Expectations are as reported, if not otherwise stated	Expectations 2 February 2022
Sales growth	
at CER	6% to 10%
as reported	Around 5 percentage points higher than at CER
Operating profit growth	
at CER	4% to 8%
as reported	Around 7 percentage points higher than at CER
Financial items (net)	Loss of around DKK 2.8 billion
Effective tax rate	20% to 22%
Capital expenditure (PP&E)	Around DKK 12.0 billion
Depreciation, amortisation and impairment losses	Around DKK 6.5 billion
Free cash flow (excluding impact from business development)	DKK 50-55 billion

Forward-looking statements

Novo Nordisk's reports filed with or furnished to the US Securities and Exchange Commission (SEC), including this statutory Annual Report 2021 and Form 20-F, which are both expected to be filed with the SEC in February 2022 in continuation of the publication of this Annual Report 2021, 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 2021, examples of forward looking statements can be found under the section related to our 'Strategic Aspirations' 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 2021, 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, including as a result of interruptions or delays affecting supply chains on which Novo Nordisk relies, 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 including the risk of cybersecurity breaches, 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, failure to maintain a culture of compliance, epidemics, pandemics or other public health crises, and factors related to the foregoing matters and other factors not specifically identified herein.

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 2021, reference is made to the overview of risk factors in 'Risk management' of this Annual Report 2021.

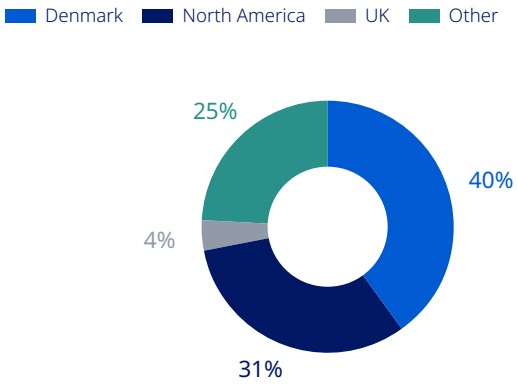
Unless required by law, Novo Nordisk is under no duty and undertakes no obligation to update or revise any forward-looking statement after the distribution of this Annual Report 2021, whether as a result of new information, future events, or otherwise.

Shares and capital structure

Through open and proactive communication, Novo Nordisk aims to provide the basis for fair and efficient pricing of our shares.

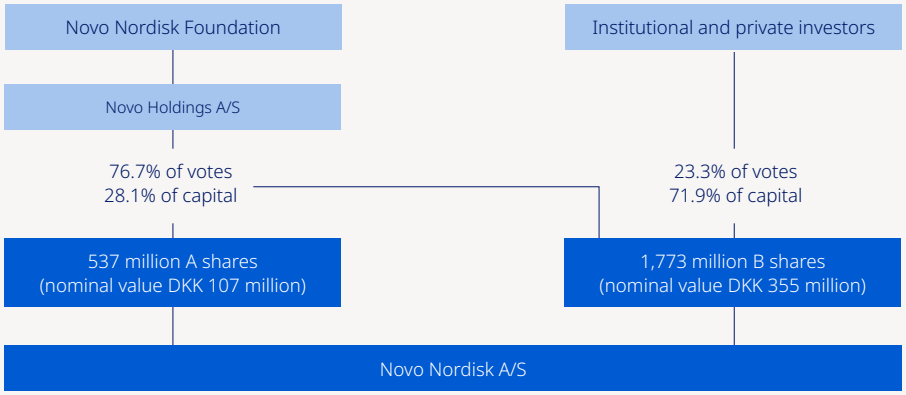
Geographical split of shareholders[1]

% of share capital



1. Split of shareholders is denoted according to the location of legal deposit-owner

Ownership structure*



* Treasury shares are included, however, voting rights of treasury shares cannot be exercised

Share capital and ownership

Novo Nordisk's share capital of DKK 462,000,000.00 is divided into A and B share capital. The A and B shares are calculated in units of DKK 0.20, amounting to 2.31 billion shares. The A share capital, consisting of 537 million shares, has a nominal value of DKK 107,487,200 and the B share capital, consisting of 1,773 million shares, has a nominal value of DKK 354,512,800. Each A share carries 200 votes and each B share carries 20 votes. Novo Nordisk's B shares are listed on Nasdaq Copenhagen and on the New York Stock Exchange (NYSE) as American Depository Receipts (ADRs).

The general meeting has authorised the Board of Directors to distribute extraordinary dividends, issue new shares in accordance with the Articles of Association and repurchase shares in accordance with authorizations granted.

The company's A shares are not listed and are held by Novo Holdings A/S[5], a Danish public limited liability company wholly-owned by the Novo Nordisk Foundation. According to the Articles of Association of the Foundation, the A shares cannot be divested.

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%. However, in practice, A and B shares receive the same amount of dividend per share.

As of 31 December 2021, Novo Holdings A/S also held a B share capital of nominally DKK 22,103,800. Together with the A shares, Novo Holdings A/S's total ownership amounted to nominally DKK 129,591,000. Novo Holdings A/S's ownership is reflected in the 'Ownership structure' chart.

There is no complete record of all shareholders; however, based on available sources of information, as of 31 December 2021 it is estimated that shares were geographically distributed as shown in the 'Geographical split of shareholders' chart. As of 31 December 2021, the free float of listed B shares was 92.01% (of which approximately 10.1% are listed as ADRs), excluding Novo Holdings A/S's holding and Novo Nordisk's holding of treasury shares. As of 31 December 2021, Novo Holdings A/S and Novo Nordisk's holding of B shares equaled 141,618,276 shares and had a nominal value of DKK 28,323,655. For details about the share capital, see note 4.2 to the consolidated financial statements.

Capital structure

Novo Nordisk's Board of Directors and Executive Management consider that the current capital and share structure of Novo Nordisk serve the interests of the shareholders and the company well. Novo Nordisk's capital structure strategy offers a balance between long-term shareholder value creation and competitive shareholder return in the short term.

The capital structure has been adjusted following Novo Nordisk's Eurobond issuance with an aggregate principal amount of EUR 1.3 billion. In addition, Novo Nordisk announced the acquisition of Dicerna on 18 November 2021, worth DKK 18 billion net of cash which is mainly debt-financed.

5. Novo Holdings A/S's registered address is Tuborg Havnevej 19, DK-2900 Hellerup, Denmark

Dividend policy

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. The final dividend for 2020 paid in March 2021 was equal to DKK 5.85 per A and B share of DKK 0.20 including ADRs. The total dividend for 2020 was DKK 9.10 per A and B share of DKK 0.20, corresponding to a payout ratio of 50.0%, which was in line with the 2020 pharma peer group average of 50.6%.

In August 2021, an interim dividend was paid equaling DKK 3.50 per A and B share of DKK 0.20 including ADRs. For 2021, the Board of Directors will propose a final dividend of DKK 6.90 to be paid in March 2022, equivalent to a total dividend for 2021 of DKK 10.40 and a payout ratio of 49.6%. The company expects to distribute an interim dividend in August 2022. Further information regarding this interim dividend will be announced in connection with the financial report for the first six months of 2022. Dividends are paid from distributable reserves. Novo Nordisk does not pay a dividend on its holding of treasury shares.

Share repurchase programme for 2021/2022

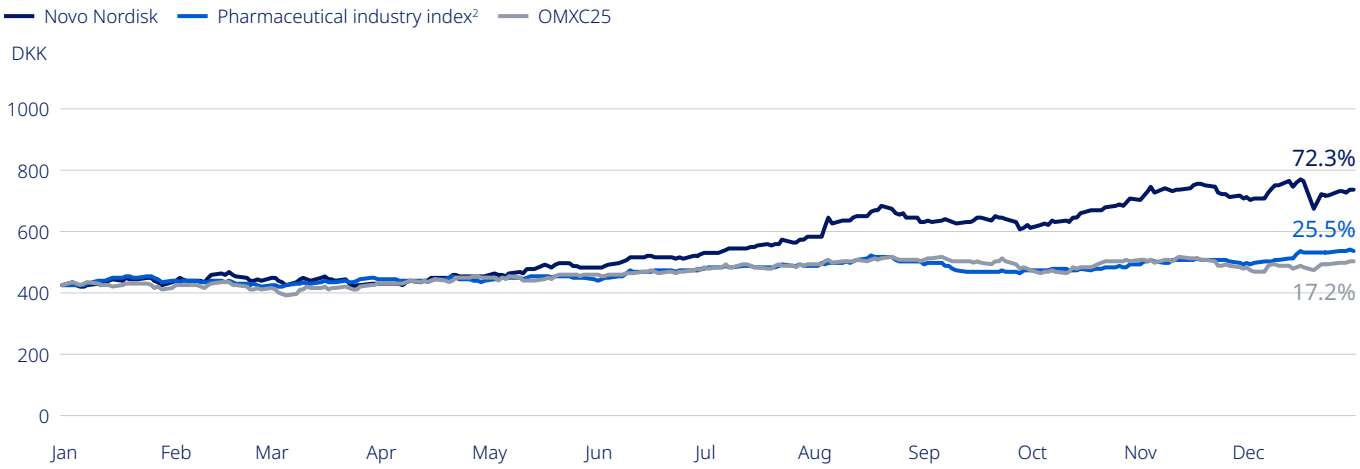
During the twelve-month period beginning 1 February 2021, Novo Nordisk repurchased shares worth DKK 20 billion. The share repurchase programme has primarily been conducted in accordance with the safe harbour rules in the EU Market Abuse Regulation (MAR). For the next 12 months, Novo Nordisk has decided to implement a new share repurchase programme. The expected total repurchase value of B shares amounts to a cash value of up to DKK 22 billion. The total programme may be reduced in size if significant business development opportunities arise during 2022. Novo Nordisk expects to conduct the majority of the new share repurchase programme according to the safe harbour rules defined in MAR. At the Annual General Meeting in March 2022, the Board of Directors will propose a further reduction in the company's B share capital, corresponding to approximately 1.3% of the total share capital, by cancelling 30,000,000 treasury shares.

Share price development

Novo Nordisk's share price increased by 72.3% during 2021 until its close on 31 December close of DKK 735.00. The total market value of Novo Nordisk's B shares, excluding treasury shares and Novo Holdings A/S shares, was DKK 1,198,745,107,140, as of 31 December 2021.

Share price performance 2021

Novo Nordisk share price and indexed peers[1]



1. OMXC25 and pharmaceutical industry development have been rebased to Novo Nordisk share price in January 2021
2. AstraZeneca, Bristol-Myers Squibb, Eli Lilly & Co., Glaxo Smith Kline, Lundbeck, Merck & Co, Novartis AG, Pfizer, Roche, Sanofi-Aventis AG

Strategic Aspirations 2025 **Financial**

- Deliver solid sales and operating profit growth:
  - Deliver 6–10% sales growth in International Operations
  - Transform 70% of sales in the US (from 2015 to 2022)
- Drive operational efficiencies across the value chain to enable investments in future growth assets
- Deliver free cash flow to enable attractive capital allocation to shareholders

Key risks

Risk management

To be a sustainable business, we must anticipate and adapt to our environment to create new strategic opportunities. Managing risks rigorously and systematically is key in order for us to create and protect value.

We apply a dual lensed approach to risk management. This means we identify and mitigate both operational risks that pose a threat to our short to medium-term plans, as well as strategic risks that could reduce our ability to achieve our corporate strategy over the long-term.

Addressing risks in our strategic planning:

Scenario and risk-thinking exercises are part of our strategic planning. They include analyses of market dynamics as well as socioeconomic and political developments that present risks or opportunities for our business. Annually, Executive Management and the Board of Directors review a strategic risk profile.

Access and affordability

Access to affordable care is a global issue as healthcare systems struggle to provide quality care at a sustainable cost, while the burden of chronic diseases keeps rising. Ensuring access and affordability is a risk and responsibility Novo Nordisk shares with all involved in healthcare. We recognize that we cannot defeat chronic diseases alone, but to mitigate the risk we can accelerate our actions to find solutions in collaboration with relevant stakeholders.

Innovation and competition

We are a scientific based company whose future is based on raising the innovation bar. To remain competitive in the future and thereby mitigate the innovation risk, we invest significantly in internal and external pipeline opportunities to ensure patients receive improved treatments.

Digital disruption

New digital technologies could bring new competitors into the pharmaceutical industry. It also provides an opportunity for us to deliver more value to our stakeholders and help patients live a life free from the limitations of their disease. Digital health solutions bring new risks particularly around data regulation and privacy, as well as potential quality risks. We strive to monitor and mitigate these risks in close collaboration with relevant partners.

Production capacity and supply chain risks

Demand fluctuations, resource shortages, trade disputes, quality assurance and local manufacturing requirements are all factors that can pressure global supply chains. Furthermore, expanding production capacity is complex and associated with a long lead time. Therefore, planning and management of our supply chain and production is key to mitigate this risk.

Operational risk management process:

In the short to medium-term we are also exposed to risks throughout our value chain. Some risks are inherent in the pharmaceutical industry, such as delays or failures of potential late-stage medicines in the R&D pipeline. Other risks, such as supply disruptions and competitive threats, are well-known to any manufacturing company with global production. We will never compromise on product quality, patient safety and business ethics: these are front and centre of our enterprise-wide risk management set-up. We assess risks to potential financial loss and reputational damage.

Executive Management, the Board of Directors and Audit Committee review a 'heat map' of our biggest operational risks every six months. This map is based on insights from management teams across the organisation and includes risks that could cause significant disruptions to the business over a three-year horizon. The following overview provides more details of our key risks.

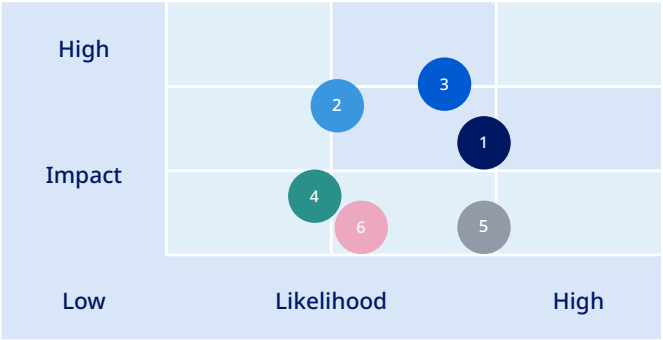
For more information, see our Corporate Governance report available at www.novonordisk.com/about/corporate-governance.html

Key operational risks

An aggregated illustration of our key operational risks is outlined below with associated descriptions on the next page.

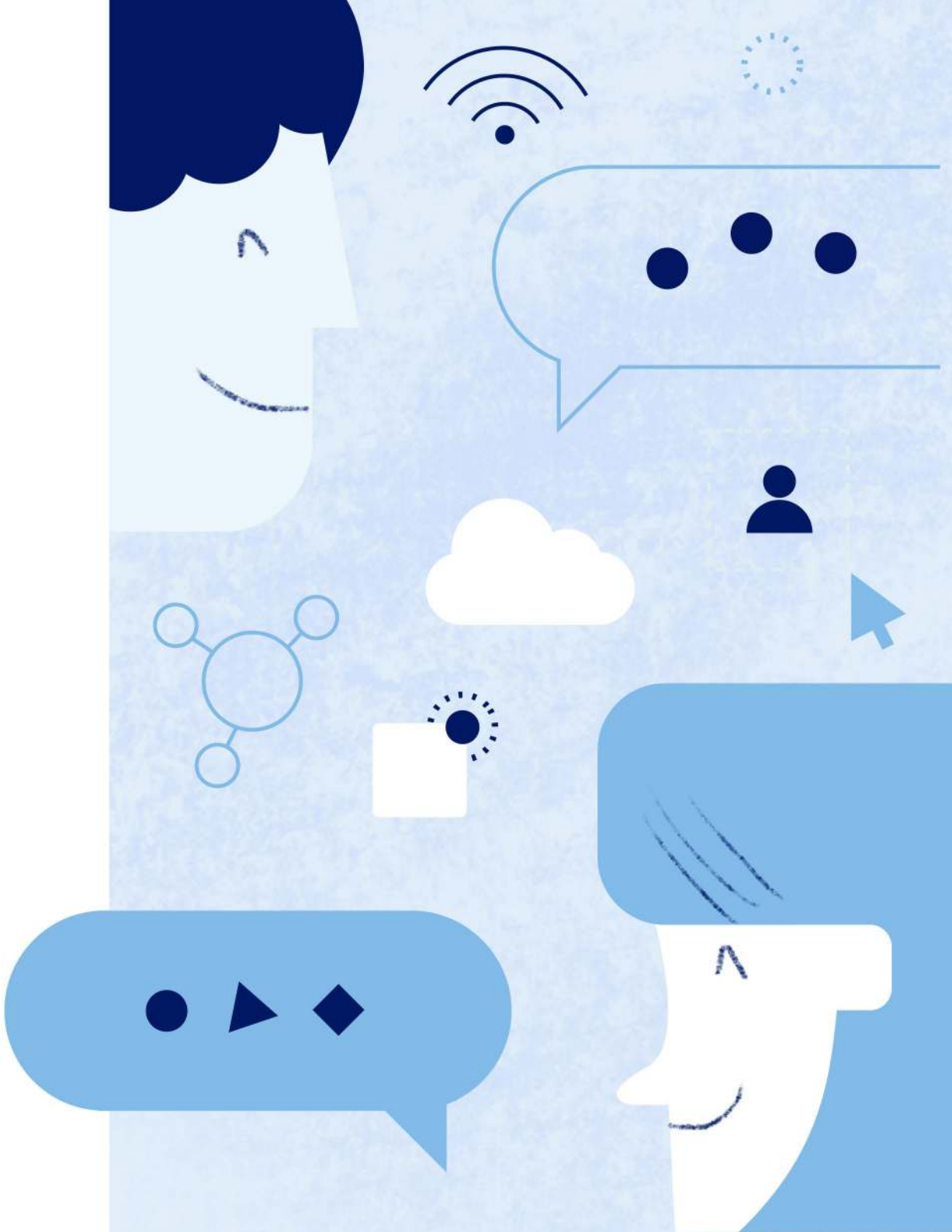
1. Clinical Pipeline Risks
2. Product Supply, Quality and Safety Risk
3. Commercialisation Risks
4. IT Security Risks
5. Financial Risks
6. Legal, Patents and Compliance Risks

ILLUSTRATIVE



	Risk area	Description	Impact	Mitigating actions
1	**Clinical Pipeline Risks**	Findings in clinical activities, regulatory processes or misunderstanding of commercial potential leading to delays or failure of products in the pipeline	– Patients would not benefit from innovative treatments – Could have an adverse impact on sales, profits and market position	– Pre-clinical and clinical activities to demonstrate safety and efficacy – Consultations with regulators to review pre-clinical and clinical findings and obtain guidance on development path
2	**Product Supply, Quality and Safety Risks**	Disruption of product supply or quality failures may compromise the availability of products, ultimately impacting the health of patients and a lost commercial opportunity	– Product shortages could have potential implications for patients – Could put patients' health and lives at risk and jeopardise reputation and license to operate if regulatory compliance is not ensured – Could have an adverse impact on sales, profits and market position	– Establishing global production with multiple facilities and safety stock to reduce supply risk – Regular quality audits of internal units and suppliers and annual inspections by authorities document GMP compliance – Identification and correction of root causes when issues are identified. If necessary, products are recalled
3	**Commercialisation Risks**	Market dynamics and geopolitical, macroeconomic or healthcare crises (e.g., pandemics) leading to reduced payer ability and willingness to pay	– Market dynamics could impact price levels and patient access – Could have an adverse impact on sales, profits and market position	– Innovation of novel products, clinical trial data and real-world evidence demonstrate added value of new products – Payer negotiations to ensure improved patients' access – Increased and new access and affordability initiatives
4	**IT Security Risks**	Disruption to IT systems, such as cyber-attacks or infrastructure failure resulting in business disruption or breach of data confidentiality	– Could limit our ability to produce and safeguard product quality – Could compromise patients' or other individuals' privacy – Could limit our ability to maintain operations or limit future business opportunities if proprietary information is lost – Could have an adverse impact on sales, profits and market position	– Company-wide information security awareness activities – Continuity plans for non-availability of IT systems – Company-wide internal audit of IT security controls – Detection and protection mechanisms in IT systems and business processes
5	**Financial Risks**	Exchange rate fluctuations (mainly in USD, CNY and JPY), disputes with tax authorities and changes to tax legislation and interpretation	– Could lead to significant tax adjustments, fines and higher-than-expected tax level – Could have an adverse impact on sales, profits and market position	– Hedging for selected currencies – Integrated treasury management – Applicable taxes paid in jurisdictions where business activity generates profits and multi-year Advance Pricing Agreements with tax authorities
6	**Legal, Patents and Compliance Risks**	Breach of legislation, industry codes or company policies. Competitors asserting patents against Novo Nordisk or challenging patents critical for protection of commercial product and pipeline candidates	– Potential exposure to investigations, criminal and civil sanctions and other penalties – Could compromise our reputation and the rights and integrity of individuals involved – Unexpected loss of exclusivity for or injunctions against existing and pipeline products could have an adverse impact on future sales – Could have an adverse impact on sales, profits and market position	– Legal review of key activities – Business Ethics Code of Conduct integrated in our business, Compliance hotline in place and Internal Audit of compliance with business ethics standards – Internal controls to minimise vulnerability to patent infringement and invalidity actions

Management



44 Board of Directors
47 Executive Management

Board of Directors

Helge Lund
Chair

Norwegian. Born October 1962. Male. First elected 2017[1]. Term 2022.

Chair of the Nomination Committee and Chair of the Chair Committee.

Positions and management duties:
Chair of the board of directors and chair of the people & governance committee of BP p.l.c. Chair of the board of directors of Inkerman Holding AS. Member of the board of directors and member of the remuneration committee of Belron SA and of the board of directors of P/F Tjaldur. Operating advisor to Clayton Dubilier & Rice. Member of the board of trustees of the International Crisis Group.

Competences:
Global corporate leadership; healthcare and pharma industry; finance & accounting; business development, M&A and external innovation sourcing; human capital management; environmental, social & governance (ESG).

1. In addition, Helge Lund was a member of the Board for one year in 2014-2015

Jeppe Christiansen
Vice chair

Danish. Born November 1959. Male. First elected 2013. Term 2022.

Chair of the Remuneration Committee and member of the Chair Committee.

Positions and management duties:
Chief executive officer of Maj Invest Holding A/S and executive director of two wholly owned subsidiaries. Chair of the board of directors of Haldor Topsøe A/S, Emlika Holding ApS, and two wholly owned subsidiaries of the latter company, and chair of the board of directors of JEKC Holding ApS. Member of the board of directors of Novo Holdings A/S, KIRKBI A/S, BellaBeat Inc., Pluto Naturfonden and Randers Regnskov. Member of the board of governors of Det Kgl. Vajsenhus. Adjunct Professor, department of finance, Copenhagen Business School.

Competences:
Healthcare and pharma industry; finance & accounting; business development, M&A and external innovation sourcing; human capital management; environmental, social & governance (ESG).

Laurence Debroux

French. Born July 1969. Female. First elected 2019. Term 2022.

Chair of the Audit Committee and member of the Remuneration Committee.

Positions and management duties:
Member of the board of directors, chair of the audit committee and member of the ESG committee of Exor N.V. Member of the board of directors, control & risk committee and of the ESG committee of Juventus Football Club S.p.A. Member of the board of HEC Paris Business School and of Kite Insights (The Climate School).

Competences:
Global corporate leadership; healthcare and pharma industry; finance & accounting; business development, M&A and external innovation sourcing; human capital management; environmental, social & governance (ESG).

Andreas Fibig

German. Born February 1962. Male. First elected 2018. Term 2022.

Member of the Audit Committee.

Positions and management duties:
Chair, chief executive officer and member of the innovation and sustainability committee of International Flavors & Fragrances Inc. Chair of the board of directors of the German American Chamber of Commerce and executive committee member of the World Business Council for Sustainable Development (WBCSD).

Competences:
Global corporate leadership; healthcare and pharma industry; technology; finance & accounting; business development, M&A and external innovation sourcing; human capital management; environmental, social & governance (ESG).

Sylvie Grégoire

Canadian and American. Born November 1961. Female. First elected 2015. Term 2022.

Member of the Audit Committee, the Research & Development Committee and the Nomination Committee.

Positions and management duties:
Executive chair of the board of directors of EIP Pharma, Inc. Member of the board of directors and member of the nominating and corporate governance committee of Perkin Elmer Inc. Member of the board of directors of F2G Ltd.

Competences:
Global corporate leadership; healthcare and pharma industry; medicine & science; finance & accounting; business development, M&A and external innovation sourcing; human capital management.

Henrik Poulsen

Danish. Born September 1967. Male. First elected 2021. Term 2022.

Member of the Audit Committee.

Positions and management duties:
Deputy chair of the board of directors and member of the transaction committee of ISS A/S. Deputy chair of the supervisory board and member of the audit, remuneration and nomination committees of Carlsberg A/S. Member of the board of directors of Novo Holdings A/S and Ørsted A/S. Senior advisor to A.P. Møller Holding A/S and chair of the board of directors of Færch A/S. Member of the supervisory board of Bertelsmann SE & Co. KGaA.

Competences:
Global corporate leadership; finance & accounting; business development, M&A and external innovation sourcing; human capital management; environmental, social & governance (ESG).

Mette Bøjer Jensen

Danish. Born December 1975. Female. First elected 2018. Term 2022.

Employee representative. Member of the Nomination Committee.

Positions and management duties:
Wash & Sterilisation specialist in Product Supply, Novo Nordisk A/S.

Competences:
Not mapped for employee representatives.

Kasim Kutay

British. Born May 1965. Male. First elected 2017. Term 2022.

Member of the Nomination Committee and the Research & Development Committee.

Positions and management duties:
Chief executive officer of Novo Holdings A/S. Member of the board of directors and member of the nomination and remuneration committee of Novozymes A/S. Member of the board of directors and member of the nomination and remuneration committee of Evotec SE. Member of the board of directors of the Life Sciences Advisory board of Gimv NV.

Competences:
Global corporate leadership; healthcare and pharma industry; finance & accounting; business development, M&A and external innovation sourcing; human capital management.

Anne Marie Kverneland

Danish. Born July 1956. Female. First elected 2000. Term 2022.

Employee representative. Member of the Remuneration Committee.

Positions and management duties:
Laboratory technician and full-time union representative in Novo Nordisk A/S. Member of the board of directors of the Novo Nordisk Foundation.

Competences:
Not mapped for employee representatives.

Martin Mackay

American and British. Born April 1956. Male. First elected 2018. Term 2022.

Chair of the Research & Development Committee. Member of the Remuneration Committee.

Positions and management duties:
Co-founder, chair and CEO of Rallybio LLC. Member of the board of directors of 5:01 Acquisition Corporation. Senior advisor to New Leaf Venture Partners, LLC. Member of the board of directors and chair of the science & technology committee of Charles River Laboratories International, Inc.

Competences:
Global corporate leadership; healthcare and pharma industry; medicine & science; technology; business development, M&A and external innovation sourcing; human capital management.

Thomas Rantzau

Danish. Born March 1972. Male. First elected 2018. Term 2022.

Employee representative. Member of the Research & Development Committee.

Positions and management duties:
Area specialist in Product Supply, Novo Nordisk A/S.

Competences:
Not mapped for employee representatives.

Stig Strøbæk

Danish. Born January 1964. Male. First elected 1998. Term 2022.

Employee representative. Member of the Audit Committee.

Positions and management duties:
Electrician and a full-time union representative in Novo Nordisk A/S.

Competences:
Not mapped for employee representatives.

Independence and meeting attendance overview

		Meeting attendance in 2021[1]					
Name	Independence[2]	Board of Directors	Chair Committee	Audit Committee[7]	Nomination Committee	Remuneration Committee	R&D Committee
Helge Lund	Independent	●●●●●●●●●●●	●●●●●●●		●●●●		
Jeppe Christiansen	Not independent [3]	●●●●●●●●●●●	●●●●●●○			●●●●	
Laurence Debroux	Independent [4,5,8]	●●●●●●●●●●●		●●●●●		●●●	
Andreas Fibig	Independent [4]	●●●●●○●●●●○		●●●●●			
Sylvie Grégoire	Independent [4]	●●●●●●●●●●●		●●●●●	●●●●		●●●●●●●●
Mette Bøjer Jensen	Not independent [6]	●●●●●●●●●●●			●●●●		
Kasim Kutay	Not independent [3]	●●●●●●●●●●●			●●●●		●●●●●●●●
Anne Marie Kverneland	Not independent [6]	●●●●●●●●●●●				●●●●	
Martin Mackay	Independent	●●●●●●●●●●●				●●●	●●●●●●●●
Henrik Poulsen	Not independent [3,4,5,8]	●●●●●●●●		●●●●			
Thomas Rantzau	Not independent [6]	●●●●●●●●●●●					●●●●●●●●
Stig Strøbæk	Not independent [4,6]	●●●●●●●●●●●		●●●●●			

Board members who stepped down at the annual general meeting in March 2021

Brian Daniels	Independent	●●				●	●●
Liz Hewitt	Independent	●●		●		●	

1. Number of meetings attended by each Board member out of the total number of meetings within the member's term 2. In accordance with recommendation 3.2.1 of the Danish Corporate Governance Recommendations as designated by Nasdaq Copenhagen 3. Member of the board of directors or executive management of Novo Holdings A/S 4. Pursuant to the US Securities Exchange Act, Ms Debroux, Mr Fibig and Ms Grégoire qualify as independent Audit Committee members, while Mr Poulsen and Mr Strøbæk rely on an exemption from the independence requirements 5. Ms Debroux and Mr Poulsen possess the qualifications within accounting and auditing required under part 8 of the Danish Act on Approved Auditors and Audit Firms 6. Elected by employees of Novo Nordisk 7. Collectively the members have relevant industry expertise 8. Designated as financial experts as defined by the US Securities and Exchange Commission (SEC)

Executive Management

Lars Fruergaard Jørgensen
President and chief executive officer (CEO)

Born November 1966. Male.

Other positions and management duties:
Member of the supervisory board and member of the nomination committee of Carlsberg A/S.

First vice president of the European Federation of Pharmaceutical Industries and Associations (EFPIA).

Monique Carter
Executive vice president
People & Organisation

Born December 1973. Female.

Other positions and management duties:
No other management positions.

Maziar Mike Doustdar[1]
Executive vice president
International Operations

Born August 1970. Male.

Other positions and management duties:
No other management positions.

Ludovic Helfgott[1]
Executive vice president
Biopharm

Born July 1974. Male.

Other positions and management duties:
President of the Novo Nordisk Haemophilia Foundation Council.

Karsten Munk Knudsen
Executive vice president
Chief financial officer (CFO)

Born December 1971. Male.

Other positions and management duties:
Chair of the board of directors of NNE A/S. Member of the board of directors and chair of the audit committee of Hempel A/S.

Doug Langa[1]
Executive vice president,
North America Operations

Born October 1966. Male.

Other positions and management duties:
No other management positions.

Martin Holst Lange
Executive vice president
Development

Born October 1970. Male.

Other positions and management duties:
No other management positions.

Marcus Schindler
Executive vice president
Research & Early Development and chief scientific officer (CSO)

Born September 1966. Male.

Other positions and management duties:
Adjunct Professor of Pharmacology at the University of Gothenburg.

Camilla Sylvest
Executive vice president
Commercial Strategy & Corporate Affairs

Born November 1972. Female.

Other positions and management duties:
Vice chair of the board of directors of the World Diabetes Foundation. Member of the board of directors of Danish Crown A/S.

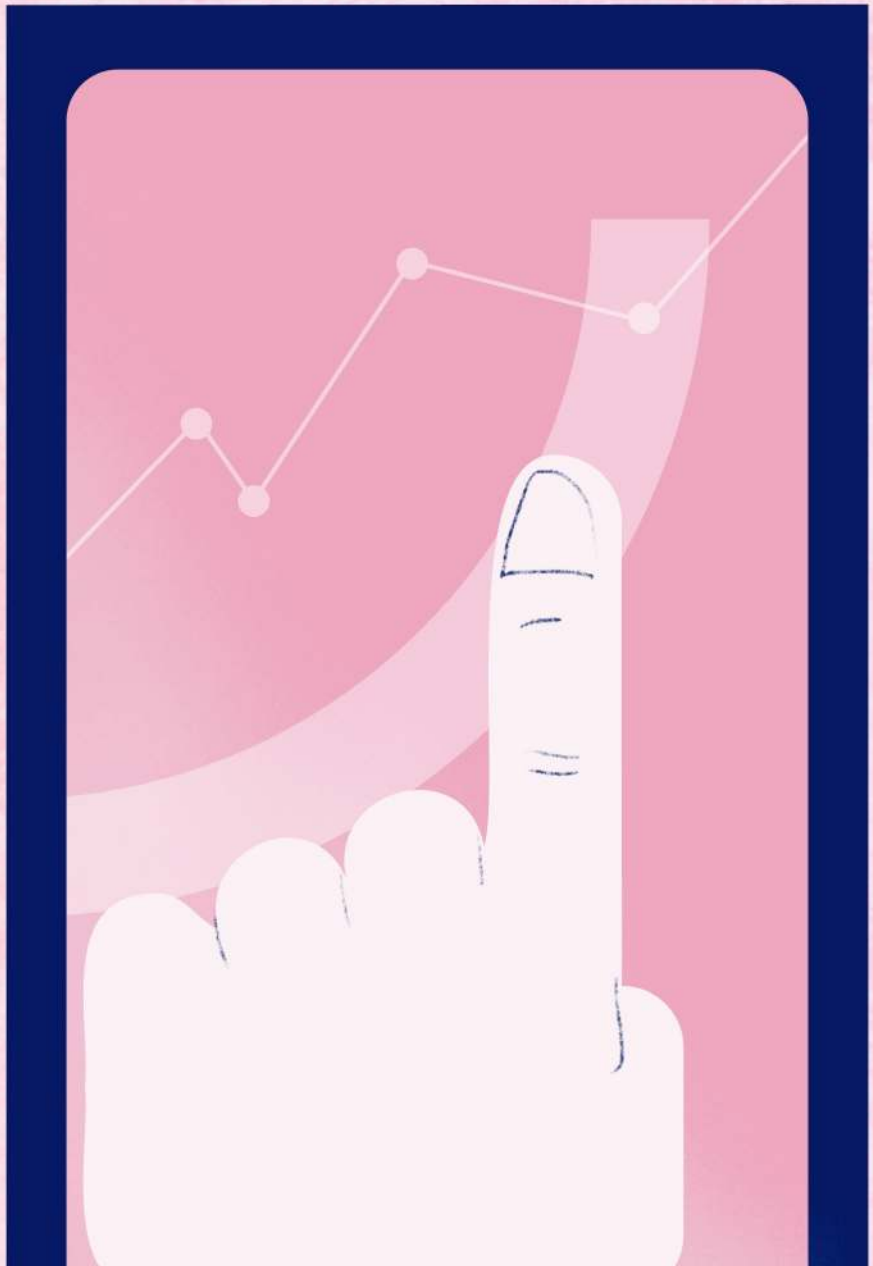
Henrik Wulff
Executive vice president
Product Supply, Quality & IT

Born November 1970. Male.

Other positions and management duties:
Member of the board of directors and the remuneration committee of Ambu A/S. Member of the board of directors of Grundfos Holding A/S.

1. Not registered as executive with the Danish Business Authority

Consolidated statements and additional information



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Income statement

and statement of comprehensive income for the year ended 31 December

DKK million	Note	**2021**	2020	2019
Income statement				
Net sales	2.1, 2.2	140,800	126,946	122,021
Cost of goods sold	2.2	(23,658)	(20,932)	(20,088)
Gross profit		117,142	106,014	101,933
Sales and distribution costs	2.2	(37,008)	(32,928)	(31,823)
Research and development costs	2.2, 2.3	(17,772)	(15,462)	(14,220)
Administrative costs	2.2	(4,050)	(3,958)	(4,007)
Other operating income and expenses	2.2, 2.5	332	460	600
Operating profit		58,644	54,126	52,483
Financial income	4.10	2,887	1,628	65
Financial expenses	4.10	(2,451)	(2,624)	(3,995)
Profit before income taxes		59,080	53,130	48,553
Income taxes	2.6	(11,323)	(10,992)	(9,602)
Net profit		**47,757**	42,138	38,951
Earnings per share				
Basic earnings per share (DKK)	2.7	20.79	18.05	16.41
Diluted earnings per share (DKK)	2.7	20.74	18.01	16.38

DKK million	Note	**2021**	2020	2019
Statement of comprehensive income				
Net profit		47,757	42,138	38,951
Other comprehensive income:				
Items that will not be reclassified subsequently to the income statement:				
Remeasurements of retirement benefit obligations		146	(67)	(187)
Items that will be reclassified subsequently to the income statement:				
Exchange rate adjustments of investments in subsidiaries		1,624	(1,689)	226
Cash flow hedges:				
Realisation of previously deferred (gains)/losses	4.2, 4.4	(1,802)	329	1,677
Deferred gains/(losses) incurred during the period	4.2, 4.4	(1,755)	1,384	(329)
Other items		112	10	9
Tax on other comprehensive income, income/(expense)	2.6	1,005	(577)	(231)
Other comprehensive income, net of tax		**(670)**	(610)	1,165
Total comprehensive income		**47,087**	41,528	40,116

Cash flow statement

for the year ended 31 December

DKK million	Note	2021	2020	2019
Cash flow statement				
Net profit		47,757	42,138	38,951
Adjustment of non-cash items:				
Income taxes in the income statement	2.6	11,323	10,992	9,602
Depreciation, amortisation and impairment losses	3.1	6,025	5,753	5,661
Other non-cash items	4.7	13,009	7,849	7,032
Change in working capital	4.8	(8,656)	(4,353)	(3,388)
Interest received		241	100	64
Interest paid		(261)	(422)	(204)
Income taxes paid	2.6	(14,438)	(10,106)	(10,936)
Net cash generated from operating activities		**55,000**	51,951	46,782
Purchase of intangible assets	3.1	(1,050)	(16,256)	(2,299)
Proceeds from sale of property, plant and equipment		—	7	4
Purchase of property, plant and equipment	3.1	(6,335)	(5,825)	(8,932)
Cash used for acquisition of businesses	5.3	(18,283)	—	—
Proceeds from other financial assets		—	12	148
Purchase of other financial assets		(4)	—	(350)
Purchase of marketable securities		(7,109)	—	—
Sale of marketable securities		1,172	—	—
Investment in associated companies	5.4	—	(392)	(97)
Proceeds from the divestment of Group and associated companies		—	—	(3)
Dividend received from associated companies	5.4	4	18	20
Net cash used in investing activities		**(31,605)**	(22,436)	(11,509)

DKK million	Note	2021	2020	2019
Purchase of treasury shares	4.2	(19,447)	(16,855)	(15,334)
Dividends paid	4.1	(21,517)	(20,121)	(19,409)
Proceeds from borrowings	4.5	22,160	5,682	81
Repayment of borrowings	4.5	(6,689)	(950)	(822)
Net cash used in financing activities		**(25,493)**	(32,244)	(35,484)
Net cash generated from activities		**(2,098)**	(2,729)	(211)
Cash and cash equivalents at the beginning of the year		12,226	15,411	15,629
Exchange gains/(losses) on cash and cash equivalents		591	(456)	(7)
Cash and cash equivalents at the end of the year	4.6	**10,719**	12,226	15,411

Balance sheet

at 31 December

DKK million	Note	2021	2020
Assets			
Intangible assets	3.1	43,171	20,657
Property, plant and equipment	3.1	55,362	50,269
Investments in associated companies		525	582
Deferred income tax assets	2.6	8,672	5,865
Other receivables and prepayments		267	674
Other financial assets		916	1,066
Total non-current assets		**108,913**	79,113
Inventories	3.2	19,621	18,536
Trade receivables	3.3	40,643	27,734
Tax receivables		1,119	289
Other receivables and prepayments		5,037	4,161
Marketable securities	4.3	6,765	—
Derivative financial instruments	4.4	1,690	2,332
Cash at bank	4.6	10,720	12,757
Total current assets		**85,595**	65,809
Total assets		**194,508**	144,922

DKK million	Note	2021	2020
Equity and liabilities			
Share capital	4.2	462	470
Treasury shares	4.2	(6)	(8)
Retained earnings		72,004	63,774
Other reserves	4.2	(1,714)	(911)
Total equity		**70,746**	63,325
Borrowings	4.5	12,961	2,897
Deferred income tax liabilities	2.6	5,271	2,502
Retirement benefit obligations		1,280	1,399
Other liabilities	3.5	360	—
Provisions	3.4	4,374	4,526
Total non-current liabilities		**24,246**	11,324
Borrowings	4.5	13,684	7,459
Trade payables		8,870	5,717
Tax payables		3,658	3,913
Other liabilities	3.5	19,600	17,005
Derivative financial instruments	4.4	2,184	1,365
Provisions	3.4	51,520	34,814
Total current liabilities		**99,516**	70,273
Total liabilities		**123,762**	81,597
Total equity and liabilities		**194,508**	144,922

Equity statement

at 31 December

	2021					2020					2019				
DKK million	Share capital	Treasury shares	Retained earnings	Other reserves	**Total**	Share capital	Treasury shares	Retained earnings	Other reserves	Total	Share capital	Treasury shares	Retained earnings	Other reserves	Total
Balance at the beginning of the year	470	(8)	63,774	(911)	63,325	480	(10)	57,817	(694)	57,593	490	(11)	53,406	(2,046)	51,839
Net profit			47,757		47,757			42,138		42,138			38,951		38,951
Other comprehensive income			146	(816)	(670)			(67)	(543)	(610)			(187)	1,352	1,165
Total comprehensive income			47,903	(816)	47,087			42,071	(543)	41,528			38,764	1,352	40,116
Transfer of cash flow hedge reserve to intangible assets (note 4.2)				13	13				326	326					
Transactions with owners:															
Dividends (note 4.1)			(21,517)		(21,517)			(20,121)		(20,121)			(19,409)		(19,409)
Share-based payments (note 5.1)			1,040		1,040			823		823			363		363
Tax related to restricted stock units			245		245			31		31			18		18
Purchase of treasury shares (note 4.2)		(6)	(19,441)		(19,447)		(8)	(16,847)		(16,855)		(9)	(15,325)		(15,334)
Reduction of the B share capital (note 4.2)	(8)	8			—	(10)	10			—	(10)	10			—
Balance at the end of the year	462	(6)	72,004	(1,714)	**70,746**	470	(8)	63,774	(911)	63,325	480	(10)	57,817	(694)	57,593

Refer to note 4.2 for details of movements in Other reserves.

Section 1
Basis of preparation

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 in accordance with IFRS as endorsed by the EU and further requirements in the Danish Financial Statements Act.

Measurement basis
The consolidated financial statements have been prepared on the historical cost basis except for derivative financial instruments, equity investments, marketable securities and trade receivables in a factoring portfolio, which are measured at fair value. Except for the changes described in note 1.2, the principal accounting policies set out below have been applied consistently in the preparation of the consolidated financial statements for all the years presented. The general accounting policies are described in note 5.6.

Principal accounting policies
Novo Nordisk's accounting policies are described in each of the individual notes to the consolidated financial statements. Accounting policies listed in the table below are regarded as the principal accounting policies applied by Management.

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 make judgements on the reported amounts of assets, liabilities, net sales, expenses and related disclosures.

The key accounting estimates identified are those that have a significant risk of resulting in a material adjustment to the measurement of assets and liabilities in the following reporting period. An example being the estimation of US sales deductions and provisions for sales rebates.

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. 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. 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 the classification of a transaction as an asset acquisition or a business combination.

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.

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. 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.

Management provides specific disclosures required by IFRS unless the information is not applicable or is considered immaterial to the decision-making of the primary users of these financial statements.

1.2 Changes in accounting policies and disclosures

Adoption of new or amended IFRSs
Management has assessed the impact of new or amended and revised accounting standards and interpretations (IFRSs) issued by the IASB and IFRSs endorsed by the European Union effective on or after 1 January 2021. It is assessed that application of amendments effective from 1 January 2021 has not had a material impact on the consolidated financial statements for 2021. Furthermore, Management does not anticipate any significant impact on future periods from the adoption of these amendments.

Principal accounting policies	Key accounting estimates and judgements	Estimation risk	Note
US net sales and rebates	Estimate of US sales deductions and provisions for sales rebates	High	2.1
Intangible assets from acquisition of businesses	Estimate in determining the fair value of intangible assets when acquiring assets in a business combination	High	5.3
Income taxes and deferred income taxes	Estimate regarding deferred income tax assets and provision for uncertain tax positions	Medium	2.6
Provisions and contingent liabilities	Estimate of ongoing legal disputes, litigation and investigations	Medium	3.4
Intangible assets	Estimate regarding impairment of assets and judgement of whether a transaction is an asset acquisition or a business combination	Low	3.1
Inventories	Estimate of indirect production costs capitalised and inventory write-down	Low	3.2

Section 2
Results for the year

2.1 Net sales and rebates

Gross-to-net sales reconciliation

DKK million	**2021**	2020	2019
Gross sales	340,180	298,187	270,431
US Managed Care and Medicare	(112,929)	(96,716)	(84,202)
US wholesaler charge-backs	(40,354)	(37,036)	(33,772)
US Medicaid rebates	(19,810)	(17,307)	(14,365)
Other US discounts and sales returns	(14,119)	(10,867)	(8,280)
Non-US rebates, discounts and sales returns	(12,168)	(9,315)	(7,791)
Total gross-to-net sales adjustments	(199,380)	(171,241)	(148,410)
Net sales	**140,800**	126,946	122,021

Provisions for sales rebates

DKK million	**2021**	2020	2019
At the beginning of the year	34,052	30,878	25,760
Additional provisions, including increases to existing provisions	155,602	111,921	102,782
Amount paid during the year	(141,370)	(106,116)	(98,655)
Adjustments, including unused amounts reversed during the year	(284)	166	381
Effect of exchange rate adjustment	2,822	(2,797)	610
At the end of the year	**50,822**	34,052	30,878

Sales discounts and sales rebates are predominantly issued in the US. As such, rebates amount to 75% of gross sales in the US (74% in 2020 and 71% in 2019).

Provisions for sales rebates include US Managed Care, Medicare, Medicaid, and other US rebate types, as well as rebates in a number of European countries and Canada.

Pricing mechanisms in the US market

In the US, sales rebates are paid in connection with public healthcare insurance programmes, including 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 for both the commercial and government channels, and determine which drugs are covered on their formularies (or 'preferred drug lists').

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 share thresholds. 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. Managed Care and Medicare rebates are generally settled around 100 days from the transaction date.

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. Since January 2021, Novo Nordisk has changed its policy in the US related to the 340B Drug Pricing Program, whereby Novo Nordisk no longer provides 340B statutory discounts to certain pharmacies that contract with covered entities participating in the 340B Drug Pricing Program. Chargebacks are estimated 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 after receipt of claim. Please refer to note 3.4 Provisions and contingent liabilities for a more elaborate description of the ongoing litigation on the 340B Drug Pricing Program.

US Medicaid rebates

Medicaid is a government insurance programme. Medicaid rebates have been estimated using a combination of historical experience, product and population growth, price changes, and the impact of contracting strategies. The calculation also involves interpretation of relevant regulations that are subject to changes in interpretative guidance from government authorities. Novo Nordisk adjusts the provision periodically to reflect actual sales performance. Medicaid rebates are generally settled around 150 days from the transaction date.

Other US and non-US discounts and sales returns

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

Other net sales disclosures

In 2021, Novo Nordisk had three major wholesalers distributing products in the US, representing 18%, 13% and 13% respectively of total net sales (19%, 13% and 12% in 2020 and 19%, 14% and 12% in 2019). Sales to these three wholesalers are within both Diabetes and Obesity care and Biopharm.

Net sales to be recognised from fulfilling existing customer contracts containing fixed or minimum sales volumes, with an original term greater than 12 months, are expected to be DKK 1,012 million within 12 months (DKK 431 million in 2020) and DKK 962 million thereafter (DKK 216 million in 2020).

Novo Nordisk's sales are impacted by exchange rate changes. Refer to note 4.3 for development in key exchange rates.

Accounting policies

Revenue from sale of goods is recognised when Novo Nordisk has transferred control of products sold to the buyer and it is probable that Novo Nordisk will collect the consideration to which it is entitled for transferring the products. Control of the products is transferred at a single point in time, typically on delivery. The amount of sales to be recognised is based on the consideration Novo Nordisk expects to receive in exchange for its goods. 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, by assessing the expected value of the sales deductions (variable consideration). Where contracts contain customer acceptance criteria, Novo Nordisk recognises sales when the acceptance criteria are satisfied.

In some markets, Novo Nordisk sells products on a sale-or-return basis. Where there is historical experience or a reasonably accurate estimate of

future returns, estimated product returns are recorded as a reduction in sales. Where shipments of new products are made on a sale-or-return basis, without sufficient historical experience for estimating sales returns, revenue is recorded based on estimated demand and acceptance rates for well-established products with similar market characteristics. If similar market characteristics do not exist, revenue is recorded when there is evidence of consumption or when the right of return has expired.

Unsettled rebates are recognised as provisions when the timing or amount is uncertain (note 3.4).

Where absolute amounts are known, the rebates are recognised as other liabilities. Wholesaler charge-backs that are absolute are netted against trade receivable balances.

The impact of foreign currency hedging is recognised in the income statement in financial items. Please refer to notes 4.3, 4.4 and 4.10 for more details on hedging.

Key accounting estimates 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 rebate, discount and product return obligations require use of significant 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.

Revenue can only be recognised to the extent that it is highly probable that a significant reversal of the recognised revenue will not occur. In determining the amount of revenue to recognise, Management has considered, among other factors, whether the consideration is highly susceptible to factors outside Novo Nordisk's influence, as well as the extent of predictability and historical experience with similar transactions.

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.

2.2 Segment information

Business segments – Key figures

	Diabetes and Obesity care			Biopharm			Total		
DKK million	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Total net sales	121,597	108,020	102,840	19,203	18,926	19,181	140,800	126,946	122,021
Cost of goods sold	(19,363)	(17,715)	(16,309)	(4,295)	(3,217)	(3,779)	(23,658)	(20,932)	(20,088)
Sales and distribution costs	(33,791)	(29,903)	(28,729)	(3,217)	(3,025)	(3,094)	(37,008)	(32,928)	(31,823)
Research and development costs	(15,600)	(13,535)	(12,128)	(2,172)	(1,927)	(2,092)	(17,772)	(15,462)	(14,220)
Administrative costs	(3,504)	(3,387)	(3,346)	(546)	(571)	(661)	(4,050)	(3,958)	(4,007)
Other operating income and expenses	199	264	309	133	196	291	332	460	600
Operating profit	**49,538**	43,744	42,637	**9,106**	10,382	9,846	**58,644**	54,126	52,483
Operating margin	40.7%	40.5%	41.5%	47.4%	54.9%	51.3%	41.7%	42.6%	43.0%
Depreciation, amortisation and impairment losses expensed	(4,895)	(4,624)	(3,916)	(1,130)	(1,129)	(1,745)	(6,025)	(5,753)	(5,661)

Novo Nordisk operates in two business segments based on therapies: Diabetes and Obesity care and Biopharm, representing the entirety of the Group's operations.

The segments include research, development, manufacturing and marketing of products within the following areas:
- Diabetes and Obesity care: insulin, GLP-1 and related delivery systems, oral antidiabetic products (OAD), obesity and other serious chronic diseases
- Biopharm: Rare blood disorders, rare endocrine 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. 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 small number of corporate overhead costs are allocated systematically between the segments. Other operating income and expenses have been allocated to the two segments based on the same principle.

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 this forum.

Geographical areas

Sales to external customers attributed to the US are collectively the most material to the Group. The US and Mainland China are the only territories where sales contribute 10% or more of total net sales.

In 2021, Novo Nordisk operated in two main commercial units:

- International Operations
  - EMEA: Europe, the Middle East and Africa.
  - China: Mainland China, Hong Kong and Taiwan.
  - Rest of World: All other countries except for North America.
- North America Operations (the US and Canada).

Refer to note 5.7 for an overview of companies in the Novo Nordisk Group based on geographical areas.

The country of domicile is Denmark, which is part of EMEA. Denmark is immaterial to Novo Nordisk's activities in terms of sales as 99.8% of total sales are realised outside Denmark. Sales are attributed to geographical areas according to the location of the customer.

Net sales – Business segments and geographical areas

	Total International Operations												Total North America Operations						Total Novo Nordisk net sales		
	Total IO			EMEA			China			Rest of World			Total NAO			Of which the US					
DKK million	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Diabetes and Obesity care segment:																					
Rybelsus®	524	36	—	289	36	—	—	—	—	235	—	—	4,314	1,837	50	4,243	1,826	50	4,838	1,873	50
Ozempic®	8,856	3,634	1,143	6,393	3,112	969	303	10	—	2,160	512	174	24,849	17,577	10,094	23,168	16,650	9,599	33,705	21,211	11,237
Victoza®	6,726	7,095	7,249	3,527	4,251	4,713	1,544	1,033	898	1,655	1,811	1,638	8,328	11,652	14,685	8,031	11,292	14,217	15,054	18,747	21,934
Total GLP-1	16,106	10,765	8,392	10,209	7,399	5,682	1,847	1,043	898	4,050	2,323	1,812	37,491	31,066	24,829	35,442	29,768	23,866	53,597	41,831	33,221
Long-acting insulin	11,074	9,959	9,035	6,729	6,451	5,955	2,080	1,471	1,059	2,265	2,037	2,021	6,990	8,480	11,741	6,412	7,962	11,271	18,064	18,439	20,776
– of which Tresiba®	5,486	4,407	3,477	2,979	2,574	1,983	1,095	418	87	1,412	1,415	1,407	4,243	4,561	5,782	3,793	4,191	5,500	9,729	8,968	9,259
– of which Xultophy®	2,135	1,789	1,493	1,693	1,605	1,407	3	1	—	439	183	86	522	655	717	512	642	708	2,657	2,444	2,210
– of which Levemir®	3,453	3,763	4,065	2,057	2,272	2,565	982	1,052	972	414	439	528	2,225	3,264	5,242	2,107	3,129	5,063	5,678	7,027	9,307
Premix insulin	10,512	10,246	9,707	2,879	2,959	3,160	5,224	4,852	4,306	2,409	2,435	2,241	691	679	871	665	652	839	11,203	10,925	10,578
– of which Ryzodeg®	1,711	1,291	993	392	321	237	283	39	4	1,036	931	752	—	—	—	—	—	—	1,711	1,291	993
– of which NovoMix®	8,801	8,955	8,714	2,487	2,638	2,923	4,941	4,813	4,302	1,373	1,504	1,489	691	679	871	665	652	839	9,492	9,634	9,585
Fast-acting insulin	10,903	10,808	10,304	6,454	6,584	6,422	2,288	2,075	1,753	2,161	2,149	2,129	6,784	7,505	8,999	6,357	7,101	8,592	17,687	18,313	19,303
– of which Fiasp®	1,106	832	617	965	764	585	—	—	—	141	68	32	642	553	626	605	519	597	1,748	1,385	1,243
– of which NovoRapid®	9,797	9,976	9,687	5,489	5,820	5,837	2,288	2,075	1,753	2,020	2,081	2,097	6,142	6,952	8,373	5,752	6,582	7,995	15,939	16,928	18,060
Human insulin	7,453	7,339	7,361	2,152	2,370	2,438	2,692	2,655	2,847	2,609	2,314	2,076	1,599	1,534	1,675	1,515	1,431	1,552	9,052	8,873	9,036
Total insulin	39,942	38,352	36,407	18,214	18,364	17,975	12,284	11,053	9,965	9,444	8,935	8,467	16,064	18,198	23,286	14,949	17,146	22,254	56,006	56,550	59,693
Other Diabetes care	2,644	2,946	3,389	713	725	1,052	1,432	1,546	1,647	499	675	690	950	1,085	858	806	943	705	3,594	4,031	4,247
Total Diabetes care	58,692	52,063	48,188	29,136	26,488	24,709	15,563	13,642	12,510	13,993	11,933	10,969	54,505	50,349	48,973	51,197	47,857	46,825	113,197	102,412	97,161
Obesity care (Saxenda® and Wegovy®)	3,117	2,118	2,083	1,809	1,124	981	61	10	9	1,247	984	1,093	5,283	3,490	3,596	4,912	3,230	3,348	8,400	5,608	5,679
Diabetes and Obesity care total	61,809	54,181	50,271	30,945	27,612	25,690	15,624	13,652	12,519	15,240	12,917	12,062	59,788	53,839	52,569	56,109	51,087	50,173	121,597	108,020	102,840
Biopharm segment:																					
Rare blood disorders	5,784	5,708	5,946	3,712	3,579	3,646	222	361	284	1,850	1,768	2,016	4,433	3,954	4,335	4,170	3,675	4,031	10,217	9,662	10,281
– of which Haemophilia A	1,625	1,332	1,176	1,162	983	877	24	16	15	439	333	284	487	381	382	460	358	358	2,112	1,713	1,558
– of which Haemophilia B	400	306	197	268	199	149	4	—	—	128	107	48	237	212	185	102	86	77	637	518	382
– of which NovoSeven®	3,673	3,996	4,502	2,225	2,352	2,577	194	345	269	1,254	1,299	1,656	3,548	3,207	3,617	3,461	3,089	3,454	7,221	7,203	8,119
Rare endocrine disorders	4,880	4,832	4,225	2,212	2,220	1,960	167	66	36	2,501	2,546	2,229	2,423	2,875	3,052	2,400	2,857	3,037	7,303	7,707	7,277
Other Biopharm	1,064	1,108	1,122	837	886	912	6	5	5	221	217	205	619	449	501	330	205	245	1,683	1,557	1,623
Biopharm total	11,728	11,648	11,293	6,761	6,685	6,518	395	432	325	4,572	4,531	4,450	7,475	7,278	7,888	6,900	6,737	7,313	19,203	18,926	19,181
Total sales by geographical area	**73,537**	65,829	61,564	**37,706**	34,297	32,208	**16,019**	14,084	12,844	**19,812**	17,448	16,512	**67,263**	61,117	60,457	**63,009**	57,824	57,486	**140,800**	126,946	122,021
Total sales growth as reported	**11.7%**	6.9%	12.1%	**9.9%**	6.5%	10.2%	**13.7%**	9.7%	13.8%	**13.5%**	5.7%	14.6%	**10.1%**	1.1%	6.2%	**9.0%**	0.6%	5.5%	**10.9%**	4.0%	9.1%

2.3 Research and development costs

DKK million	**2021**	2020	2019
Employee costs (note 2.4)	7,328	6,269	5,968
Amortisation and impairment losses, intangible assets (note 3.1)	744	1,025	522
Depreciation and impairment losses, property, plant and equipment (note 3.1)	736	724	783
Other research and development costs	8,964	7,444	6,947
Total research and development costs	**17,772**	15,462	14,220
As percentage of net sales	12.6%	12.2%	11.7%

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

- insulins, GLP-1s and other therapeutic compounds for diabetes treatment
- GLP-1s, combinations and new modes of action for Obesity care
- blood-clotting factors and new modes of action for treatment of haemophilia and other rare blood disorders
- human growth hormone and new modes of action for treatment of growth disorders and other rare endocrine disorders
- new indications with existing assets within NASH, Alzheimer's, and chronic kidney disease
- new research platforms including cell therapy and RNAi for treatment of NASH, cardiovascular disease, chronic kidney disease and Parkinson's disease, among others

The research activities mainly 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. Research activities further focus on new technology platforms including stem cells, gene therapy and developing RNAi therapies.

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

Accounting policies

Novo Nordisk expenses all research costs. In line with industry practice, internal and subcontracted development costs are also expensed as they are incurred, due to significant regulatory uncertainties and other uncertainties inherent in the development of new products. This means that they do not qualify for capitalisation as intangible assets until marketing approval by a regulatory authority is obtained or considered highly probable. Costs for post-approval activities that are required by authorities as a condition for obtaining regulatory approval are recognised as research and development costs.

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. The costs also comprise amortisation, depreciation and impairment losses related to software and property, plant and equipment used in the research and development activities. Impairment losses recognised on intangible assets related to research and development projects are presented in research and development costs.

Certain research and development activities are recognised outside research and development costs:

- Royalty expenses paid to partners after regulatory approval are expensed as cost of goods sold.
- Royalty income received from partners is recognised as part of other operating income and expenses.
- Contractual research and development obligations to be paid in the future are disclosed separately as commitments in note 5.2.

2.4 Employee costs

DKK million	**2021**	2020	2019
Wages and salaries	28,939	26,778	25,335
Share-based payment costs (note 5.1)	1,040	823	363
Pensions – defined contribution plans	2,022	1,961	1,910
Pensions – defined benefit plans (note N/A)	139	138	151
Other social security contributions	2,203	1,862	1,963
Other employee costs	2,189	2,044	2,203
Total employee costs for the year	36,532	33,606	31,925
Employee costs capitalised as intangible assets and property, plant and equipment	(1,240)	(1,279)	(1,314)
Change in employee costs capitalised as inventories	(56)	(60)	(139)
Total employee costs in the income statement	**35,236**	32,267	30,472
Included in the income statement:			
Cost of goods sold	9,611	8,896	8,134
Sales and distribution costs	15,003	14,146	13,463
Research and development costs	7,328	6,269	5,968
Administrative costs	3,098	2,848	2,679
Other operating income and expenses	196	108	228
Total employee costs in the income statement	**35,236**	32,267	30,472

Number of employees	**2021**	2020	2019
Average number of full-time employees	46,171	43,759	42,218
Year-end number of full-time employees	47,792	44,723	42,703
Employees (total)	48,478	45,323	43,258

Remuneration to Executive Management and Board of Directors

DKK million	**2021**	2020	2019
Salary and short-term incentive	126	119	120
Pension	12	26	26
Benefits	10	10	14
Long-term incentive[1]	100	52	40
Severance payments	29	—	—
Executive Management in total[2]	**277**	207	200
Fee to Board of Directors[2]	17	17	19
Total	**294**	224	219

1. Please refer to note 5.1 for further information.
2. Total remuneration for registered members of Executive Management amounts to DKK 0 million (DKK 141 million in 2020 and DKK 135 million in 2019). All members of the Board of Directors are registered.

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.

2.5 Other operating income and expenses

Accounting policies

Other operating income and expenses, comprises licence income and income of a secondary nature in relation to the main activities of Novo Nordisk. Licence income from royalties on net sales is recognised as the underlying customers' sale occurs and from sales milestones once the contingent sale milestone is achieved in accordance with the terms 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 and expenses. Other operating income and expenses, also includes income from the sale of intellectual property rights as well as transaction costs incurred in connection with acquisition of businesses.

2.6 Income taxes and deferred income taxes

Income taxes expensed

DKK million	**2021**	2020	2019
Current tax on profit for the year	13,871	11,557	11,275
Deferred tax on profit for the year	(1,528)	1,105	(1,559)
Tax on profit for the year	12,343	12,662	9,716
Current tax adjustments recognised for prior years	(603)	(563)	(191)
Deferred tax adjustments recognised for prior years	(417)	(1,107)	77
Income taxes in the income statement	**11,323**	10,992	9,602
Tax on other comprehensive income for the year, (income)/expense	**(1,005)**	577	231

Computation of effective tax rate

DKK million	2021	2020	2019
Statutory corporate income tax rate in Denmark	22.0%	22.0%	22.0%
Deviation in foreign subsidiaries' tax rates compared to the Danish tax rate (net)	(1.5%)	(2.5%)	(2.1%)
Non-taxable income less non-tax-deductible expenses (net)	(0.3%)	(0.2%)	0.1%
Other adjustments (net)	(1.0%)	1.4%	(0.2%)
Effective tax rate	**19.2%**	20.7%	19.8%

Income taxes paid

DKK million	**2021**	2020	2019
Income taxes paid in Denmark for current year	9,703	4,262	7,774
Income taxes paid outside Denmark for current year	3,439	4,508	2,258
Income taxes paid/repayments relating to prior years	1,296	1,336	904
Income taxes paid	**14,438**	10,106	10,936

The deviation in foreign subsidiaries' tax rates from the Danish tax rate is mainly driven by Swiss business activities as well as adjustments to deferred tax assets due to changes in local corporate tax rates. Other adjustments consist of tax related to acquisitions and subsequent transfers of intellectual property rights and adjustments to prior years.

In 2020, income taxes paid in Denmark and paid outside Denmark were impacted by transfers of intellectual property rights related to acquisitions. In 2021, the impact from acquisitions and transfer of intellectual property rights was less significant.

Accounting policies

The tax expense for the period comprises current and deferred tax. It also includes adjustments to previous years and changes in provisions 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. Provisions for ongoing tax disputes are included as part of deferred tax assets, tax receivables and tax payables.

Deferred income taxes arise from temporary differences between the accounting and tax values of the individual consolidated companies and from realisable tax loss carry-forwards. However, deferred tax liabilities are not recognised if they arise from the initial recognition of goodwill. Deferred income tax is also not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that, at the time of the transaction, affects neither accounting nor taxable profit or loss and does not give rise to equal taxable and deductible temporary differences. 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 in which the assets are expected to be utilised.

In general, the Danish tax rules related to dividends from group companies provide exemption from tax for most repatriated profits. A provision for withholding tax is only recognised if a concrete distribution of dividends is planned. The unrecognised potential withholding tax amounts to DKK 444 million (DKK 337 million in 2020).

The value of future tax deductions in relation to share programmes is recognised as a deferred tax asset 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.

Key accounting estimate regarding deferred income tax assets and provisions for uncertain tax positions

Management has considered future taxable income and has estimated the amount of deferred income tax assets that should be recognised. The estimate is based on an assessment of whether sufficient taxable income will be available in the future, against which the temporary differences and unused tax losses can be utilised. The total tax value of unrecognised tax loss carry-forwards amounts to DKK 166 million in 2021 (DKK 628 million in 2020).

In the course of conducting business globally, tax and transfer pricing disputes with tax authorities may occur. Management has estimated the expected outcome of the disputes by using the 'most probable outcome'-method to determine the provisions for uncertain tax positions. Management considers the provisions made to be adequate. However, the actual obligation may deviate and depends on the result of litigation and settlements with the relevant tax authorities.

Development in deferred income tax assets and liabilities

DKK million	Property, plant and equipment	Intangible assets	Inventories	Liabilities	Other	Offset within countries	**Total**
2021							
Net deferred tax asset/(liability) at 1 January	(1,614)	(3,600)	2,556	4,617	1,404	—	3,363
Income/(charge) to the income statement	(330)	632	387	2,037	(781)		1,945
Income/(charge) to other comprehensive income	—	2	251	(41)	793		1,005
Income/(charge) to equity	—	(2)	—	—	194		192
Additions from acquisitions	—	(4,456)	—	—	976		(3,480)
Effect of exchange rate adjustment	(36)	49	1	319	43		376
Net deferred tax asset/(liability) at 31 December	(1,980)	(7,375)	3,195	6,932	2,629	—	**3,401**
Classified as follows:							
Deferred tax asset at 31 December	719	109	3,210	7,223	3,541	(6,130)	8,672
Deferred tax liability at 31 December	(2,699)	(7,484)	(15)	(291)	(912)	6,130	(5,271)
2020							
Net deferred tax asset/(liability) at 1 January	(1,591)	(718)	1,811	3,452	1,087	—	4,041
Income/(charge) to the income statement	(47)	(2,883)	963	1,449	520		2
Income/(charge) to other comprehensive income	—	92	(216)	16	(469)		(577)
Income/(charge) to equity	—	(92)	—	—	20		(72)
Additions from acquisitions	—	—	—	—	276		276
Effect of exchange rate adjustment	24	1	(2)	(300)	(30)		(307)
Net deferred tax asset/(liability) at 31 December	(1,614)	(3,600)	2,556	4,617	1,404	—	3,363
Classified as follows:							
Deferred tax asset at 31 December	755	46	2,568	4,895	2,903	(5,302)	5,865
Deferred tax liability at 31 December	(2,369)	(3,646)	(12)	(278)	(1,499)	5,302	(2,502)

2.7 Earnings per share

		2021	2020	2019
Net profit		47,757	42,138	38,951
Average number of shares outstanding	in million shares	2,296.6	2,333.9	2,374.3
Dilutive effect of average outstanding share pool[1,2]	in million shares	6.5	6.1	4.4
Average number of shares outstanding, including dilutive effect of outstanding share pool	in million shares	2,303.1	2,340.0	2,378.7
Basic earnings per share	DKK	**20.79**	18.05	16.41
Diluted earnings per share	DKK	**20.74**	18.01	16.38

1. For further information on the development in treasury shares, please refer to note 4.2
2. For further information on the outstanding share pool, please refer to note 5.1.

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 monthly average number of shares outstanding. Diluted earnings per share is calculated as net profit divided by the sum of monthly average number of shares outstanding, including the dilutive effect of the outstanding share pool. Please refer to 'Financial definitions' for a description of calculation of the dilutive effect.

Section 3 Operating assets and liabilities

3.1 Intangible assets and property, plant and equipment

Out of total property, plant and equipment and intangible assets, DKK 46,705 million is located in Denmark (DKK 44,431 million in 2020) and DKK 41,035 million is located in the US (DKK 18,750 million in 2020) where the Group's main production, filling, packaging, moulding, assembly facilities and intangible assets are located.

DKK million	Goodwill	Intellec-tual property rights	Software and other intangibles	**Total intangible assets**	Land and buildings	Plant and machinery	Other equipment	Assets under construction	**Property, plant and equipment**
2021									
Cost at the beginning of the year	—	22,404	2,936	25,340	37,509	31,503	6,876	10,798	86,686
Additions from acquisition of businesses (note 5.3)	4,346	18,687	24	23,057	522	—	57	3	582
Additions during the year	—	583	492	1,075	827	890	516	4,858	7,091
Disposals during the year	—	—	(45)	(45)	(359)	(148)	(305)	(41)	(853)
Transfer and reclassifications	—	—	—	—	1,529	3,078	468	(5,075)	—
Effect of exchange rate adjustment	—	128	27	155	1,048	621	164	548	2,381
Cost at the end of the year	4,346	41,802	3,434	49,582	41,076	35,944	7,776	11,091	95,887
Amortisation/depreciation and impairment losses at the beginning of the year	—	3,135	1,548	4,683	12,936	19,444	4,037	—	36,417
Amortisation/depreciation for the year	—	866	200	1,066	1,892	1,529	824	—	4,245
Impairment losses for the year	—	573	—	573	14	32	54	41	141
Amortisation/depreciation and impairment losses reversed on disposals during the year	—	—	(1)	(1)	(365)	(140)	(305)	(41)	(851)
Effect of exchange rate adjustment	—	78	12	90	192	273	108	—	573
Amortisation/depreciation and impairment losses at the end of the year	—	4,652	1,759	6,411	14,669	21,138	4,718	—	40,525
Carrying amount at the end of the year	4,346	37,150	1,675	**43,171**	26,407	14,806	3,058	11,091	**55,362**
2020									
Cost at the beginning of the year	—	7,270	2,560	9,830	30,260	27,594	6,215	20,351	84,420
Additions during the year	—	15,906	396	16,302	741	506	490	4,560	6,297
Disposals during the year	—	(698)	—	(698)	(119)	(583)	(122)	(16)	(840)
Transfer and reclassifications	—	—	—	—	7,440	4,586	515	(12,541)	—
Effect of exchange rate adjustment	—	(74)	(20)	(94)	(813)	(600)	(222)	(1,556)	(3,191)
Cost at the end of the year	—	22,404	2,936	25,340	37,509	31,503	6,876	10,798	86,686
Amortisation/depreciation and impairment losses at the beginning of the year	—	2,643	1,352	3,995	11,528	18,888	3,453	—	33,869
Amortisation/depreciation for the year	—	889	207	1,096	1,859	1,500	821	—	4,180
Impairment losses for the year	—	350	—	350	14	69	28	16	127
Amortisation/depreciation and impairment losses reversed on disposals during the year	—	(698)	—	(698)	(119)	(581)	(115)	(16)	(831)
Effect of exchange rate adjustment	—	(49)	(11)	(60)	(346)	(432)	(150)	—	(928)
Amortisation/depreciation and impairment losses at the end of the year	—	3,135	1,548	4,683	12,936	19,444	4,037	—	36,417
Carrying amount at the end of the year	—	19,269	1,388	20,657	24,573	12,059	2,839	10,798	50,269

Intangible assets

Amortisation and impairment losses

DKK million	**2021**	2020	2019
Cost of goods sold	844	369	916
Sales and distribution costs	39	40	24
Research and development costs	744	1,025	522
Administrative costs	11	10	3
Other operating income and expenses	1	2	4
Total amortisation and impairment loss	**1,639**	1,446	1,469
Total amortisation	**1,066**	1,096	487
Total impairment losses	**573**	350	982

Of the total addition of intangible assets in 2021 DKK 492 million is internally developed (DKK 396 million in 2020).

Intangible assets with an indefinite useful life and intangible assets not yet available for use amount to DKK 22,690 million (DKK 9,607 million in 2020), primarily intellectual property rights in relation to research and development projects and goodwill.

2021 additions

Additions from acquisition of businesses relates to Novo Nordisk's acquisition of Dicerna Pharmaceuticals, Inc., which primarily includes the RNAi research technology platform and pipeline assets, which are recognised within intellectual property rights and goodwill; please refer to note 5.3.

In 2021, Novo Nordisk acquired Prothena's wholly-owned subsidiary Neotope Neuroscience Ltd. and thereby gained full worldwide rights to the intellectual property rights of Prothena's ATTR amyloidosis business and pipeline cover. The acquisition included the clinical stage antibody PRX004. PRX004 is an antibody that uses a depleter mechanism that has the potential to improve heart failure symptoms and reverse the disease progression within the ATTR-CM diseases. The transaction has been accounted for as an asset acquisition recognised in intellectual property rights, all related to PRX004.

2020 additions

In 2020, Novo Nordisk acquired Corvidia Therapeutics Inc., in a transaction accounted for as an asset acquisition. An addition of DKK 4,580 million was recognised in intellectual property rights for the acquisition of Ziltivekimab, a fully human monoclonal antibody directed against Interleukin-6 related to chronic kidney disease, which is under development.

Novo Nordisk acquired Emisphere Technologies Inc. and obtained ownership of the Eligen® SNAC oral delivery technology. Under the terms of the agreement, Novo Nordisk acquired all outstanding shares of Emisphere for USD 1,335 million. As part of the transaction, Novo Nordisk also acquired related Eligen® SNAC royalty stream obligations owed to MHR Fund Management LLC (MHR), the largest shareholder of Emisphere, for USD 450 million. The transaction has been accounted for as an asset acquisition, with DKK 11,060 million recognised in intellectual property rights, of which DKK 2,467 million was related to assets under development. At 31 December 2021, the carrying amount of acquired intangible assets related to Rybelsus is DKK 7,150 million (DKK 7,716 million in 2020), which has a remaining amortisation period of 13 years.

Impairment of intangible assets

In 2021, an impairment loss of DKK 573 million (DKK 350 million in 2020) was recognised, all related to intellectual property rights. DKK 436 million (DKK 350 million in 2020) of the impairment was related to the Diabetes and Obesity care segment and DKK 137 million (none in 2020) related to Biopharm. The entire impairment loss in 2021 was recognised in research and development costs (DKK 350 million in research and development costs in 2020). The impairment was a result of Management's review of expectations related to intellectual property rights not yet in use.

No impairment related to marketable products was identified in 2021 or in 2020.

It is assessed that the carrying amount of goodwill which arose from the acquisition of Dicerna Pharmaceuticals, Inc. on 28 December 2021 still reflected the fair value as of 31 December 2021. An impairment test has not been performed on goodwill due to the timing of the acquisition three days before year-end, and no impairment indicators have been identified in the period from the acquisition to 31 December 2021.

The allocation of goodwill of DKK 4,346 million to cash-generating units is considered provisional due to the fact that the transaction was closed on 28 December 2021, leaving limited time for determining the cash-generating units. The allocation will be finalised within 12 months from the acquisition date.

Accounting policies

Goodwill on acquisition of businesses is initially measured at cost, and is subsequently measured at cost less any accumulated impairment losses.

Intellectual property rights acquired for research and development projects, are carried at historical cost less accumulated amortisation and any impairment loss. Upfront fees and acquisition costs are capitalised and subsequent milestone payments payable on achievement of a contingent event will be capitalised on the contingent event being probable of being achieved. Intangible assets acquired in a business combination are recognised at fair value at the acquisition date.

Amortisation is based on the straight-line method over the estimated useful life. This corresponds to the legal duration or the economic useful life depending on which is shorter, and not exceeding 25 years in either case. The amortisation of intellectual property rights begins after regulatory approval has been obtained or when assets are put in use.

Goodwill and 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. The carrying amount of goodwill will within 12 months from acquisition date be allocated to cash-generating units for impairment testing purposes. The allocation is made to those cash-generating units that are expected to benefit from the business combination in which the goodwill arose. The units are identified at the lowest level at which goodwill is monitored for internal management purposes.

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

Payments to third parties under collaboration and licence agreements are assessed for the substance of their nature. Payments which represent

subcontracted research and development work are expensed as the services are received. Payments which represent rights to the transfer of intellectual property, developed at risk by the third party, are capitalised.

For acquired research and development projects, intellectual property rights, the likelihood of obtaining future commercial sales is reflected in the cost of the asset, and thus the probability recognition criteria is always considered to be satisfied. As the cost of acquired research and development projects can often be measured reliably, these projects fulfil the capitalisation criteria as intangible assets on acquisition. Subsequent milestone payments payable on achievement of a contingent event (e.g. commencement of phase 3 trials) are accrued and capitalised into the cost of the intangible asset when the achievement of the event is probable. Development costs incurred subsequent to acquisition are treated consistently with internal project development costs.

Assets that are 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 an impairment, any impairment is measured based on discounted projected cash flows. Impairments on intangible assets, other than goodwill, are reviewed at each reporting date for possible reversal.

Key accounting estimates and judgements on intangible assets
Impairment tests of intellectual property rights not yet available for use are based on Management's projections and anticipated net present value of estimated future cash flows from marketable products.

Management makes judgements related to intangible assets when assessing whether a transaction is a business combination or an asset acquisition. The assessment of whether a transaction is a business combination or an asset acquisition involves the optional concentration test, which is met if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets. If met the transaction is accounted for as an asset acquisition. If not met, an assessment of any acquired processes is made to determine if they are substantive. Management makes judgements when assessing whether a process is substantive. A process is considered substantive if it is critical to the ability to producing outputs from the transaction.

Judgements are also made in evaluating whether payments under collaboration arrangements are acquisition of assets or prepayment of R&D services.

Property, plant and equipment

Depreciation and impairment losses

DKK million	**2021**	2020	2019
Cost of goods sold	2,836	2,729	2,656
Sales and distribution costs	409	403	354
Research and development costs	736	724	783
Administrative costs	386	433	376
Other operating income and expenses	19	18	23
Total depreciation and impairment losses	**4,386**	4,307	4,192
Of which related to leased assets	**899**	964	852

Capital expenditure in the reporting period was primarily related to investments in facility upgrades and new production facilities for active pharmaceutical ingredients for diabetes, mainly the facility in Clayton, US. The facility in Clayton is intended to strengthen the Novo Nordisk supply chain. Capital expenditure also related to investments in facility upgrades of the purification plant and establishing additional API capacity, both in Kalundborg.

Leased property, plant and equipment

DKK million	**2021**	2020
Land and buildings	3,340	2,901
Other equipment	499	479
Total	**3,839**	3,380

Novo Nordisk mainly leases office buildings, warehouses, laboratories and vehicles. The right-of-use asset is presented in property, plant and equipment and the lease liability in borrowings. In 2021, the total amount recognised in the income statement related to leases was DKK 1,303 million (DKK 1,373 million in 2020). The total cash outflow for leases amounted to DKK 1,275 million (DKK 1,367 million in 2020).

As of 31 December 2021, the lease liability excludes potential lease payments of DKK 2,209 million (undiscounted) related to lease term extension rights on properties that were not considered reasonably certain to be exercised (DKK 2,363 million in 2020). Please refer to note 4.5 for a maturity analysis of lease payments.

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. Depreciation is based on the straight-line method over the estimated useful lives of the assets (buildings: 12-50 years, plant and machinery: 5-25 years and other equipment: 3-10 years. Land is not depreciated).

The depreciation commences when the asset is available for use, i.e. 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 an asset's carrying amount is higher than its estimated recoverable amount, it is written down to the recoverable amount. 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.

For contracts which are, or contain, a lease, the Group recognises a right-of-use asset and a lease liability. The right-of-use asset is initially measured at cost, being the initial amount of the lease liability. The right-of-use asset is subsequently depreciated using the straight-line method over the lease term. The right-of-use asset is periodically adjusted for certain remeasurements of the lease liability and reduced by any impairment losses.

The lease term determined by the Group is the non-cancellable period of a lease, together with extension/termination option if these are reasonably certain to be exercised. For contracts with a rolling term (evergreen leases), the Group estimates the leasing period to be equal to the termination period if no probable scenario exists for estimating the leasing period. If the lease liability is remeasured due to a change in future lease payments a corresponding adjustment is made to the right-of-use asset, or in the income statement when the right-of-use asset has been fully depreciated. For a description of accounting policies for lease liabilities, please refer to note 4.9.

3.2 Inventories

DKK million	**2021**	2020
Raw materials	4,310	3,326
Work in progress	12,285	12,252
Finished goods	5,282	5,111
Total inventories (gross)	21,877	20,689
Write-downs at year-end	(2,256)	(2,153)
Total inventories (net)	**19,621**	18,536
Indirect production costs included in work in progress and finished goods	8,929	9,703
Share of total inventories (net)	46%	52%
Movements in inventory write-downs:		
Write-downs at the beginning of the year	2,153	1,426
Write-downs during the year	883	1,628
Utilisation of write-downs	(661)	(528)
Reversal of write-downs	(119)	(373)
Write-downs at the end of the year	**2,256**	2,153

All write-downs in both 2021 and 2020 relate to fully impaired inventory.

Accounting policies
Inventories are stated at cost or net realisable value, whichever is lower. Cost is determined using the first-in, first-out method. Cost comprises direct production costs such as raw materials, consumables and labour. 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 (prelaunch inventory) is capitalised but immediately written down, until there is a high probability of regulatory approval for the product. 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
The production of both Diabetes and Obesity care and Biopharm 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 initially 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 estimate cost of production, standard cost variances and idle capacity in determining 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. Indirect production costs account for 46% of the net inventory value, reflecting a complex production process and low direct raw material costs.

3.3 Trade receivables

DKK million	Gross carrying amount	Loss allowance	**Net carrying amount**
2021			
Not yet due	40,274	(844)	39,430
1-90 days	1,132	(93)	1,039
91-180 days	212	(74)	138
181-270 days	87	(51)	36
271-360 days	63	(63)	—
More than 360 days past due	305	(305)	—
Trade receivables	42,073	(1,430)	**40,643**
EMEA	7,827	(852)	6,975
China	2,564	—	2,564
Rest of World	4,227	(558)	3,669
North America Operations	27,455	(20)	27,435
Trade receivables	42,073	(1,430)	**40,643**
2020			
Not yet due	27,511	(805)	26,706
1-90 days	1,000	(112)	888
91-180 days	188	(63)	125
181-270 days	44	(29)	15
271-360 days	51	(51)	—
More than 360 days past due	320	(320)	—
Trade receivables	29,114	(1,380)	27,734
EMEA	6,306	(781)	5,525
China	2,137	—	2,137
Rest of World	3,003	(580)	2,423
North America Operations	17,668	(19)	17,649
Trade receivables	29,114	(1,380)	27,734

Movements in allowance for doubtful trade receivables

DKK million	**2021**	2020
Carrying amount at the beginning of the year	1,380	1,484
Reversal of allowance on realised losses	(62)	(108)
Net movement recognised in income statement	102	139
Effect of exchange rate adjustment	10	(135)
Allowance at the end of the year	**1,430**	1,380

Novo Nordisk's customer base is comprised of government agencies, wholesalers, retail pharmacies and other customers.

Novo Nordisk closely monitors the current economic conditions of countries impacted by currency fluctuations, high inflation and an unstable political climate. These indicators as well as payment history are taken into account in the valuation of trade receivables.

The country risk ratings in 2021 have overall remained unchanged from 2020. However, despite the continued COVID-19 pandemic Novo Nordisk has not experienced significant increases in collectability issues on individual customers nor has it experienced significant deterioration in the ageing of receivables.

Please refer to note 4.3 for the trade receivable programmes.

Accounting policies

Trade receivables are initially recognised at transaction price and subsequently measured at amortised cost using the effective interest method, less allowance for doubtful trade receivables. The split of trade receivables and allowance for trade receivables is based on the location of the customer.

Before being sold, trade receivables in factoring portfolios are measured at fair value with changes recognised in other comprehensive income. The allowance for doubtful receivables 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.

Management makes allowance for doubtful trade receivables based on the simplified approach to provide for expected credit losses, which permits the use of the lifetime expected loss provision for all trade receivables. The allowance is an estimate based on shared credit risk characteristics and the days past due. Generally, invoices are due for payment within 90 days from shipment of goods. Loss allowance is calculated using an ageing factor, geographical risk and specific customer knowledge. The allowance is based on a provision matrix on days past due and a forward looking-element relating mainly to incorporation of the Dun & Bradstreet country risk rating and an individual assessment. Please refer to note 4.3 for a general description of credit risk.

3.4 Provisions and contingent liabilities

DKK million	Provisions for sales rebates[1]	Provisions for legal disputes	Provisions for product returns	Other provisions[2]	**2021 Total**	2020 Total
At the beginning of the year	34,052	2,451	795	2,042	39,340	35,733
Additional provisions, including increases to existing provisions	155,602	608	493	461	157,164	113,810
Amount used during the year	(141,370)	(657)	(450)	(214)	(142,691)	(107,220)
Adjustments, including unused amounts reversed during the year	(284)	(419)	13	(280)	(970)	78
Effect of exchange rate adjustment	2,822	174	7	48	3,051	(3,061)
At the end of the year	50,822	2,157	858	2,057	**55,894**	39,340
Non-current liabilities[3]	255	1,895	316	1,908	4,374	4,526
Current liabilities	50,567	262	542	149	51,520	34,814

1. Provisions for sales rebates are related to US Managed Care, Medicare, Medicaid and other US rebate types, as well as rebates in a number of European countries and Canada.
2. Other provisions consists of various types of provision, including obligations in relation to employee benefits such as jubilee benefits, company-owned life insurance, etc.
3. For non-current liabilities, provision for sales rebates is expected to be settled after one year, provisions for product returns will be utilised in 2023 and 2024. In the case of provisions for legal disputes, the timing of settlement cannot be determined.

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.

Pending litigation against Novo Nordisk

Numerous claims alleging pancreatic cancer, pancreatitis, and thyroid cancer have been filed in US courts against various incretin class manufacturers, including Victoza® and Novo Nordisk. As of 31 January 2022, 369 plaintiffs have filed product liability cases against Novo Nordisk, the vast majority alleging pancreatic cancer. In March and April 2021, the Federal MDL and State JCCP courts granted defendants' motions for summary judgment on federal pre-emption and general causation grounds thereby dismissing all the pending cases against Novo Nordisk relating to Victoza®. Plaintiffs have filed a notice of appeal of the Federal Court ruling, and they have the right to file a similar notice of appeal of the State Court ruling. Final decisions on both appeals are not expected before the end of 2022. Novo Nordisk does not expect the lawsuit to have a material impact on Novo Nordisk's financial position, operating profit or cash flow.

In September 2021, Novo Nordisk announced that it has reached an agreement in principle to settle the previously disclosed securities class action litigation pending in the Federal District Court of New Jersey, US. The settlement was reached after a voluntary mediation process and resolves claims brought by plaintiffs for alleged violations of US securities laws. The settlement contains no admission of liability, wrongdoing, or responsibility by any of the defendants and will include a full release of all defendants in connection with the allegations made in the lawsuit. Under the terms of the settlement agreement, Novo Nordisk has agreed to pay USD 100 million (inclusive of all plaintiffs' attorneys fees and expenses and settlement costs). The payment is covered by insurance.. The settlement is subject to a court approval process, which could take several months.

In January 2022, Novo Nordisk announced that it has settled the previously disclosed securities lawsuit filed against Novo Nordisk in Denmark by a number of institutional shareholders, which included a claim for a total amount of DKK 11,800 million. The lawsuit alleged that Novo Nordisk made misleading statements and did not make appropriate disclosures regarding its sales of insulin products in the US. The settlement contains no admission of liability, wrongdoing or responsibility by Novo Nordisk and no payment will be made by Novo Nordisk to the plaintiffs.

Novo Nordisk is currently defending eight lawsuits, including two plead as putative class actions, relating to the pricing of diabetes medicines. Four of these cases are pending in New Jersey federal court; three are pending in federal courts in Texas, Florida, and Mississippi and the remaining one is pending in state court in Kentucky. All pending matters also name as defendants Eli Lilly and Company and Sanofi, while certain matters also name Pharmacy Benefit Managers (PBMs) and related entities. Plaintiffs generally 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.

In 2016, Novo Nordisk US received a Civil Investigative Demand from the U.S. Department of Justice ("DOJ CID") relating to potential off-label marketing of NovoSeven® (including high dose and for prophylactic use) and interactions with physicians and patients. The DOJ investigation was likely prompted by a lawsuit filed by a former Novo Nordisk US employee (the "Relator") under seal in the Western District of Oklahoma. Relator alleges Novo Nordisk US caused the submission of false claims to Medicare, Medicaid, Federal Employees Health Benefits Program and private insurers in California as a result of the same conduct that was the subject of the DOJ CID. As a result of these allegations, Relator (on behalf of the federal and certain state governments) seeks injunctive and monetary relief. A consolidated complaint was jointly filed by Relator and the State of Washington on 9 March 2020. The consolidated complaint was unsealed (made public) by the court on 28 May 2020. Novo Nordisk has filed two motions seeking dismissal of the complaint, both of which are currently pending and awaiting ruling from the Court. Novo Nordisk does not expect the lawsuit to have a material impact on Novo Nordisk's financial position, operating profit or, cash flow.

Since January 2021, Novo Nordisk has changed its policy in the US related to the 340B Drug Pricing Program, whereby Novo Nordisk no longer provides 340B statutory discounts to certain pharmacies that contract with covered entities participating in the 340B Drug Pricing Program. Novo Nordisk's contract pharmacy policy has been challenged by the US Department of Health and Human Services. On 17 May 2021, the US government issued a letter to Novo Nordisk asserting that Novo Nordisk's policy violates the 340B statute. Novo Nordisk believes its policy does not violate the 340B Drug Pricing Program requirements and has commenced litigation against the government seeking a declaration that its 340B policy is consistent with relevant US laws. On 5 November 2021, the US District Court for the District of New Jersey issued a decision on Novo Nordisk's motion for summary judgment holding that the use of contract pharmacies is consistent with the 340B statute and that manufacturers have no statutory right to impose

restrictions on the sale or distribution of 340B drugs. Novo Nordisk has appealed the decision to the US Court of Appeals for the Third Circuit. A decision on this appeal is not expected before the end of 2022. Depending on the outcome of these matters, there may be a significant impact on Novo Nordisk's financial position, net sales and cash flow.

Mosaic Health Inc. and Central Virginia Health Services, Inc. (both 340B covered entities) filed a putative class action lawsuit in NY Federal Court against Novo Nordisk US, Eli Lilly, Sanofi and AstraZeneca alleging a conspiracy among the manufacturers to artificially fix prices of diabetes medications through changes to their policies relating to the distribution of 340B drugs through contract pharmacy arrangements. A motion to dismiss the lawsuit has been filed and is currently pending before the Court. 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

Several authorities in the US have served Novo Nordisk with Civil Investigative Demands (CIDs) or subpoenas calling for the production of documents and information. Below is a list of ongoing matters:

- Washington Attorney General's Office CID (March 2017), relating to, among other things, pricing, and trade practices for insulin products, including Levemir®, NovoLog®, and Novolin®, from 1 January 2005 through the present date.
- New Mexico Attorney General's Office CID (April 2017), relating to, among other things, trade practice and pricing of insulin products, namely NovoLog® and Novolin® from 1 January 2012 through the present date.
- New York State Attorney General's Office Subpoena (July 2019), relating to, among other things, pricing, and trade practices for insulin products, from 1 July 2013 through the present.
- Colorado Attorney General's Office CID (December2019), relating to, among other things, pricing, and trade practices for insulin products, for the period from 1 January 2010 to present.
- Vermont Attorney General's Office Subpoena (December 2020), related to, among other things, pricing and trade practices for insulin products sold by Novo Nordisk during the period 1 January 2011 through the present date.
- US Department of Justice (December 2021), relating to the financial relationships with healthcare professional and prescriptions for Ozempic® and Rybelsus® during the period of 1 January 2016 to present.

In all matters Novo Nordisk is cooperating with the authorities in question. Novo Nordisk does not expect the above investigations to have a material impact on Novo Nordisk's financial position, operating profit, or cash flow.

Novo Nordisk is one of several pharmaceutical companies that received requests for information involving pricing practices for its diabetes products from several committees of the Unites States House of Representatives and/or United States Senate. Novo Nordisk has responded to the various committees in response to their requests. Novo Nordisk does not expect the inquiries to have a 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.

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 estimates regarding ongoing legal disputes, litigation and investigations

Provisions for legal disputes consist of various types of provisions linked to Provisions for legal disputes consist of various types of provisions 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 litigation, 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.

3.5 Other liabilities

Other liabilities primarily comprises employee cost payables, payables related to non-current assets, sales rebates as well as deferred revenue.

Section 4 Capital structure and financial items

4.1 Distribution to shareholders

DKK million	**2021**	2020	2019
Interim dividend for the year	8,021	7,570	7,100
Dividend for prior year	13,496	12,551	12,309
Share repurchases for the year	19,447	16,855	15,334
Total	**40,964**	**36,976**	**34,743**

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.

The net cash distribution to shareholders in the form of dividends and share repurchases amounts to DKK 40,964 million, compared with a free cash flow of DKK 29,319 million.

The total dividend for 2021 amounts to DKK 23,711 million (DKK 10.40 per share). The 2021 final dividend of DKK 15,690 million (DKK 6.90 per share) is expected to be distributed pending approval at the Annual General Meeting. The interim dividend of DKK 8,021 million (DKK 3.50 per share) was paid in August 2021. The total dividend for 2020 was DKK 21,066 million (DKK 9.10 per share), of which the final dividend of DKK 13,496 million (DKK 5.85 per share) was paid in March 2021. No dividend is declared on treasury shares.

Novo Nordisk's dividend pay-outs are complemented by share repurchase programmes.

4.2 Share capital, Treasury shares and Other reserves

Development in number of shares

Million shares	A shares	B shares	**Total**
Shares beginning of 2020	537	1,863	2,400
Shares cancelled in 2020	—	(50)	(50)
Outstanding shares end of 2020	537	1,813	2,350
Shares cancelled in 2021	—	(40)	(40)
Outstanding shares end of 2021	**537**	**1,773**	**2,310**

Each A share of DKK 0.2 per share carries 200 votes and each B share of DKK 0.2 per share carries 20 votes. At the end of 2021, the share capital amounted to DKK 107 million in A share capital (DKK 107 million in 2020 and 2019) and DKK 355 million in B share capital (DKK 363 million in 2020 and DKK 373 million in 2019).

Treasury shares			**2021**	2020
	Market value, DKK million	Treasury shares in %	Number of B shares (million)	Number of B shares (million)
Holding at the beginning of the year	16,016	1.6%	37.5	48.1
Cancellation of treasury shares	(17,066)		(40.0)	(50.0)
Transfer regarding restricted stock units	(486)		(1.1)	(0.4)
Purchase during the year	19,447		34.7	39.8
Value adjustment	4,947		—	—
Holding at the end of the year	22,858	1.3%	**31.1**	37.5

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. Treasury shares are deducted from the share capital on cancellation at their nominal value of DKK 0.2 per share. Differences between this amount and the amount paid to acquire or received for disposing of treasury shares are deducted directly in equity. The purchase of treasury shares during the year relates to the remaining part of the 2020 share repurchase programme, totalling DKK 1 billion and the DKK 20 billion Novo Nordisk B share repurchase programme for 2021, of which DKK 1.6 billion was outstanding at year-end. The programme ended on 1 February 2022. Transfer of treasury shares relates to the long-term share-based incentive programme and restricted stock units to employees.

Specification of Other reserves

DKK million	Exchange rate adjustments	Cash flow hedges	Tax and other items	**Total**
2019				
Reserve at the beginning of the year	(1,065)	(1,677)	696	(2,046)
Other comprehensive income, net	226	1,348	(222)	1,352
Reserve at the end of the year	(839)	(329)	474	(694)
2020				
Other comprehensive income, net	(1,689)	1,713	(567)	(543)
Transferred to intangible assets1	—	418	(92)	326
Reserve at the end of the year	(2,528)	1,802	(185)	(911)
2021				
Other comprehensive income, net	1,624	(3,557)	1,117	(816)
Transferred to intangible assets1	—	15	(2)	13
Reserve at the end of the year	(904)	(1,740)	930	**(1,714)**

For information on transfer of cash flow hedge reserve to intangible assets refer to note 4.4.

According to Danish corporate law, reserves available for distribution as dividends are based on the financial statements of the parent company, Novo Nordisk A/S. Dividends are paid from distributable reserves. As of 31 December 2021 distributable reserves total DKK 51,114 million (DKK 51,858 million in 2020), corresponding to the parent company's retained earnings and reserve for cash flow hedges and exchange rate adjustments.

4.3 Financial risks

Management has assessed the following key financial risks:

Type	Financial risk
Foreign exchange risk	High
Credit risk	Low
Liquidity risk	Low
Interest rate risk	Low

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, and all positions are marked-to-market.

Foreign exchange risk

Foreign exchange risk is the most 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 majority of Novo Nordisk's sales are in USD, EUR, CNY, JPY, CAD and GBP. 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 exchange rate policy towards EUR.

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, thereby contributing to the predictability of the financial results. 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. The currency hedging strategy balances risk reduction and cost of hedging by use of 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. Management has chosen to classify the result of hedging activities as part of financial items.

Key currencies figures

	USD	CNY	JPY	CAD	GBP
Average exchange rate applied (DKK per 100)					
2021	**629**	**97**	**5.73**	**502**	**865**
2020	654	95	6.13	488	839
2019	667	97	6.12	503	852
Year-end exchange rate applied (DKK per 100)					
2021	**657**	**103**	**5.70**	**517**	**885**
2020	606	93	5.88	474	824
2019	668	96	6.11	511	877

Foreign exchange rate sensitivity analysis

At year-end, an immediate 5% increase/decrease in the disclosed currencies versus DKK and EUR is estimated by Management to have the following impact on Novo Nordisk's operating profit for the next 12 months.

Sensitivity on operating profit of an immediate 5% increase in key currencies[1]

DKK million	USD	CNY	JPY	CAD	GBP
2022	**2,350**	**360**	**230**	**200**	**120**
2021	1,900	460	200	140	110

1. An immediate 5% decrease would have the opposite impact of the above.

Sensitivity of an immediate 5% increase in all other currencies rates on 31 December versus DKK and EUR[1]

DKK million	**2021**	2020
Sensitivity of all currencies		
Income statement	113	299
Other comprehensive income	(2,677)	(1,893)
Total	**(2,564)**	(1,594)
Sensitivity of USD		
Income statement	(87)	2
Other comprehensive income	(2,218)	(1,380)
Total	**(2,305)**	(1,378)

1. An immediate 5% decrease would have the opposite impact of the above.

The foreign exchange sensitivity analysis comprises effects from the Group's cash, trade receivables and trade payables, current loans, current and non-current financial investments, lease liabilities and foreign exchange forwards. Anticipated currency transactions, investments in foreign subsidiaries and non-current assets are not included.

Financial contracts coverage at year end

Months	USD	CNY[1]	JPY	CAD	GBP
2021	**12**	**0**	**12**	**9**	**11**
2020	10	6	12	9	11

1. Chinese yuan traded offshore (CNH) is used to hedge Novo Nordisk's CNY currency exposure.

The table above shows financial contracts existing at year-end to cover the expected future cash flow for the disclosed number of months. During 2021, the hedging horizon varied between 9 months and 12 months for USD, JPY, CAD and GBP. Average hedge rate for USD cash flow hedges is 628 at the end of 2021 (640 at the end of 2020).

Credit risk

Credit risk arises from the possibility that transactional counterparties may default on their obligations, causing financial losses for the Group.

Credit risk exposure to financial counterparties

Credit exposure for cash at bank, marketable securities and derivative financial instruments (fair value)

DKK million	Cash at bank	Marketable securities	Derivative financial instruments	**Total**
2021				
AAA range	477	6,765	—	7,242
AA range	3,726	—	585	4,311
A range	5,637	—	1,105	6,742
BBB range	23	—	—	23
Not rated or below BBB range	857	—	—	857
Total	10,720	6,765	1,690	**19,175**
2020				
AAA range	—	—	—	—
AA range	7,296	—	989	8,285
A range	4,443	—	1,343	5,786
BBB range	212	—	—	212
Not rated or below BBB range	806	—	—	806
Total	12,757	—	2,332	**15,089**

Novo Nordisk considers its maximum credit exposure to financial counterparties to be DKK 19,175 million (DKK 15,089 million in 2020). In addition, Novo Nordisk considers its maximum credit exposure to trade receivables, other receivables (less prepayments and VAT receivables) and other financial assets to be DKK 43,425 million (DKK 29,522 million in 2020). Please refer to note 4.9 for details of the Group's total financial assets.

To manage credit risk regarding 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 at least 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 marketable securities is low, as investments are made in highly liquid bonds with AAA credit ratings.

Credit risk exposure to non-financial counterparties

Outside the US, Novo Nordisk has no significant concentration of credit risk related to trade receivables or other receivables and prepayments, as the exposure in general is spread over a large number of counterparties and customers. In the US, the three major wholesalers account for a large proportion of total net sales, see note 2.1. However, US wholesaler credit ratings are monitored and part of the trade receivables are sold on full non-recourse terms; see below for details.

Novo Nordisk closely monitors the current economic conditions of countries impacted by currency fluctuations, high inflation and an unstable political climate. These indicators as well as payment history are taken into account in the valuation of trade receivables. The country risk ratings in 2021 have overall remained unchanged from 2020 to 2021. However, despite the continued COVID-19 pandemic Novo Nordisk has not experienced significant increases in collectability issues on individual customers nor has it experienced significant deterioration in the ageing of receivables.

Trade receivable programmes

At year-end, the Group had derecognised receivables without recourse having due dates after 31 December 2021 amounting to:

DKK million	**2021**	2020	2019
US	1,313	1,817	3,672
Japan	2,453	2,351	2,149

Novo Nordisk's subsidiaries in the US and Japan employ trade receivable programmes in which trade receivables are sold on full non-recourse terms to optimise working capital.

In addition, full non-recourse off-balance-sheet factoring arrangement programmes are occasionally applied by Novo Nordisk subsidiaries around the world, with limited impact on the Group's trade receivables.

Please refer to note 3.3 for the split of allowance for trade receivables by geographical segment.

Interest rate risk

Novo Nordisk's exposure to interest rate risk is considered to be low due to the capital structure. Non-current debt consists of fixed rate instruments and the sensitivity towards interest rates on current debt of DKK 12,861 million (DKK 6,153 million in 2020) is countered by the interest sensitivity on cash and cash equivalents of DKK 10,719 million (DKK 12,226 million in 2020). Interest rate risk on marketable securities of DKK 6,765 million is considered low due to a low portfolio duration.

Liquidity risk

The liquidity risk is considered to be low. Novo Nordisk ensures the availability of the required liquidity through a combination of cash management, highly liquid investment portfolios and both uncommitted and committed credit facilities. Novo Nordisk uses cash pools for optimisation and centralisation of cash management.

Financial reserves comprise the sum of cash and cash equivalents at the end of the year, marketable securities with original term to maturity exceeding three months and undrawn committed credit and loan facilities, with a maturity of more than 12 months, less loans and bank overdrafts classified as liabilities arising from financing activities contractually obliged for repayment within 12 months of the balance sheet date.

Financial reserves

DKK million	**2021**	2020	2019
Cash and cash equivalents (note 4.6)	10,719	12,226	15,411
Marketable securities	6,765	—	—
Undrawn committed credit facility[1]	11,526	11,531	11,578
Undrawn bridge facility[2]	—	5,577	—
Borrowings (Note 4.5)	(12,861)	(576)	(595)
Financial reserves[3]	**16,149**	28,758	26,394

1. The undrawn committed credit facility comprises a EUR 1,550 million facility (EUR 1,550 million in 2020 and EUR 1,550 million in 2019) committed by a portfolio of international banks. The facility matures in 2025.
2. For 2020, the undrawn bridge facility comprises the EUR 750 million (DKK 5,577 million) undrawn portion of EUR 1,500 million bridge facility. The facility was expected to mature in 2021 but the terms provided that the maturity could be extended, at the option of Novo Nordisk to June 2022. Financial reserves for 2020 include amounts undrawn under credit facilities and overdrafts where the repayment is not contractually required within 12 months. In accordance with IFRS, the DKK 5,577 million (EUR 750 million) drawn loan was classified as current borrowings in 2020 as it was Management's expectation that it would be repaid in 2021. The loan was repaid in 2021.
3. Additional non-IFRS financial measure; please refer to 'Non-IFRS financial measures', which is not part of the audited financial statements.

4.4 Derivative financial instruments

Derivative financial instruments	2021			2020		
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[1]	42,351	17	1,667	29,110	1,658	—
Forward contracts CNH, JPY, GBP and CAD	9,032	32	122	10,291	191	47
Forward contracts, cash flow hedges	51,383	49	1,789	39,401	1,849	47
Forward contracts USD[2]	30,909	1,607	284	19,411	379	1,307
Forward contracts CNH, CAD, EUR, GBP and JPY	7,361	34	111	4,578	104	11
Forward contracts, fair value hedges	38,270	1,641	395	23,989	483	1,318
Total derivative financial instruments	**89,653**	**1,690**	**2,184**	63,390	2,332	1,365
Recognised in the income statement		1,641	395		483	1,318
Recognised in other comprehensive income		49	1,789		1,849	47

1. Average hedge rate for USD cash flow hedges is 628 at the end of 2021 and 640 at the end of 2020.
2. Average hedge rate for USD fair value hedges is 628 at the end of 2021 and 634 at the end of 2020.

The fair value of cash flow hedges at year-end 2021, loss of DKK 1,740 million, has been recognised in other comprehensive income. In addition, DKK 15 million in cash flow hedge losses on intangible asset purchases has been incurred for a total 2021 other comprehensive impact of DKK 1,755 million. The DKK 15 million deferred loss was transferred directly from the cash flow hedge reserve to the initial cost of the intangible assets.

The financial contracts are expected to impact the income statement within the next 12 months, with deferred gains and losses on cash flow hedges then being transferred to financial income or financial expenses. There is no expected ineffectiveness at 31 December 2021, primarily because hedging instruments match currencies of hedged cash flows.

Use of derivative financial instruments

The derivative financial instruments are used to manage the exposure to foreign exchange risk. None of the derivatives are held for trading. Novo Nordisk uses forward exchange contracts to hedge forecast transactions, assets and liabilities.

Net investments in foreign subsidiaries are currently not hedged.

Accounting policies

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.

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 in other comprehensive income. The cumulative value adjustment of these contracts is transferred from other comprehensive income to the income statement when the hedged transaction is recognised in the income statement.

For cash flow hedges of foreign currency risk on highly probable non-financial asset purchases, the cumulative value adjustments are transferred directly from the cash flow hedge reserve to the initial cost of the asset when recognised.

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.

For additional disclosures on accounting policies for financial instruments please refer to note 4.9.

4.5 Borrowings

Contractual undiscounted cash flows	2021					2020			
DKK million	Leases	Issued bonds	Loans	Bank overdrafts[1]	**Total**	Leases	Loans	Bank overdrafts[1]	Total
Within 1 year	946	—	12,503	359	13,808	855	5,577	1,107	7,539
1-3 years	1,475	4,854	—	—	6,329	1,247	—	—	1,247
3-5 years	942	—	—	—	942	694	—	—	694
More than 5 years	1,266	4,800	—	—	6,066	1,241	—	—	1,241
Total contractual undiscounted cash flows at the end of the year	4,629	9,654	12,503	359	**27,145**	4,037	5,577	1,107	10,721
Contractual discounted cash flows included in the balance sheet at the end of the year	4,129	9,654	12,503	359	**26,645**	3,672	5,577	1,107	10,356
Non-current liabilities	3,307	9,654	—	—	12,961	2,897	—	—	2,897
Current liabilities	822	—	12,503	359	13,684	775	5,577	1,107	7,459

Reconciliation of liabilities arising from financing activities				Non-cash movements				
DKK million	Beginning of the year	Re-payments	Proceeds	Additions[2]	Disposals	Exchange rates	Other	**End of the year**
2021								
Lease liabilities	3,672	(874)	—	1,183	—	146	2	4,129
Issued bonds	—	—	9,657	—	—	—	(3)	9,654
Loans	5,577	(5,577)	12,503	—	—	—	—	12,503
Bank overdrafts[1]	576	(238)	—	—	—	17	3	358
Liabilities arising from financing activities	9,825	(6,689)	22,160	1,183	—	163	2	**26,644**
Bank overdrafts[1]	531	(527)	—	—	—	—	(3)	1
Total borrowings	10,356	(7,216)	22,160	1,183	—	163	(1)	**26,645**
2020								
Lease liabilities	3,824	(950)	—	978	—	(171)	(9)	3,672
Loans	—	—	5,582	—	—	(5)	—	5,577
Bank overdrafts[1]	595	—	100	—	—	(119)	—	576
Liabilities arising from financing activities	4,419	(950)	5,682	978	—	(295)	(9)	**9,825**
Bank overdrafts[1]	64	—	467	—	—	—	—	531
Total borrowings	4,483	(950)	6,149	978	—	(295)	(9)	**10,356**

1. Bank overdrafts includes DKK 358 million classified as financing activities (DKK 576 million in 2020) and DKK 1 million classified as cash and cash equivalents (DKK 531 million in 2020).
2. Includes additions from acquisitions of businesses.

Issued bonds

	EUR 650 million (2024)	EUR 650 million (2028)
Issue date	4 June 2021	4 June 2021
Maturity date	4 June 2024	4 June 2028
Interest type	Fixed	Fixed
Coupon interest rate	0.000%	0.125%
Carrying amount	**4,854**	**4,800**
Fair value	4,850	4,794

In 2021 Novo Nordisk launched its first Euro Medium Term Note (EMTN) programme in two tranches with an aggregate principal amount of EUR 1.3 billion corresponding to DKK 9.7 billion. Net proceeds of the issuances have been used by Novo Nordisk for general corporate purposes, including refinancing of the bridge loan facility established in connection with Novo Nordisk's acquisition of Emisphere Technologies Inc. in 2020. The bonds are listed on Euronext Dublin.

Accounting policies

The lease liabilities are related to IFRS 16 leases, primarily for premises and company cars and include the present value of future lease payments during the lease term. Lease liabilities are initially measured at the present value of the lease payments outstanding at the commencement date, discounted using the incremental borrowing rate. The lease liability is measured using the effective interest method. The lease liability is subsequently remeasured to reflect changes in future lease payments, e.g. changes in lease terms.

Issued bonds, loans and bank overdrafts are initially recognised at the fair value of the proceeds received less transaction costs. In subsequent periods these are measured at amortised cost using the effective interest method. The difference between the proceeds received and the nominal value is recognised in financial income or financial expenses over the term of the loan.

As part of bridge funding the acquisition of Dicerna Pharmaceuticals, Inc., Novo Nordisk entered into a sale and repurchase agreement of marketable securities (REPO). On 31 December 2021, the carrying amount of the assets transferred is DKK 5,937 million, and the associated liabilities amounts to DKK 5,937 million. The repurchase is fixed, and Novo Nordisk has therefore retained full exposure from fair value changes of the marketable securities.

Therefore, the transaction is treated as a collateralised lending arrangement. Where substantially all the risks and rewards of ownership are retained in financial assets that have been transferred, the assets are not derecognised and the proceeds obtained are recognised as a financial liability.

For fair value determination please refer to note 4.9.

4.6 Cash and cash equivalents

Cash and cash equivalents

DKK million	**2021**	2020	2019
Cash at bank (note 4.3)	10,720	12,757	15,475
Borrowings[1] (note 4.5)	(1)	(531)	(64)
Cash and cash equivalents	10,719	12,226	15,411

1. Bank overdrafts includes DKK 358 million classified as financing activities (DKK 576 million in 2020) and DKK 1 million classified as cash and cash equivalents (DKK 531 million in 2020).

Cash and cash equivalents at 31 December 2021 includes DKK 1,123 million that is restricted (DKK 653 million in 2020). The restricted cash balance relates to subsidiaries in which availability of currency for remittance of funds is temporarily scarce.

Accounting policies

Cash and cash equivalents consists of cash offset by short-term bank overdrafts. Where short-term bank overdrafts are consistently overdrawn, they are excluded from cash and cash equivalents. The movement in such facilities is presented under financing activities in the cash flow statement.

4.7 Other non-cash items

DKK million	**2021**	2020	2019
Reversals of non-cash income statement items			
Interest income and interest expenses, net (note 4.10)	58	53	155
Capital gain/(loss) on investments, net. etc (note 4.10)	(340)	195	145
Result of associated companies (note 4.10)	24	(149)	137
Share-based payment costs (note 5.1)	1,040	823	363
Increase/(decrease) in provisions (note 3.4) and retirement benefit obligations	16,581	3,605	6,071
Other	(4,354)	3,322	161
Total other non-cash items	**13,009**	7,849	7,032

4.8 Change in working capital

DKK million	**2021**	2020	2019
Inventories	(1,085)	(895)	(1,305)
Trade receivables	(12,909)	(2,822)	(2,126)
Other receivables and prepayments	(469)	(419)	(1,190)
Trade payables	3,153	(641)	(398)
Other liabilities	2,595	1,274	1,202
Adjustment for payables related to non-current assets	(15)	879	295
Adjustment related to acquisition of businesses	(1,409)	—	—
Adjustment related to divestment of Group companies	—	—	(42)
Change in working capital including exchange rate adjustments	**(10,139)**	(2,624)	(3,564)
Exchange rate adjustments	1,483	(1,729)	176
Cash flow change in working capital	**(8,656)**	(4,353)	(3,388)

4.9 Financial assets and liabilities

Financial assets by category

DKK million	2021	2020
Other financial assets	553	766
Marketable securities	6,765	—
Derivative financial instruments (note 4.4)	1,690	2,332
Financial assets at fair value through the income statement	**9,008**	3,098
Other financial assets	363	300
Trade receivables	15,036	11,643
Other receivables and prepayments (current and non-current)	5,304	4,835
– less prepayments and VAT receivables	(3,438)	(4,113)
Cash at bank (note 4.6)	10,720	12,757
Financial assets at amortised cost	**27,985**	25,422
Trade receivables in a factoring portfolio[1]	25,607	16,091
Financial assets at fair value through other comprehensive income	**25,607**	16,091
Total financial assets at the end of the year by category	**62,600**	44,611
Financial liabilities by category		
Derivative financial instruments (note 4.4)	2,184	1,365
Financial liabilities measured at fair value through the income statement	**2,184**	1,365
Borrowings (non-current)[2] (note 4.5)	12,961	2,897
Borrowings (current)[2] (note 4.5)	13,684	7,459
Trade payables	8,870	5,717
Other liabilities (non-current)	360	—
Other liabilities (current)	19,600	17,005
– less VAT and duties payable	(590)	(598)
Financial liabilities measured at amortised cost	**54,885**	32,480
Total financial liabilities at the end of the year by category[3]	**57,069**	33,845

1. Trade receivables which are measured at fair value through other comprehensive income, which have no associated loss allowance. Refer to note 3.3.
2. The fair value of loans approximates the booked amount.
3. Please refer to note 4.5 for a maturity analysis for non-current and current borrowings.

Financial assets with the exception of other financial assets and the non-current part of other receivables and prepayments (DKK 267 million in 2021, DKK 674 million in 2020) are all due within one year. Other financial assets at amortised cost include DKK 335 million which are due in more than five years (DKK 280 million in 2020). Other financial assets measured at fair value through the income statement are minor shareholdings.

Fair value measurement hierarchy

DKK million	2021	2020
Active market data	7,169	634
Directly or indirectly observable market data	1,690	2,332
Not based on observable market data	25,756	16,223
Total financial assets at fair value	**34,615**	19,189
Active market data	—	—
Directly or indirectly observable market data	2,184	1,365
Not based on observable market data	—	—
Total financial liabilities at fair value	**2,184**	1,365

Financial assets and liabilities measured at fair value can be categorised using the fair value measurement hierarchy above. There were no transfers between the 'Active market data' and 'Directly or indirectly observable market data' categories during 2021 or 2020. There are no significant intangible assets or items of property, plant and equipment measured at fair value. For a description of the credit quality of financial assets such as trade receivables, cash at bank, current debt and derivative financial instruments, please refer to notes 4.3 and 4.4.

Accounting policies

Depending on purpose, Novo Nordisk classifies financial instruments into the following categories:

- Financial assets at fair value through the income statement
- Financial assets at amortised cost
- Financial assets at fair value through other comprehensive income
- Financial liabilities at fair value through the income statement
- Financial liabilities at amortised cost

Management determines the classification of its financial instruments on initial recognition and re-evaluates this at the end of every reporting period to the extent that such a classification is permitted or required.

Recognition and measurement

Financial assets at fair value through the income statement consist of equity investments, marketable securities and derivative financial instruments. These are initially recognised at fair value. Equity investments are included in other financial assets. Net gains and losses arising from changes in the fair value of equity instruments and marketable securities are recognised in the income statement as financial income or expenses. For a description of accounting policies on derivative financial instruments designated to hedge accounting, please refer to note 4.4.

Financial assets at fair value through other comprehensive income are trade receivables that are held to collect or to sell in factoring agreements.

Financial assets at amortised cost are cash at bank and non-derivative financial assets solely with payments of principal and interest. Novo Nordisk normally 'holds-to-collect' the financial assets to attain the contractual cash flows. 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. These are initially measured at fair value less transaction costs, except for trade receivables that are initially measured at the transaction price. Subsequently, they are measured at amortised cost using the effective interest method less impairment. For a description of accounting policies on trade receivables, please refer to note 3.3.

Purchases and sales of financial assets are recognised on the settlement date. Financial assets are removed from the balance sheet when the rights to receive cash flows have expired or have been transferred and Novo Nordisk has substantially transferred all the risks and rewards of ownership.

Financial liabilities at fair value through the income statement consist of financial derivative instruments.

Financial liabilities at amortised cost consist of borrowings (loans, issued bonds, bank overdrafts and lease liabilities), trade payables and other liabilities. These are initially recognised at the fair value of the proceeds received less transaction costs. The difference between the proceeds received and the nominal value is recognised in financial expenses over the term of the loan using the effective interest method. For initial recognition of lease liabilities refer to note 4.5.

Financial liabilities are derecognised when the obligation is repaid, cancelled or expires.

Fair value measurement

The fair values of quoted investments 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.

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.

The fair value of trade receivables in a factoring portfolio is calculated based on the net invoice amount (invoice amount less charge-backs) less the fee payable to the factoring entity. The factoring fee is insignificant due to the short period between the time of sale to the factoring entity and the invoice due date and the rate applicable. Inputs into the estimate of US wholesaler charge-backs are described in note 2.1.

The marketable securities are initially measured at fair value plus transaction costs and subsequently changes to the carrying amount are recognised in the income statement.

4.10 Financial income and expenses

Financial income

DKK million	**2021**	2020	2019
Financial income			
Interest income[1]	231	337	65
Foreign exchange gain (net)	—	1,142	—
Financial gain from forward contracts (net)	2,316	—	—
Capital gain on investments, etc.	340	—	—
Result of associated companies	—	149	—
Total financial income	**2,887**	1,628	65
Financial expenses			
Interest expenses[1]	289	390	220
Foreign exchange loss (net)	1,972	—	539
Financial loss from forward contracts (net)	—	1,889	2,673
Capital loss on investments, etc.	—	195	145
Capital loss on marketable securities	44	—	—
Result of associated companies	24	—	137
Other financial expenses	122	150	281
Total financial expenses	**2,451**	2,624	3,995

1. Total interest income and expenses is measured at amortised cost for financial assets and liabilities.

Financial impact from forward contracts, specified

DKK million	**2021**	2020	2019
Income/(loss) transferred from other comprehensive income	1,802	(329)	(1,677)
Value adjustment of transferred contracts	(1,411)	79	(1,609)
Unrealised fair value adjustments of forward contracts	1,246	(835)	(217)
Realised foreign exchange gain/(loss) on forward contracts	679	(804)	830
Financial income/(expense) from forward contracts	**2,316**	(1,889)	(2,673)

Accounting policies

As described in note 4.3, Management has chosen to classify the result of hedging activities as part of financial items in the income statement except for foreign currency-risk cash flow hedges on highly probable non-financial asset purchases, where the cumulative value adjustments are transferred directly from the cash flow hedge reserve to the initial cost of the asset when recognised.

Financial items primarily relate 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.

In addition, 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 foreign currency assets and liabilities in non-hedged currencies will impact financial income and financial expenses.

Section 5
Other disclosures

5.1 Share-based payment schemes

Share-based payment expensed in the income statement

DKK million	**2021**	2020	2019
Restricted stock units to employees	189	189	48
Long-term share-based incentive programme (Management Board)[1]	234	162	86
Long-term share-based incentive programme (management group below Management Board)	598	436	195
Shares allocated to individual employees	19	36	34
Share-based payment expensed in the income statement	**1,040**	823	363

1. In 2021, Novo Nordisk introduced a new share-based compensation programme with terms, which amortises the grant date valuation over three years (2018, 2019 and 2020 were amortised over four years). The 2021 expense includes amortisation of the 2018, 2019, 2020 and 2021 programmes.

Restricted stock units to employees

In appreciation of the efforts of employees during recent years, as of 1 August 2019, all employees in the company were offered 75 restricted stock units. A restricted stock unit gives the holder the right to receive one Novo Nordisk B share free of charge in February 2023, subject to continued employment. The cost of the DKK 660 million programme is amortised over the vesting period.

Long-term share-based incentive programme

Management Board

On 1 February 2022, the Board of Directors approved an interim allocation of 0.5 million Novo Nordisk B shares to the members of the Management Board for the 2021 financial year. The number of shares is periodically estimated based on long-term incentive performance. The final number of shares allocated for the 2021 programme is decided at the end of the performance period in 2023. The value at launch of the programme (adjusted for expected dividends) was DKK 223 million. The cost of the 2021 programme is amortised over the vesting period of 2021-2023 at an annual amount of DKK 74 million. The maximum share allocation cannot exceed 26 months' base salary for the CEO, 19.5 months' base salary for executive vice presidents and up to 15.6 months' base salary for senior vice presidents. Financial targets are set by the Board for a three-year period, while every year the Board sets the non-financial targets, the first time in February 2021 for the year 2021.

The grant date of the programme was February 2021, and the share price used for the determining the grant date fair value of the award was the average share price (DKK 450) for Novo Nordisk B shares on Nasdaq Copenhagen in the period 3-17 February 2021, adjusted for the expected dividend. Based on the split of participants when the share allocation was decided, 45% of the allocated shares will be allocated to members of Executive Management and 55% to other members of the Management Board.

The shares allocated for 2018 were released to the individual participants subsequent to approval of the 2021 Annual Report by the Board of Directors and after the announcement of the 2021 full-year financial results on 2 February 2022. The shares allocated correspond to a value at launch of the programme of DKK 115 million, expensed over the vesting period of 2018-2021. The number of shares to be transferred (0.5 million shares) is higher than the original number of shares allocated, as the average sales growth in the three-year vesting period was above the maximum performance target set by the Board and consequently, the number of shares increased by 30%.

All restricted stock units and shares allocated to Management are hedged by treasury shares.

Management group below the Management Board

The management group below the Management Board has a share-based incentive programme with similar performance criteria. For 2021, a total of 1.6 million shares have currently been allocated to this group, corresponding to a value at launch of the programme (adjusted for expected dividends) of DKK 649 million. The number of shares is periodically estimated based on long-term incentive performance. The final number of shares allocated for the 2021 programme is decided at the end of the performance period in 2023. The cost of the 2021 programme is amortised over the vesting period of 2021-2023 at an annual amount of DKK 216 million. Financial target are set by the Board for a three-year period, while every year the Board sets the non-financial targets, the first time in February 2021 for the year 2021.

The shares allocated for 2018 were released to the individual participants subsequent to approval of the 2021 Annual Report by the Board of Directors and after the announcement of the 2021 full-year financial results on 2 February 2022. The shares allocated correspond to a value at launch of the programme of DKK 312 million amortised over the period 2018-2021. The number of shares to be transferred (1.2 million shares) is higher than the original number of shares allocated, as the average sales growth in the three-year vesting period was above the maximum performance target set by the Board and consequently the number of shares increased by 30%.

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 performance and 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.

General terms and conditions of launched programmes

	Restricted stock units to employees			Shares for Management Board			Shares for management group below Management Board			Shares allocated to individual employees		
	2021	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Number of shares awarded in the year (million)	—	—	2.1	0.5	0.4	0.5	1.6	1.0	1.3	0.1	0.0	0.2
Value per share at launch (DKK)	—	—	307	423	411	298	423	411	298	538	391	311
Total market value at launch (DKK million)	—	—	660	223	152	152	649	416	387	71	17	48
Performance and vesting period			2019 to 2023	2021 to 2023	2020 to 2023	2019 to 2022	2021 to 2023	2020 to 2023	2019 to 2022	2021 to 2024	2020 to 2023	2019 to 2022
Allocated to recipients			Feb 2023	Feb 2024	Feb 2024	Feb 2023	Feb 2024	Feb 2024	Feb 2023	2024	2023	2022
Amortisation period	—	—	3.5 years	3 years	4 years	4 years	3 years	4 years	4 years	3 years	3 years	3 years

Outstanding restricted stock units (million)	Restricted stock units to employees			Shares for Management Board			Shares for management group below Management Board			Shares allocated to individual employees			**Total**		
	2021	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019	**2021**	2020	2019
Outstanding at the beginning of the year	2.1	2.1	1.5	1.8	1.3	1.2	4.5	3.2	2.7	0.2	0.3	0.2	8.6	6.9	5.6
Released allocated shares	(0.1)	(0.0)	(1.4)	(0.3)	(0.1)	(0.4)	(0.6)	(0.2)	(0.7)	(0.1)	(0.1)	(0.1)	(1.1)	(0.4)	(2.6)
Cancelled allocated shares	—	—	(0.1)	—	(0.0)	(0.0)	(0.3)	(0.1)	(0.1)	(0.0)	(0.0)	(0.0)	(0.3)	(0.1)	(0.2)
Allocated in the year	—	—	2.1	0.5	0.4	0.5	1.6	1.0	1.3	0.1	0.0	0.2	2.2	1.4	4.1
Performance adjustment[1]	—	—	—	0.2	0.2	—	0.3	0.6	—	0.0	—	—	0.5	0.8	—
Outstanding at the end of the year	**2.0**	2.1	2.1	**2.2**	1.8	1.3	**5.5**	4.5	3.2	**0.2**	0.2	0.3	**9.9**	8.6	6.9

1. The number of shares for Management Board and management group below Management board has been adjusted as the financial and non-financial targets set by the Board are expected to be exceeded for the 2021 programme. The number of shares for Management Board and management group below Management board has been adjusted as the sales growth target set by the Board for the 2018 programme is exceeded and is expected to be exceeded for the 2019 and 2020 programmes.

5.2 Commitments

Contractual obligations not recognised in the balance sheet

DKK million	Current	Non-current	Total
2021			
Leases[1]	145	636	781
Research and development obligations	4,196	6,357	10,553
Research and development – potential milestone payments[2]	771	4,220	4,991
Commercial product launch – potential milestone payments[2]	—	5,966	5,966
Purchase obligations relating to investments in property, plant and equipment	545	—	545
Other purchase obligations	13,407	5,998	19,405
Total obligations not recognised in the balance sheet	19,064	23,177	**42,241**
2020			
Leases[1]	152	612	764
Research and development obligations	2,733	4,502	7,235
Research and development – potential milestone payments[2]	205	3,878	4,083
Commercial product launch – potential milestone payments[2]	—	6,105	6,105
Purchase obligations relating to investments in property, plant and equipment	339	—	339
Other purchase obligations	7,528	4,535	12,063
Total obligations not recognised in the balance sheet	10,957	19,632	30,589

1. Predominantly relates to estimated variable property taxes, leases committed but not yet commenced and low value assets.
2. Potential milestone payments are associated with uncertainty as they are linked to successful achievements in research activities.

Contractual obligations

Research and development obligations include contingent payments related to achieving development milestones. Such amounts entail uncertainties in relation to the period in which payments are due because a proportion of the obligations are dependent on milestone achievements. Exercise fees and subsequent milestone payments under in-licensing option agreements are excluded, as Novo Nordisk is not contractually obligated to make such payments. Commercial product launch milestones include contingent payments solely related to achievement of a commercial product launch following regulatory approval.

Commercial milestones, royalties and other payments based on a percentage of sales generated from sale of goods following marketing approval are excluded from the contractual commitments analysis because of their contingent nature, related to future sales.

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.

At the Annual General Meeting in 2020, a donation to the World Diabetes Foundation (WDF) was approved. For the years 2020-2024, the donation is calculated as 0.085% of Novo Nordisk's total Diabetes care net sales. The annual donation cannot exceed DKK 93 million in 2022, DKK 94 million in 2023 and DKK 95 million in 2024, or 15% of the taxable income of Novo Nordisk A/S in the financial year in question, whichever is the lowest.

Other guarantees

Other guarantees amount to DKK 1,251 million (DKK 1,117 million in 2020). Other guarantees primarily relate to performance guarantees issued by Novo Nordisk.

5.3 Acquisition of businesses

Business combinations in 2021

On 28 December 2021, Novo Nordisk acquired all outstanding shares of the publicly held US company Dicerna Pharmaceuticals, Inc. via a cash tender offer. Before the acquisition, Novo Nordisk held 2.9% of the shares in Dicerna Pharmaceuticals, Inc. at a fair value of DKK 573 million.

About Dicerna Pharmaceuticals, Inc.

Dicerna Pharmaceuticals, Inc. is a biopharmaceutical company focused on discovering, developing and commercialising medicines that are designed to leverage RNAi to silence selectively genes that cause or contribute to diseases. Dicerna Pharmaceuticals, Inc. has established collaborative relationships with some of the leading pharmaceutical companies and has together with the collaborative partners more than 20 active discovery, preclinical or clinical programmes. Dicerna Pharmaceuticals, Inc. employs around 320 people.

Strategic rationale

The acquisition of Dicerna Pharmaceuticals, Inc.'s RNAi platform is a strategic addition to Novo Nordisk's existing research technology platforms and support the strategy of using a broad range of technology platforms applicable across all Novo Nordisk's therapeutic focus areas. In 2019, Novo Nordisk entered into a research collaboration and license agreement with Dicerna Pharmaceuticals, Inc. to discover and develop RNAi therapies using Dicerna Pharmaceuticals, Inc.'s proprietary RNAi platform technology.

Details of the acquisition

The total purchase price amounts to DKK 22,034 million, which has been settled by the fair value of existing shareholdings of DKK 573 million, settlement of a pre-existing relationship of DKK 145 million and a cash consideration of DKK 21,316 million. The settlement of a pre-existing relationship relates to the existing research collaboration and license agreement, according to which Novo Nordisk has paid upfront for research services that on the date of acquisition had a value of DKK 145 million.

Furthermore, under the existing research collaboration and license agreement, Novo Nordisk has prior to the acquisition acquired rights to license from Dicerna Pharmaceutical Inc. with a carrying value of DKK 863 million. As part of the acquisition of Dicerna Pharmaceutical Inc., Novo Nordisk has acquired the underlying intellectual property rights that replace the previously acquired rights to license. The additional value of the underlying property rights of DKK 2,454 million over the carrying value of previously acquired rights to license, is included in intellectual property rights acquired in the business combination and is calculated as the present value of future payment avoided by acquisition of Dicerna Pharmaceutical Inc. No material gain or loss has been recognised as part of settling the pre-existing arrangement.

The purchase price allocation for the acquisition is considered provisional due to the fact that the transaction was closed on 28 December 2021, leaving limited time to identify and determine fair value of assets acquired and liabilities assumed. Adjustments may be applied to the purchase price allocation for a period of up to 12 months from the acquisition date.

The provisional fair value of recognised assets and liabilities is as follows:

DKK million	**2021**
Intellectual property rights	18,687
Other intangible assets	24
Financial assets	31
Cash	3,033
Deferred tax assets/liabilities, net	(3,480)
Other net assets	(607)
Net identifiable assets acquired	**17,688**
Goodwill	4,346
Purchase price	**22,034**
Settlement of pre-existing relationship	(145)
Fair value of existing shareholdings	(573)
Consideration transferred	**21,316**
Cash acquired	(3,033)
Cash used for acquisition of businesses	**18,283**

The goodwill is primarily attributable to the highly-skilled workforce and expected synergies generated from Novo Nordisk's know-how and commercialisation abilities within protein and peptide based medicines and Dicerna Pharmaceuticals, Inc.'s know-how within RNAi technology. The goodwill is not expected to be deductible for tax purposes.

Transaction costs of DKK 124 million are included in other operating income and expenses in the income statement.

Business combinations in 2020
No business combinations were completed in 2020.

Accounting policies
The acquisition method of accounting is used to account for all business combinations.

The purchase price for a business comprises the fair values of the assets transferred, liabilities incurred to the former owners including warrant holders of the acquired business and the fair value of any asset or liability resulting from a contingent consideration arrangement. Any amount of the purchase price which effectively comprises a settlement of a pre-existing relationship is not part of the exchange for the acquiree and is therefore not included in the consideration for the purpose of applying the acquisition method. Settlements of pre-existing relationships are accounted for as separate transactions in accordance with the relevant IFRS.

Identifiable assets and liabilities and contingent liabilities assumed are measured at fair value at the date of acquisition by applying relevant valuation methods. Acquisition-related costs are expensed as incurred.

Goodwill is recognised at the excess of purchase price over the fair value of net identifiable assets acquired and liabilities assumed.

Key accounting estimate in determining the fair value of intangible assets acquired in a business combination
The application of the acquisition method involves the use of significant estimates as the identifiable net assets of the acquiree are recognised at their fair value for which observable market prices are typically not available. This is particularly relevant for intangible assets which require use of valuation techniques typically based on estimates of present value of future uncertain cash flows.

The valuation of intellectual property rights identified in the acquisition of Dicerna Pharmaceuticals, Inc. is mainly based on Relief From Royalty models, where Management has estimated the net present value of royalties and milestone payments, if the existing research collaboration and license agreement had been extended in time and scope to cover all of the proprietary RNAi technology. Further, Pipeline assets and research collaboration and license agreements with other parties than Novo Nordisk are valued based on estimated net present value of future cash flows.

5.4 Related party transactions

Material transactions with related parties

DKK million	**2021**	2020	2019
Novo Holdings A/S			
Purchase of Novo Nordisk B shares	6,695	5,963	4,894
Dividend payment to Novo Holdings A/S	6,144	5,767	5,580
NNIT Group			
Services provided by NNIT	593	775	941
Dividend payment from NNIT	(4)	(18)	(20)
Novozymes Group			
Services provided by Novo Nordisk	(116)	(113)	(132)
Services provided by Novozymes	78	72	103
CS Solar Fund XIV			
Purchase of shares by Novo Nordisk	—	—	97
Liability for capital commitment[1]	—	—	389
Distribution by CS Solar Fund XIV	—	—	(385)

1. The liability disclosed for 2019 related to capital commitment was paid in 2020 (DKK 392 million).

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 76.7% of the total number of votes. 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.

As associated companies of Novo Nordisk A/S, NNIT Group and Churchill Stateside Solar Fund XIV, LLC ('CS Solar Fund XIV') are considered related parties. As an associated company of Novo Holdings A/S, Unchained Labs, Inc. and Altascience Company Inc. are considered related parties to Novo Nordisk A/S. As they share a controlling shareholder, the Novozymes Group, Sonion Group and Xellia Pharmaceuticals are also considered to be related parties, as well as the Board of Directors or Executive Management of Novo Nordisk A/S.

In 2021, Novo Nordisk A/S acquired 11,220,000 B shares, worth DKK 6.7 billion, from Novo Holdings A/S as part of the DKK 20.0 billion share repurchase programme. The transaction price for each transaction was calculated as the average market price in the open window period following the announcements of the financial results for the four quarters in 2021.

In Novo Nordisk A/S, there were no transactions with the Board of Directors or Executive Management besides remuneration. There were no 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, Unchained Labs, Sonion A/S or CS Solar Fund XIV.

For information on remuneration of the Management of Novo Nordisk, please refer to note 2.4 Employee costs. There were no loans to the Board of Directors or Executive Management in 2021, nor were there any in 2020 or 2019.

There were no material unsettled balances with related parties at the end of the year.

5.5 Fee to statutory auditors

DKK million	**2021**	2020	2019
Statutory audit	26	26	26
Audit-related services	3	3	4
Tax advisory services	4	9	11
Other services	4	4	4
Total fee to statutory auditors	**37**	42	45

Fees for services other than statutory audit of the financial statements amount to DKK 11 million (DKK 16 million in 2020 and DKK 19 million in 2019).

In 2021, Deloitte Statsautoriseret Revisionspartnerselskab provided other services in the amount of DKK 6 million which relate to tax compliance and transfer pricing, educational training, review of ESG data, due diligence and other assurance assessments and opinions.

PricewaterhouseCoopers Statsautoriseret Revisionspartnerselskab (PricewaterhouseCoopers Denmark) provided other services in the amount of DKK 9 million in 2020 and DKK 12 million in 2019 which relate to tax compliance and transfer pricing, educational training, review of ESG data, due diligence and other assurance assessments and opinions.

5.6 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. 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.

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 prevailing exchange rates 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. Foreign currency differences arising from the translation of effective qualifying cash flow hedges are recognised in other comprehensive income.

Translation of Group companies
Financial statements of foreign subsidiaries are translated into DKK 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 other comprehensive income.

Cash flow statement
The Cash flow statement is presented in accordance with the indirect method commencing with net profit for the year.

5.7 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 geographical area					
North America Operations					
Novo Nordisk Canada Inc., Canada	100	•			
Novo Nordisk Inc., United States	100	•			
Novo Nordisk North America Operations A/S, Denmark	100				•
Novo Nordisk Pharmaceutical Industries LP, United States	100		•		
Novo Nordisk Pharmatech US, Inc., United States	100	•			
Novo Nordisk Pharma, Inc., United States	100	•			
Novo Nordisk Research Center Indianapolis, Inc., United States	100			•	
Novo Nordisk Research Center Seattle, Inc., United States	100			•	
Novo Nordisk US Bio Production, Inc., United States	100		•		
Novo Nordisk US Commercial Holdings, Inc., United States	100				•
Novo Nordisk US Holdings Inc., United States	100				•
Corvidia Therapeutics, Inc., United States	100			•	
Dicerna Pharmaceuticals, Inc., United States	100			•	
Emisphere Technologies, Inc., United States	100			•	
International Operations					
Novo Nordisk Pharmaceuticals A/S, Denmark	100				•
Novo Nordisk Pharma Operations A/S, Denmark	100	•			•
Novo Nordisk Region AAMEO and LATAM A/S, Denmark	100				•
Novo Nordisk Region Europe A/S, Denmark	100				•
Novo Nordisk Region Japan & Korea A/S, Denmark	100				•
EMEA					
Aldaph SpA, Algeria	100	•	•		
Novo Nordisk Pharma GmbH, Austria	100	•			
S.A. Novo Nordisk Pharma N.V., Belgium	100	•			
Novo Nordisk Pharma d.o.o., Bosnia and Herzegovina	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 Denmark A/S, Denmark	100	•			
Novo Nordisk Pharmatech A/S, Denmark	100	•	•		
Novo Nordisk Egypt LLC, Egypt	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	•			
Neotope Neuroscience Limited, Ireland	100			•	

Company and country	Percentage of shares owned	Activity			
Novo Nordisk Limited, Ireland	100	•			
Novo Nordisk Ltd, Israel	100	•			
Novo Nordisk S.P.A., Italy	100	•			
Novo Nordisk Kazakhstan LLP, Kazakhstan	100	•			
Novo Nordisk Kenya Ltd., Kenya	100	•			
Novo Nordisk Pharma SARL, Lebanon	100	•			
UAB Novo Nordisk Pharma, Lithuania	100	•			
Novo Nordisk Farma dooel, North Macedonia	100	•			
Novo Nordisk Pharma SAS, Morocco	100	•			
Novo Nordisk B.V., Netherlands	100	•			
Novo Nordisk Finance (Netherlands) B.V., Netherlands	100	•			•
Novo Nordisk Pharma Limited, Nigeria	100	•			
Novo Nordisk Norway AS, Norway	100	•			
Novo Nordisk Pharmaceutical Services Sp. z o.o., Poland	100	•			
Novo Nordisk Pharma Sp.z.o.o., Poland	100	•			
Novo Nordisk Comércio Produtos Farmacêuticos Lda., Portugal	100	•			
Novo Nordisk Farma S.R.L., Romania	100	•			
Novo Nordisk Limited Liability Company, Russia	100	•			
Novo Nordisk Production Support LLC, Russia	100	•	•		
Novo Nordisk Saudi for Trading, Saudi Arabia	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 (Pty) Limited, South Africa	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 Tunisie SARL, Tunisia	100	•			
Novo Nordisk Saglik Ürünleri Tic. Ltd. Sti., Turkey	100	•			
Novo Nordisk Ukraine, LLC, Ukraine	100	•			
Novo Nordisk Pharma Gulf FZE, United Arab Emirates	100	•			
Novo Nordisk Holding Limited, United Kingdom	100	•			•
Novo Nordisk Limited, United Kingdom	100	•			
Ziylo Limited, United Kingdom	100			•	
Region China					
Novo Nordisk (China) Pharmaceuticals Co., Ltd., China	100	•	•		
Novo Nordisk (Shanghai) Pharma Trading Co., Ltd., China	100	•			
Beijing Novo Nordisk Pharmaceuticals Science & Technology Co., Ltd., China	100			•	
Novo Nordisk Region China A/S, Denmark	100				•
Novo Nordisk Hong Kong Limited, Hong Kong	100	•			
Novo Nordisk Pharma (Taiwan) Ltd., Taiwan	100	•			

Company and country	Percentage of shares owned	Activity			
Rest of World					
Novo Nordisk Pharma Argentina S.A., Argentina	100	•			
Novo Nordisk Pharmaceuticals Pty. Ltd., Australia	100	•			
Novo Nordisk Pharma (Private) Limited, Bangladesh	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 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 Pharma Ltd., Japan	100	•	•		
Novo Nordisk Pharma (Malaysia) Sdn Bhd, Malaysia	100	•			
Novo Nordisk Pharma Operations (Business Area) Sdn Bhd, Malaysia	100				•
Novo Nordisk Mexico S.A. de C.V., Mexico	100	•			
Novo Nordisk Pharmaceuticals Ltd., New Zealand	100	•			
Novo Nordisk Pharma (Private) Limited, Pakistan	100	•			
Novo Nordisk Panama S.A., Panama	100	•			
Novo Nordisk Peru S.A.C., Peru	100	•			
Novo Nordisk Pharmaceuticals (Philippines) Inc., Philippines	100	•			
Novo Nordisk Pharma (Singapore) Pte Ltd., Singapore	100	•			
Novo Nordisk India Holding Pte Ltd., Singapore	100				•
Novo Nordisk Pharma Korea Ltd., South Korea	100	•			
Novo Nordisk Lanka (PVT) Ltd, Sri Lanka	100	•			
Novo Nordisk Pharma (Thailand) Ltd., Thailand	100	•			
Novo Nordisk Venezuela Casa de Representación C.A., Venezuela	100	•			
Other subsidiaries and associated companies					
NNE A/S, Denmark	100				•
NNIT A/S, Denmark	18				•
CS Solar Fund XIV, LLC, United States	99				•

Companies without significant activities are not included in the list.
NNE A/S subsidiaries are not included in the list.

Financial definitions

(part of Management's review – not audited)

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-IFRS financial measures'.

ADR
An American Depository 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.

Dividend pay-out ratio
Total dividends for the year as a percentage of net profit.

Effective tax rate
Income taxes as a percentage of profit before income taxes.

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.

Purchase of intangible assets
Cash flow statement amount for the purchase of intangible assets.

Purchase of property, plant and equipment
Cash flow statement amount for the purchase of property, plant and equipment.

The definition of capital expenditure was redefined in 2019. Capital expenditure is now defined as purchase of property, plant and equipment from the cash flow statement. Amounts for 2017-2018 have been restated in 'Financial highlights'.

Working capital
Working capital is defined as current assets less current liabilities and measures the liquid assets Novo Nordisk has available for the business.

Non-IFRS financial measures

(part of Management's review – not audited)

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 therefore not be comparable.

The non-IFRS financial measures presented in the Annual Report are:

- sales and operating profit in constant exchange rates
- operating profit after tax to net operating assets (OPAT/NOA)
- financial reserves
- free cash flow
- cash to earnings

IFRS refers to an IFRS financial measure.

Sales and operating profit growth in constant exchange rates

'Growth in constant exchange rates' means that the effect of changes in exchange rates is excluded. It is defined as sales/operating profit for the period measured at the average exchange rates for the same period of the prior year compared with net sales/operating profit for the same period of the prior year. Price adjustments within hyperinflation countries as defined in IAS 29 'Financial reporting in hyperinflation economies' are excluded from the calculation to avoid growth in constant exchange rates being artificially inflated. Growth in constant exchange rates 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 constant exchange rates

DKK million	**2021**	2020	2019
Net sales IFRS	140,800	126,946	122,021
Effect of exchange rate	3,643	3,254	(3,923)
Sales in constant exchange rates	**144,443**	130,200	118,098
Net sales previous year	126,946	122,021	111,831
% increase/(decrease) in reported currencies	10.9%	4.0%	9.1%
% increase/(decrease) in constant exchange rates	13.8%	6.7%	5.6%

Operating profit in constant exchange rates

DKK million	**2021**	2020	2019
Operating profit IFRS	58,644	54,126	52,483
Effect of exchange rate	2,332	1,930	(2,607)
Operating profit in constant exchange rates	**60,976**	56,056	49,876
Operating profit previous year	54,126	52,483	47,248
% increase/(decrease) in reported currencies	8.3%	3.1%	11.1%
% increase/(decrease) in constant exchange rates	12.7%	6.8%	5.6%

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 the 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 this financial target is a widely accepted measure of earnings efficiency in relation to total capital employed.

Solely for the purpose of calculating average net operating assets for 2019, year-end net operating assets for 2018 have been adjusted upwards by DKK 3,778 million to DKK 40,541 million, reflecting the recognition by Novo Nordisk of right-of-use assets of DKK 3,778 million as of 1 January 2019 in accordance with IFRS 16.

The following table shows the reconciliation of operating profit after tax to net operating assets with operating profit/equity in %, the most directly comparable IFRS financial measure:

Operating profit/equity in %

DKK million	**2021**	2020	2019
Operating profit IFRS	**58,644**	54,126	52,483
/ Equity IFRS	70,746	63,325	57,593
Operating profit/equity in %	**82.9%**	85.5%	91.1%

Operating profit after tax to net operating assets

DKK million	**2021**	2020	2019
Operating profit after tax	47,384	42,922	42,091
/ Average net operating assets	68,634	51,824	42,940
Operating profit after tax to net operating assets in %	**69.0%**	82.8%	98.0%

OPAT/NOA numerator

Reconciliation of operating profit to operating profit after tax:

DKK million	**2021**	2020	2019
Operating profit IFRS	**58,644**	54,126	52,483
Tax on operating profit (using effective tax rate)	(11,260)	(11,204)	(10,392)
Operating profit after tax	47,384	42,922	42,091

OPAT/NOA denominator

DKK million	2021	2020	2019
Intangible assets	43,171	20,657	5,835
Property, plant and equipment	55,362	50,269	50,551
Deferred income tax assets	8,672	5,865	4,121
Other receivables and prepayments (non-current)	267	674	841
Inventories	19,621	18,536	17,641
Trade receivables	40,643	27,734	24,912
Tax receivables	1,119	289	806
Other receivables and prepayments (current)	5,037	4,161	3,434
Deferred tax liabilities	(5,271)	(2,502)	(80)
Retirement benefit obligations	(1,280)	(1,399)	(1,334)
Other liabilities (non-current)	(360)	—	—
Provisions (non-current)	(4,374)	(4,526)	(4,613)
Trade payables	(8,870)	(5,717)	(6,358)
Tax payables	(3,658)	(3,913)	(4,212)
Other liabilities (current)	(19,600)	(17,005)	(15,085)
Provisions (current)	(51,520)	(34,814)	(31,120)
Net operating assets	**78,959**	58,309	45,339
Average net operating assets[1]	**68,634**	51,824	42,940

1. Average net operating assets for 2019 was calculated based on an adjusted net operating assets figure for 2018, which was adjusted by the right-of-use assets of DKK 3,778 million as of 1 January 2019, following the implementation of IFRS 16. As a consequence, the net operating assets figure for 2018 was adjusted to DKK 40,541 million for the calculation of the average net operating assets for 2019.

Reconciliation of net operating assets to equity: IFRS

DKK million	2021	2020	2019
Equity	70,746	63,325	57,593
Investment in associated companies	(525)	(582)	(474)
Other financial assets	(916)	(1,066)	(1,334)
Marketable securities	(6,765)	—	—
Derivative financial instruments	(1,690)	(2,332)	(188)
Cash at bank	(10,720)	(12,757)	(15,475)
Borrowings – non-current	12,961	2,897	3,009
Borrowings – current	13,684	7,459	1,474
Derivative financial instruments	2,184	1,365	734
Net operating assets	**78,959**	58,309	45,339

Financial reserves

'Financial reserves at the end of the year' is defined as the sum of cash and cash equivalents at the end of the year, marketable securities with original term to maturity exceeding three months and undrawn committed credit and loan facilities with a maturity of more than 12 months, less loans and bank overdrafts classified as liabilities arising from financing activities with obliged repayment within 12 months of the balance sheet date.

Management believes that financial reserves at the end of the year are 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 reserves with cash and cash equivalents, the most directly comparable IFRS financial measure:

Financial reserves

DKK million	2021	2020	2019
Cash and cash equivalents IFRS	10,719	12,226	15,411
Marketable securities IFRS	6,765	—	—
Undrawn committed credit facility	11,526	11,531	11,578
Undrawn bridge facility[1]	—	5,577	—
Borrowings[1]	(12,861)	(576)	(595)
Financial reserves[1]	**16,149**	28,758	26,394

1. Financial reserves for 2020 include amounts undrawn under credit facilities and overdrafts where the repayment of such facilities or overdrafts is not contractually required within 12 months of the balance sheet date. Financial reserves for 2020 include the DKK 5,577 million (EUR 750 million) undrawn portion of a bridge facility as the terms of the facility provided that the maturity could be extended, at the option of Novo Nordisk, through June 2022. In accordance with IFRS, the DKK 5,577 million (EUR 750 million) drawn portion of the bridge facility has nevertheless been classified as current debt as it was Management's expectation that the facility would be repaid in 2021. The loan was repaid in 2021.

Free cash flow

Free cash flow is a measure of the amount of cash generated in the period which is available for the Board to allocate between Novo Nordisk's capital providers, through measures such as dividends, share repurchases and repayment of debt (excluding lease liability repayments) or for retaining in the business to fund future growth.

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	2021	2020	2019
Net cash generated from operating activities IFRS	55,000	51,951	46,782
Net cash used in investing activities IFRS	(31,605)	(22,436)	(11,509)
Net purchase of marketable securities IFRS	5,937	—	—
Addition on marketable securities through acquisition of business IFRS	861	—	—
Repayment on lease liabilities IFRS	(874)	(950)	(822)
Free cash flow	**29,319**	28,565	34,451

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. 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 reconciliation of cash to earnings to cash flow from operating activities/net profit in %, the most directly comparable IFRS financial measure:

Cash flow from operating activities/net profit in %

DKK million	2021	2020	2019
Net cash generated from operating activities IFRS	55,000	51,951	46,782
/ Net profit IFRS	47,757	42,138	38,951
Cash flow from operating activities/net profit in %	**115.2%**	123.3%	120.1%

Cash to earnings

DKK million	2021	2020	2019
Free cash flow	29,319	28,565	34,451
/ Net profit IFRS	47,757	42,138	38,951
Cash to earnings	**61.4%**	67.8%	88.4%

Statement of Environmental, Social and Governance (ESG) performance

for the year ended 31 December

	Note	2021	2020	2019
Environmental performance				
Resources				
Energy consumption for operations (1,000 GJ)	7.1	3,387	3,191	2,993
Share of renewable power for production sites	7.1	100%	100%	76%
Water consumption for production sites (1,000 m^3)	7.2	3,488	3,368	3,149
Breaches of environmental regulatory limit values	7.3	12	15	16
Emissions and waste				
CO_2 emissions from operations and transportation (1,000 tonnes)	7.4	174	170	306
Waste from production sites (1,000 tonnes)	7.5	181	141	124
Social performance				
Patients				
Patients reached with Novo Nordisk's Diabetes care products (estimate in millions)	8.1	34.6	32.8	30.0
– Hereof reached via the Novo Nordisk Access to Insulin Commitment (estimate in millions)[1]	8.1	1.7	3.2	2.9
– Hereof children reached through the Changing Diabetes® in Children programme (cumulative)	8.1	31,846	28,296	25,695
People & employees				
Employees (total)	8.2	48,478	45,323	43,258
Employee turnover	8.2	11.0%	7.9%	11.4%
Sustainable employer score[2]	8.3	84%	N/A	N/A
Frequency of occupational accidents (number per million working hours)	8.4	1.3	1.3	2.2
Gender in leadership positions (ratio men:women)	8.5	57:43	59:41	60:40
Gender in senior leadership positions (ratio men:women)	8.5	64:36	65:35	67:33
Gender in the Board of Directors (ratio men:women)	8.5	67:33	62:38	62:38
Societies				
Total tax contribution (DKK million)	8.6	32,593	26,376	27,527
Donations and other contributions (DKK million)	8.7	92	158	105
Governance performance				
Governing processes				
Business ethics reviews	9.1	37	32	34
Relevant employees trained in business ethics	9.1	98%	99%	99%
Supplier audits	9.2	253	177	236
Product recalls	9.3	1	—	4
Failed inspections	9.4	—	—	—
Values & trust				
Facilitations of the Novo Nordisk Way (total)	9.5	34	26	32
Company reputation (scale 0-100)[3]	9.6	82.6	N/A	N/A
Animals purchased for research	9.7	47,879	50,036	49,637

1. During 2020, the ceiling price was lowered from USD 4 to USD 3 which affects the comparability of 2021 and prior years.
2. In 2021, the engagement survey was entirely redesigned to support Novo Nordisk's strategic goals. As a result, comparison to previous surveys is not appropriate.
3. Company reputation replaces Company trust in order to capture more dimensions of how Novo Nordisk is perceived by external stakeholders.

Notes to the consolidated ESG statement

Section 6
Basis of preparation

General reporting standards and principles

Novo Nordisk's annual reporting complies with the Danish Financial Statements Act. Sections 99a, 99b, 99d and 107d specify the requirements to report on the management of risks related to the environment, climate, human rights, labour and social conditions, anti-corruption, gender distribution and data ethics. These requirements are addressed in the Management Review. Novo Nordisk is also inspired by the International Integrated Reporting Framework and adheres to the AA1000AP (2018), which states that reporting must provide a complete, accurate, relevant and balanced picture of the organisation's approach to and impact on stakeholders and society.

As recommended by the Task Force on Climate-related Financial Disclosures (TCFD), Novo Nordisk is working to integrate two climate change scenarios into the risk management process to identify short-, medium- and long-term risks within the production and supply chain:

– 2ºC scenario, consistent with meeting the Paris Agreement Goal (Representative Concentration Pathway RCP 2.6)
– 4ºC scenario as an alternative high-emission scenario (RCP 8.5)

Novo Nordisk discloses in accordance with the recommendations put forward by the Carbon Disclosure Project (CDP). For a full breakdown of climate and water impacts, please refer to the publicly available report on Novo Nordisk CDP disclosures.

Novo Nordisk applies AA1000AP (2018) as a component in creating a generally applicable approach to assessing and strengthening the credibility of the Group's public reporting of ESG information. Novo Nordisk has designed processes to ensure that the qualitative and quantitative information that documents the ESG dimensions of performance is assured, as well as the systems that underpin the data and performance. The principles outlined in AA1000AP (2018) 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 the perspective of social responsibility, the key stakeholder groups are patients who rely on Novo Nordisk products, employees at Novo Nordisk and throughout the Group's value chain, business partners and local communities. Novo Nordisk maps its stakeholders and has processes in place to ensure inclusion of stakeholder concerns and expectations.

Materiality

When assessing whether a disclosure is material to include in the consolidated ESG statement, Management considers whether the matter is of such relevance and importance that it could substantively influence the assessment by providers of financial capital of Novo Nordisk's ability to create value over the short-, medium- and long-term. This assessment builds on ongoing stakeholder engagement and trendspotting supplemented by data-driven analysis. The identified key issues are addressed by programmes or action plans with clear and measurable targets. The issues presented in the Annual Report are thus deemed to have a significant impact on the Group's Environmental, Social and Governance performance and hereby the future business performance and may support stakeholders in their decision-making.

Responsiveness

The Annual Report reflects how the company is managing operations in ways that consider and respond to stakeholder concerns and interests. The report reaches out to a wide range of stakeholders but is primarily prepared with investors in mind. To all Novo Nordisk stakeholders, the Annual Report is just one element of interaction and communication with the company.

Impact

Understanding, measuring and communicating the positive and negative impacts on society and the environment of Novo Nordisk's activities is important and remains a priority for Novo Nordisk.

Principles of consolidation

The disclosures of energy consumption and CO_2 emissions cover production sites, laboratories and offices. The disclosures of water consumption, environmental breaches and waste cover production sites.

The social and governance-related disclosures cover the Novo Nordisk Group, comprising Novo Nordisk A/S and entities controlled by Novo Nordisk A/S as applicable.

Accounting policies and changes hereto

The accounting policies set out in the notes have been applied consistently in the preparation of the consolidated ESG statement for all the years presented unless stated otherwise below.

The existing categorisation of CO_2 emissions from operations and transportation has been supplemented with the categorisation into scope 1, 2, and 3 emissions to align with the Greenhouse Gas Protocol.

Gender in senior leadership positions (ratio men:women) has been added to the statement to reflect the aspirational target of 45:45 representation in senior leadership positions launched during 2021. The target of 45:45 representation leaves 10% flexibility while also allowing for non-binary gender definitions and those that may not wish to be categorised.

Sustainable employer score is replacing the previous disclosure of employee engagement in accordance with Novo Nordisk's aspirations of becoming a sustainable employer. The sustainable employer score is based on the new employee survey and captures a multitude of dimensions related to employee well-being.

Company reputation is replacing the previous disclosure of company trust. A new and more comprehensive approach to reputational intelligence has been launched in 2021 to cover more markets and stakeholders. These insights are summarised in the company reputation score.

Finally, the categorisation of disclosures into Environment, Social and Governance as well as the sub-categorisation within each dimension has been changed for some metrics.

Section 7 Environmental performance

7.1 Energy consumption for operations and share of renewable power

Energy consumption for operations

1,000 GJ	2021	2020	2019
Production	2,859	2,718	2,458
Office buildings and laboratories	528	473	535
Total energy consumption	**3,387**	3,191	2,993

Energy consumption for production increased by 5% primarily due to a new production facility and a general increase in produced volumes.

Energy consumption in office buildings and laboratories increased by 12% as facilities were utilised more throughout the year compared to 2020.

Energy-saving projects implemented in 2021 within production sites resulted in annual savings of 67,000 GJ.

In 2021, 100% of power sourced for production sites was from renewable energy.

Accounting policies
Energy consumption for operations is measured as consumption of power, steam, heat and fuel. The fuel is mainly from natural gas, wood, diesel oil, gas oil and light fuel oil. Energy consumption is based on meter readings and invoices.

Energy consumption in production and laboratories covers consumption of power, steam, heat and fuel. Energy consumption in office buildings outside Denmark is limited to the consumption of power.

The share of renewable power used at production sites is reported according to the Greenhouse Gas (GHG) Protocol Scope 2 Guideline. It is calculated as the sum of power in each site or office that is derived from 100% renewable sources, either sourced or self-produced.

7.2 Water consumption for production sites

In 2021, production sites consumed 3,488,000 cubic metres of water, an increase of 4% compared to 2020 due to a new production facility and a general increase in produced volumes.

Production sites in Brazil, China, Iran and Algeria, are located in areas subject to water stress or high seasonal variations. They consume 10% of the total water for global production. Overall, water consumption at these facilities decreased by 10% compared to 2020 due to significant water-saving projects implemented despite increased production.

Accounting policies
Water consumption is measured based on meter readings and invoices. It includes drinking water, industrial water and steam used at production sites.

7.3 Breaches of environmental regulatory limit values

In 2021, there were 12 breaches, a decrease from 15 breaches in 2020. The breaches were mainly related to wastewater and process waste, and all had a limited impact on the environment. All breaches were reported to the authorities.

Accounting policies
Breaches of regulatory limit values cover all breaches reported to the environmental authorities.

7.4 CO_2 emissions from operations and transportation

CO_2 emissions from operations and transportation

1,000 tonnes	2021	2020	2019
Production	39	37	86
Office buildings and laboratories	8	8	13
Product distribution	71	61	80
Business flights	10	19	65
Company cars	46	45	62
Total CO_2 emissions	**174**	170	306

CO_2 emissions by Scope 1, 2 and 3

1,000 tonnes	2021	2020	2019
Scope 1	**77**	75	86
– Production	29	28	21
– Office buildings and laboratories	2	2	3
– Company cars	46	45	62
Scope 2	**16**	15	75
– Production	10	9	65
– Office buildings and laboratories	6	6	10
Scope 3[1]	**81**	80	145
– Business flights	10	19	65
– Product distribution	71	61	80
Total CO_2 emissions	**174**	170	306

1. Scope 3 emissions are restricted to CO_2 emissions from business flights and product distribution. For a full overview of CO_2 emissions, please visit cdp.net

Novo Nordisk has long-term targets of zero CO_2 emissions from operations and transportation by 2030 and net-zero emissions by 2045.

In 2021, total CO_2 emissions from operations and transportation increased by 2%. The increase was primarily due to a rise in emissions from product distribution.

Scope 1 emissions increased by 3% due to a new production facility, increased natural gas consumption caused by a general increase in produced volumes and an increase in car fuel consumption.

Scope 2 emissions increased by 7% due to increased electricity and steam consumption caused by a general increase in produced volumes.

Scope 3 emissions increased by 1% following a 16% increase in product distribution, partially countered by a 47% decrease in emissions from business flights due to COVID-19. The increase in emissions from product distribution is primarily caused by increased use of air freight instead of sea and road freight. CO_2 reductions of 4,000 tonnes were incurred from green fuel agreements with selected transportation service providers.

Accounting policies
Emissions are limited to CO_2 emissions from energy and do not include other greenhouse gases.

CO_2 emissions from operations (production, office buildings and laboratories)
CO_2 emissions from operations cover consumption of power, fuel, heat and steam at office buildings in Denmark, global production sites and laboratories, and consumption of power in office buildings outside Denmark. Emissions 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 tonnes. 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 subsidiaries, direct customers and importing distributors. CO_2 emissions from product distribution from subsidiaries to pharmacies, hospitals and wholesalers are not included. Due to the lack of reliable emissions data from specific freight forwarders, an estimated 3% of trucking emissions are not included in the scope.

CO_2 emissions from business flights
CO_2 emissions from business flights are estimated based on mileage and emission factors for short-, medium- and long-haul flights along with passenger class obtained from travel agencies. Currently, 85% of emissions from flights are calculated based on data provided by travel agencies. The remaining 15% emissions are extrapolated based on the average CO_2 emissions per employee.

CO_2 emissions from company cars
CO_2 emissions from company cars cover cars leased or owned by Novo Nordisk. Emissions are calculated by multiplying emission factors by the volumes of diesel and petrol used.

CO_2 emissions by scope 1, 2 and 3
Scope 1 emissions comprise direct CO_2 emissions from sources that are owned or controlled by Novo Nordisk A/S.
Scope 2 emissions comprise CO_2 emissions from purchased or acquired electricity, cooling, heat and steam.
Scope 3 emissions only include CO_2 emissions from business flights and product distribution. Other Scope 3 categories, e.g. purchased goods and services, capital goods, waste generated in operations and employee commuting, are not included.

7.5 Waste from production sites

Waste from production sites

1,000 tonnes	**2021**	2020	2019
Organic residues	143	108	89
Other (paper, cardboard, metals, etc.)	8	8	8
Total recycling	**151**	116	97
Ethanol waste	13	9	13
Other (various combustible waste)	9	6	5
Total waste with energy recovery	**22**	15	18
Water waste	5	5	5
Other	2	4	3
Total waste with no energy recovery	**7**	9	8
Total waste to landfill	**1**	1	1
Total waste	**181**	141	124

In 2021, waste from production sites increased by 28% due to increased production. 96% of the total waste was either recycled, used for biogas production or incinerated at plants where energy is used for heat and power production.

The amount of waste recycled increased by 30% from 116,000 to 151,000 tonnes primarily driven by the production in Kalundborg, Denmark.

The amount of waste sent for energy recovery increased by 47% from 15,000 to 22,000 tonnes, primarily due to increased production volumes and challenges in ethanol regeneration. Less than 1% of total waste was sent to landfill.

In 2021, as in 2020, 14% of the waste was categorised as hazardous waste.

Accounting policies
Waste is measured as the sum of all the waste disposed of at production sites based on weight receipts. Organic residues for recycling are 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. Ethanol is recovered in internal regeneration plants and re-used. Energy recovery is waste disposed of at waste-to-energy plants and at a biogas plant. Waste with no energy recovery covers water waste and other waste not suitable for other disposal methods, such as hazardous waste for incineration and various other types of waste.

Section 8
Social performance

8.1 Patients reached with Novo Nordisk's Diabetes care products

The estimated number of full-year patients reached with Novo Nordisk's Diabetes care products increased from 32.8 million in 2020 to 34.6 million in 2021. This 5% increase was primarily driven by growth in the GLP-1 franchise which increased by 1.3 million patients followed by the new-generation insulin franchise which grew by 0.7 million patients.

In 2021, the estimated number of patients reached with Novo Nordisk's Diabetes care products through the Access to Insulin Commitment was 1.7 million. Novo Nordisk also sold human insulin below the ceiling price of USD 3 in countries outside the commitment, reaching an estimated additional 2.2 million patients in 2021. During 2020, the ceiling price was lowered from USD 4 to USD 3 which affects the comparability of 2021 and prior years. Comparing 2021 and 2020 using the current ceiling price of USD 3, the result is an estimated increase of 40,000 patients reached in 2021. Using the previous ceiling price of USD 4, an estimated 3.4 million patients were reached in 2021 compared to 3.2 million in 2020. In addition to offering insulin at a low price, supply chain improvements and capacity building are also important levers in ensuring access to affordable care for vulnerable patients.

Through the Changing Diabetes® in Children programme, 31,846 children had been reached by the end of 2021, compared with 28,296 in 2020. More than half of the 3,550 newly enrolled children were reached through expansion of the programme in Ethiopia, Sudan, Kenya and Uganda.

Accounting policies
The number of full-year patients reached with Novo Nordisk's Diabetes care products, excluding devices, 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).

The number of full-year patients reached with Novo Nordisk's Diabetes care products (human insulin in vials) via the Access to Insulin Commitment is estimated by dividing Novo Nordisk's annual sales volume by the annual usage dose per patient reached via the Access to Insulin Commitment as defined by WHO.

The WHO-defined daily dosage for these products may not accurately reflect the recommended or prescribed daily dose. Actual doses are based on individual characteristics (e.g. age and weight) and pharmacokinetic considerations. Despite this uncertainty, Novo Nordisk assesses this to be the most consistent way of reporting.

The number of children reached with diabetes care treatment through the Changing Diabetes® in Children programme is measured as the total accumulated number of children enrolled since the initiation of the partnership in 2009.

8.2 Employees

Employees

Number	**2021**	2020	2019
North America Operations	6,106	6,213	6,190
International Operations	42,372	39,110	37,068
– EMEA (Europe, the Middle East and Africa)	26,680	24,600	23,540
– of which in Denmark	19,150	17,538	16,747
– China (Mainland China, Hong Kong, Taiwan)	5,833	5,548	5,263
– Rest of World (all other countries)	9,859	8,962	8,265
Total employees	**48,478**	45,323	43,258
Full-time employees	47,792	44,723	42,703

The number of employees increased in most areas, with the highest growth in Product Supply Quality & IT, partially countered by North America Operations.

The employee turnover rate increased from 7.9% in 2020 to 11.0% in 2021 which is comparable to turnover rates in years prior to COVID-19.

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, production and support functions. Employees in corporate functions are included in EMEA, and employees in Global Business Services in Bangalore, India are included in Rest of World.

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. Employees working for Group companies that have been disposed of are not counted as having left the Group.

8.3 Sustainable employer score

In 2021 the global employee survey was entirely redesigned to support Novo Nordisk's ambition to be a Sustainable Employer, which underpins the broader Sustainable Business agenda. The new 21-item survey, Evolve, is sharply focused on the most vital elements of the Sustainable Employer ambition, provides greater differentiation of results, and is more actionable for leaders and their teams.

The inaugural Evolve survey revealed that overall engagement is high at 84% favourable, and that Novo Nordisk scores in the top decile against external organisations when it comes to providing a Purpose-driven workplace. Opportunities for improvement include greater equality of career opportunities, better work-life balance and clearer performance evaluations.

Accounting policies
The Sustainable employer score measures the average percentage of favourable answers to the 18 engagement items in the survey. Favourable answers are defined as "Agree" and "Strongly agree" to positively framed questions. The survey is distributed through an external vendor.

8.4 Frequency of occupational accidents

The average frequency rate of occupational accidents with absence was 1.3 accidents per million working hours in 2021, which is unchanged compared to 2020. The increase of 6.5% in the number of occupational accidents with absence (99 in 2021 compared to 93 in 2020) was counter-balanced by an increase in the number of employees. In 2021, Novo Nordisk had zero (0) work-related fatalities compared to one (1) in both 2019 and 2020. Novo Nordisk works with a zero-injury mindset and has a long-term commitment to continuously improving safety performance.

Accounting policies
The frequency of occupational accidents with absence is measured as the internally reported number of accidents per million nominal working hours. Contractors, visitors, employees on unpaid leave, interns, and bachelor and master thesis students are not included. 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.

8.5 Gender diversity

Gender in leadership positions

Ratio men:women	**2021**	2020	2019
CEO, EVP, SVP	72:28	76:24	82:18
CVP, VP	63:37	64:36	66:34
Director, Manager, Team Leader	57:43	58:42	59:41
Gender in leadership positions (overall)	**57:43**	59:41	60:40
Gender in senior leadership positions	**64:36**	65:35	67:33
Gender in the Board of Directors	**67:33**	62:38	62:38

The gender diversity in leadership positions overall at Novo Nordisk meets the Danish gender diversity requirements. Gender diversity in leadership positions overall increased from 41% in 2020 to 43% in 2021. Within senior leadership positions, there was an increase from 35% in 2020 to 36% in 2021. Among employees as a whole, the gender split was 49% women and 51% men in 2021, the same as in 2020.

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 leadership positions. In 2021, a global aspirational target of achieving a balanced gender representation across all managerial levels with a minimum of 45% for both women and men in senior leadership positions by the end of 2025 was introduced. Further information about the new target is disclosed in 'Launching aspirational targets' on page 17.

As of 31 December 2021, two shareholder-elected Board members were female and six were male. The 2024 target of having at least three shareholder-elected Board members of each gender was thus not yet met as a female Board member stepped down at the 2021 annual general meeting, leaving the number of female Board members at two. Diversity in the broadest sense remains a key focus area for the Board of Directors, including in Board member searches. Further information about the Board members is disclosed in the Corporate Governance Report.

Accounting policies
Diversity at Novo Nordisk is reported as the percentage split by gender in leadership positions. Senior leadership positions are defined as employees in the global job levels Chief Executive Officer (CEO), Executive Vice President (EVP), Senior Vice President (SVP), Corporate Vice President (CVP) and Vice President (VP). Overall leadership positions are defined as Directors, Managers, Team Leaders and senior leadership positions.

Diversity at the Board of Directors is reported as the percentage split by gender among all members, including employee-elected members.

8.6 Total tax contribution

Total tax contribution

DKK million	Taxes borne	Taxes collected	**2021**	2020	2019
Corporate income taxes paid	14,438	3,952	18,390	13,577	14,392
Employment taxes	1,893	8,947	10,840	9,588	9,638
Indirect taxes	1,506	1,106	2,612	2,497	2,610
Other taxes	751	—	751	714	887
Total	18,588	14,005	**32,593**	26,376	27,527

The total tax contribution in 2021 amounted to DKK 32,593 million split with 57% on taxes borne and 43% on taxes collected. In 2020, the split was 52% on taxes borne (DKK 13,676 million) and 48% on taxes collected (DKK 12,700 million).

The overall increase in total tax contribution from 2020 to 2021 is primarily related to Corporate income taxes paid. In 2020 the calculated corporate tax payable exceeded the prepayment of corporate income taxes in Denmark. These additional corporate income taxes have been paid in 2021. Furthermore, the profit before tax has increased for 2021, also resulting in an increase in Corporate income taxes paid.

Accounting policies
Novo Nordisk's total tax contribution is measured as the taxes borne or collected by Novo Nordisk, which have been paid in the respective year. Taxes borne are defined as taxes where Novo Nordisk carries the cost. Taxes collected are defined as taxes collected by Novo Nordisk on behalf of others, e.g. employee income taxes deducted from the employee salaries and paid on to the government.

Corporate income taxes paid
Corporate income taxes paid primarily consist of corporate income taxes and withholding taxes on company dividends paid during the year.

Employment taxes
Employment taxes primarily consist of taxes collected from the employees on behalf of the government and social security costs (part of payroll taxes in some countries).

Indirect taxes
Indirect taxes consist of non-refundable VAT, net VAT collections, customs duties, environmental taxes and property taxes.

Other taxes
Other taxes consist of country-specific taxes not linked to one of the categories above, e.g. the US branded prescription drug (BPD) fee.

8.7 Donations and other contributions

Donations and other contributions

DKK million	**2021**	2020	2019
World Diabetes Foundation (WDF)	92	138	86
Novo Nordisk Haemophilia Foundation (NNHF)	—	20	19
Total donations and other contributions	**92**	158	105

The WDF, an independent trust, supports sustainable partnerships and acts as a catalyst to help others do more. The amount granted to WDF has decreased from DKK 138 million in 2020 to DKK 92 million in 2021 as the donation in 2020 included a special one-off contribution of DKK 50 million. In 2021, the WDF Board of Directors approved funding to 13 partnership projects in 16 countries. See note 5.2 in the consolidated financial statements and worlddiabetesfoundation.org for additional information.

The NNHF supports programmes in low- and middle-income countries. Initiatives focus on capacity-building, diagnosis and registry, awareness and advocacy. Novo Nordisk agreed to a donation of DKK 20 million to NNHF in 2021 but due to financial considerations from NNHF the donation was not paid out. Since 2005, the NNHF has provided funding for 289 programmes in 83 countries. See nnhf.org for additional information.

Accounting policies
Donations and other contributions by Novo Nordisk to the WDF and the NNHF are recognised as an expense when the donation or contribution is paid out or when an unconditional commitment to donate has been made.

Section 9 Governance performance

9.1 Business ethics reviews and training

Accounting policies
The number of business ethics reviews is recorded as the number of business ethics reviews performed by Group Internal Audit in subsidiaries, production sites, vendors and headquarter areas.

The mandatory business ethics training is based on the Business Ethics Code of Conduct in the form of globally applicable e-learning and related tests released annually by the Novo Nordisk Business Ethics Compliance Office. The percentage of employees completing the training is calculated as the percentage of completion of training in both the Code of Conduct and related tests based on internal registrations.

9.2 Supplier audits

Supplier audits

Number	**2021**	2020	2019
Responsible sourcing audits	16	7	27
Quality audits	237	170	209
Total supplier audits	**253**	177	236

The number of audits concluded in 2021 increased by 43% compared to 2020. The increase represents an improved ability to conduct audits of suppliers although the effects of COVID-19 continue to limit travel and access to suppliers' facilities. One critical finding regarding credibility of certificate of analysis has been issued during a qualification audit in 2021. Consequently, Novo Nordisk has decided not to use the supplier in question.

Accounting policies
The number of supplier audits concluded by Novo Nordisk's Corporate Quality function consists of the number of responsible sourcing audits and quality audits conducted at suppliers.

9.3 Product recalls

Novo Nordisk had one product recall in the US in 2021 due to disbursement of product samples without proper temperature monitoring.

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.

9.4 Failed inspections

In 2021, as in 2020, Novo Nordisk had no failed inspections among those resolved at year-end. However, a contract manufacturer filling syringes for Wegovy® failed an inspection causing disruption in the supply of Wegovy®. During 2021, 97 inspections of Novo Nordisk were conducted, compared with 77 in 2020. At year-end, 86 inspections were passed and 11 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 continues in 2022.

Accounting policies
The number of failed inspections is measured in relation to inspections by the US Food & Drug Administration (USFDA), the European Medicines Agency (EMA), the Notified Body (TÜV SUD) 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.

9.5 Facilitations of the Novo Nordisk Way

In 2021, a total of 34 units were facilitated and more than 1,600 employees were individually interviewed. In addition, feedback on those units was collected from approximately 500 stakeholders.

Overall, the 2021 process continues to show a good level of adherence to the Novo Nordisk Way. 5 units were found to be in breach of one or more of the Novo Nordisk Essentials. The Essential with the strongest performance continues to be Essential 1 (We create value by having a patient-centred business approach) and Essential 10 (We never compromise on quality and business ethics. In 2021, partly driven by the focus on strengthening the culture journey, significantly more findings were issued related to Essential 2 (We set ambitious goals and strive for excellence) and Essential 7 (We focus on personal performance and development).

Accounting policies
Facilitations of the Novo Nordisk Way is measured as the number of facilitations completed. It is an internal process for assessing adherence to the Novo Nordisk Way. The assessments are based on review of documentation and feedback from stakeholders followed by an on-site visit during which randomly selected employees and management are interviewed. Identified gaps and improvement opportunities related to the Novo Nordisk Way are presented to and discussed with management. The facilitators and management agree on an action plan to address those gaps and improvement opportunities.

9.6 Company reputation

Company reputation

Scale 0-100	**2021**	2020	2019
People with diabetes	77.1	N/A	N/A
People with obesity	79.4	N/A	N/A
General practitioners	81.5	N/A	N/A
Diabetes specialists	84.8	N/A	N/A
Informed general public	90.3	N/A	N/A
Total score (average)	**82.6**	N/A	N/A

Company reputation is replacing the previous disclosure of company trust. A new and more comprehensive approach to reputational intelligence was launched in 2021 to cover more markets and stakeholders.

Accounting policies
The reputation score is based on four factors measuring esteem, admiration, trust, and feeling of the stakeholders towards Novo Nordisk across ten key markets: USA, Canada, Brazil, China, Japan, Germany, Italy, UK, France, and Denmark. The data are collected through online surveys carried out by an external consultancy firm. Responses are aggregated to produce an overall score on a Likert scale of 1-7 which is rebased on a 0-100 scale.

9.7 Animals purchased for research

Animals purchased

Number	**2021**	2020	2019
Mice, rats and other rodents	35,675	38,850	48,081
Pigs	759	783	880
Rabbits	184	239	349
Dogs	114	91	157
Non-human primates	495	264	168
Fish	10,638	9,804	—
Other vertebrates	14	5	2
Total animals purchased	**47,879**	50,036	49,637

The number of animals purchased for research in 2021 decreased by 4.3% compared with 2020 due to reduced usage of mice, rats and other rodents. The overall development reflects the changes in stages of the different research projects. The reduction in the number of rodents purchased reflects Novo Nordisk's continuous focus on reducing the number of animals per research project. 75% of the animals purchased were rodents and 22% were fish.

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.

Statement by the Board of Directors and Executive Management on the 2021 Annual Report

The Board of Directors and the Executive Management have today considered and approved the annual report for Novo Nordisk A/S for the financial year 1 January 2021 - 31 December 2021.

The consolidated financial statements are presented in accordance with International Financial Reporting Standards as endorsed by the EU. The parent financial statements are presented in accordance with the Danish Financial Statements Act. Further, the annual report is prepared in accordance with Danish disclosure requirements for listed companies.

In our opinion, the consolidated financial statements and the parent financial statements give a true and fair view of the Group's and the Parent's financial position at 31 December 2021 as well as of the results of their operations and cash flows for the financial year 1 January 2021 - 31 December 2021.

In our opinion, the management review contains a fair review of the development of the Group's and the Parent's business and financial matters, the results for the year and of the Parent's financial position and the financial position as a whole of the entities included in the consolidated financial statements, together with a description of the principal risks and uncertainties that the Group and the Parent face.

In our opinion, the Annual Report of Novo Nordisk A/S for the financial year 1 January to 31 December 2021 identified as NOVO-2021-12-31.zip is prepared, in all material respects, in compliance with the ESEF Regulation.

Novo Nordisk's Consolidated Environmental, Social and Governance Statements have been prepared in accordance with the reporting principles of materiality, inclusivity, responsiveness and impact of AA1000AP(2018) and environmental, social and governance accounting policies. They give a true and fair account and a balanced and reasonable presentation of the organisation's environmental, social and governance performance in accordance with these principles.

We recommend the annual report for adoption at the Annual General Meeting.

Bagsværd, 2 February 2022

Registered Executive Management

Lars Fruergaard Jørgensen
President and CEO

Karsten Munk Knudsen
CFO

Monique Carter

Martin Holst Lange

Marcus Schindler

Camilla Sylvest

Henrik Wulff

Board of Directors

Helge Lund
Chair

Jeppe Christiansen
Vice chair

Laurence Debroux

Andreas Fibig

Sylvie Grégoire

Mette Bøjer Jensen

Kasim Kutay

Anne Marie Kverneland

Martin Mackay

Henrik Poulsen

Thomas Rantzau

Stig Strøbæk

Independent Auditor's Reports

To the shareholders of Novo Nordisk A/S

Report on the Financial Statements

Opinion

We have audited the consolidated financial statements and the parent financial statements of Novo Nordisk A/S for the financial year 1 January 2021 – 31 December 2021, which comprise the income statement, balance sheet, equity statement and notes, including a summary of significant accounting policies, for the Group as well as the Parent, and the statement of comprehensive income and the cash flow statement of the Group (collectively referred to as the "Financial Statements"). The consolidated financial statements are prepared in accordance with International Financial Reporting Standards as endorsed by the EU and additional requirements of the Danish Financial Statements Act, and the parent financial statements are prepared in accordance with the Danish Financial Statements Act.

In our opinion, the consolidated financial statements give a true and fair view of the Group's financial position at 31 December 2021, and of the results of its operations and cash flows for the financial year 1 January 2021 – 31 December 2021 in accordance with International Financial Reporting Standards as endorsed by the EU and additional requirements under the Danish Financial Statements Act.

Further, in our opinion, the parent financial statements give a true and fair view of the Parent's financial position at 31 December 2021, and of the results of its operations for the financial year 1 January 2021 – 31 December 2021 in accordance with the Danish Financial Statements Act.

Our opinion is consistent with our Long-form Auditor's report issued to the Audit Committee and the Board of Directors.

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 consolidated financial statements and the parent financial statements section of this auditor's report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (IESBA Code) and the additional ethical requirements applicable in Denmark, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the IESBA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

To the best of our knowledge and belief, we have not provided any prohibited non-audit services as referred to in Article 5(1) of Regulation (EU) No 537/2014.

We were appointed auditors of Novo Nordisk A/S for the first time on 25 March 2021 for the financial year 2021.

Key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements and the parent financial statements for the financial year 1 January 2021 - 31 December 2021.

These matters were addressed in the context of our audit of the consolidated financial statements and the parent 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*
US sales rebates	
Refer to notes 2.1 and 3.4 in the consolidated financial statements. In the United States (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. Since January 2021, the Group no longer provides 340B statutory discounts to certain pharmacies that contract with covered entities participating in the 340B Drug Pricing Program. Revenue can only be recognized only to the extent that it is highly probable that a significant reversal in the amount of revenue recognized will not occur, and give rise to obligations which are provisioned and recorded as sales deduction at the time the related sales are recorded. The provision for sales rebates and discounts amounted to DKK 50,822 million as of 31 December 2021, a significant portion of which related to the US business. The US sales rebates, including provisions related to the 340B Drug Pricing Program, involved significant measurement uncertainty as the provisions are based on legal interpretations of applicable laws and regulations, historical claims experience, payer channel mix, current contract prices, unbilled claims, claims submission time lags, and inventory levels in the distribution channel. Consequently, we considered this to be a key audit matter.	We evaluated the appropriateness of the methodology and assumptions used to develop sales rebates provisions, including provisions related to the 340B Drug Pricing Program, by involving audit professionals with industry and quantitative analytics experience to assist us in performing our auditing procedures. We tested the effectiveness of controls relating to sales rebates, including controls over the assumptions used to estimate these rebates. We tested rebate claims processed, including evaluating those claims for consistency with the conditions and terms of rebate arrangements. We tested the overall reasonableness of the accruals recorded at period end by developing an expectation for comparison to actual recorded balances. We evaluated Management's ability to estimate sales rebates accurately by considering the historical accuracy of the estimates in prior year.
Acquisition of Dicerna Pharmaceuticals, Inc.	
Refer to notes 3.1 and 5.3 in the consolidated financial statements. The Group completed the acquisition of Dicerna Pharmaceuticals, Inc. for DKK 22,034 million on 28 December 2021. The preliminary fair value determination of the intangible assets required Management to make significant estimates and assumptions related to future cash flows and the selection of discount rates. Consequently, we considered this to be a key audit matter.	We tested the effectiveness of controls over the valuation of intangible assets, including Management's controls over forecasts of future cash flows and the selection of discount rates. We considered the impact of reasonably possible changes in key assumptions affecting future forecasted cash flows and discount rates and performed sensitivity calculations to quantify the impact of changes to Management's forecasted future cash flows and the selection of discount rates. We evaluated the reasonableness of Management's key estimates and assumptions related to the forecasted future cash flows by comparing these assumptions to historical results, relevant peer companies, and third-party industry reports. With the assistance of our fair value specialists, we evaluated the reasonableness of the (1) valuation methodology and (2) valuation assumptions by testing the source information underlying the determination of the valuation assumptions and testing the mathematical accuracy of the calculation.

Statement on management review

Management is responsible for the management review.

Our opinion on the consolidated financial statements and the parent financial statements does not cover the management review, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements and the parent financial statements, our responsibility is to read the management review and, in doing so, consider whether the management review is materially inconsistent with the consolidated financial statements and the parent financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

Moreover, it is our responsibility to consider whether the management review provides the information required under the Danish Financial Statements Act.

Based on the work we have performed, we conclude that the management review is in accordance with the consolidated financial statements and the parent financial statements and has been prepared in accordance with the requirements of the Danish Financial Statements Act. We did not identify any material misstatement of the management 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 endorsed by the EU and additional requirements of the Danish Financial Statements Act as well as the preparation of parent 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 consolidated financial statements and parent financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements and the parent financial statements, Management is responsible for assessing the Group's and the Parent's ability to continue as a going concern, for disclosing, as applicable, matters related to going concern, and for using the going concern basis of accounting in preparing the consolidated financial statements and the parent financial statements unless Management either intends to liquidate the Group or the Entity 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 consolidated financial statements and the parent 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 consolidated financial statements and these parent financial statements.

As part of an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and the parent 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'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 in preparing the consolidated financial statements and the parent financial statements, 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'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 consolidated financial statements and the parent 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 and the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of Financial Statements, including the disclosures in the notes, and whether the Financial Statements represent the underlying transactions and events in a manner that gives a true and fair view.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and, where applicable, safeguards put in place and measures taken to eliminate threats.

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.

Report on compliance with the ESEF Regulation

As part of our audit of the Financial Statements of Novo Nordisk A/S, we performed procedures to express an opinion on whether the annual report of Novo Nordisk A/S for the financial year 1 January 2021 to 31 December 2021 with the file name NOVO-2021-12-31.zip is prepared, in all material respects, in compliance with the Commission Delegated Regulation (EU) 2019/815 on the European Single Electronic Format (ESEF Regulation), which includes requirements related to the preparation of the annual report in XHTML format and iXBRL tagging of the consolidated financial statements.

Management is responsible for preparing an annual report that complies with the ESEF Regulation. This responsibility includes:

- The preparing of the annual report in XHTML format;
- The selection and application of appropriate iXBRL tags, including extensions to the ESEF taxonomy and the anchoring thereof to elements in the taxonomy, for financial information required to be tagged using judgement where necessary;
- Ensuring consistency between iXBRL tagged data and the consolidated financial statements presented in human readable format; and
- For such internal control as Management determines necessary to enable the preparation of an annual report that is compliant with the ESEF Regulation.

Our responsibility is to obtain reasonable assurance on whether the annual report is prepared, in all material respects, in compliance with the ESEF Regulation based on the evidence we have obtained and to issue a report that includes our opinion. The nature, timing and extent of procedures selected depend on the auditor's judgement, including the assessment of the risks of material departures from the requirements set out in the ESEF Regulation, whether due to fraud or error. The procedures include:

- Testing whether the annual report is prepared in XHTML format;
- Obtaining an understanding of the Company's iXBRL tagging process and of internal control over the tagging process;
- Evaluating the completeness of the iXBRL tagging of the consolidated financial statements;
- Evaluating the appropriateness of the Company's use of iXBRL elements selected from the ESEF taxonomy and the creation of extension elements where no suitable element in the ESEF taxonomy has been identified;
- Evaluating the use of anchoring of extension elements to elements in the ESEF taxonomy; and
- Reconciling the iXBRL tagged data with the audited consolidated financial statements.

In our opinion, the annual report of Novo Nordisk A/S for the financial year 1 January to 31 December 2021 with the file name NOVO-2021-12-31.zip is prepared in all material respects, in compliance with the ESEF Regulation.

Copenhagen, 2 February 2022

Deloitte
Statsautoriseret Revisionspartnerselskab
Business Registration No 33 96 35 56

Anders Vad Dons
State-Authorised Public Accountant
mne25299

Independent Auditor's Assurance Report on the ESG statement

To Management and broader stakeholders of Novo Nordisk A/S

Novo Nordisk A/S engaged us to provide limited assurance on the ESG statement presented in the Annual Report of Novo Nordisk for the year ended 31 December 2021.

Our scope of work was limited to assurance that:
- The performance data regarding Environment, Social and Governance, on pages from 85 to 91 in the report, have been stated in accordance with the reporting criteria;
- Novo Nordisk's description in the report adheres to the principles of inclusivity, materiality, responsiveness, and impact set out in AccountAbility's AA1000AP (2018);
- The report has been prepared in accordance with the requirements of sections 99a, 99b, 99d, and 107d of the Danish Financial Statements Act (FSA).

Management's responsibility

Management of Novo Nordisk is responsible for collecting, analysing, aggregating, and presenting the information in the ESG statement, ensuring that data are free from material misstatement, whether due to fraud or error. The Novo Nordisk accounting policies and internal control documents contain Management's defined reporting scope for each data type. The criteria for accounting principles are contained within the ESG statement.

Auditor's responsibility

Our responsibility is to express a limited assurance conclusion based on our engagement with Management and in accordance with the agreed scope of work. We have conducted our work in accordance with ISAE 3000 (Revised) Assurance Engagements Other than Audits or Reviews of Historical Financial Information, ISAE 3410 Assurance Engagements on greenhouse gas statements, and AA1000 Assurance Standard, AA1000AS (v3) Type 2 Moderate (which is the equivalent to ISAE 3000 limited assurance), and additional requirements under Danish audit regulation.

We are responsible for:
- planning and performing the engagement to obtain limited assurance about whether the consolidated ESG statement is free from material misstatement, whether due to fraud or error;
- forming an independent conclusion, based on the procedures we performed and the evidence we obtained; and
- reporting our conclusion to the Management and broader stakeholders of Novo Nordisk A/S.

Deloitte Statsautoriseret Revisionspartnerselskab is subject to International Standard on Quality Control (ISQC) 1 and, accordingly, applies a comprehensive quality control system, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the requirements for independence and other ethical requirements of the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour, and ethical requirements applicable in Denmark.

A limited assurance engagement is substantially less in scope than a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed a reasonable assurance engagement. Considering the risk of material error, we planned and performed our work to obtain all information and explanations necessary to support our conclusion.

Work performed

A. We are required to plan and perform our work in order to consider the risk of material misstatement in the ESG statement. To do so, we have:
- conducted interviews with internal stakeholders to understand the key processes and control activities for reporting data;
- obtained an understanding of the key processes and controls for managing, recording and reporting;
- performed limited substantive testing on a selective basis to check that data had been appropriately measured, recorded, collated and reported;
- performed analysis of data that have been selected on the basis of risk and materiality;
- made inquiries regarding significant developments in the reported data;
- considered the presentation and disclosure of the ESG statement; and
- assessed that the process for reporting greenhouse gas emissions data follows the principles of relevance, completeness, consistency, transparency and accuracy outlined in The Greenhouse Gas Protocol Corporate Standard Revised edition (2004) and The Corporate Value Chain (Scope 3) Accounting and Reporting Standard (2011).

B. Regarding alignment with the AA1000 accounting principles of Inclusivity, Materiality, Responsiveness, and Impact we performed the following activities:
- interviewed members of Novo Nordisk's Board of Directors and Executive Management team, representatives of senior management at global and regional levels, as well as key employees in Global Public Affairs and Sustainability to determine their understanding of Novo Nordisk's stakeholders, the mechanisms used to engage them and key issues of interest to each stakeholder group;
- interviewed external stakeholder to determine their perception of Novo Nordisk's stakeholder engagement capabilities, and responsiveness to material concerns of stakeholders;
- reviewed evidence on a selective basis to support the assertions made in these interviews and in the stakeholder engagement description;
- confirmed the systems and procedures to support Novo Nordisk's governance for responsible business conduct and stakeholder relationships; and
- assessed the disclosure and presentation of the stakeholder engagement description.

Our conclusion

Based on our work and the evidence obtained, nothing has come to our attention that causes us not to believe that in all material respects:
- The performance data regarding Environment, Social and Governance, on pages from 85 to 91 in the report, have been stated in accordance with the reporting criteria;
- The description in the report adheres to the principles of inclusivity, materiality, responsiveness and impact set out in AccountAbility's AA1000AP (2018);
- The report has been prepared in accordance with the requirements of sections 99a, 99b, 99d and 107d of the Danish Financial Statements Act (FSA).

Observations and recommendations

According to AA1000AS, we are required to include observations and recommendations for improvements regarding adherence to AA1000AP. We have no significant recommendations regarding the principles of Materiality, Inclusivity, Responsiveness and Impact. We have communicated to Management a number of minor recommendations for improvement.

Copenhagen, 2 February 2022

Deloitte
Statsautoriseret Revisionspartnerselskab
Business Registration No 33 96 35 56

Anders Vad Dons
State Authorised Public Accountant
mne25299

Helena Barton
Lead Reviewer

More information

Additional reporting

Novo Nordisk provides additional disclosure to satisfy legal requirements and stakeholder interests. Supplementary reports can be downloaded from novonordisk.com/annualreport, while additional information can be found at novonordisk.com

Materiality
Novo Nordisk relies 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, i.e. 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. See how Novo Nordisk determines materiality and material issues at novonordisk.com

Annual Report
This Annual Report is Novo Nordisk's full statutory Annual Report pursuant to Section 149(1) of the Danish Financial Statements Act.

The statutory Annual Report will be presented and adopted at the Annual General Meeting on 24 March 2022 and will subsequently be submitted to and be available at the Danish Business Authority.

The 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.

The Annual Report also meets the requirements for Communication on Progress to the UN Global Compact, 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. The Annual Report also adheres to the UN Guiding Principles Reporting Framework on respect of human rights.

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.

Remuneration Report
The Remuneration Report describes in accordance with section 139b of the Danish Companies Act the remuneration awarded or due during 2021 to members of the Board and Executive Management registered with the Danish Business Authority. The Remuneration Report is submitted to the Annual General Meeting for an advisory vote.

Corporate Governance Report
The Corporate Governance Report discloses Novo Nordisk's compliance with Corporate Governance to meet the requirements of the Danish Financial Statements Act.

References
Throughout the management review section in this report, links are provided to online sources for additional information. Some of the references are not mandatory and hence not included in the audit of the management review.

For more news from Novo Nordisk, visit
novonordisk.com/investors.html
novonordisk.com/news-and-media/latest-news.html

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

Credits
Design and production: Kontrapunkt.
Illustrations: &Robin.
Photography: Ashley Marie, David Brecetty, Gustavo Aranda Hernández, Jesper Edvardsen, Jesper Westley, Kelly Mailloux, Martin Juul, Matt Pugh, Sala Lewis.

2022 financial calender

24 March 2022
Annual General meeting

25 March 2022
Ex-dividend

28 March 2022
Record date

29 March 2022
Payment, B shares

5 April 2022
Payment, ADRs

4 May 2022
Financial statement for the first three months of 2022

4 August 2022
Financial statement for the first six months of 2022

12 August 2022
Ex-dividend

15 August 2022
Record date

16 August 2022
Payment, B shares

23 August 2022
Payment, ADRs

2 November 2022
Financial statement for the first nine months of 2022

1 February 2023
Financial statement for 2022 and Annual Report 2022

Product overview

Diabetes care

New-generation insulin and combinations
Tresiba®, insulin degludec
Ryzodeg® 70/30, insulin degludec/insulin aspart Fiasp®, fast-acting insulin aspart
Xultophy®*, insulin degludec/liraglutide

Modern insulin
Levemir®, insulin detemir
NovoRapid®**, insulin aspart
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
Ozempic®, semaglutide
Rybelsus®, oral semaglutide

Pre-filled delivery system
FlexTouch®, U100, U200
FlexPen®
InnoLet®
Ozempic® pen
Ozempic® Single dose device

Durable delivery systems
NovoPen® 6
NovoPen® 5
NovoPen® 4
NovoPen Echo® Plus
NovoPen Echo®

Other delivery systems
PumpCart®, NovoRapid® & Fiasp® cartridge to be used in pump
Cartridge Vial

Oral antidiabetic agents
NovoNorm®, repaglinide

Glucagon
GlucaGen®, glucagon for diagnostic use
GlucaGen® Hypokit, glucagon emergency kit for severe hypoglycaemia

Needles
NovoFine® Plus
NovoFine®
NovoTwist®
NovoFine® AutoCover®

Obesity care

Glucagon-like peptide-1
Saxenda®, liraglutide 3.0 mg
Wegovy®, semaglutide 2.4 mg, FlexTouch®

Obesity delivery systems
Saxenda® pen
Wegovy®, Single dose device, FlexTouch®

Biopharm

Rare Blood Disorders
NovoSeven®, recombinant factor VIIa, also available with pre-filled syringe in an increasing number of countries
NovoEight®***, recombinant factor VIII
NovoThirteen®, recombinant factor XIII
Refixia®****, nonacog beta pegol; N9-GP
Esperoct®, turoctocog alfa pegol, NS-GP

Rare Endocrine Disorders
Norditropin®, somatropin (rDNA origin)
Sogroya®, somapacitan
Macrilen™, macimorelin; growth hormone secretagogue receptor agonist

Human growth hormone delivery system Pre-filled delivery system
FlexPro®
NordiFlex®
Nordilet®
NordiPen®

Durable delivery systems
Durable multi-dose delivery system to be used with Norditropin® SimpleXx®

Other delivery system
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

* In the US approved under the brand name Xultophy® 100/3.6 ** In the US called NovoLog® *** In the US spelt Novoeight® **** In the US approved under the name of REBINYN®

Financial statements of the parent company 2021

The following pages comprise the financial statements of the parent company, 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	2021	2020
Net sales	2	112,553	100,940
Cost of goods sold	3	(26,642)	(20,662)
Gross profit		85,911	80,278
Sales and distribution costs	3	(30,021)	(26,673)
Research and development costs	3	(15,244)	(14,524)
Administrative costs	3	(1,976)	(1,913)
Other operating income and expenses		1,032	1,976
Operating profit		39,702	39,144
Profit in subsidiaries, net of tax	8	16,879	10,394
Financial income	4	2,415	2,144
Financial expenses	4	(2,225)	(2,238)
Profit before income taxes		56,771	49,444
Income taxes		(9,248)	(7,285)
Net profit		**47,523**	42,159

Balance sheet

At 31 December

DKK million	Note	2021	2020
Assets			
Intangible assets	6	9,110	7,938
Property, plant and equipment	7	27,007	25,322
Financial assets	8	71,564	43,598
Deferred income tax assets	5	228	—
Other receivables and prepayments		—	218
Total non-current assets		**107,909**	77,076
Raw materials		3,754	2,781
Work in progress		10,899	10,647
Finished goods		2,131	2,246
Inventories		16,784	15,674
Trade receivables		2,128	1,523
Amounts owed by affiliated companies		13,200	15,893
Tax receivables		695	—
Other receivables and prepayments		2,967	2,353
Receivables		18,990	19,769
Marketable securities		5,904	—
Derivative financial instruments	9	1,690	2,332
Cash at bank		8,870	11,509
Total current assets		**52,238**	49,284
Total assets		**160,147**	126,360

DKK million	Note	2021	2020
Equity and liabilities			
Share capital		462	470
Net revaluation reserve according to the equity method		17,675	9,749
Development costs reserve		1,218	959
Reserve for cash flow hedge		(1,600)	1,617
Retained earnings		52,714	50,241
Total equity		**70,469**	63,036
Borrowings	10	10,111	596
Deferred income tax liabilities	5	—	523
Other provisions	11	1,377	1,348
Total non-current liabilities		**11,488**	2,467
Borrowings	10	12,648	6,275
Derivative financial instruments	9	2,184	1,365
Trade payables		3,048	2,910
Amounts owed to affiliated companies		53,826	40,931
Tax payables		171	3,114
Other liabilities		6,313	6,262
Total current liabilities		**78,190**	60,857
Total liabilities		**89,678**	63,324
Total equity and liabilities		**160,147**	126,360

Equity statement

DKK million	Share capital	Net revaluation reserve	Reserve for cash flow hedges and exchange rate adjustments	Develop-ment costs reserve	Retained earnings	**2021**	2020
Balance at the beginning of the year	470	9,749	1,617	959	50,241	63,036	57,432
Appropriated from net profit					17,500	17,500	24,995
Appropriated from net profit to net revaluation reserve		6,312				6,312	(3,902)
Exchange rate adjustments of investments in subsidiaries		1,614	10			1,624	(1,689)
Effect of cash flow hedges transferred to the income statement			(3,227)			(3,227)	1,940
Fair value adjustments of cash flow hedges for the year						—	—
Development costs				259	(259)	—	—
Other adjustments					1,904	1,904	(179)
Transactions with owners:							
Total dividend for the year					23,711	23,711	21,066
Interim dividends paid during the year					(8,021)	(8,021)	(7,570)
Dividends paid for prior year					(13,496)	(13,496)	(12,551)
Reduction of the B share capital	(8)				8	—	—
Purchase of treasury shares					(19,447)	(19,447)	(16,855)
Share-based payments (note 3)					383	383	327
Tax related to restricted stock units					190	190	22
Balance at the end of the year	462	17,675	(1,600)	1,218	52,714	**70,469**	63,036
Proposed appropriation of net profit:							
Interim dividend for the year						8,021	7,570
Final dividend for the year						15,690	13,496
Appropriated to net revaluation reserve						6,312	(3,902)
Transferred to retained earnings						17,500	24,995
Distribution of net profit						**47,523**	42,159

Please refer to note 4.2 in the consolidated financial statements for details on the average number of shares, treasury shares and total number of A and B shares in Novo Nordisk A/S.

Development in share capital

DKK million	A share capital	B share capital	**Total share capital**
Beginning of 2017	107	403	510
Cancelled in 2017	—	(10)	500
Cancelled in 2018	—	(10)	490
Cancelled in 2019	—	(10)	480
Cancelled in 2020	—	(10)	470
Cancelled in 2021	—	(8)	462
Share capital at the end of the year	107	355	**462**

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 previous financial year except for implementation of accounting policy related to goodwill. 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.

No separate statement of cash flows has been prepared for the parent company; please refer to the statement of cash flows for the Group.

Supplementary accounting policies for the parent company

Financial assets

In the financial statements of the parent company, investments in subsidiaries and associated companies are recorded under the equity method, using the respective share of the net asset values in subsidiaries and associated companies. The equity method is used as a measurement basis rather than a consolidation method. The net profit of subsidiaries and associated companies less unrealised intra-group profits and amortisation of goodwill is recorded in the income statement of the parent company. Goodwill is amortised over no more than 25 years which reflects the useful life of the underlying assets and activities generating the goodwill.

To the extent that net profit exceeds declared dividends from such companies, the net revaluation of investments in subsidiaries and associated companies is transferred to net revaluation reserve under equity according to the equity method. Profits in subsidiaries and associated companies are disclosed as profit after tax.

Amounts owed by affiliates, where settlement is neither planned nor likely within the foreseeable future, are treated as part of net-investments in subsidiaries, with exchange rate adjustments recognised directly in equity through reserve for cash flow hedges and exchange rate adjustments.

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.

2 Sales

DKK million	**2021**	2020
Sales by business segment		
Diabetes and Obesity care	112,347	100,741
Biopharm	206	199
Total sales	**112,553**	100,940
Sales by geographical segment		
North America Operations	57,654	52,054
International Operations:		
EMEA	27,124	25,124
China	15,608	12,554
Rest of World	12,167	11,208
Total sales	**112,553**	100,940

Sales are attributed to a geographical segment based on location of the customer. For definitions of segments, please refer to note 2.2 in the consolidated financial statements. Refer to note 5.7 in the consolidated financial statements for an overview of companies in the Novo Nordisk Group based on geographical areas.

3 Employee costs

DKK million	**2021**	2020
Wages and salaries	12,485	11,503
Share-based payment costs	383	327
Pensions	1,116	1,045
Other social security contributions	207	176
Other employee costs	363	299
Total employee costs in the income statement	**14,554**	13,350
Average number of full-time employees	**16,851**	15,782
Year-end number of full-time employees	**17,534**	16,151

For information regarding remuneration to the Board of Directors and Executive Management, please refer to note 2.4 to the consolidated financial statements.

4 Financial income and financial expenses

DKK million	**2021**	2020
Interest income relating to subsidiaries	238	263
Result of associated company	—	21
Foreign exchange gain (net)	—	1,751
Financial gain from forward contracts (net)	2,021	—
Other financial income	156	109
Total financial income	**2,415**	2,144
Interest expenses relating to subsidiaries	13	137
Result of associated company	13	—
Foreign exchange loss (net)	1,978	—
Financial loss from forward contracts (net)	—	1,777
Other financial expenses	221	324
Total financial expenses	**2,225**	2,238

5 Deferred income tax assets/(liabilities)

DKK million	**2021**	2020
Net deferred tax asset/(liability) at the beginning of the year	(523)	95
Income/(charge) to the income statement	(330)	(18)
Income/(charge) to equity	1,081	(600)
Net deferred tax asset/(liability) at the end of the year	**228**	(523)

The Danish corporate tax rate was 22% in 2021 (22% in 2020).

6 Intangible assets

DKK million	**2021**	2020
Cost at the beginning of the year	11,077	6,065
Additions during the year	1,560	5,165
Disposals during the year	(65)	(153)
Cost at the end of the year	12,572	11,077
Amortisation at the beginning of the year	3,139	2,637
Amortisation during the year	289	306
Impairment losses for the year	34	349
Amortisation and impairment losses reversed on disposals during the year	—	(153)
Amortisation at the end of the year	3,462	3,139
Carrying amount at the end of the year	**9,110**	7,938

Intangible assets primarily relate to intellectual property rights, 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 under con-struction	**2021**	2020
Cost at the beginning of the year	22,094	22,347	4,013	3,529	51,983	49,545
Additions during the year	328	995	162	2,823	4,308	3,089
Disposals during the year	(108)	(145)	(34)	(9)	(296)	(651)
Transfer from/(to) other items	630	1,544	244	(2,418)	—	—
Cost at the end of the year	22,944	24,741	4,385	3,925	55,995	51,983
Depreciation and impairment losses at the beginning of the year	9,314	14,954	2,393	—	26,661	24,821
Depreciation for the year	1,084	1,089	347	—	2,520	2,387
Impairment losses for the year	9	18	54	9	90	97
Depreciation reversed on disposals during the year	(95)	(145)	(34)	(9)	(283)	(644)
Depreciation and impairment losses at the end of the year	10,312	15,916	2,760	—	28,988	26,661
Carrying amount at the end of the year	12,632	8,825	1,625	3,925	**27,007**	25,322
Of which related to leased property, plant and equipment	545	—	52	—	**597**	763

Leased property, plant and equipment primarily relates to lease of office buildings, warehouses, laboratories and vehicles.

8 Financial assets

DKK million	Investments in subsidiaries	Amounts owed by affiliated companies	Investment in associated company	Other securities and investments	**2021**	2020
Cost at the beginning of the year	29,174	4,047	105	1,220	34,546	18,493
Investments during the year	19,698	1,255		67	21,020	29,629
Divestments and repayments during the year		(989)		(590)	(1,579)	(13,576)
Cost at the end of the year	48,872	4,313	105	697	53,987	34,546
Value adjustments at the beginning of the year	26,255	(245)	111	(452)	25,669	28,803
Profit/(loss) before tax	19,635				19,635	18,187
Share of result after tax in associated company			(13)		(13)	21
Income taxes on profit for the year	(2,006)				(2,006)	(3,748)
Market value adjustment				75	75	(171)
Dividends received	(11,050)		(4)		(11,054)	(16,785)
Divestments during the year				216	216	(3)
Effect of exchange rate adjustment charged to the income statement		281		17	298	—
Effect of exchange rate adjustment charged to equity	2,603	10			2,613	(3,103)
Other adjustments	500				500	2,468
Value adjustments at the end of the year	35,937	46	94	(144)	35,933	25,669
Unrealised internal profit at the beginning of the year	(16,617)				(16,617)	(13,420)
Unrealised internal profit movements in the year	(750)				(750)	(4,045)
Effect of exchange rate adjustment charged to equity	(989)				(989)	848
Unrealised internal profit at the end of the year	(18,356)	—	—	—	(18,356)	(16,617)
Carrying amount at the end of the year	66,453	4,359	199	553	**71,564**	43,598

The 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 5.7 to the consolidated financial statements.

9 Derivatives

For information on derivative financial instruments, please refer to note 4.4 to the consolidated financial statements.

10 Borrowings

DKK million	2021	2020
Within 1 year	12,648	6,275
1-5 years	5,282	470
More than 5 years	4,829	126
Total borrowings	**22,759**	6,871

11 Other provisions

Provisions for pending litigations are recognised as other provisions. For information on pending litigations, please refer to note 3.4 to the consolidated financial statements. 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.

12 Related party transactions

For information on transactions with related parties, please refer to note 5.4 to the consolidated financial statements.

The parent company's share of services provided by NNIT Group amounts to DKK 490 million (DKK 638 million in 2020).

Novo Nordisk A/S is included in the consolidated financial statements of the Novo Nordisk Foundation.

13 Fee to statutory auditors

DKK million	2021	2020
Statutory audit	8	8
Audit-related services	2	3
Tax advisory services	2	5
Other services	2	1
Total fee to statutory auditors	**14**	17

14 Commitments and contingencies

DKK million	2021	2020
Commitments		
Leases[1]	117	137
Potential milestone payments[2]	11,978	6,794
Guarantees given for subsidiaries	19,141	8,490
Other guarantees	112	101

1. Lease commitments predominantly relate to estimated variable property taxes and low value assets.
2. Potential milestone payments are associated with uncertainty as they are linked to successful achievements in research activities; please refer to note 5.2 to the consolidated financial statements.

Novo Nordisk A/S and its Danish subsidiaries are jointly taxed with the Danish companies in 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 severally 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 3.4 and 5.2 to the consolidated financial statements.