Novo Nordisk – a focused healthcare company

Investor presentation
Full year 2023
Agenda

- Progress on Strategic Aspirations 2025
- Commercial execution
- Innovation and therapeutic focus
- Financials
Forward-looking statements

Novo Nordisk's reports filed with or furnished to the US Securities and Exchange Commission (SEC), including the statutory Annual Report 2023 and Form 20-F, which both were filed with the SEC in January 2024 in continuation of the publication of the Annual Report 2023, this presentation, 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.

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 presentation, 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, such as 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, shortages of supplies, including energy supplies, 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, 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, strikes and other labour market disputes, failure to recruit and retain the right employees, failure to maintain a culture of compliance, epidemics, pandemics or other public health crises, the effects of domestic or international crises, civil unrest, war or other conflict 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 the Annual Report 2023, reference is made to the overview of risk factors in 'Risk Management' of the Annual Report 2023.

Unless required by law, Novo Nordisk has no duty and undertakes no obligation to update or revise any forward-looking statement after the distribution of the Annual Report 2023, whether as a result of new information, future events, or otherwise.

Important drug information

Victoza® and Ozempic® are approved for the management of type 2 diabetes only
Saxenda® and Wegovy® are approved for the treatment of obesity only
**Strategic Aspirations 2025 | Highlights full year 2023**

**Purpose and sustainability (ESG)**

- **Progress towards zero environmental impact**
  - Carbon emissions decreased by 34% vs 2019\(^1\)

- **Adding value to society**
  - Medical treatment to 40.5 million people with diabetes
  - Reached more than 52,000 children in Changing Diabetes\(^2\) in Children programme
  - Partnership with Aspen to produce human insulin for Africa

- **Being recognised as a sustainable employer**
  - Share of women in senior leadership positions has increased to 41% from 39% in 2022

**Commercial execution**

- **Diabetes value market share** increased by 1.9%-points to 33.8%\(^2\)

- **Obesity care sales** of DKK 41.6 billion (+154% at CER)

- **Rare disease sales** of DKK 17.2 billion (-15% at CER)

**Innovation and therapeutic focus**

- **Further raise innovation bar for Diabetes treatment**
  - FLOW stopped for efficacy based on interim analysis
  - Successful completion of phase 3 trial with IcoSema

- **Develop superior treatment solutions for obesity**
  - Successful completion of SELECT CVOT
  - Acquisition of Inversago Pharma
  - Successful completion of phase 1 trial with oral amycretin

- **Strengthen and progress Rare Disease pipeline**
  - Somapacitan approved in the US, EU and Japan

**Financials**

- **Sales growth of 36% (CER) and operating profit growth of 44% (CER)**

- **Operational leverage reflecting sales growth**

- **Free cash flow** of DKK 68.3 billion and DKK 61.7 billion returned to shareholders

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\(^1\)Scope 1,2 and partial scope 3 limited to CO2 emissions from business flights and product distribution. Carbon emissions decreased by 8% in 2023 compared to 2022; \(^2\)MAT (Moving annual total) value market share

CER: Constant exchange rates; CV: Cardiovascular; CVOT: Cardiovascular outcomes trial

Note: The strategic aspirations are not a projection of Novo Nordisk’s financial outlook or expected growth
Sales growth of 36% driven by both operating units

Reported geographic sales split for the full year 2023

- Insulin
- GLP-1
- Other diabetes
- Obesity care
- Rare disease
- Growth at CER

<table>
<thead>
<tr>
<th>Region</th>
<th>DKK billion</th>
<th>Growth at CER</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAO</td>
<td>120</td>
<td>54%</td>
</tr>
<tr>
<td>IO</td>
<td>90</td>
<td>16%</td>
</tr>
<tr>
<td>EMEA</td>
<td>130</td>
<td>17%</td>
</tr>
<tr>
<td>China</td>
<td>80</td>
<td>11%</td>
</tr>
<tr>
<td>RoW</td>
<td>150</td>
<td>15%</td>
</tr>
</tbody>
</table>

International Operations

- North America Operations
- International Operations

Reported therapy area sales and growth for the full year 2023

- Total
- GLP-1
- Insulin
- Obesity care
- Rare disease

<table>
<thead>
<tr>
<th>Area</th>
<th>DKK billion</th>
<th>Growth at CER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>240</td>
<td>36%</td>
</tr>
<tr>
<td>GLP-1</td>
<td>120</td>
<td>52%</td>
</tr>
<tr>
<td>Insulin</td>
<td>80</td>
<td>-6%</td>
</tr>
<tr>
<td>Obesity care</td>
<td>40</td>
<td>154%</td>
</tr>
<tr>
<td>Rare disease</td>
<td>20</td>
<td>-15%</td>
</tr>
</tbody>
</table>

Note: Unless otherwise specified, sales growth rates are at CER.

1 "Other diabetes" is included in Total

IO: International Operations; EMEA: Europe, Middle East and Africa; China: Mainland China, Hong Kong and Taiwan; RoW: Rest of World; NAO: North America Operations; CER: Constant exchange rates
Diabetes value market leadership reached 33.8%

**Novo Nordisk global diabetes value market shares**

- **Diabetes**
  - 2021: 29.3%
  - 2022: 30.1%
  - 2023: 33.8%

- **GLP-1**
  - 2021: 50.4%
  - 2022: 52.7%
  - 2023: 54.8%

- **Insulin**
  - 2021: 44.3%
  - 2022: 43.8%
  - 2023: 44.6%

**Diabetes value market leadership expansion driven by the GLP-1 franchise**

**Diabetes care sales grew by 29%** (CER) with global value market share increase driven by market share gains in both IO and NAO.

- Global diabetes value market share increased by 1.9%-points to 33.8%
- Exceeded our strategic aspiration for 2025 by achieving a global diabetes market value of more than 1/3
- Novo Nordisk continues to be the global market leader in the GLP-1 segment with a 54.8% value market share
- Estimated global GLP-1 share of total diabetes prescriptions is ~6%

**CER:** Constant exchange rates; **IO:** International Operations; **NAO:** North America Operations

Note: Sales growth rates are at CER
Source: IQVIA MAT, Nov 2023 (Spot rate); Volume growth based on Moving Annual Total (MAT); Market values are based on the list prices
International Operations diabetes care sales growth is driven by GLP-1 performance

Reported Diabetes care sales and growth per IO geography

<table>
<thead>
<tr>
<th>Geographical regions</th>
<th>Value market share</th>
<th>GLP-1 class growth</th>
<th>Number of patients (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IO</td>
<td>20%</td>
<td>&gt;25%</td>
<td>20%</td>
</tr>
<tr>
<td>EMEA</td>
<td>53%</td>
<td></td>
<td>42%</td>
</tr>
<tr>
<td>China</td>
<td>0%</td>
<td></td>
<td>13%</td>
</tr>
<tr>
<td>RoW</td>
<td>4%</td>
<td></td>
<td>61%</td>
</tr>
</tbody>
</table>

GLP-1 patients and value market share in IO

- **Ozempic®**
- **Rybelsus®**
- **Victoza®**
- **NN GLP-1**

Note that the market share and patient numbers are based on countries with IQVIA coverage. GLP-1 class growth calculated as Sep’23-Nov’23 vs Sep’22-Nov’22 (Rolling 3-month average).

Source: IQVIA MAT, Nov 2023 (Spot rate). Volume packs are converted into full-year patients based on WHO assumptions for average daily doses; Market values are based on the list prices.

**Geographical regions**

- **IO**: International Operations
- **EMEA**: Europe, Middle East and Africa
- **China**: Mainland China, Hong Kong and Taiwan
- **RoW**: Rest of World
- **CER**: Constant exchange rates

**Volume packs** are converted into full-year patients based on WHO assumptions for average daily doses; Market values are based on the list prices.

**Source**: IQVIA MAT, Nov 2023 (Spot rate).
GLP-1 class expansion in the US in 2023

US GLP-1 weekly NBRx prescriptions

US GLP-1 TRx market share

NBRx: New-to-brand prescriptions; TRx: Total prescriptions; NN: Novo Nordisk; Scripts: Prescriptions; US: United States
Note: Class growth calculated based on SU volume for diabetes GLP-1 as Q4 2023 vs Q4 2022
Source: IQVIA Xponent Plantrak, NBRx/TRx data from week ending 12 Jan 2024. Each data point represents a rolling four-week average.
Obesity care sales grew by 154% in 2023 mainly driven by the US

**NN sales and volume BAOM market growth within Obesity care**

**Branded AOM TRx in the US**

The US
- The supply of the lower dose strengths has been restricted since May 2023 to safeguard continuity of care
- Novo Nordisk started gradually increasing the supply of the lower dose strengths in January 2024

International Operations
- Wegovy® launched in Denmark, Norway, Germany, UK, Switzerland, Iceland and UAE
- Continued volume capped launches in IO in 2024, balancing supply and demand

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1. Annual growth at CER. Each TRx data points represents one week of data; 2. IQVIA weekly, 19 Jan 2024
CER: Constant exchange rates; NAO: North America operations; IO: International operations; RHS: Right-hand side axis; TRx: Total Prescriptions; AOM: Anti-Obesity Medications (includes Wegovy®, Saxenda®, Zepbound, Qsymia, Belviq and Contrave); BAOM: Branded AOM market; UAE: United Arab Emirates. Note: Sales growth at constant exchange rates. 116% volume growth for Global BAOM market growth refers to moving annual total.
Rare disease sales decreased by 15% driven by reduction in manufacturing output

**Reported Rare disease sales**

<table>
<thead>
<tr>
<th>DKK billion</th>
<th>Growth at CER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>-15%</td>
</tr>
<tr>
<td>Rare blood disorders</td>
<td>-3%</td>
</tr>
<tr>
<td>Haem. A</td>
<td>6%</td>
</tr>
<tr>
<td>Haem. B</td>
<td>46%</td>
</tr>
<tr>
<td>Novo-Seven®</td>
<td>-3%</td>
</tr>
<tr>
<td>Rare endocrine disorders</td>
<td>-47%</td>
</tr>
</tbody>
</table>

**Rare disease sales driven by global commercial execution**

**Rare disease sales decrease is driven by:**
- 1% sales decline in North America Operations
- 24% sales decline in International Operations

**Rare blood disorders sales increased by 3%, driven by:**
- Extended half-life products in haemophilia A and B, partially countered by NovoSeven®

**Rare endocrine disorders sales decreased by 47% driven by:**
- Sales for Norditropin® declined by 26% in NAO and 63% in IO, reflecting a reduction in manufacturing output
- Novo Nordisk has a value market share of 19.3% in the global human growth disorder market
- Sogroya® has now been launched in five countries

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1 Total includes “Other Rare disease”, which consists of primarily Vagifem® and Activelle®. 2 Comprises NovoSeven®, NovoEight®, Esperoct®, Refixia® and NovoThirteen®. 3 Primarily Norditropin®


Note: NovoThirteen® is not shown for Rare blood disorders breakdown, only for the total bar. Unless otherwise specified, sales growth is at constant exchange rates.
Phase 3a trial with IcoSema successfully completed

IcoSema vs Insulin glargine U100 and insulin apart in subjects w/T2D

N=679

IcoSema ± OAD(s)
IGlar + IAsp ± OAD(s)

1:1

R

52 weeks
5 weeks follow-up

Primary endpoint:
• Change in HbA1c from baseline to week 53

Confirmatory secondary endpoints:
• Change in body weight from baseline to week 52
• Number of hypoglycaemic \(^1\) episodes from baseline to week 57

*Statistically significant/superior vs. Insulin glargine U100 and insulin apart. \(^1\) Level 2 and 3 hypoglycaemic episodes with blood glucose below 3.0 mmol/L
T2D: Type 2 diabetes; HbA1c: Glycated haemoglobin; BMI: Body Mass Index; OADs: Oral antidiabetic drugs.

Note: Trial objective: To confirm efficacy and compare safety of once weekly IcoSema compared with daily insulin glargine combined with insulin apart, both treatment arms with or without OADs in participants with T2D inadequately controlled with daily basal insulin

Headline trial results

IcoSema IGlar + IAsp

IcoSema appeared to have safe and well-tolerated profile

Hypoglycaemic episodes \(^1\)
(rate per patient year)

IcoSema
IGlar + IAsp

0.26* 2.18

Injections per year

~52 ~1450

*Mean baseline HbA1c: 8.3%

Mean baseline body weight: 85.8 kg

-1.5% -1.4%

-3.6*
# R&D milestones

<table>
<thead>
<tr>
<th>Project</th>
<th>Q4 2023</th>
<th>H1 2024</th>
<th>H2 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Diabetes care</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Icodec</td>
<td></td>
<td></td>
<td>EU/JP/CN/US decision</td>
</tr>
<tr>
<td>IcoSema</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOW kidney outcomes trial</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>STRIDE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOUL CVOT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OW GLP-1/GIP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OM GLP-1/GIP</td>
<td>✓ Phase 1 initiation</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Obesity care</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SELECT</td>
<td></td>
<td></td>
<td>EU/CN decision</td>
</tr>
<tr>
<td>STEP HfPEF</td>
<td>✓ Phase 3 results</td>
<td>✓ EU/US submission</td>
<td></td>
</tr>
<tr>
<td>STEP OA</td>
<td>✓ Phase 3 results</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cagrisema</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral Amycretin</td>
<td>✓ Phase 1 results</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rare Disease</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mim8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>CV &amp; Emerging Therapy Areas</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VAP-1i</td>
<td>✓ Phase 1 initiation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1Expected to be published in the given quarter or in the subsequent quarterly company announcement

CVOT: Cardiovascular Outcomes Trial; CV: Cardiovascular; CN: China; EU: European Union; GIP: Glucacose-dependent insulinotropic polypeptide; HfPEF: Heart failure with preserved ejection fraction; JP: Japan; OA: Osteoarthritis; OW: Once-weekly; OM: Once-monthly; T2D: Type 2 Diabetes; US: United States; VAP-1i: Vascular adhesion protein 1 selective inhibitor
## Financial results – Full year of 2023

<table>
<thead>
<tr>
<th>In DKK million</th>
<th>2023</th>
<th>2022</th>
<th>Change (reported)</th>
<th>Change (CER)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales</strong></td>
<td>232,261</td>
<td>176,954</td>
<td>31%</td>
<td>36%</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>196,496</td>
<td>148,506</td>
<td>32%</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Gross margin</strong></td>
<td>84.6%</td>
<td>83.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sales and distribution costs</strong></td>
<td>(56,743)</td>
<td>(46,217)</td>
<td>23%</td>
<td>26%</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>24.4%</td>
<td>26.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Research and development costs</strong></td>
<td>(32,443)</td>
<td>(24,047)</td>
<td>35%</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>14.0%</td>
<td>13.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Administration costs</strong></td>
<td>(4,855)</td>
<td>(4,467)</td>
<td>9%</td>
<td>11%</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>2.1%</td>
<td>2.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Other operating income and expenses</strong></td>
<td>119</td>
<td>1,034</td>
<td>(88%)</td>
<td></td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>102,574</td>
<td>74,809</td>
<td>37%</td>
<td>44%</td>
</tr>
<tr>
<td><strong>Operating margin</strong></td>
<td>44.2%</td>
<td>42.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Financial items (net)</strong></td>
<td>2,100</td>
<td>(5,747)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Profit before income tax</strong></td>
<td>104,674</td>
<td>69,062</td>
<td>52%</td>
<td></td>
</tr>
<tr>
<td><strong>Income taxes</strong></td>
<td>(20,991)</td>
<td>(13,537)</td>
<td>55%</td>
<td></td>
</tr>
<tr>
<td><strong>Effective tax rate</strong></td>
<td>20.1%</td>
<td>19.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Net profit</strong></td>
<td>83,683</td>
<td>55,525</td>
<td>51%</td>
<td></td>
</tr>
<tr>
<td><strong>Diluted earnings per share (DKK)</strong></td>
<td>18.62</td>
<td>12.22</td>
<td>52%</td>
<td></td>
</tr>
</tbody>
</table>

CER: Constant exchange rates
Step-up in CAPEX to meet demand for current and future products

CAPEX investments

- Capital expenditure is expected to be around DKK 45 billion in 2024
- Investments reflect both ongoing and future expansions of the supply chain, including previously communicated expansions at core sites
- The CAPEX to sales ratio is still expected to be low double digit in the coming years
Attractive capital allocation to shareholders

Annual cash return to shareholders

Capital allocation

- Return of free cash flow through both share buybacks and dividends
- For 2023, the total dividend per share increased 51.6% to DKK 9.40 (including interim dividend of DKK 3.00 per share paid in August 2023)
- Final dividend for 2023 will be paid in March 2024
- The total capital allocation for 2023, through a combination of share buybacks and dividends, amounts to DKK 61.7 billion
- For 2024, we expect to initiate a new 12-month share repurchase programme of up to DKK 20 billion

Note: Share repurchase programmes run for 12 months starting in January. The total programme may be reduced in size if significant business development opportunities arise during 2024. The 2024E interim dividend included for illustrative purposes.
## Financial outlook for 2024

<table>
<thead>
<tr>
<th>Category</th>
<th>Expectations 31 January 2024</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales growth - at CER</td>
<td>18% to 26%</td>
</tr>
<tr>
<td>Sales growth - reported</td>
<td>Around 1 percentage point lower</td>
</tr>
<tr>
<td>Operating profit growth - at CER</td>
<td>21% to 29%</td>
</tr>
<tr>
<td>Operating profit growth - reported</td>
<td>Around 2 percentage points lower</td>
</tr>
<tr>
<td>Financial items (net)</td>
<td>Gain of around DKK 1.3 billion</td>
</tr>
<tr>
<td>Effective tax rate</td>
<td>19% to 21%</td>
</tr>
<tr>
<td>Free cash flow</td>
<td>DKK 64 to 74 billion</td>
</tr>
</tbody>
</table>

The financial outlook is based on an assumption of a continuation of the current business environment and given the current scope of business activities and has been prepared assuming that currency exchange rates remain at the level as of 26 October 2023.

CER: Constant exchange rates

Note: Changes since last highlighted in bold
Strategic aspirations 2025

Purpose and sustainability (ESG)
- Progress towards zero environmental impact
- Being respected for adding value to society
- Being recognised as a sustainable employer

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 Rare disease pipeline
- Establish presence in Cardiovascular & Emerging Therapy Areas focusing on CVD, MASH and CKD

Commercial execution
- Strengthen Diabetes leadership - aim at global value market share of more than 1/3
- More than 25 billion DKK in Obesity sales by 2025
- Secure a sustained growth outlook for Rare disease

Financials
- Deliver solid sales and operating profit growth
- 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

CVD: Cardiovascular disease; MASH: Metabolic dysfunction-associated steatohepatitis; CKD: Chronic kidney disease.
Note: The strategic aspirations are not a projection of Novo Nordisk's financial outlook or expected growth.
Investor contact information

Share information

Novo Nordisk’s B shares are listed on the stock exchange in Copenhagen under the symbol ‘NOVO B’. Its ADRs are listed on the New York Stock Exchange under the symbol ‘NVO’.

For further company information, visit Novo Nordisk on: www.novonordisk.com

Upcoming events

7 March 2024  Capital Markets Day 2024
2 May 2024    Financial statement for the first three months of 2024
7 August 2024 Financial statement for the first six months of 2024

Investor Relations contacts

Novo Nordisk A/S
Investor Relations
Novo Alle 1
DK-2880 Bagsværd

Daniel Muusmann Bohsen     +45 3075 2175  dabo@novonordisk.com
David Heiberg Landsted     +45 3077 6915  dhel@novonordisk.com
Sina Meyer                +45 30796656  azey@novonordisk.com
Frederik Taylor Pitter    +45 30758259  fptr@novonordisk.com
Mark Joseph Root (USA)     +1 848 213 3219  mjhr@novonordisk.com
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GLP-1 43
Insulin 51
Obesity care 56
Rare disease 80
Cardiovascular & Emerging Therapy Areas 93
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Financials 141
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Novo Nordisk Corporate Strategy

**Diabetes**

*Strengthen leadership* by offering innovative medicines and driving patient outcomes

**Obesity**

*Strengthen leadership* through market development and by offering innovative medicines and driving patient outcomes

**Rare Disease**

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

**Cardiovascular & Emerging Therapy Areas**[^1]

*Establish position in cardiovascular disease* and build a presence in emerging therapy areas

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[^1]: Other Serious Chronic Diseases (OSCD) has been renamed to Cardiovascular & Emerging Therapy Areas (CETA) to reflect that cardiovascular disease has been the main strategic priority within OSCD
Novo Nordisk’s opportunity is in the large unmet needs across all therapy areas in scope

**Diabetes care**

- 537m people with diabetes
- ~15% of people in good control

**Obesity care**

- >764m people with obesity
- ~2% of people medically treated

**Rare disease**

- Haemophilia
  - 0.6m people with haemophilia
  - ~35% of people being treated

**Cardiovascular & Emerging Therapy Areas**

- 16% of global deaths caused by ASCVD
- >30m people affected by HFpEF
- >25m people affected by MASH
- >70m people affected by AD

---

Novo Nordisk has leading positions in diabetes, obesity and haemophilia

**Diabetes care**

- Market value
- NN value market share (RHS)
- Global market position

CAGR¹ value: 16.6%

**Obesity care**

- Market value
- NN value market share (RHS)
- Global market position

CAGR² value: 120.5%

**Haemophilia**

- Market value
- NN value market share (RHS)
- Global market position

CAGR³ value: 5.9%

¹CAGR for 5-year period; ²CAGR for 2-year period; ³CAGR for 3-year period; RHS: Right-hand side; Note: Annual sales figures for haemophilia A, B and bypassing agent segments, plasma derived products excluded except Feiba®; NN: Novo Nordisk

Source: Company reports for haemophilia market; IQVIA MAT, Nov 2023; Note: Market values are based on the list prices
Sales growth of 36%, driven by the GLP-1 portfolio for diabetes and obesity treatment

Novo Nordisk reported quarterly sales by therapy

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Sales (mDKK)</th>
<th>Growth</th>
<th>Share of growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable GLP-1²</td>
<td>104,382</td>
<td>50%</td>
<td>56%</td>
</tr>
<tr>
<td>Rybelsus®</td>
<td>18,750</td>
<td>71%</td>
<td>13%</td>
</tr>
<tr>
<td>Total GLP-1</td>
<td>123,132</td>
<td>52%</td>
<td>69%</td>
</tr>
<tr>
<td>Total insulin³</td>
<td>48,022</td>
<td>-6%</td>
<td>-4%</td>
</tr>
<tr>
<td>Other Diabetes care⁴</td>
<td>2,312</td>
<td>-15%</td>
<td>-1%</td>
</tr>
<tr>
<td>Total Diabetes care</td>
<td>173,466</td>
<td>29%</td>
<td>64%</td>
</tr>
<tr>
<td>Obesity care⁵</td>
<td>41,632</td>
<td>154%</td>
<td>41%</td>
</tr>
<tr>
<td>Diabetes and Obesity care</td>
<td>215,098</td>
<td>42%</td>
<td>105%</td>
</tr>
<tr>
<td>Rare blood disorders³</td>
<td>11,776</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td>Rare endocrine disorders⁷</td>
<td>3,836</td>
<td>-47%</td>
<td>-5%</td>
</tr>
<tr>
<td>Other Rare disease⁸</td>
<td>1,551</td>
<td>-4%</td>
<td>0%</td>
</tr>
<tr>
<td>Rare disease</td>
<td>17,163</td>
<td>-15%</td>
<td>-5%</td>
</tr>
<tr>
<td>Total</td>
<td>232,261</td>
<td>36%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Note: Sales numbers are reported in Danish kroner; Growth is at constant exchange rate, except for total sales growth of 29%; Rybelsus® and NovoRapid® are launched as Rebinyn® and TRETEN®, respectively, in North America.
Sales growth of 36%, driven by both NAO and IO with 54% and 16% sales growth respectively

Historic and reported sales by geography

Total in DKK billion

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>111.8</td>
<td>177.0</td>
<td>232.3</td>
</tr>
<tr>
<td>EMEA</td>
<td>9%</td>
<td>14%</td>
<td>12%</td>
</tr>
<tr>
<td>Region China</td>
<td>9%</td>
<td>25%</td>
<td>22%</td>
</tr>
<tr>
<td>RoW</td>
<td>51%</td>
<td>52%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Reported sales and growth breakdown for the full year 2023

<table>
<thead>
<tr>
<th>Regions</th>
<th>Sales (mDKK)</th>
<th>Growth</th>
<th>Share of growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Operations</td>
<td>95,632</td>
<td>16%</td>
<td>22%</td>
</tr>
<tr>
<td>EMEA</td>
<td>50,867</td>
<td>17%</td>
<td>12%</td>
</tr>
<tr>
<td>Region China</td>
<td>16,687</td>
<td>11%</td>
<td>3%</td>
</tr>
<tr>
<td>RoW</td>
<td>28,078</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>North America Operations</td>
<td>136,629</td>
<td>54%</td>
<td>78%</td>
</tr>
<tr>
<td>Hereof USA</td>
<td>127,534</td>
<td>55%</td>
<td>73%</td>
</tr>
<tr>
<td>Total sales</td>
<td>232,261</td>
<td>36%</td>
<td>100%</td>
</tr>
</tbody>
</table>

IO: International Operations; NAO: North American Operations; EMEA: Europe, Middle East, and Africa; RoW: Rest of World; Region China covers mainland China, Hong Kong and Taiwan
Note: Numbers may not add up to 100% due to rounding; Growth at Constant exchange rates; Sales numbers are reported in Danish kroner
Source: Quarterly company announcement
Novo Nordisk holds solid patent protection and competitive advantages

Novo Nordisk’s position is protected by patents and value chain setup

Novo Nordisk holds competitive advantages compared to biosimilars

EU/US patent protection

Ryzodeg®
Ryzodeg®

Wegovy® patent identical to Ozempic® patent; Tablet formulation and once-daily treatment regimen are protected by additional patents expiring in 2031-2034; Formulation patent; active ingredient patent has expired.

PK: Pharmacokinetic, PD: Pharmacodynamic; CAPEX: Capital expenditure

1 List does not include all marketed products. 2 Current estimates. Wegovy® patent identical to Ozempic® patent; 3 Tablet formulation and once-daily treatment regimen are protected by additional patents expiring in 2031-2034; 4 Formulation patent; active ingredient patent has expired.

Research & Development

- Need to show comparability in PK/PD trials
- Strict regulatory requirements in the EU and the US
- Requirement for both drug and device offering

Commercialisation

- Large and fragmented target audience
- Cost pressure from payers
- On-going conversion to next-generation drugs and slow market dynamics

Manufacturing

- Economies of scale
- Up-front CAPEX requirements with slow return on investment
Partnerships and acquisitions support future research and development

2019

<table>
<thead>
<tr>
<th>Selected acquisitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ernisphere</strong></td>
</tr>
<tr>
<td>Oral formulations of therapeutics</td>
</tr>
<tr>
<td><strong>CORVIDIA</strong></td>
</tr>
<tr>
<td>Novel treatments for CVD/Rare disease</td>
</tr>
</tbody>
</table>

2020

<table>
<thead>
<tr>
<th>Selected acquisitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>prothena</strong></td>
</tr>
<tr>
<td>Novel treatment for CVD/Rare disease</td>
</tr>
<tr>
<td><strong>Dicerna</strong></td>
</tr>
<tr>
<td>siRNA treatments</td>
</tr>
</tbody>
</table>

2021

<table>
<thead>
<tr>
<th>Selected acquisitions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>formatherapeutics</strong></td>
</tr>
<tr>
<td>Novel treatments for CVD/Rare disease</td>
</tr>
<tr>
<td><strong>inversago PHARMA</strong></td>
</tr>
<tr>
<td>Novel treatments for metabolic diseases</td>
</tr>
<tr>
<td><strong>KBP BIOSCIENCES</strong></td>
</tr>
<tr>
<td>Treatment for hypertension</td>
</tr>
</tbody>
</table>

2022

2023

**Selected licenses**

2019

<table>
<thead>
<tr>
<th>Selected licenses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>EpiDestiny</strong></td>
</tr>
<tr>
<td>Novel treatment for CVD/Rare disease</td>
</tr>
</tbody>
</table>

2020

<table>
<thead>
<tr>
<th>Selected licenses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heartseed</strong></td>
</tr>
<tr>
<td>Novel treatment for CVD/Rare disease</td>
</tr>
</tbody>
</table>

2021

<table>
<thead>
<tr>
<th>Selected licenses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ventus</strong></td>
</tr>
<tr>
<td>Novel treatment for metabolic diseases</td>
</tr>
</tbody>
</table>

2022

<table>
<thead>
<tr>
<th>Selected licenses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Valo</strong></td>
</tr>
<tr>
<td>Novel treatment for CVD/Rare disease</td>
</tr>
</tbody>
</table>

TA: Therapy area; CVD: Cardiovascular Disease; siRNA: Small interfering RNA
Note: Deal flow from 2019-2023Q4; Selection based on deal size
The acquisition of Dicerna Pharmaceuticals and their RNAi technology in 2021 provided access to intracellular targets

**Disease targets** (expressed genes)

- ~5,000 extracellular targets
- ~21,000 intracellular targets

- Opportunity to silence genes
- Drugability of intracellular targets
- Highly specific for targeted gene
- Reversible yet long-acting therapies

RNA: Ribonucleic acid; mRNA: messenger RNA
First two human dose initiations with Dicerna in Q4 2022 in line with ambition presented at Capital Markets Day 2022

**First two phase 1 trials in MASH with siRNA technology initiated**

### Diabetes care

**Trial 1**
Target: MARC1

- 32 patients

**Trial 2**
Target: LXR(a)

- 48 patients

### MASH

**Trial objectives**

The trials are investigating safety, tolerability, pharmacokinetics and pharmacodynamics of the respective siRNA-based assets

### Novo Nordisk and Dicerna

- After a productive partnership since 2019, Novo Nordisk acquired Dicerna pharmaceuticals in 2021 for $3.3 bUSD
- Integrated into Novo Nordisk and now operates as a transformational research unit (TRU) responsible for the siRNA research technology platform
- Setup to preserve the agility and speed of a smaller biotech, while leveraging the scale and experience of a large pharmaceutical company

### Ambition

- Generate an average of 3 first human dose projects per year across therapy areas with the siRNA technology platform

---

siRNA: Small interfering RNA; MARC1: Mitochondrial amidoxime reducing component 1; LXR(a): Liver X receptor alpha
Novo Nordisk’s core capabilities provide a competitive advantage to continue to defeat diabetes

**Engineering, formulating, developing and delivering protein-based treatments**

Today: Oral solutions to differentiate from competition

Tomorrow: Expand oral platforms and transformational medicines via Novo Nordisk stem cell platform

**Efficient large-scale production of proteins**

Today: The world’s largest producer of insulin and GLP-1

Tomorrow: Expand capacity and continue efficiency gains

**Global commercial reach and leader in chronic disease care**

Today: Global reach and industry leading GLP-1 portfolio

Tomorrow: Continued rollout of portfolio and launch of new products

**Deep disease understanding**

Today: Provide value and outcomes beyond HbA\textsubscript{1c} for diabetes

Tomorrow: Normalise living with diabetes supported by digital solutions

API: Active pharmaceutical ingredient; HbA\textsubscript{1c}: Refers to glycated haemoglobin, which is the average blood glucose (sugar) levels for the last three months
Core capabilities and additional technology platforms open up new opportunities across therapy areas

### Technology platforms

<table>
<thead>
<tr>
<th>Therapy areas</th>
<th>Proteins / Peptides</th>
<th>Oligonucleotides / RNAi</th>
<th>Stem cells</th>
<th>Genome editing / Gene therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes care</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obesity care</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>CVD</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>MASH</td>
<td></td>
<td></td>
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<tr>
<td>RBD</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>RED</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Currently active means Novo Nordisk is currently pursuing research projects, while exploratory potential indicates that the platform is potentially applicable for the given disease.
Human data-driven decision-making with faster timelines to enable a robust development pipeline

**Speed up time to reach FHD and increase number of phase 1 assets**

**Future Research & early development trends for Novo Nordisk**

- More first human doses pursued to enable a robust late-stage pipeline
- Around 3x faster timeline from lead candidate to first human dose
- First human doses with the new technologies, cell-based therapies and RNAi was in 2022
- Ambition of generating first human dose projects on average per year across disease areas with the RNAi platform

FHD: First human dose; RNA: Ribonucleic acid
Pipeline supports significant growth opportunities across all four strategic focus areas

### PHASE 1
- NN1845 – GSI
- NN1471 – Pumpinsulin
- NN9041 – DNA Immunotherapy
- NN9542 – OW GLP-1/GIP co-agonist

### PHASE 2
- NN9506 – GELA
- NN9440 – INV-202
- NN9505 – GELA
- NN7533 – Ndec in SCD

### PHASE 3
- NN1535 – Icosemi
- NN9924 – Oral Semaglutide 25 and 50 mg
- NN9388 – Cagrisema
- NN9536 – Semaglutide 7.2 mg
- NN9838 – Cagrisema
- NN9931 – Oral Semaglutide 2.4 mg in MASH
- NN6535 – Oral Semaglutide 7.2 mg
- NN9650 – OM GLP-1/GIP
- NN9930 – Etavopivat in SCD
- NN9487 – Oral Amycretin
- NN7536 – Etavopivat in Thalassemia
- NN7537 – Evacopivat MDS
- NN9931 – Oral Semaglutide 2.4 mg in MASH
- NN9500 – FGF-21 in MASH
- NN9931 – Oral Semaglutide 14.0 mg in AD
- NN6582 – LXR(a) in MASH
- NN9931 – Oral Semaglutide 50 mg in MASH
- NN6581 – MARC1 in MASH
- NN9931 – Oral Semaglutide 25 mg in MASH
- NN9903 – Stem Cells in HF
- NN9901 – Stem Cells in PD
- NN6491 – Anti-ANGPTL3 in CVD

### SUBMITTED
- NN1436 – Insulin Icodec
- NN7022 – Nedosiran
- NN7415 – Concizumab in HwI, HA/HB
- NN7535 – Etavopivat in SCD
- NN9505 – GELA
- NN1535 – Icosemi
- NN9924 – Oral Semaglutide 25 and 50 mg
- NN9388 – Cagrisema
- NN9536 – Semaglutide 7.2 mg
- NN9838 – Cagrisema
- NN9931 – Oral Semaglutide 2.4 mg in MASH
- NN6535 – Oral Semaglutide 14.0 mg in AD
- NN9650 – OM GLP-1/GIP
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- NN6582 – LXR(a) in MASH
- NN9931 – Oral Semaglutide 50 mg in MASH
- NN9903 – Stem Cells in HF
- NN9901 – Stem Cells in PD
- NN6491 – Anti-ANGPTL3 in CVD

### APPROVED
- Tresiba®
- Xultophy®
- Levermir®
- Ryzodeg®
- NovoMix®
- Fiasp®
- NovoRapid®
- Rybelus®
- Ozempic®
- Victoza®
- Wegovy®
- Saxenda®
- NovoSeven®
- NovoEight®
- Esperoce®
- NovoThirteen®
- Refixia®
- Alhemo®
- Rivloza®
- Norditropin®
- Sogroya®

1. Submitted to EMA; 2. Submitted to EU for HwI, to Japan for HA/HB; 3. Higher doses of injectable semaglutide (8 mg and 16 mg) tested in phase 2; 4. Approved in Canada (HAwI/HBwI), Australia (HAwI/HBwI), Switzerland (HAwI/HBwI) and Japan (HAwI/HBwI). 5. Approved for PH1 by FDA.

**Diabetes care** | **Obesity care** | **Rare blood disorders** | **Rare endocrine disorders** | **Cardiovascular & Emerging Therapy Areas**
---|---|---|---|---
Diabetes care | Obesity care | Rare blood disorders | Rare endocrine disorders | Cardiovascular & Emerging Therapy Areas

1. Submitted to EMA; 2. Submitted to EU for HwI, to Japan for HA/HB; 3. Higher doses of injectable semaglutide (8 mg and 16 mg) tested in phase 2; 4. Approved in Canada (HAwI/HBwI), Australia (HAwI/HBwI), Switzerland (HAwI/HBwI) and Japan (HAwI/HBwI). 5. Approved for PH1 by FDA. AATLD: Alpha-1 Antitrypsin Deficiency associated Liver Disease; AD: Alzheimer’s Disease; ANGPTL3: Angiopoietin-like protein 3; ASCVD: Atherosclerotic Cardiovascular Disease; ATTR: Transthyretin amyloidosis; CKD: chronic kidney disease; CVOT: Cardiovascular outcome trial; FGF-21: Fibroblast growth factor 21; GHD: Growth hormone disorder; GSI: Glucose Senstive Insulin; HA: Haemophilia A; HB: Heart failure; HFpEF: heart failure with preserved ejection fraction; HwI: Haemophilia with inhibitors; JP: Japan; LXR(a): Liver X receptor alpha; MARC1: Mitochondrial amidosine reducing component 1; MASH: Metabolic dysfunction-associated steatohepatitis; MDS: myelodysplastic syndrome; OM: Once monthly; OW: Once weekly; PAD: Peripheral arterial disease; PD: Parkinson’s Disease; PH: Primary hyperoxaluria; SCD: Sickle cell disease; Sema: Semaglutide; US: United States; VAP-1i: Vascular adhesion protein-1 selective inhibitor
Novo Nordisk has a global manufacturing setup

API: Active Pharmaceutical Ingredient
Diabetes care

Disease and market  35
GLP-1 segment  43
Insulin segment  51
Diabetes – the inability to manage blood sugar levels appropriately

**Facts about diabetes**

Diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin produced by the pancreas.

**Primary classifications:**

**Type 1 diabetes:** Complete insulin deficiency due to destruction of beta-cells in the pancreas.

**Type 2 diabetes:** Characterised by some degree of insulin resistance and insulin deficiency.

**Insulin:**
- Facilitates uptake of blood sugar into cells
- Inhibits glucose release from the liver

**Insulin analogue action profiles**

- **Fast-acting**
- **Premix**
- **Long-acting**

![Liver](Liver_icon.png) ![Pancreas](Pancreas_icon.png) ![Fat_cell](Fat_cell_icon.png) ![Muscle](Muscle_icon.png)
GLP-1s have positive effects beyond glycaemic control and treatment guidelines now reflect the CV risk benefits

Medications for treatment of type 2 diabetes

<table>
<thead>
<tr>
<th>Class</th>
<th>Efficacy</th>
<th>Hypo risk</th>
<th>Weight change</th>
<th>Cardiovascular effects</th>
<th>Hypoglycaemia</th>
<th>ASCVD</th>
<th>HF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metformin</td>
<td>High</td>
<td>No</td>
<td>Neutral</td>
<td>Potential Benefit</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sulfonylurea</td>
<td>High</td>
<td>Yes</td>
<td>Gain</td>
<td>Neutral</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TZDs</td>
<td>High</td>
<td>No</td>
<td>Gain</td>
<td>Potential Benefit</td>
<td>Increased risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DPP-IV inhibitors</td>
<td>Intermediate</td>
<td>No</td>
<td>Neutral</td>
<td>Neutral</td>
<td>Potential risk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SGLT-2 inhibitors</td>
<td>Intermediate</td>
<td>No</td>
<td>Loss</td>
<td>Benefit</td>
<td>Benefit</td>
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<tr>
<td>GLP-1</td>
<td>High</td>
<td>No</td>
<td>Loss</td>
<td>Benefit/Neutral¹</td>
<td>Neutral</td>
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<tr>
<td>Long-acting insulin</td>
<td>High</td>
<td>Yes</td>
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<tr>
<td>Fast-acting insulin</td>
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<td>Gain</td>
<td>Neutral</td>
<td>Neutral</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Benefic: dulaglutide, liraglutide, semaglutide; Neutral: exenatide once weekly, lixisenatide

Updated ADA/EASD diabetes treatment guidelines

Goal: Cardiorenal risk reduction in high-risk T2D patients (on top of CV SoC)

ASCVD or indicators of high risk

- GLP-1 with proven CVD benefit
- SGLT-2 with proven CVD benefit

HF with documented HFrEF or HFpEF

- SGLT-2 with proven HF benefit

CKD

- SGLT-2 with primary evidence of reducing CKD progression

Then

- GLP-1 with proven CVD benefit

If additional cardiorenal risk reduction or glycaemic lowering needed

Goal: HbA1c and weight management

Lifestyle management

- Metformin OR combination therapy with adequate efficacy to reach and maintain goals (intermediate – very high)
- Very high: Semaglutide mentioned for glucose lowering efficacy

Glycaemic management

- Set individualized weight management goals
- When choosing glucose-lowering therapies consider regimen with high efficacy
- Very high: Semaglutide mentioned for weight loss efficacy

If HbA1c above target, identify barriers to reach treatment goals

T2D: Type 2 diabetes; CVD: Cardiovascular Disease; SoC: Standard of Care; HF: Heart failure; CKD: Chronic Kidney Disease; ADA: American Diabetes Association; EASD: European Association for the Study of Diabetes

Sources: Adapted from: "Management of Hyperglycemia in Type 2 Diabetes, 2022. A Consensus Report by the American Diabetes Association (ADA) and the European Association for the Study of Diabetes (EASD)", Davies MJ. Et al, Diabetes Care 2022 (https://doi.org/10.2337/dci22-0034)
People with diabetes have increased mortality risk, and the diabetic population is expected to increase to 784 million by 2045

**Diabetes is associated with shorter life expectancy and lower quality of life**

- **Life expectancy** 8 years shorter\(^1\)
- Driven by **200% increased risk of all cause mortality\(^1\)**

- **70%** of people with diabetes die from **atherosclerotic CVD\(^2\)**
- **150%** increase in risk of stroke\(^3\)

- Higher likelihood of neuropathy, retinopathy, limb amputation, cancer and cognitive dysfunction\(^4\)

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**The number of people with diabetes is expected to increase 32% by 2045**

- **EMEA**: Europe, Middle East, Africa
- **RoW**: Rest of world: Asia Pacific, Latin America

The unmet need within diabetes care remains large with too few patients reaching glycaemic target and treated for complications.

1 in 2 adults go undiagnosed and more treated patients should reach their HbA1c target.

Of the 537 million, 40.5 million people are currently treated with Novo Nordisk diabetes products.

- 12.1 mio treated with human insulins
- 11.7 mio treated with modern insulin
- 5.3 mio treated with new-generation insulin
- 10.4 mio treated with GLP-1

Source: Diabetes prevalence and diagnosed are based on Diabetes Atlas 10th edition, 2021; Treated is based on IQVIA patient data; real-world studies indicate between 30-55% of patients reach HbA1c target <7% e.g. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4388968/

1 In addition to the above-mentioned product classes, oral anti-diabetics constitutes the remainder of people treated with Novo Nordisk products; Estimated number for full-year 2023 (total available in Novo Nordisk Annual Report 2023)
Diabetes is a chronic disease requiring treatment intensification over time

1The estimated GLP-1 share of prescriptions is based on volume packs from IQVIA. Volume packs are converted into full-year patients/prescriptions based on WHO assumptions for average daily doses or if not available, Novo Nordisk assumptions.
Note: Other OADs cover: metformin, sulfonylurea, thiazolidinediones. OAD: Oral anti-diabetic
Source: RHS: MIDAS; patient and value figures based on IQVIA MAT, Nov 2023 ; Market values are based on the list prices
Better outcomes and broader reach can be accomplished through continued innovation, supported by digital solutions

Novo Nordisk’s product portfolio follows the patient treatment journey

<table>
<thead>
<tr>
<th>Portfolio and pipeline</th>
<th>Digital health solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>RYBELSUS</strong>&lt;br&gt;semaglutide tablets</td>
<td><strong>NovoPen®6 / NovoPen Echo® Plus</strong> are smart insulin pens and launched in 28 countries</td>
</tr>
<tr>
<td>High dose oral semaglutide</td>
<td><strong>Partnered with global CGM players</strong></td>
</tr>
<tr>
<td><strong>OZEMPIC</strong>&lt;br&gt;semaglutide injection</td>
<td><strong>Medtronic</strong></td>
</tr>
<tr>
<td>Ozempic® 2.0 mg</td>
<td><strong>Abbott</strong></td>
</tr>
<tr>
<td><strong>TRESIBA</strong>&lt;br&gt;insulin deglucel(rDNA origin) injection</td>
<td><strong>glooko</strong></td>
</tr>
<tr>
<td>Icodec</td>
<td>** Dexcom**</td>
</tr>
<tr>
<td><strong>Xultophy</strong>&lt;br&gt;</td>
<td></td>
</tr>
<tr>
<td>IcoSema</td>
<td></td>
</tr>
<tr>
<td><strong>RYZODEG</strong>&lt;br&gt; fast-acting insulin aspart</td>
<td></td>
</tr>
</tbody>
</table>

| Uncontrolled on current OAD | Needing first injectable | Needing first basal insulin | Needing more than basal insulin | Needing added meal-time insulin control |

CGM: Continuous glucose monitoring; Grey boxes in the portfolio and pipeline references phase 2 or phase 3 assets.
The total branded diabetes market has a global value of DKK ~420 billion annually

Source: Company announcements as of Q3 2023; 2022/2023 data based on Q4 2022 to Q3 2023 and 2021/2022 data based on Q4 2021 to Q3 2022

Note: The segment value is based on reported figures, whilst the market growth is under constant exchange rate (CER). For Novo Nordisk the diabetes growth includes Insulin and GLP-1, excluding ‘other Diabetes care’.
Novo Nordisk has a leadership position within the growing diabetes market

Global diabetes market by treatment class\(^1\)

<table>
<thead>
<tr>
<th>Year</th>
<th>GLP-1</th>
<th>SGLT-2i</th>
<th>Insulin</th>
<th>DPP-4i</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018</td>
<td></td>
<td></td>
<td>11%</td>
<td>30%</td>
</tr>
<tr>
<td>2019</td>
<td></td>
<td></td>
<td>13%</td>
<td>31%</td>
</tr>
<tr>
<td>2020</td>
<td></td>
<td></td>
<td>13%</td>
<td>31%</td>
</tr>
<tr>
<td>2021</td>
<td></td>
<td></td>
<td>14%</td>
<td>32%</td>
</tr>
<tr>
<td>2022</td>
<td></td>
<td></td>
<td>14%</td>
<td>33%</td>
</tr>
</tbody>
</table>

Market CAGR: 10%

Novo Nordisk remains global diabetes value market leader

<table>
<thead>
<tr>
<th>Half</th>
<th>Company A</th>
<th>Others</th>
<th>Company B</th>
<th>Novo Nordisk</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 2021</td>
<td>11%</td>
<td>38%</td>
<td>30%</td>
<td>14%</td>
</tr>
<tr>
<td>H2 2021</td>
<td>21%</td>
<td>36%</td>
<td>31%</td>
<td>14%</td>
</tr>
<tr>
<td>H1 2022</td>
<td>13%</td>
<td>35%</td>
<td>31%</td>
<td>14%</td>
</tr>
<tr>
<td>H2 2022</td>
<td>21%</td>
<td>30%</td>
<td>29%</td>
<td>14%</td>
</tr>
<tr>
<td>H1 2023</td>
<td>13%</td>
<td>33%</td>
<td>32%</td>
<td>14%</td>
</tr>
<tr>
<td>H2 2023</td>
<td>21%</td>
<td>29%</td>
<td>27%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Novo Nordisk market share and share of growth

<table>
<thead>
<tr>
<th>Year</th>
<th>NN market share</th>
<th>NN share of growth</th>
<th>Market growth (right axis)</th>
<th>NN growth (right axis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2020</td>
<td>34%</td>
<td>44%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nov 2023</td>
<td>27%</td>
<td>19%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Data is based on company reported sales. Data does not include generic metformin, sulphonylureas or thiazolidinediones.

NN: Novo Nordisk

Source: IQVIA MAT, Nov 2023 value figures Note: IQVIA data can be inflated due to use of list prices. Due to contractual obligations competitor names are not disclosed. Company A and B represent actual companies.
GLP-1 mechanism of action and potential therapeutic opportunities

GLP-1 mechanism of action when blood sugar levels increase

- Creates sense of satiety in the brain
- Reduces glucagon secretion in the liver
- Slows gastric emptying
- Increases insulin secretion in the pancreas

Semaglutide holds a plethora of therapeutic opportunities

<table>
<thead>
<tr>
<th>Disease</th>
<th>Trial Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>FOCUS - Diabetic retinopathy outcomes trial</td>
</tr>
<tr>
<td></td>
<td>Semaglutide s.c.; ~1,500 patients, T2D ≥10 years</td>
</tr>
<tr>
<td>CVD</td>
<td>SOUL - Cardiovascular outcomes trial</td>
</tr>
<tr>
<td></td>
<td>Oral semaglutide; ~9,600 patients, T2D, established CVD or CKD</td>
</tr>
<tr>
<td>CKD</td>
<td>FLOW - Chronic kidney disease outcomes trial</td>
</tr>
<tr>
<td></td>
<td>Semaglutide 1.0 mg; ~3,200 patients, T2D, moderate to severe CKD</td>
</tr>
<tr>
<td>PAD</td>
<td>STRIDE - Peripheral artery disease trial</td>
</tr>
<tr>
<td></td>
<td>Semaglutide 1.0 mg; ~800 patients with T2D and PAD</td>
</tr>
<tr>
<td>Obesity</td>
<td>SELECT - Cardiovascular outcomes trial</td>
</tr>
<tr>
<td></td>
<td>Semaglutide 2.4 mg, ~17,500 patients with obesity and without diabetes, event driven</td>
</tr>
<tr>
<td>Heart Failure</td>
<td>STEP – HFpEF</td>
</tr>
<tr>
<td></td>
<td>Semaglutide 2.4 mg; ~600 patients with obesity-related HFpEF</td>
</tr>
<tr>
<td>Brain disorders</td>
<td>Alzheimer’s Disease</td>
</tr>
<tr>
<td></td>
<td>Oral Semaglutide 14 mg; ~3,700 patients with early Alzheimer’s disease</td>
</tr>
<tr>
<td>MASH</td>
<td>Semaglutide in MASH</td>
</tr>
<tr>
<td></td>
<td>Semaglutide s.c.; phase 3 and 2 trials</td>
</tr>
</tbody>
</table>

1 List is not exhaustive
Sc: Subcutaneous; T2D: Type 2 diabetes; CVD: Cardiovascular disease; CKD: Chronic kidney disease; MASH: Metabolic dysfunction-associated steatohepatitis; PAD: Peripheral artery disease
Novo Nordisk has 55% of the global GLP-1 market, while GLP-1 penetration of diabetes volume varies across regions.

**GLP-1 market growth and Novo Nordisk market share**

- **NN market share:** The blue line shows Novo Nordisk's market share over time, with a peak of 53% in November 2023.
- **NN share of growth:** The green line indicates the share of growth contributed by Novo Nordisk, reaching 55% in November 2023.
- **Market growth:** The pink line represents the overall market growth, peaking at 55%.
- **NN growth:** The black line shows the growth rate of Novo Nordisk, also reaching 55%.

**GLP-1 share of total estimated diabetes prescriptions**

- **Global:** The estimated GLP-1 share of prescriptions is based on volume packs from IQVIA. Volume packs are converted into full-year patients/prescriptions based on WHO assumptions for average daily doses or if not available, Novo Nordisk assumptions.

Source: IQVIA MAT value (spot rate), Nov 2023; Market values are based on the list prices.
**SUSTAIN trials with subcutaneous semaglutide**

**SUSTAIN**

<table>
<thead>
<tr>
<th>Baseline</th>
<th>Change in HbA1c (%)</th>
<th>Baseline</th>
<th>Change in weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.1%</td>
<td>92 kg</td>
<td>-4.5**</td>
</tr>
<tr>
<td>2</td>
<td>8.1%</td>
<td>89 kg</td>
<td>-6.1**</td>
</tr>
<tr>
<td>3</td>
<td>8.3%</td>
<td>96 kg</td>
<td>-5.6**</td>
</tr>
<tr>
<td>4</td>
<td>8.2%</td>
<td>93 kg</td>
<td>-5.2**</td>
</tr>
<tr>
<td>5</td>
<td>8.4%</td>
<td>92 kg</td>
<td>-6.4**</td>
</tr>
<tr>
<td>6</td>
<td>8.7%</td>
<td>92 kg</td>
<td>-4.9**</td>
</tr>
<tr>
<td>7</td>
<td>8.2%</td>
<td>95 kg</td>
<td>-6.5**</td>
</tr>
</tbody>
</table>

* Statistically significant: SUSTAIN 1: QW sema vs placebo in drug-naïve people with T2D; SUSTAIN 2: QW sema vs sitagliptin 100 mg QD in people with T2D added to 1-2 OADs; SUSTAIN 3: QW sema vs QW exenatide ER 2.0 mg in people with T2D added to 1-2 OADs; SUSTAIN 4: QW sema vs QD insulin glargine in people with T2D added to 1-2 OADs; SUSTAIN 5: QW sema vs placebo in people with T2D added to insulin; SUSTAIN 6: QW sema vs placebo, added to standard-of-care; SUSTAIN 7: QW sema vs QW dulaglutide 75 mg and 150 mg in people with T2D added to 1-2 OADs: ER: Extended-release; QW: once-weekly; QD: once-daily; sema: semaglutide; T2D: type 2 diabetes; OAD: oral anti-diabetics
Semaglutide 2.0 mg s.c. brings patients needing treatment intensification to target

**Phase 3 trial, SUSTAIN FORTE, completed and label application approved in the US and the EU**

<table>
<thead>
<tr>
<th>Estimand</th>
<th>Trial product estimand</th>
<th>Treatment policy estimand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Once-weekly semaglutide</td>
<td>2.0 mg</td>
<td>1.0 mg</td>
</tr>
<tr>
<td>HbA$_{1c}$ reduction</td>
<td>2.2%*</td>
<td>1.9%</td>
</tr>
<tr>
<td>Body weight reduction (kg)</td>
<td>-6.9*</td>
<td>-6.0</td>
</tr>
<tr>
<td>HbA$_{1c}$ &lt; 7.0%$^1$</td>
<td>68%</td>
<td>58%</td>
</tr>
</tbody>
</table>

Data from SUSTAIN FORTE

- Semaglutide 2.0 mg showed superior HbA$_{1c}$ reduction with more patients reaching target$^1$ versus semaglutide 1.0 mg.
- Semaglutide 2.0 mg appeared to have a safe and well-tolerated profile.
- Gastrointestinal adverse events were similar for semaglutide 1.0 mg and 2.0 mg.
- Label expansion application approved in the US, JP and the EU.

$^1$ ADA recommended treatment target

*Statistically significant

S.c.: subcutaneous; Sema: Semaglutide; T2D: Type 2 diabetes
# PIONEER programme with oral semaglutide

<table>
<thead>
<tr>
<th>PIONEER</th>
<th>Baseline</th>
<th>Change in HbA$_1c$ (%)</th>
<th>Change in weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.0%</td>
<td>-0.8*</td>
<td>-1.3</td>
</tr>
<tr>
<td>2</td>
<td>8.1%</td>
<td>-0.9*</td>
<td>-1.4</td>
</tr>
<tr>
<td>3</td>
<td>8.3%</td>
<td>-1.1*</td>
<td>-1.4</td>
</tr>
<tr>
<td>4</td>
<td>8.0%</td>
<td>-1.3*</td>
<td>-1.1</td>
</tr>
<tr>
<td>5</td>
<td>8.0%</td>
<td>-1.1*</td>
<td>-1.4</td>
</tr>
<tr>
<td>6</td>
<td>8.3%</td>
<td>-0.7</td>
<td>-1.0*</td>
</tr>
<tr>
<td>7</td>
<td>8.2%</td>
<td>-0.6*</td>
<td>-1.0*</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>-1.4*</td>
<td>-1.4*</td>
</tr>
</tbody>
</table>

Baseline

<table>
<thead>
<tr>
<th></th>
<th>88 kg</th>
<th>92 kg</th>
<th>91 kg</th>
<th>94 kg</th>
<th>91 kg</th>
<th>89 kg</th>
<th>86 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-1.7</td>
<td>-2.5*</td>
<td>-1.5</td>
<td>-4.1*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>-1.2</td>
<td>-2.2*</td>
<td>-3.3*</td>
<td>-3.8</td>
<td>-3.2</td>
<td>-3.7</td>
<td>-4.1*</td>
</tr>
<tr>
<td>3</td>
<td>-1.0</td>
<td>-0.7</td>
<td>-0.7</td>
<td>-3.2</td>
<td>-3.7</td>
<td>-3.0</td>
<td>-4.1*</td>
</tr>
<tr>
<td>4</td>
<td>-1.1</td>
<td>-0.7</td>
<td>-1.1</td>
<td>-2.9*</td>
<td>-3.7</td>
<td>-2.9*</td>
<td>-3.0</td>
</tr>
<tr>
<td>5</td>
<td>-1.4</td>
<td>-0.8</td>
<td>-1.4</td>
<td>-2.9*</td>
<td>-3.7</td>
<td>-3.0</td>
<td>-3.0</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>-1.4</td>
<td>-0.8</td>
<td>-1.3</td>
<td>-2.9*</td>
<td>-3.7</td>
<td>-3.0</td>
<td>-3.0</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** PIONEER 9 and PIONEER 10 were Japanese studies and PIONEER 6 was a CV safety study. *Statistically significant based on the hypothetical treatment policy; PIONEER 1: QD oral sema vs placebo in people with T2D treated with diet and exercise only; PIONEER 2: QD oral sema vs empagliflozin 25 mg in people with T2D; PIONEER 3: QD oral sema vs sitagliptin 100 mg in people with T2D; PIONEER 4: QD oral sema vs Victoza® 1.8 mg and placebo in people with T2D; PIONEER 5: QD oral sema vs placebo in people with T2D and moderate renal impairment; PIONEER 7: QD oral sema using a flexible dose adjustment based on clinical evaluation vs sitagliptin 100 mg in people with T2D; PIONEER 8: Effects of QD oral sema vs placebo in people with long duration of T2D treated with insulin.

**ER:** Extended-release; **QW:** once-weekly; **QD:** once-daily; **oral sema:** oral semaglutide; **T2D:** type 2 diabetes; **OAD:** oral anti-diabetics; **CV:** Cardiovascular
PIONEER PLUS achieved its primary endpoint and demonstrated statistically significant HbA$_{1C}$ reduction vs oral sema 14 mg

**Headline trial results**

<table>
<thead>
<tr>
<th>Change in HbA$_{1C}$</th>
<th>Change in body weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean baseline HbA$_{1C}$: 9.0%</td>
<td>Mean baseline body weight: 96.4 kg</td>
</tr>
<tr>
<td>Oral semaglutide 50 mg</td>
<td>Oral semaglutide 14 mg</td>
</tr>
<tr>
<td>-1.5%</td>
<td>-4.5</td>
</tr>
<tr>
<td>-1.9%*</td>
<td>-7.0*</td>
</tr>
<tr>
<td>-2.2%*</td>
<td>-9.2*</td>
</tr>
</tbody>
</table>

**Primary endpoint:**
- Change from baseline to week 52 in HbA$_{1C}$

**Secondary endpoint:**
- Change from baseline to week 52 in body weight

**Inclusion criteria (1,606 participants):**
- Type 2 Diabetes
- HbA$_{1C}$ 8.0 - 10.5%
- BMI ≥25 kg/m$^2$
- Stable dose of 1-3 OADs (metformin, SU, SGLT-2i or DPP-4i$^1$)

*Statistically significant/superior vs oral semaglutide 14 mg; $^1$DPP-4i terminated at randomization

T2D: Type 2 diabetes; HbA$_{1C}$: Glycated haemoglobin; BMI: Body Mass Index; OADs: Oral antidiabetic drugs; SU: Sulfonylurea; SGLT-2i: Sodium-glucose cotransporter-2 inhibitors; DPP-4i: Dipeptidyl peptidase-4 inhibitors

Note: Trial product estimands shown; Trial objective: To compare the safety and efficacy of 25 and 50 mg oral semaglutide with 14 mg oral semaglutide once daily in people with type 2 diabetes
Phase 2 trial for CagriSema in people with type 2 diabetes was successfully completed in Q3 2022

Primary endpoint:
Change from baseline (week 0) to week 32 in HbA\(_{1c}\)

Inclusion criteria (92 people):
- Type 2 diabetes
- HbA\(_{1c}\) 7.5–10.0%
- Metformin +/- SGLT2i
- BMI ≥27 kg/m\(^2\)

T2D: Type 2 diabetes, BMI: body mass index; HbA\(_{1c}\): Glycosylated haemoglobin; OW: Once weekly
Note: Trial product estimands shown; Trial objective: To compare the effect of co-administered (separate injections) semaglutide and cagrilintide versus semaglutide in subjects with T2D inadequately controlled on metformin with or without SGLT2 inhibitor
### Phase 3 trial programme with CagriSema in type 2 diabetes, REIMAGINE, was initiated in Q3 2023

<table>
<thead>
<tr>
<th>CagriSema characteristics</th>
<th>Global phase 3 trial programme</th>
</tr>
</thead>
</table>
| CagriSema is a fixed dose combination of injectable cagrilintide 2.4 mg and semaglutide 2.4 mg | **REIMAGINE 1**  
- **vs placebo**  
- **180 patients** with T2D  
- **40-week** vs. placebo  
- **Primary endpoint**: HbA1c |
| Phase 3a programme with CagriSema in T2D:  
- Aims to confirm efficacy and safety across four global trials  
- Expected completion during 2025/2026 | **REIMAGINE 2**  
- **FDC trial**  
- **2700 patients** with T2D, MET +/- SGLT-2i  
- **68-week** vs. semaglutide, cagrilintide and placebo  
- **Primary endpoint**: HbA1c and bodyweight |
| **REIMAGINE 3**  
- **Add-on to insulin**  
- **270 patients** with T2D, Basal insulin +/- MET  
- **40-week** vs. placebo  
- **Primary endpoint**: HbA1c | **REIMAGINE 4**  
- **H2H vs tirzepatide**  
- **1000 patients** with T2D, MET +/- SGLT-2i  
- **68-week** vs. tirzepatide  
- **Primary endpoint**: HbA1c and bodyweight |
| **REDEFINE 3**  
- **CVOT – shared with obesity programme**  
- **7000 patients**  
- **Event driven**  
- **Primary endpoint**: 3-point MACE |  
2023 | 2024 | 2025 | 2026 |

165% of patients with T2D, 35% without T2D  
FDC: Fixed dose combination; T2D: Type 2 Diabetes; H2H: Head-to-head; CVOT: Cardiovascular outcomes trial; 3P: Three point; MACE: Major adverse cardiovascular event; MET: Metformin; SGLT-2i: sodium-glucose co-transporter-2 inhibitor  
Note: CagriSema is a fixed dose combination of injectable cagrilintide 2.4 mg and injectable semaglutide 2.4 mg
Novo Nordisk global insulin market leadership at 45.4% and the global insulin volume market declined by 2%

**North America Operations**
- **Market growth**: -3.7%
- **MS**: 37.2%
- **MS gain/loss**: -1.3%-p
- **Sales growth**: -23%

**USA**
- **Market growth**: -3.9%
- **MS**: 37.0%
- **MS gain/loss**: -1.1%-p
- **Sales growth**: -23%

**EMEA**
- **Market growth**: -1.4%
- **MS**: 47.3%
- **MS gain/loss**: +0.1%-p
- **Sales growth**: -25%

**Global**
- **Market growth**: -2.0%
- **MS**: 45.4%
- **MS gain/loss**: -1.3%-p
- **Sales growth**: -6%

**RoW**
- **Market growth**: -3.5%
- **MS**: 57.7%
- **MS gain/loss**: +1.3%-p
- **Sales growth**: 3%

**International Operations**
- **Market growth**: -1.5%
- **MS**: 48.0%
- **MS gain/loss**: -1.3%-p
- **Sales growth**: 0%

**Region China**
- **Market growth**: 0.4%
- **MS**: 40.2%
- **MS gain/loss**: -8.3%-p
- **Sales growth**: -7%

---

1 MS gain/loss compared with Nov 2022 reported MS
EMEA: Europe, Middle East and Africa; MS: Market share; RoW: Asia Pacific; Latin America; MS: Market Share; Region China covers Mainland China, Taiwan, and Hong Kong; Market values are based on the list prices
Note: Sales growth for the full year 2023 at constant exchange rates; Market shares are for Novo Nordisk, market growth for total insulin market
Source: IQVIA MAT, Nov 2023 volume figures
Insulin market size and Novo Nordisk volume and value market share

**Insulin market share and market size (DKK billion)**

<table>
<thead>
<tr>
<th>Type</th>
<th>Market Share</th>
<th>Value</th>
<th>Market Growth</th>
<th>Δ Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>44%</td>
<td>256</td>
<td>-7.6%</td>
<td>-0.7%</td>
</tr>
<tr>
<td>Long-Acting</td>
<td>37%</td>
<td>129</td>
<td>-7.9%</td>
<td>-0.7%</td>
</tr>
<tr>
<td>Fast-Acting</td>
<td>52%</td>
<td>91</td>
<td>-5.0%</td>
<td>-0.9%</td>
</tr>
<tr>
<td>Premix</td>
<td>70%</td>
<td>14</td>
<td>-16.5%</td>
<td>-0.0%</td>
</tr>
<tr>
<td>Human</td>
<td>31%</td>
<td>22</td>
<td>-10.0%</td>
<td>-0.4%</td>
</tr>
</tbody>
</table>

**Insulin volume: Market share**

- **NN market share**: 45%
- **Market growth (right axis)**: 9%
- **NN growth (right axis)**: 6%

**Note**: LHS graph - Value, RHS Graph - Volume, MAT, all countries; Share of growth not depicted due to too high numbers; Market values are based on the list prices

Source: IQVIA, Nov 2023
Once-weekly insulin icodec, a basal insulin intended for once-weekly treatment, may reduce the disease burden for patients

<table>
<thead>
<tr>
<th><strong>Bringing the strongest value proposition to market</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduction of disease burden</strong> with once-weekly treatment</td>
</tr>
<tr>
<td><strong>Tested for superior HbA_{1c} and TiR</strong> vs glargine and standard-of-care and similar safety profile of Tresiba®</td>
</tr>
<tr>
<td><strong>App-based offering</strong> and <strong>connected smart pen</strong> to optimise titration and support compliance and data collection</td>
</tr>
<tr>
<td><strong>Reduced environmental footprint</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Insulin icodec phase 3 programme has been completed</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ONWARDS 1</strong> 984 people insulin-naïve, 78-week, vs insulin glargine U100</td>
</tr>
<tr>
<td><strong>ONWARDS 2</strong> 526 people on basal, 26-week, vs insulin degludec</td>
</tr>
<tr>
<td><strong>ONWARDS 3</strong> 588 people insulin-naïve, 26-week, vs insulin degludec</td>
</tr>
<tr>
<td><strong>ONWARDS 4</strong> 582 people on both basal and bolus, 26-week, vs insulin degludec</td>
</tr>
<tr>
<td><strong>ONWARDS 5</strong> 1,085 people, insulin-naïve using app-based dosing recommendations, 52-week</td>
</tr>
<tr>
<td><strong>ONWARDS 6</strong> 582 people, type 1 diabetes using bolus insulin, 52-week, vs insulin degludec</td>
</tr>
<tr>
<td><strong>Submission</strong> Insulin Icodec was submitted in US, EU and China in Q2 2023</td>
</tr>
</tbody>
</table>

TiR: Time-in-range
Once-weekly insulin icodex appeared to be effective and to have a safe profile in the phase 3 ONWARDS programme

**Estimated change from baseline in HbA₁c (%)**

<table>
<thead>
<tr>
<th>ONWARDS 1 BASAL INITIATION</th>
<th>ONWARDS 3 BASAL INITIATION</th>
<th>ONWARDS 5 BASAL INITIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial duration (weeks)</td>
<td>52²</td>
<td>26</td>
</tr>
<tr>
<td>(Full trial: 78 weeks)</td>
<td>8.5%</td>
<td>8.5%</td>
</tr>
<tr>
<td>Non-inferiority confirmed</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Superiority confirmed</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypoglycaemia event rates¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>In people with type 2 diabetes: No statistical difference in estimated hypoglycaemia events</td>
</tr>
</tbody>
</table>

- Once-weekly insulin icodex
- Once-daily insulin glargine U100
- Once-daily insulin degludec
- Once-daily basal insulins

*Statistically significant. 1 Severe or clinically significant hypoglycaemia events (blood glucose <3 mmol/L) per patient year, included for end of trial/end main phase in trial. 2 Duration refers to trial main phase.

**Trial duration (weeks)**

- ONWARDS 1: QW insulin icodex vs QD insulin glargine U100 both with non-insulin anti-diabetic treatment in insulin-naïve people with T2D
- ONWARDS 2: QW insulin icodex vs QD insulin degludec in people with T2D switching from a QD insulin
- ONWARDS 3: QW insulin icodex vs QD insulin degludec in insulin-naïve people with T2D
- ONWARDS 4: QW insulin icodex vs QD insulin degludec both with mealtime insulin in people with T2D treated with basal and bolus insulin
- ONWARDS 5: QW insulin icodex vs QD basal insulin with an app providing dosing recommendation in insulin-naïve people with T2D
- ONWARDS 6: QW insulin icodex vs QD basal insulin both with mealtime insulin in people with T1D

- Type 1 diabetes
- Type 2 diabetes

Note: Overview refer to primary end points in main phases of trials
Phase 3 trial programme for IcoSema in T2D, COMBINE

---

**IcoSema characteristics**

IcoSema is a fixed dose combination of insulin icodec and semaglutide
- Simple and convenient once-weekly injection

---

**Focused phase 3 trial programme**

**COMBINE 1**
**Post-basal insulin**
- Initiated in Q2 2022
- 1290 patients* previously on basal-insulin
- 52-week vs. insulin icodec
- Prim. endpoint: HbA\(_1c\) superiority
- Sec. endpoint: Weight and hypo superiority

**COMBINE 2**
**Post-GLP-1**
- Initiated in Q2 2022
- 680 patients* previously on GLP-1 RA
- 52-week vs. semaglutide 1.0mg
- Primary endpoint: HbA\(_1c\) superiority

**COMBINE 3**
**Basal insulin intensification**
- Initiated in Q4 2021
- 680 patients* previously on basal insulin
- 52-week vs. insulin glargine + insulin aspart
- Prim. endpoint: HbA\(_1c\) non-inferiority
- Sec. endpoint: Weight and hypo superiority

---

*Patients with Type 2 Diabetes Mellitus*
Obesity care

Obesity disease background  57
Obesity market development  61
Innovation  62
More than 764 million people are living with obesity, yet the narrative is changing

Obesity is a global epidemic affecting more than 764 million people\(^1\)

Obesity impacts both the individual and society at large

Obesity is associated with >200 possible health complications\(^2\)

〜3% of global GDP and >8% of healthcare budget per country\(^3\)

The obesity narrative is changing

**Media:** Shift to more empathetic tone

**Healthcare professionals:** Increased recognition among societies within healthcare

**Policymakers:** More government recognition

**People with obesity:** Patient groups are encouraging PwO to seek treatment

---

\(^1\) World Obesity Atlas 2022

Note: Obesity is defined as BMI > 30; PwO: People with obesity
Patient-centric strategy designed to activate more people with obesity, drive HCP engagement, and improve market access

Million people

>764 million people live with obesity

~10% seek help

~2% are treated with an AOM

~2.5 million seen by obesity experts

Treated ~1 million with Saxenda® in 2021

Only 25% on treatment for more than 1 year

Ensure obesity is a healthcare priority needing medical management

Maximize the value of Novo Nordisk’s superior treatment solutions

People with obesity activation

HCP engagement

Value proposition to payers

Marketed product portfolio and pipeline closing the treatment gaps

Truth About Weight™

Rethink Obesity®

direct care

SELECT

Approved products

Late-stage pipeline products

Oral semaglutide 25 mg and 50 mg CagriSema

HCP: Healthcare providers; AOM: Anti-obesity medication; CagriSema: Cagrilintide in combination with semaglutide

Source: World Obesity Atlas 2022; IQVIA AOM TRx 12m PwO (People with Obesity); Market Research
Large opportunity for activating more people with obesity to seek treatment and increasing the number of prescribers

**Wegovy® patient characteristics in the US**

<table>
<thead>
<tr>
<th></th>
<th>75% of patients new to anti-obesity medication</th>
<th>80% of patients are female</th>
<th>38 Average BMI</th>
<th>32% of patients have ≥3 comorbidities</th>
</tr>
</thead>
</table>

Of the people with overweight or obesity in the US, almost 90% have a weight-related comorbidity

<table>
<thead>
<tr>
<th>BMI (million of people)</th>
<th>27-30 (43)</th>
<th>30-35 (52)</th>
<th>35-40 (25)</th>
<th>≥40 (20)</th>
<th>Total (140)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No obesity-related comorbidity²</td>
<td>7 (16%)</td>
<td>6 (12%)</td>
<td>2 (9%)</td>
<td>2 (8%)</td>
<td>17 (12%)</td>
</tr>
<tr>
<td>Any obesity-related comorbidity</td>
<td>36 (84%)</td>
<td>46 (88%)</td>
<td>23 (92%)</td>
<td>18 (90%)</td>
<td>123 (88%)</td>
</tr>
<tr>
<td>Hereof metabolic syndrome³</td>
<td>21 (48%)</td>
<td>26 (50%)</td>
<td>14 (56%)</td>
<td>12 (61%)</td>
<td>72 (52%)</td>
</tr>
<tr>
<td>Hereof ASCVD</td>
<td>4 (8%)</td>
<td>5 (10%)</td>
<td>3 (10%)</td>
<td>2 (10%)</td>
<td>13 (9%)</td>
</tr>
</tbody>
</table>

1 Naïve to AOM treatment is based on total info in the database and not restricted to 12 months prior Wegovy® prescription ² Individuals without any of the following obesity related conditions: T2DM, Pre-diabetes, MASH, MAFLD, obstructive sleep apnea, osteoarthritis, PCOS, ASCVD. Heart failure, asthma, urinary incontinence, hypertension, chronic kidney disease stage 3 or 4, musculoskeletal pain, dyslipidaemia, metabolic syndrome; ³ Metabolic syndrome defined as two or more of dyslipidaemia; hypertension; prediabetes OR type II diabetes

Source: Novo Nordisk real world research; National Health And Examination Survey (NHANES) cycles 2015-2016 and 2017-2018. BMI: Body mass index; ASCVD: Atherosclerotic cardiovascular disease
Patient access to anti-obesity medications is improving in both the US and IO

The ~50 million people having access to Wegovy® demonstrates the recognition of Obesity as a chronic disease

~110m Obesity prevalence in US adults\(^1\)

~60m Commercial Channel

~50% of employers opt-in

~40m People with commercial coverage

~10m Medicaid\(^2\)

Restricted reimbursement for Saxenda® is progressing

**EXAMPLES**

- BMI ≥ 30 with two or more co-morbidities
- BMI ≥ 35 With pre-diabetes and risk of CV
- ~60% coverage by private insurance, 20% of which includes restricted/unrestricted coverage
- BMI ≥ 35 Or BMI ≥ 28 and one obesity related comorbidity

---


\(^2\) Also includes DoD and government employees

Note: Obesity is defined as BMI ≥ 30
Global obesity market growth has been accelerating with Novo Nordisk capturing the majority of growth

Note: Value MAT, all countries; Share of growth not depicted due to high growth; Market values are based on the list prices
Source: IQVIA, Nov 2023
Across the STEP 1, 3, and 4 trials, a weight loss of 16.9% to 18.2% was reported for people treated with semaglutide 2.4 mg

<table>
<thead>
<tr>
<th>Baseline body weight, kg</th>
<th>STEP 1 Weight management</th>
<th>STEP 3 Weight mgmt. with IBT</th>
<th>STEP 4 Sustained weight management</th>
<th>STEP 5 Weight loss over 2 years</th>
<th>STEP 2 Weight mgmt. with T2D</th>
<th>STEP 8 Head-to-head trial versus liraglutide 3.0 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>105.3</td>
<td>Sema</td>
<td>IBT</td>
<td>Sema</td>
<td>6.5</td>
<td>Sema</td>
<td>Sema Lira 3.0 mg</td>
</tr>
<tr>
<td>105.8</td>
<td>Placebo</td>
<td>Sema + IBT</td>
<td>Placebo</td>
<td>-2.4</td>
<td>Placebo</td>
<td>Placebo</td>
</tr>
<tr>
<td>107.2</td>
<td></td>
<td></td>
<td>After 68 weeks</td>
<td>-5.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>96.1</td>
<td></td>
<td></td>
<td>After 20 weeks</td>
<td>-5.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>106.0</td>
<td></td>
<td></td>
<td></td>
<td>-16.7*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>99.8</td>
<td></td>
<td></td>
<td></td>
<td>-10.6*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>104.5</td>
<td></td>
<td></td>
<td></td>
<td>-17.1*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* P-value <0.0001, 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.

IBT: Intensive behavioural therapy; Sema: Semaglutide; Lira: Liraglutide; BW: Body weight; T2D: Type 2 diabetes; Mgmt.: Management.
In STEP 1, people treated with semaglutide had a superior weight loss of up to 16.9%.

The pivotal STEP 1 trial showed greater than 16% weight loss.

- Average age 46
- 74.1% women
- Average BMI - 37.9 kg/m²

Improvements in lipid profile as well as C-reactive protein.

Semaglutide improved health-related quality of life as measured by SF-36 and IWQoL-lite-CT.

BMI: body mass index; SF-36: Short Form (36) Health Survey; IWQoL-lite-CT: Impact of Weight on Quality of Life Lite questionnaire.

Notes: Change in body weight in % depicts observed means since time of randomisation; trial product estimand.
In STEP 1, 34.8% of patients treated with sema reached ≥20% weight loss and reported improved quality of life versus placebo.

**Categorical weight loss**

<table>
<thead>
<tr>
<th>Weight loss</th>
<th>Semaglutide 2.4 mg</th>
<th>Placebo</th>
</tr>
</thead>
<tbody>
<tr>
<td>≥5%</td>
<td>92.4%</td>
<td>33.1%</td>
</tr>
<tr>
<td>≥10%</td>
<td>74.8%</td>
<td>11.8%</td>
</tr>
<tr>
<td>≥15%</td>
<td>54.8%</td>
<td>5.0%</td>
</tr>
<tr>
<td>≥20%</td>
<td>34.8%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

**Semaglutide 2.4 mg showed a statistically significant treatment difference versus placebo in the IWQoL-Lite-CT PRO**

<table>
<thead>
<tr>
<th>Category</th>
<th>ETD [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical function</td>
<td>9.43 [7.50 : 11.35] *</td>
</tr>
<tr>
<td>Physical</td>
<td>9.14 [7.31 : 10.96] *</td>
</tr>
<tr>
<td>Psychological</td>
<td>10.50 [8.81 : 12.19] *</td>
</tr>
<tr>
<td>Total</td>
<td>10.02 [8.42 : 11.62] *</td>
</tr>
</tbody>
</table>

*statistically significant; p-values other than physical function were not controlled for multiplicity

PRO: patient reported outcome; CI: confidence interval; ETD: estimated treatment difference; IWQoL-Lite-CT: Impact of Weight on Quality of Life lite.
In STEP 4, people treated with semaglutide had a superior weight loss of up to 18.2%.

**STEP 4 showed significantly greater weight loss post run-in than placebo**

**Data from STEP 4**

- Average age 46
- 79% women
- Average BMI – 38.4 kg/m²

Trial highlights that obesity is a chronic disease requiring sustained treatment

Improvements on a panel of cardiovascular risk markers

---

Change in body weight in % depicts observed means since time of randomisation; trial product estimand; BMI: body mass index
In STEP 4, 41.2% of patients treated with semaglutide reached ≥20% weight loss and reported improved quality of life vs placebo.

Categorical weight loss

Semaglutide 2.4 mg showed a statistically significant treatment difference versus placebo in the SF-36 patient reported outcome

<table>
<thead>
<tr>
<th>SF-36 scores</th>
<th>ETD [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical functioning</td>
<td>2.46 [1.59 : 3.32] *</td>
</tr>
<tr>
<td>Role-physical</td>
<td>1.44 [0.42 : 2.47] *</td>
</tr>
<tr>
<td>Bodily pain</td>
<td>2.23 [-0.06 : 4.53]</td>
</tr>
<tr>
<td>General health</td>
<td>1.86 [0.73 : 3.00] *</td>
</tr>
<tr>
<td>Vitality</td>
<td>4.31 [1.61 : 7.02] *</td>
</tr>
<tr>
<td>Social functioning</td>
<td>2.41 [0.07 : 4.76] *</td>
</tr>
<tr>
<td>Role-emotional</td>
<td>1.64 [0.52 : 2.76] *</td>
</tr>
<tr>
<td>Mental health</td>
<td>2.93 [1.80 : 4.06] *</td>
</tr>
<tr>
<td>Physical component summary</td>
<td>1.68 [0.64 : 2.72] *</td>
</tr>
<tr>
<td>Mental component summary</td>
<td>3.44 [2.28 : 4.60] *</td>
</tr>
</tbody>
</table>

* statistically significant; p-values other than physical functioning were not controlled for multiplicity

CI: confidence interval, ETD: estimated treatment difference, Sema: semaglutide, SF-36: Short Form (36) Health Survey

Descriptive statistics only. Based on the on-treatment data, i.e. data for people that are on-treatment at week 68.
In STEP 5, people treated with semaglutide 2.4 mg sustained their weight loss over 2 years.

Data from STEP 5

- 40% of patients lost ≥ 20% of their body weight
- Semaglutide appeared to have a safe and well-tolerated profile
- Improvements in lipid profiles as well as C-reactive protein

Clinically relevant and sustained weight loss in patients with obesity or overweight

Change in body weight in % depicts observed means since time of randomisation; trial product estimand; mean body weight: 106.0 kg
In STEP 8, semaglutide 2.4 mg showed weight loss of 17.1% compared to 6.6% with liraglutide 3.0 mg.

**Data from STEP 8**

- 38.5% of patients lost ≥20% of their body weight with semaglutide 2.4 mg vs 6.0% with liraglutide 3.0 mg
- Liraglutide and semaglutide both appeared to have a safe and well-tolerated profile
- Statistical significant improvements in systolic BP and CRP with semaglutide 2.4 mg vs liraglutide 3.0 mg

---

1. Observed data for the on-treatment period; *p*-value <0.0001 vs lira 3.0 mg; % change in body weight measured as change from baseline

Data shown is the trial product estimand; Sema: Semaglutide; Lira: Liraglutide
The phase 3a OASIS 1 trial investigating oral semaglutide 50 mg in people with overweight or obesity was completed in Q2 2023

**Objective**
- To investigate superiority of oral semaglutide 50 mg vs. placebo on weight loss in people with overweight or obesity

**Primary endpoint**
- Change in body weight from baseline (%)
- Body weight reduction ≥ 5%

**OASIS programme scope**
- Total of 1,000 patients across three trials: 1) A global (North America and Europe), 2) Japanese and 3) Chinese trial

**Inclusion criteria**
- BMI ≥27 kg/m² with ≥ 1 weight-related comorbidity, or
- BMI ≥30 kg/m²
- Weight-related comorbidities are hypertension, dyslipidaemia, obstructive sleep apnoea and CVD
Oral semaglutide 50 mg in overweight or obesity demonstrated superior body weight reduction in the OASIS 1 phase 3 trial.

OASIS 1 showed significantly greater weight loss compared to placebo.

Mean baseline body weight: 105.4kg

Note: Observed data are on-treatment. Week 68* is the body weight change using the trial product estimand
Sema: Semaglutide
Phase 3 trial programme for oral semaglutide 50 mg in overweight or obesity, OASIS

**Oral semaglutide characteristics**

- Oral semaglutide 50mg:
  - Semaglutide tablets in overweight or obesity
  - Once daily tablet

**Focused phase 3 trial programme**

- **OASIS 1**
  - 50 mg dose
  - 667 patients
  - 68 week
  - Primary endpoint: BW %

- **OASIS 2**
  - EAST ASIA
  - 198 patients incl. T2D
  - 68 week
  - Primary endpoint: BW %

- **OASIS 3**
  - China
  - 200 patients incl. T2D
  - 44 week
  - Primary endpoint: BW %

- **OASIS 4**
  - 25 mg dose
  - 300 patients
  - 64 week
  - Primary endpoint: BW %

**OASIS 1**

- 667 patients
- 68 week
- Primary endpoint: BW %

**OASIS 4**

- 300 patients
- 64 week
- Primary endpoint: BW %

BW: Body weight; T2D: Type 2 diabetes
In a 20-week phase 1 trial, CagriSema showed weight loss of 17% and appeared to have a safe and well tolerated profile.

The GI profile appeared similar to semaglutide 2.4 monotherapy.

**Weight loss for different doses of CagriSema in phase 1**

<table>
<thead>
<tr>
<th>Dose</th>
<th>Time since first dosing (days)</th>
<th>Change in body weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cagri 0.16 mg, Sema 2.4 mg</td>
<td>0, 14, 28, 42, 56, 70, 84, 98, 112, 126, 140</td>
<td>Last dosing</td>
</tr>
<tr>
<td>Cagri 0.3 mg, Sema 2.4 mg</td>
<td></td>
<td>-5</td>
</tr>
<tr>
<td>Cagri 0.6 mg, Sema 2.4 mg</td>
<td></td>
<td>-10</td>
</tr>
<tr>
<td>Cagri 1.2 mg, Sema 2.4 mg</td>
<td></td>
<td>-15</td>
</tr>
<tr>
<td>Cagri 2.4 mg, Sema 2.4 mg</td>
<td></td>
<td>-15</td>
</tr>
<tr>
<td>Placebo, Sema 2.4 mg</td>
<td></td>
<td>-15</td>
</tr>
</tbody>
</table>

**The GI profile appeared similar to semaglutide 2.4 monotherapy**

<table>
<thead>
<tr>
<th>Group</th>
<th>AEs</th>
<th>SAEs1</th>
<th>AEs leading to withdrawal</th>
<th>GI disorders</th>
</tr>
</thead>
<tbody>
<tr>
<td>n=12</td>
<td>11 (92)</td>
<td>1 (8)</td>
<td>1 (8)</td>
<td>7 (58)</td>
</tr>
<tr>
<td>n=12</td>
<td>12 (100)</td>
<td>0</td>
<td>0</td>
<td>10 (83)</td>
</tr>
<tr>
<td>n=12</td>
<td>11 (92)</td>
<td>12 (100)</td>
<td>1 (8)</td>
<td>11 (92)</td>
</tr>
<tr>
<td>n=12</td>
<td>12 (100)</td>
<td>0</td>
<td>0</td>
<td>9 (82)</td>
</tr>
<tr>
<td>n=11</td>
<td>11 (100)</td>
<td>1</td>
<td>0</td>
<td>19 (79)</td>
</tr>
<tr>
<td>n=24</td>
<td>23 (96)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The serious adverse event was meningitis.

CagriSema: Cagrilintide in combination with semaglutide; Cagri: Cagrilintide; Sema: semaglutide; SAE: Serious adverse events; GI: Gastro-intestinal. Change in body weight is analysed using a mixed model for repeated measurements, where all changes from baseline in body weight measurements enter as the dependent variables and treatment, visit and baseline body weight enter as fixed effects. Treatment and baseline body weight are nested within visit.

Source: Adapted from Enebo et al. Lancet. 2021 May 8;397(10286):1736-1748.
The CagriSema phase 3 programme, REDEFINE, was initiated in the Q4 2022

Inclusion criteria
REDEFINE 1:
• BMI: $\geq 30$ kg/m$^2$ or $\geq 27$ kg/m$^2$ and $\geq 1$ comorbidity
• Excludes diabetes diagnosis or HbA$_{1c}$ $\geq 6.5$

REDEFINE 2:
• BMI: $\geq 27$ kg/m$^2$
• Type 2 diabetes, HbA$_{1c}$ $< 10$

Primary endpoints:
• Change in body weight (%)
• Achieve $\geq 5\%$ body weight reduction

Confirmatory secondary endpoints:
• Change in waist circumference
• HbA$_{1c}$
• Systolic blood pressure
• Patient reported outcomes$^2$

1As an adjunct to a reduced-calorie diet and increased physical activity in adults with obesity or overweight. 2 Patient reported outcomes include (IWQoL-Lite-CT, SF-36v2, and Vitality score)
CagriSema: Cagrilintide in combination with semaglutide; T2DM: Type 2 diabetes; BMI: Body mass index; HbA$_{1c}$: Hemoglobin A$_{1c}$; IWQoL-Lite-CT: Impact of weight on quality of life – lite, clinical trials version; Short form 36v2
Semaglutide 2.4 mg showed 20% MACE reduction in the SELECT trial for people with overweight or obesity and established CVD

Objective
- Demonstrate that semaglutide s.c. 2.4 mg OW lowers the incidence MACE vs. placebo when both added to standard of care in subjects with established CV disease and overweight or obesity.

Headline results
- Semaglutide 2.4 mg demonstrated an 20% reduction in MACE

Safety
- In the trial, once-weekly subcutaneous semaglutide 2.4 mg appeared to have a safe and well-tolerated profile, as seen with previous trials investigating semaglutide 2.4 mg

Next steps
- In September and October 2023, Novo Nordisk submitted SELECT results to FDA and EMA

Primary endpoint
- Time from randomisation to first occurrence of 3-point MACE

Secondary confirmatory endpoints
Time from randomisation to first occurrence of:
- CV death
- HF composite endpoint
- All-cause death

1 MACE includes non-fatal myocardial infarction, non-fatal stroke, and cardiovascular death.
MACE: Major adverse cardiovascular events; HF: Heart failure; CV: Cardiovascular; CVD: Cardiovascular Disease; OW: Once-weekly; s.c.: Subcutaneous; BMI: Body mass index
The cardiovascular trial, SELECT, addresses many comorbidities that can be improved with weight management.

**SELECT trial endpoints**
- ✓ Primary
- X Secondary
- O Exploratory

**Improvements per weight loss bracket**
- 0-5%
- 5-10%
- 10-15%
- >15%

**Improvements (examples)**
- T2D remission
- Cardiovascular Disease
- CV mortality
- HF
- Knee OA
- PCOS
- MAFLD
- GERD
- OSAS
- MASH
- Prevention of T2D
- Hyperglycaemia
- Hypertension

**Weight loss (%)**

**Sources:**
Phase 3 trial STEP HFpEF with semaglutide 2.4 mg was successfully completed in Q2 2023

**Objective:**
- Evaluate the effect on HF specific symptoms, physical function and body weight compared with placebo

**Dual primary endpoints:**
- Change in KCCQ from baseline to week 52
- Change in body weight from baseline to week 52

**Key secondary endpoints:**
- Change in 6MWD from baseline to week 52
- Composite endpoint (all cause death, HHF, KCCQ, 6MWD) from baseline to week 52

**Inclusion criteria:**
- BMI ≥30 kg/m2
- NYHA II-IV
- Ejection fraction ≥45%

---

R: Randomisation; HF: Heart Failure; HFpEF: Heart Failure with preserved ejection fraction; SoC: Standard of care; KCCQ: Kansas City Cardiomyopathy Questionnaire; 6MWD: 6-min walking distance; HHF: Heart failure hospitalization; NYHA: New York Heart Association classification
Semaglutide 2.4 mg demonstrated superior improvement on the primary endpoint of KCCQ-CSS vs placebo in the STEP HFpEF trial.

**Superior improvement in KCCQ-CSS score in patients treated with semaglutide 2.4 mg**

Mean baseline KCCQ-CSS score: 56.7

<table>
<thead>
<tr>
<th>Change in KCCQ-CSS (score)</th>
<th>Time since randomisation (weeks)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>10</td>
<td>36</td>
</tr>
<tr>
<td>16.6</td>
<td>52</td>
</tr>
<tr>
<td>8.7</td>
<td>52*</td>
</tr>
</tbody>
</table>

**Key highlights**

**Primary endpoints:**
- KCCQ-CSS estimated treatment difference between semaglutide 2.4 mg and placebo of 7.8

**KCCQ in perspective**

**Clinicians' assessments of clinical change:**
- Small: ±5 points
- Moderate-to-large: ±10 points
- Large-to-very large: ±20 points

**Patients' self-classifications of improvements:**
- Minimal clinically important difference for 'little improvement': 4.5 points

---


Note: Data shown is the treatment policy estimand. *Lines are based on observed data where the value denoted after 52 weeks is estimated mean value derived based on multiple imputation.

KCCQ-CSS: Kansas City Cardiomyopathy Questionnaire; Clinical summary score
The STEP HFpEF-DM trial was successfully completed in Q4 2023 and is to be included in the regulatory submission.

**Trial design and next steps**

**Dual primary endpoints:**
- Change in KCCQ from baseline to week 52
- Change in body weight from baseline to week 52

**Inclusion criteria:**
- BMI ≥30 kg/m²
- NYHA II-IV
- Ejection fraction ≥45%
- HbA₁c ≤10.0%

**Status:**
- Completion of STEP HFpEF-DM trial in November 2023
- Combined (including STEP HFpEF trial) regulatory submission of both trials in H1 2024

---

R: Randomisation; HF: Heart Failure; HFpEF: Heart Failure with preserved ejection fraction; SoC: Standard of care; KCCQ: Kansas City Cardiomyopathy Questionnaire; 6MWD: 6-min walking distance; NYHA: New York Heart Association classification
Oral amycretin phase 1 trial was successfully completed in Q1 2024

Amycretin is a GLP-1 and amylin receptor co-agonist intended for oral delivery

Phase 1 single dose and multiple dose trial for oral amycretin in obesity initiated in 2022

People living with overweight or obesity, and otherwise healthy

Multiple ascending dose cohorts

Single ascending dose cohorts

Trial objectives
- Assess the safety and tolerability of oral amycretin
- Assess PK profile and explore PD effects

Next steps
- Further clinical development currently being evaluated

Utilising the SNAC technology

PK: Pharmacokinetics; PD: Pharmacodynamics
Rare disease

Rare disease background 81
Rare disease innovation 84
Building upon a 40-year legacy to capture the Rare disease strategic opportunity

A strategy anchored in Rare blood and endocrine disorders

Three strategic horizons towards 2030

**Short-term**
Maximise current portfolio

**Medium-term**
Succeed with next-generation launches

**Long-term**
Expand from core

New disease areas via accelerated internal and external innovation

Concizumab & Mim8
Nedosiran
Rare disease sales decreased by 15%, driven by reduction in manufacturing output

NovoSeven® and Norditropin® account for ~66% of Rare disease sales

Growth at CER

Note: Company reported sales
Haemophilia is a rare disease with severe unmet medical needs but the market is highly competitive.
Explorer 7 trial evaluated safety and efficacy of concizumab in 132 haemophilia A and B patients with inhibitors

**Concizumab binds TFPI, enabling thrombin generation and clot formation**

**Explorer 7 trial design**

**Trial Objective**
Assess the efficacy of concizumab prophylaxis vs no prophylaxis in reducing number of bleeding episodes in adults and adolescents with haemophilia A and B with inhibitors

**Primary endpoint**
Number of treated bleeding episodes from start of treatment to the end of the main phase

**Key inclusion criteria**
- Males ≥12 years with haemophilia and inhibitors, treated with bypassing agents within last 24 weeks
- For on-demand, minimum six bleeding episodes within last 24 weeks

---

1At least 24 weeks for arm 1
TF: Tissue factor; TFPI: Tissue factor pathway inhibitor; OnD: On-demand; R: Randomisation
In the Explorer 7 trial, concizumab reduced the number of bleeds in adults and adolescents with inhibitors

**Explorer 7 trial results: Annualised bleeding rate per patient group**

**Efficacy**
- **Median ABR was 0** for concizumab prophylaxis treatment, compared to 9.8 in the on-demand treatment group.
- Estimated mean ABR was 1.7 for concizumab prophylaxis treatment, compared to 11.8 in the on-demand treatment group.
- For patients on concizumab prophylaxis, **64% had 0 bleeds** in Group 2.

**Safety**
- Concizumab appeared to have a **safe and well tolerated** profile.

**Status**
- US Complete Response Letter for HwI received in Q2 2023, resubmission during 2024 expected.
- Approved in: Canada (HAwI/HBwI), Australia (HAwI/HBwI), Switzerland (HAwI/HBwI) and Japan (HAwI/HBwI).
- Explorer 8 in non-inhibitor patients was completed in Q3 2022.

NA: Haemophilia A; HB: Haemophilia B; HA: Haemophilia A with inhibitors; HBwI: Haemophilia B with inhibitors; HwI: Haemophilia with inhibitors; OnD: On-demand; PPX: Prophylaxis; ABR: Annualised bleeding rate.

**Key highlights**
- Median ABR was 0 for concizumab prophylaxis treatment, compared to 9.8 in the on-demand treatment group.
- Estimated mean ABR was 1.7 for concizumab prophylaxis treatment, compared to 11.8 in the on-demand treatment group.
- For patients on concizumab prophylaxis, 64% had 0 bleeds in Group 2.
- Concizumab appeared to have a safe and well tolerated profile.
- US Complete Response Letter for HwI received in Q2 2023, resubmission during 2024 expected.
- Approved in: Canada (HAwI/HBwI), Australia (HAwI/HBwI), Switzerland (HAwI/HBwI) and Japan (HAwI/HBwI).
- Explorer 8 in non-inhibitor patients was completed in Q3 2022.
Main part of the Explorer 8 trial with concizumab in people with HA or HB without inhibitors has been completed

**Explorer 8 trial design**

- **Previously OnD treatment**
  - 1: Maintained OnD treatment
  - 2: Concizumab PPX, QD

- **Prophylaxis treatment (continued from phase 2)**
  - 3: Concizumab PPX, QD

- **Prophylaxis treatment (additional patients)**
  - 4: Concizumab PPX, QD

**Extension part**

- **Extension with concizumab prophylaxis**
  - Up to 143 weeks

**Key trial highlights**

**Efficacy**
- The trial met its primary endpoint, confirming superiority of concizumab prophylaxis compared to no PPX (OnD treatment)
- The secondary confirmatory endpoint, confirming non-inferiority of concizumab PPX to previous PPX factor treatment was not met

**Safety**
- Concizumab appeared to have a safe and well-tolerated profile with no thromboembolic events reported after the treatment restart

**Next steps**
- Initial commercial launch for concizumab is expected to be focused on HwI followed by Haemophilia B
- Further assessment of development opportunities and submissions based on the results from the explorer8 trial

**Key inclusion criteria:**
- Aged ≥12 years with haemophilia A or haemophilia B, patients mainly from phase 2

**Objective:**
- Assess the efficacy of Concizumab PPX vs no PPX (OnD treatment) in reducing number of bleeding episodes

**Endpoints:**
- Number of treated bleeding episodes (spontaneous/traumatic)

---

1 Restart refers to the start of treatment with the new concizumab dosing regimen, which was implemented after the treatment pause

HA: Haemophilia A; HB: Haemophilia B; HwI: Haemophilia with inhibitors; PPX: Prophylaxis; OnD: On-demand; QD: Once-daily
Interim data from Mim8 phase 1/2 show that PK/PD profiles support weekly to monthly low volume dosing

- Mim8 concentration profiles increased with dose
- Mean concentrations at steady state were comparable for Cohort 3 (weekly dosing) and Cohort 4 (monthly dosing)

Higher potency of Mim8 vs emicizumab enabling a low dosing volume

- The PD marker, peak thrombin generation, increased with Mim8 dose
- In-vitro exposure-response curves in haemophilia A-like plasma show a 15-fold higher potency of Mim8 compared to emicizumab

The peak thrombin plot represents in-vitro data: human plasma samples from the healthy participants of the SAD cohort were made HA-like with anti-FVIII antibodies, and spiked with different concentrations of Mim8 or commercially available emicizumab.

PK: Pharmacokinetics; PD: Pharmacodynamics; QW: Once-weekly; QM: once-monthly

Reference: FRONTIER 1, 12-week main phase cohort 1-5. Chowdary P, et al. FRONTIER1: A Phase 1/2 Dose Escalation Study of a Novel Factor VIIIa Mimetic Bispecific Antibody, Mim8, for Evaluation of Safety, Pharmacokinetics, and Efficacy. Abstract presented at ISTH 2022; Windygą J, et al. Mim8 is associated with improved thrombin generation vs. emicizumab in patients with haemophilia A, with and without inhibitors. Abstract presented at ISTH 2022; Novo Nordisk data on file
In the phase 1/2 trial, Mim8 appeared to have a well tolerated safety profile and read out with exploratory efficacy.

Exploratory analysis implied that >70% of patients enrolled had no bleeds in the 12 weeks.

**Mim8 safety characteristics**

**Adverse events**
- No dose-dependency on rates, causality, type or severity of adverse events
- No thromboembolic events
- Three serious AEs deemed unrelated to trial product and two hypersensitivity reactions
- Injection site reactions in only 1% of injections (6 events of ~600 injections given)

**Anti-Mim8 antibodies**
- No occurrence of anti-Mim8 antibodies detected

**Overall, no safety concern observed**

**Low number of patients with treated bleeds after cohort 1**

<table>
<thead>
<tr>
<th>Cohort 1</th>
<th>Cohort 2</th>
<th>Cohort 3</th>
<th>Cohort 4</th>
<th>Cohort 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2mg QW</td>
<td>3.8mg QW</td>
<td>15mg QW</td>
<td>60mg QM</td>
<td>35mg QW</td>
</tr>
<tr>
<td>N=7</td>
<td>N=9</td>
<td>N=8</td>
<td>N=8</td>
<td>N=10</td>
</tr>
</tbody>
</table>

**QW:** Once-weekly, **QM:** Once-monthly, **N:** Number of patients, **AE:** Adverse event.
The pivotal phase 3 trial with Mim8 was initiated in Q4 2022

FRONTIER 2: Mim8 phase 3 pivotal trial in ~260 adults & adolescents

- **Trial design**
  - Novel and accelerated design minimising time from phase 2 into phase 3. Dosing started in Q4 2022
  - Testing of weekly and monthly Mim8 prophylaxis treatment for previously on-demand or coagulation factor prophylaxis patients

- **Trial objective**
  - On demand: Superiority of Mim8 prophylaxis vs no prophylaxis
  - Prophylaxis: Superiority of Mim8 prophylaxis vs coagulation factor prophylaxis run-in period

- **Key trial endpoints**
  - ABR for treated bleeds over 26 weeks of treatment
  - Overall safety of Mim8 prophylaxis including occurrence of anti-Mim8 antibodies and injection site reactions

*The second phase 3a trial, FRONTIER3, was initiated in Q4 2022*
Novo Nordisk has a value market share of ~19% in the global human growth disorder market

**Novo Nordisk value market share in the competitive hGH market**

![Market Share Bar Chart]

- **Value MS%**
  - H1 2021
    - Novo Nordisk: 36%
    - Company B: 14%
    - Company A: 12%
    - Others: 38%
  - H2 2021
    - Novo Nordisk: 37%
    - Company B: 14%
    - Company A: 13%
    - Others: 36%
  - H1 2022
    - Novo Nordisk: 36%
    - Company B: 14%
    - Company A: 14%
    - Others: 36%
  - H2 2022
    - Novo Nordisk: 33%
    - Company B: 16%
    - Company A: 15%
    - Others: 37%
  - H1 2023
    - Novo Nordisk: 30%
    - Company B: 18%
    - Company A: 16%
    - Others: 37%
  - H2 2023
    - Novo Nordisk: 19%
    - Company B: 22%
    - Company A: 18%
    - Others: 41%

**A portfolio offering across markets**

- **Sogroya® strategy**
  - Once-weekly efficacious treatment on par with Norditropin®
  - Simple and easy-to-use device
  - Phase 3 trials toward broad range of indications (e.g. SGA, Turner, Noonan, ISS) to expand the market
  - Approved for GHD in US, EU and Japan

- **Norditropin® strategy**
  - Apply a market-fit approach to support specific markets and patient groups
  - Broad label across eight indications

---

hGH: Human growth hormone; SGA: Small for gestational age, ISS: Idiopathic short stature
Note: Due to contractual obligations competitor names are not disclosed. Company A and B represent actual companies; Market values are based on the list prices
Source: IQVIA, MAT Nov 2023
Sogroya® was approved for paediatric growth hormone deficiency in US, EU and Japan in Q2 2023

**Efficacy**
- Non-inferiority versus Norditropin® for the primary endpoint, height velocity, at week 52 was confirmed
- IGF-I SDS, bone age and glucose metabolism were all similar between somapacitan and Norditropin®

**Safety and tolerability**
- Overall the safety profile of somapacitan appeared to be similar to the well-known safety profile of daily GHD treatment
- No local tolerability issues were identified

**Other treatment parameters**
- Significantly reduced treatment burden¹ compared to Norditropin®

**Status**
- Adult GHD: Approved by the US, EU and JP
- Paediatric GHD: Approved by the US, EU and JP

---

¹ Measured using patient reported outcome TB-CGHD-P (Treatment burden measure - child growth hormone deficiency – parent).
ETD: Estimated treatment difference; IGF-I SDS: Insulin growth factor-1 standard deviation score; GHD: Growth hormone deficiency; IGF-I SDS: Insulin growth factor-1 standard deviation score; US: United States; EU: European Union; JP: Japan
Novo Nordisk and 2seventy bio extend partnership in next-generation genome editing for people with haemophilia A

Lifelong correction via a unique modality

- **Potentially lifelong correction** of FVIII deficiency
- **FVIII gene engineered** and packed in an AAV vehicle

Utilising the skills of both 2seventy bio and Novo Nordisk

- Utilisation of megaTAL™ technology, in-vivo mRNA manufacturing/purification platform, and gene editing know-how

Haemophilia A understanding and protein and molecular engineering capabilities

PoC: Proof-of-Concept; AAV: Adeno-associated virus; Rag2: recombination-activating gene; F8: Factor 8
Cardiovascular & Emerging Therapies

The unmet needs
Cardiovascular disease
MASH
Alzheimer’s disease
Stem cells
Novo Nordisk is expanding into other serious chronic diseases

Serious chronic diseases are associated with diabetes and obesity

- AD
  - Patients with AD live from 2 to 20 years from dementia onset

- CVD
  - 70% of people with diabetes die from atherosclerotic CVD
  - 40% of people hospitalised for heart failure have diabetes

- MASH
  - 80% of people with MASH live with obesity and 35% have diabetes

- CKD
  - 40% of people with diabetes have diabetic nephropathy and 50% have obesity

New therapeutic areas represent patient populations with high unmet medical needs

<table>
<thead>
<tr>
<th>Estimated patients</th>
<th>Number of related deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD ~85 million</td>
<td></td>
</tr>
<tr>
<td>CVD ~520 million</td>
<td>~20 million annually</td>
</tr>
<tr>
<td>MASH ~25 million1</td>
<td>~20%2</td>
</tr>
<tr>
<td>CKD ~700 million3</td>
<td>~20%</td>
</tr>
</tbody>
</table>

1Estes C et al. Hepatology, 2018; 2Diagnosis rate is considered a major uncertainty to the forecast; 3Carney EF. Nat Rev Nephrol 2020;16:251
CVD: Cardiovascular disease; MASH: Metabolic dysfunction-associated steatohepatitis; CKD: Chronic kidney disease; AD: Alzheimer's Disease
Note: Heart Disease and Stroke Statistics, American Heart Association, 2017; Williams CD et al. Prevalence of nonalcoholic fatty liver disease and nonalcoholic steatohepatitis among a largely middle-aged population utilizing ultrasound and liver biopsy, 2011; Addressing the global burden of chronic kidney disease through clinical and translational research, 2014
Large patient overlaps between diabetes, obesity, and CVD have guided the focused approach in CVD

Population overlap between T2D, obesity and CVD

Type 2 diabetes
~537m people

Obesity
~764m people

ASCVD + HF
~425m people

Focused approach in CVD

Atherosclerosis

Heart failure

ASCVD

Heart failure with preserved ejection fraction (HFpEF)

Transthyretin amyloid cardiomyopathy (ATTR-CM)

Treatments investigated

Ziltivekimab

Semaglutide 2.4 mg Ziltivekimab

PRX004

T2D: Type 2 diabetes; CVD: Cardiovascular disease; ASCVD: Atherosclerotic cardiovascular disease; HF: Heart failure; ATTR-CM: Transthyretin Amyloid Cardiomyopathy; LDL-C: Low-density lipoprotein cholesterol; hsCRP: High-sensitivity C-reactive protein
Innovative late-stage CVD pipeline provides opportunities to make a difference for many patients

### Focus areas

<table>
<thead>
<tr>
<th>Category</th>
<th>Study Current phase</th>
<th>Broader indications</th>
<th>Stand-alone CVD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Near-term</strong></td>
<td></td>
<td>HFpEF Phase 3 Sema 2.4mg</td>
<td>ATTR-CM Phase 2 NNC6019</td>
</tr>
<tr>
<td>Leverage broader CV indications to establish presence with Cardiologists and build an adequate PCP footprint for entry of stand-alone CVD product</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Medium-term</strong></th>
<th>Global unmet need (people)</th>
<th>First and only for T2D</th>
<th>Reverse disease pathology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utilise leading scientific and commercial capabilities to launch first CVD stand-alone product</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>~26m¹</td>
<td>~200m</td>
<td>No consensus (estimated 0.1-2.8 cases per 10,000 in EU)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Long-term</strong></th>
<th>Potential differentiators</th>
<th>Potential launch year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand pipeline with differentiated MoAs through leading discovery and translational capabilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st in class indication²</td>
<td>2024</td>
<td>2028</td>
</tr>
</tbody>
</table>

**¹HFpEF and BMI>27.²Specifically for a functional outcomes trial in an obese patient population**

**PCP:** Primary Care Physician; **CVD:** Cardiovascular Disease; **MoA:** Mode of Action; **HFpEF:** Heart failure with preserved ejection fraction; **PAD:** Peripheral arterial disease; **ATTR-CM:** Transthyretin Amyloid Cardiomyopathy; **T2D:** Type 2 Diabetes

Ziltivekimab phase 2b RESCUE trial was successfully completed

In the RESCUE trial, ziltivekimab QM showed reduction in hsCRP at all dose levels

Data from RESCUE trial

- Ziltivekimab QM showed reductions in inflammation biomarkers
- Ziltivekimab QM appeared to have a safe and well-tolerated profile
- Addressing the residual risk of CVD for more than 5 million patients with ASCVD, CKD, and inflammation
- The phase 3 cardiovascular outcomes trial was initiated in Q3 2021

1 Primary endpoint was the median percent change in hsCRP. * Indicates statistical significance, p < .0001
2 End of treatment is defined as the average of values at week 23 and week 24
3 Inflammation biomarkers include: Fibrinogen, serum amyloid A, haptoglobin and NTproBNP
4 Inflammation is defined as c-reactive protein levels greater than 2
Zilti: Ziltivekimab; QM: Once-monthly; hsCRP: High-sensitivity c-reactive protein; CVD: Cardiovascular disease; ASCVD: Atherosclerotic cardiovascular disease; CKD: Chronic kidney disease
ZEUS trial with ziltivekimab aims to validate the link between inflammation and major adverse cardiovascular events

**Phase 3 CVOT trial ZEUS with ziltivekimab**

- **Investigate CV benefit in 6,200 patients**
- **ziltivekimab 15 mg sc once-monthly + SoC**
- **Placebo sc once-monthly + SoC**

**Treatment period (event driven)**

- **3 months follow-up**

**Objective**

- To investigate the cardiovascular benefit of ziltivekimab in the treatment of patients with established ASCVD, CKD and systemic inflammation

**Primary endpoints**

- Time to the first occurrence of 3-point MACE (CV death, non-fatal MI or non-fatal stroke)

**Secondary confirmatory endpoints**

- Time to first occurrence of expanded MACE
- Number of hospitalisations for HF or urgent HF visit
- Time to occurrence of all-cause mortality
- Time to first occurrence of a composite CKD endpoint

---

1 MACE includes CV death, non-fatal MI or non-fatal stroke, Expanded MACE includes: (CV death, non-fatal MI, non-fatal stroke or hospitalisation for unstable angina pectoris requiring urgent coronary revascularisation)

hsCRP: High-sensitivity C-reactive protein; CVOT: Cardiovascular outcome trial; CV: Cardiovascular; sc: Subcutaneous; SoC: Standard of care; HF: Heart failure; CKD: Chronic kidney disease

Source: Ridker PM, et al., IL-6 inhibition with ziltivekimab in patients at high atherosclerotic risk (RESCUE): a double-blind, randomised, placebo-controlled, phase 2 trial, 17 May 2021
Ziltivekimab aspires to address an unmet need in more than 5 million people in patients with ASCVD, CKD and inflammation.

**Ziltivekimab aspires to reduce MACE in people with ASCVD and CKD**

- **Global**¹ patients (in millions)
  - 16
  - 12
  - 8
  - 4
  - 0

- **Approximately 5-8m patients**

**Critical success factors to commercialise ziltivekimab**

**Market building**
- Targeted HCP outreach and relationship building
- Successful payer engagement
- Integrated evidence generation

**Focus areas**
- Increase presence with key prescriber base being cardiologists and PCPs
- Enhance awareness of inflammatory burden in CVD with KOLs and HCP associations
- Utilise ZEUS read-out to quantify anti-inflammatory clinical benefit in ASCVD patients with CKD vs Standard of Care
- Understand hsCRP and inflammation, epidemiology of disease and socio-economic burden of disease

**Investment levels**
- Low
- High

¹ Includes US, EUS (Germany, France, Spain, Italy, United Kingdom) and Japan

MACE or major adverse cardiovascular events includes CV death, non-fatal MI or non-fatal stroke; ASCVD: Atherosclerotic cardiovascular disease; CKD: Chronic kidney disease; HCP: Healthcare professional; PCP: Primary care physician; KOL: Key opinion leader; hsCRP: High-sensitivity C-reactive protein
MASH is a progressive disease with no approved treatment and low diagnosis rates today

Diagnosis rates

MASH F1
- Inflamed tissue
- Large lipid droplets

MASH F2
- Inflamed/dying hepatocyte
- Collagen fibres

MASH F3
- Inflamed/dying hepatocyte
- Excessive collagen deposition

MASH-Cirrhosis F4
- Dead cell remnants
- Scar tissue

Treatment rates

MASH F1
- 26%

MASH F2
- 32%

MASH F3
- 42%

MASH: Metabolic dysfunction-associated steatohepatitis
Note: MASH was formerly known as NASH (Nonalcoholic steatohepatitis)
Source: Novo Nordisk estimates
MASH patient journey underscores key barriers to overcome for Novo Nordisk to be successful

~22 million people are expected to live with MASH F2-F4c by 2030

Global patients (in millions)

Prevalence  Diagnosed  Access

Low disease awareness

Inadequate patient referrals

No treatment options

No prognostic biomarker

Few patients receiving diagnosis

Market preparation priorities

Build strong presence

• Create urgency to treat in MASH
• Build strong speciality-referral process
• Engage Endos, Hepas and PCPs

Increase diagnosis rate

• Momentum towards NITs in clinical practice and guidelines
• NITs for diagnosis, screening and monitoring

Evidence generation

• Build understanding of importance of addressing underlying cause of disease
• Stop clinical progression amongst physicians and payers

Hurdles

High expected investment level

Low expected investment level

Referrals and identification

MASH: Metabolic dysfunction-associated steatohepatitis; Endos: endocrinologist; PCP: primary care physician; NIT: Non-invasive tests; Hepas: hepatologists; F: Fibrosis stage

Source: Estes C, Modeling the epidemic of non alcoholic fatty liver disease demonstrates an exponential increase in burden of disease. Hepatology, 2018

1Referrals and identification
Novo Nordisk is supporting use of non-invasive tests for MASH diagnosis

**Development and adoption of non-invasive tests (NITs)**

- Liver biopsy
- NITs

**Guidelines:** NITs represented in guidelines

**Practitioners:** ~80% of HCPs perform MASH diagnostics with use of various NITs, while biopsies are seldomly used

**NIT development:** Several available NITs in clinical practice. ELF test is first prognostic tool to be granted FDA De Novo marketing authorisation

**Pharma companies:** Embedding validation of NITs in clinical trials

**Novo Nordisk activities supporting non-invasive tests in MASH diagnosis**

- Linking biomarkers and liver histology to outcomes
- Disease understanding

**Real world**

- Consortia
- Collaborations with academia and other healthcare companies

**Phase 2 trial with FGF21**

**Phase 3 ESSENCE trial (part 1 and 2), incl. screening data**

**NN Development**

- Validate diagnostic tests
- Validate tests for monitoring
- Validate tests for prognosis

NITs: Non-invasive tests; MASH: Metabolic dysfunction-associated steatohepatitis; HCPs: Healthcare professionals; FDA: the US Food and Drug Agency; NN: Novo Nordisk; ELF: Enhanced liver fibrosis

Note: FDA De Novo provides a marketing pathway to classify novel medical devices for which general controls alone, or general and special controls, provide reasonable assurance of safety and effectiveness for the intended use, but for which there is no legally marketed predicate device.
In phase 2, semaglutide showed significant improvements in MASH resolution

Based on a complete case analysis, using people with an evaluable biopsy at end of trial

Semaglutide showed resolution of MASH with no worsening of fibrosis versus placebo in the phase 2 trial\(^1\)

Semaglutide showed numerical improvements in fibrosis and fewer patients had progression of fibrosis vs placebo in phase 2 trial\(^1\)

1Based on a complete case analysis, using people with an evaluable biopsy at end of trial
MASH: Metabolic dysfunction-associated steatohepatitis
Note: *statistically significant at 72 weeks (p<0.05 vs placebo); Analysis included patients with fibrosis stage 1, 2, or 3 at baseline. Data is from the semaglutide in MASH phase 2 trial.
Phase 3a trial ESSENCE with semaglutide 2.4 mg for the treatment of MASH was initiated in Q1 2021

The phase 3a ESSENCE trial in MASH

**ESSENCE trial | MASH F2–F3 patients**

- **N = 1,200**

**Semaglutide 2.4 mg sc. QW + SoC**

- 2:1

**Placebo + SoC**

Fixed follow-up

**Structure**

- **Part 1**
  - 72 weeks
  - Biopsy

- **Part 2**
  - 240 weeks
  - Biopsy

**Primary objectives and endpoints for Part 1 and 2**

**Part 1 |** Improves liver histology vs placebo

**Two binary histology endpoints at week 72:**

- Resolution of MASH and no worsening of liver fibrosis
- Improvement in liver fibrosis and no worsening of MASH

**Part 2 |** Lowers the risk of liver-related clinical events vs placebo

**Time to first outcome (composite endpoints) at week 240:**

- Histological progression to cirrhosis
- Death (all cause)
- Liver-induced MELD score ≥ 15
- Liver transplant
- Hepatic decompensation events

**Regulatory submission is expected to be based on part 1 of the trial combined with the results of the already completed phase 2 trial**

**F:** Fibrosis stage; **MASH:** Metabolic dysfunction-associated steatohepatitis; **QW:** once-weekly; **R:** randomisation; **SoC:** standard of care (GLP-1RAs disallowed); **MELD:** Model for End-stage Liver Disease
Alzheimer’s disease patient journey is complex and underscores key barriers to overcome for Novo Nordisk to be successful.

**Significant and growing unmet need**

Prevalence: 80 Million

- **MCI:** Diagnosed patients
- **Mild dementia:** Eligible patients

**Hurdles**

1. **Early symptoms dismissed as normal ageing**
2. **Complex tests and limited screening/diagnosing skills**
3. **Lack of prognostic markers and simple tests**
4. **Limited DMT options**
5. **Few patients receiving diagnosis**

**Support healthcare system preparedness**

- Larger number of AD patients expected to enter the system
- May lead to significant bottlenecks and delay to patient care

**Increase diagnosis rate**

- Support NITs development, e.g., blood-based/digital biomarkers
- Increase AD education and access to screening tools for PCPs and HCP insight

**Evidence generation**

- Evidence to better understand the role of neuroinflammation in disease progression

**Market preparation priorities**

- Evidence to better understand the impact of delaying disease progression
- Evidence to better understand the role of neuroinflammation in disease progression

**AD: Alzheimer’s disease; QD: Once-daily; MCI: mild cognitive impairment; DMT: Disease-modifying treatment; PCP: primary care physicians; NITs: Non-invasive diagnostics; HCP: Healthcare professional**

Entering phase 3 development of semaglutide in Alzheimer’s disease was based on a number of data points

**Real world evidence trials**

Four RWE studies show reduced risk of dementia or AD with GLP-1

**Danish registry**
- 11% lower risk of dementia per year of GLP-1 exposure

**TRUVEN claims database**
- 31% lower risk of dementia after >2 years of GLP-1 exposure

**Danish registry**
- 42% lower odds of dementia after GLP-1 exposure

**FAERS (FDA database)**
- 64% lower odds of Alzheimer’s disease after liraglutide exposure

---

**Randomised controlled trials**

53% lower risk of dementia diagnosis with liraglutide/semaglutide in NN’s CVOTs in T2D

Less decline in cerebral glucose metabolism (FDG-PET) with liraglutide in AD

Reduced incidence of major adverse CV events in T2D with semaglutide incl. stroke

Systemic anti-inflammatory effects with semaglutide

Short-term memory improvement with liraglutide in people with obesity

Reduced cognitive decline with dulaglutide in patients with T2D

---

**Pre-clinical studies**

Improved memory function with GLP-1 incl. semaglutide

Reduced phospho-tau accumulation

Reduced neuroinflammation with GLP-1 incl. semaglutide

Reduced atherosclerosis with liraglutide and semaglutide

Systemic anti-inflammatory effects with semaglutide

---

evoke and evoke+ trials are ongoing with expected completion in 2025

evoke and evoke+ trials have been initiated with 1,840 patients in each trial with a total of 3,680 patients

Objective
To confirm superiority of oral semaglutide vs placebo on the change in cognition and function in people with early Alzheimer's disease

Primary endpoint
Change in the Clinical Dementia Rating – Sum of Boxes (CDR-SB) score from baseline to end of 104 weeks of treatment

Inclusion criteria
- Early Alzheimer's disease (mild cognitive impairment or mild dementia)
- Mini-Mental State Examination (MMSE) ≥ 22/30
- Age between 55-85 years
- evoke+ has at least 20% with small vessel pathology

AD: Alzheimer's disease; QD: Once-daily; MCI: mild cognitive impairment; QD: once-daily.

Note: CDR-SB ratings are utilising in six domains are summed to provide a clinical measure = Sum of Boxes. These are: memory, orientation, judgment and problem solving, community affairs, home and hobbies, personal care. CDR-SB Scores range from 0 to 18 with higher scores representing greater impairment.
There is broad potential for cell therapies and Novo Nordisk has capabilities to explore the potential

**Broad potential for clinical use of cell therapies**

- Parkinson's disease
- Stroke
- Alzheimer's disease
- Dry AMD
- Blindness
- Hearing loss
- Congenital bone disorders
- Chronic heart failure
- Spinal cord injury
- Chronic kidney disease
- MASH
- Diabetes
- Osteoarthritis
- Muscular dystrophy

**Multiple sites:** Cancers and wound healing

**Maturing the platform to enable development of competitive cell therapies**

<table>
<thead>
<tr>
<th>Focus area</th>
<th>Novo Nordisk capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pluripotent stem cell</td>
<td>In-depth know-how on embryonic pluripotent stem cells</td>
</tr>
<tr>
<td>Bank of several undifferentiated stem cells</td>
<td>Exploitation of quality controlled stem cells</td>
</tr>
<tr>
<td>Differentiated to specific cell types</td>
<td>IP-protected protocols for differentiation</td>
</tr>
<tr>
<td>Upscaling, manufacturing and delivery/devices</td>
<td>GMP-grade cell manufacturing and development of cell delivery devices¹</td>
</tr>
<tr>
<td>Clinical development and regulatory affairs</td>
<td>Early interactions with regulators Clinical trial experience</td>
</tr>
</tbody>
</table>

¹In collaboration with academia and industrial partners
Dry AMD: Dry age-related macular degeneration; MASH: Metabolic dysfunction-associated steatohepatitis; IP: Intellectual property; GMP: Good manufacturing practices
First human dose with cell therapy in collaboration with Heartseed and others achieved in Q1 2023

Utilise internal capabilities and disease understanding for stem cell development

Internal capabilities
- GMP-grade production capability
- Academic collaborations
- Ethical stem cell practices
- IP positions on differentiation protocols

Therapeutic areas
- Parkinson's disease
- Chronic heart failure
- Type 1 diabetes
- Dry age-related macular degeneration

2 first human dose projects upcoming

Accelerate innovation through partnerships

- iPSC derived cardiomyocyte spheroids for direct injection into heart
- Heart failure
- FHD in February 2023

- hESC derived dopaminergic progenitor neurons for placing into the brain
- Parkinson's disease
- FHD in February 2023

- Novo Nordisk scientists embedded at UCSF lab
- Process development, manufacturing, QA/QC, facilities and operations at Fremont site

GMP: Good manufacturing practice; IP: Intellectual property; iPSC: induced pluripotent stem cells; QA/QC: Combination of quality assurance with quality assurance and quality control; hESC: Human embryonic stem cell; FHD: First human dose
First efforts to combine Novo Nordisk and partner competencies in cell therapies start with heart failure and Parkinson's disease

**Heartseed: Phase 1/2 trial in patients with severe heart failure**

- **10 patients** with
  - Resting LVEF \(\leq 40\%\)
  - NYHA cardiac function classification grade \(\geq II\)

- **HS-001 high dose**
- **HS-001 low dose**
- 26-week follow-up
- 52-week follow-up

**Objectives to evaluate:**
- Safety of cardiomyocytes spheroids
- Efficacy and dose-response
- Feasibility of transplantation procedures

A **follow-up phase 2 trial** is planned to investigate further dose increase and catheter delivery as route of administration

**TRANSCEND 1 and 2 trials to evaluate stem cells impact on quality of life for people with moderate Parkinson's disease**

- **Japan**
  - 8 participants
  - Open-label transplant surgery or standard of care
  - 2 year primary endpoint
  - 5 year follow-up

- **USA, Sweden, UK**
  - 40 participants
  - Double-blinded transplant surgery or sham surgery, or open-label standard of care

**TRANSCEND 1:** observational study of patients with moderate PD aiming at identifying potential candidates to the interventional TRANSCEND 2 trial

**TRANSCEND 2:** in combination with **Lund University** trial, a phase 1/2 trial investigating the treatment of Parkinson's disease

**Primary endpoint:** Number of treatment-emergent adverse events 2 years after dosing

---

PD: Parkinson's disease; LVEF: Left ventricular ejection fraction; NYHA: New York Heart Association
Growth momentum has increased driven by demographics and utilisation of full product portfolio

International Operations is diverse and covers 190 markets

>487m live with diabetes

>600m live with obesity

IO’s share of revenue FY 2023

NAO: North America Operations; IO: International Operations; FY: Full Year
Note: Share of Growth not depicted due to high numbers
Source (RHS): IQVIA Nov 2023, Value, MAT; Market values are based on the list prices. Source (LHS): Diabetes Atlas 10th edition

Historic sales growth in IO

Growth momentum in IO

NN Diabetes market share
Market growth
NN Diabetes growth
International Operations at a glance

Diabetes trend estimates based on the following International Diabetes Foundation defined regions: Africa, Europe, Middle East and North Africa, South and Central America, South East Asia and Western Pacific; Source: International Diabetes Federation: Diabetes Atlas 10th Edition 2021

Diabetes market by value and Novo Nordisk market share

Novo Nordisk reported sales

<table>
<thead>
<tr>
<th></th>
<th>Full year 2023</th>
<th>Sales (mDKK)</th>
<th>Growth²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable GLP-1³</td>
<td>31,228</td>
<td>41%</td>
<td></td>
</tr>
<tr>
<td>Rybelsus⁰</td>
<td>7,389</td>
<td>142%</td>
<td></td>
</tr>
<tr>
<td>Total GLP-1</td>
<td>38,617</td>
<td>53%</td>
<td></td>
</tr>
<tr>
<td>Total insulin⁴</td>
<td>37,230</td>
<td>0%</td>
<td></td>
</tr>
<tr>
<td>Other Diabetes care⁵</td>
<td>1,987</td>
<td>-12%</td>
<td></td>
</tr>
<tr>
<td>Diabetes care</td>
<td>77,834</td>
<td>20%</td>
<td></td>
</tr>
<tr>
<td>Obesity care</td>
<td>8,315</td>
<td>47%</td>
<td></td>
</tr>
<tr>
<td>Diabetes &amp; Obesity care</td>
<td>86,149</td>
<td>22%</td>
<td></td>
</tr>
<tr>
<td>Rare disease⁷</td>
<td>9,483</td>
<td>-24%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>95,632</td>
<td>16%</td>
<td></td>
</tr>
</tbody>
</table>

¹ CAGR calculated for 5-year period; Competitor insulin value market shares, as of Nov 2023: Novo Nordisk 51%, Others 49%; Competitor GLP-1 value market shares, as of Nov 2023: Novo Nordisk 71%, Other 29%; OAD: Oral anti-diabetic; MS: Market share; Note: Market values are based on the list prices; Source: IQVIA MAT, Nov 2023 value figures

² At Constant exchange rates

³ Comprises Victoza®, Ozempic®

⁴ Comprises Tresiba®, Xultophy®, Levemir®, Ryzodeg®, NovoMix®, Fiasp® and NovoRapid®

⁵ Comprises NovoSeven®, NovoEight®, NovoFifteen®, Refixia®, Esperoct®, NordiMix®, Vagifem® and Activelle®

⁶ Comprises primarily NovoSeven®, NovoEight®, NovoThirteen®, Refixia®, Esperoct®, Norditropin®, Vagifem® and Activelle®

⁷ Comprises Saxenda® and Wegovy®
Diabetes market share and market growth in International Operations

Diabetes market growth and Novo Nordisk market share

Diabetes market size and growth

Source: IQVIA, Nov 2023, Value, MAT, all countries

Note: Due to contractual obligations competitor names are not disclosed. Company A represents an actual company. Market values are based on the list prices.
GLP-1 market share and market growth

GLP-1 market growth and Novo Nordisk market share

GLP-1 market size and growth

Note: Due to contractual obligations, competitor names are not disclosed. Company A represents an actual company. Market values are based on the list prices.

Source: IQVIA, Nov 2023, Value MAT, all countries.
Insulin market size and volume share of growth and market share in International Operations

1Market growth is YTD current vs YTD previous year
NN: Novo Nordisk
Note: Share of growth not depicted due to too high numbers; Market values are based on the list prices
Source: IQVIA, Nov 2023, LHS graph - Value, RHS Graph - Volume, MAT, all countries

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Investor presentation Full year 2023

Insulin market share and market size (DKK billion)

<table>
<thead>
<tr>
<th>Insulin Type</th>
<th>Market Share</th>
<th>Market Size (DKK billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>51%</td>
<td>55</td>
</tr>
<tr>
<td>Long-Acting</td>
<td>40%</td>
<td>26</td>
</tr>
<tr>
<td>Fast-acting</td>
<td>57%</td>
<td>15</td>
</tr>
<tr>
<td>Premix</td>
<td>78%</td>
<td>7</td>
</tr>
<tr>
<td>Human</td>
<td>49%</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Market growth¹</th>
<th>Δ Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>NN: Novo Nordisk</td>
<td></td>
</tr>
<tr>
<td>NN</td>
<td>-9.0%</td>
</tr>
<tr>
<td>Competitors</td>
<td>+0.1%</td>
</tr>
<tr>
<td>NN</td>
<td>-6.6%</td>
</tr>
<tr>
<td>Competitors</td>
<td>+1.4%</td>
</tr>
<tr>
<td>NN</td>
<td>-4.5%</td>
</tr>
<tr>
<td>Competitors</td>
<td>-1.3%</td>
</tr>
<tr>
<td>NN</td>
<td>-15.7%</td>
</tr>
<tr>
<td>Competitors</td>
<td>-1.0%</td>
</tr>
<tr>
<td>NN</td>
<td>-19.0%</td>
</tr>
<tr>
<td>Competitors</td>
<td>+1.5%</td>
</tr>
</tbody>
</table>

Insulin volume: Market share

Note: Share of growth not depicted due to too high numbers; Market values are based on the list prices
Source: IQVIA, Nov 2023, LHS graph - Value, RHS Graph - Volume, MAT, all countries
Obesity market share and market growth in International Operations

Obesity market growth and Novo Nordisk market share

Note: Market values are based on the list prices
Source: IQVIA, Nov 2023, Value MAT, all countries
EMEA at a glance

Diabetes trend estimates based on the following International Diabetes Foundation defined regions: Africa, Europe, Middle East and North Africa, South and Central America, South East Asia and Western Pacific Source: International Diabetes Federation: Diabetes Atlas 10th Edition 2021; EMEA: Europe, Middle East and Africa

1 CAGR calculated for 5-year period; Competitor insulin value market shares, as of Nov 2023: Novo Nordisk 48%, Others 52%; Competitor GLP-1 value market shares, as of Nov 2023: Novo Nordisk 65%, Others 35%. OAD: Oral anti-diabetic; MS: Market share; Note: Market values are based on the list prices; Source: IQVIA MAT, Nov 2023 value figures

2 At Constant exchange rates; 3 Comprises Victoza® , Ozempic®; 4 Comprises Tresiba®, Xultophy®,Levemir®,Ryzodeg®,NovoMix®,Fiasp® and NovoRapid®; 5 Comprises NovoNorm® and needles; 6 Obesity care comprises NovoSeven®, NovoEight®, NovoThirteen®, Esperoct®, Refixia®, Norditropin®, Vagifem® and Activelle®

Diabetes market by value and Novo Nordisk market share

Novo Nordisk reported sales

<table>
<thead>
<tr>
<th>Full year 2023</th>
<th>Sales (mDKK)</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable GLP-1³</td>
<td>16,493</td>
<td>28%</td>
</tr>
<tr>
<td>Rybelsus®¹</td>
<td>4,232</td>
<td>151%</td>
</tr>
<tr>
<td>Total GLP-1</td>
<td>20,725</td>
<td>42%</td>
</tr>
<tr>
<td>Total insulin⁴</td>
<td>18,287</td>
<td>3%</td>
</tr>
<tr>
<td>Other Diabetes care⁵</td>
<td>661</td>
<td>-4%</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>39,673</td>
<td>20%</td>
</tr>
<tr>
<td>Obesity care⁶</td>
<td>5,693</td>
<td>63%</td>
</tr>
<tr>
<td>Diabetes &amp; Obesity care</td>
<td>45,366</td>
<td>24%</td>
</tr>
<tr>
<td>Rare disease⁷</td>
<td>5,501</td>
<td>-19%</td>
</tr>
<tr>
<td>Total</td>
<td>50,867</td>
<td>17%</td>
</tr>
</tbody>
</table>
Diabetes market share and market growth in EMEA

EMEA: Europe, Middle East and Africa; NN: Novo Nordisk
Note: Due to contractual obligations, competitor names are not disclosed. Company A represents an actual company; Market values are based on the list prices
Source: IQVIA, Nov 2023, Value, MAT
GLP-1 market share and market growth in EMEA

GLP-1 market growth and Novo Nordisk market share

EMEA: Europe, Middle East and Africa; NN: Novo Nordisk
Note: Due to contractual obligations competitor names are not disclosed. Company A represents an actual company; Market values are based on the list prices
Source: IQVIA, Nov 2023, Value, MAT
Insulin market size and volume market share in EMEA

<table>
<thead>
<tr>
<th>Insulin market share and market size (DKK billion)</th>
<th>Market growth¹</th>
<th>∆ Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>-1.8%</td>
<td>+0.2%</td>
</tr>
<tr>
<td>Long-acting</td>
<td>0.3%</td>
<td>+0.3%</td>
</tr>
<tr>
<td>Fast-acting</td>
<td>-0.3%</td>
<td>+0.2%</td>
</tr>
<tr>
<td>Premix</td>
<td>-7.9%</td>
<td>-0.9%</td>
</tr>
<tr>
<td>Human</td>
<td>-15.2%</td>
<td>+1.9%</td>
</tr>
</tbody>
</table>

¹Market growth is YTD current vs YTD previous year; NN: Novo Nordisk
Note: Share of growth not depicted due to too high numbers; Market values are based on the list prices
Source: IQVIA, Nov 2023 LHS graph – Value, RHS Graph - Volume, MAT, Europe, Middle East & Africa
Obesity market share and market growth in EMEA

**Obesity market growth and Novo Nordisk market share**

- **NN market share**
- **NN Growth**
- **Market growth (right axis)**

**Obesity market size and growth**

- DKK billion
- ~70%
- 0.0
- 3.6
- ~86%
- 89%
- 82%
- 2.1
- 1.5

**Note:** Market values are based on the list prices
**Source:** IQVIA, Nov 2023, Value, MAT; EMEA: Europe, Middle East and Africa
**Region China at a glance**

### Diabetes trend

<table>
<thead>
<tr>
<th>Year</th>
<th>Population with diabetes</th>
<th>Diabetes growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>141</td>
<td></td>
</tr>
<tr>
<td>2030</td>
<td>164</td>
<td>14%</td>
</tr>
<tr>
<td>2045</td>
<td>175</td>
<td>6%</td>
</tr>
</tbody>
</table>

Region China covers Mainland China, Taiwan, and Hong Kong

### Diabetes market by value and Novo Nordisk market share

<table>
<thead>
<tr>
<th>Year</th>
<th>GLP-1 MS</th>
<th>Insulin MS</th>
<th>OAD MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2018</td>
<td>82.9%¹</td>
<td>-0.1%¹</td>
<td>7.8%¹</td>
</tr>
<tr>
<td>Nov 2023</td>
<td>82.9%¹</td>
<td>-0.1%¹</td>
<td>7.8%¹</td>
</tr>
</tbody>
</table>

### Novo Nordisk reported sales

<table>
<thead>
<tr>
<th>Category</th>
<th>Full year 2023 Sales (mDKK)</th>
<th>Growth²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable GLP-1³</td>
<td>6,077</td>
<td>78%</td>
</tr>
<tr>
<td>Rybelsus®</td>
<td>131</td>
<td>124%</td>
</tr>
<tr>
<td>Total GLP-1</td>
<td>6,208</td>
<td>79%</td>
</tr>
<tr>
<td>Total insulin⁴</td>
<td>8,848</td>
<td>-7%</td>
</tr>
<tr>
<td>Other Diabetes care⁵</td>
<td>892</td>
<td>-18%</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>15,948</td>
<td>13%</td>
</tr>
<tr>
<td>Obesity care⁶</td>
<td>146</td>
<td>17%</td>
</tr>
<tr>
<td>Diabetes &amp; Obesity care</td>
<td>16,094</td>
<td>13%</td>
</tr>
<tr>
<td>Rare disease⁷</td>
<td>593</td>
<td>-26%</td>
</tr>
<tr>
<td>Total</td>
<td>16,687</td>
<td>11%</td>
</tr>
</tbody>
</table>

¹ CAGR calculated for last 5-year period
² At constant exchange rates; ³ Comprises Victoza® and Ozempic®; ⁴ Comprises Tresiba®, Xultophy®, Levemir®, NovoMix®; ⁵ Comprises NovoNorm® and needles; ⁶ Comprises Saxenda®; ⁷ Comprises primarily NovoSeven®, NovoEight® and Norditropin®

Note: Market values are based on list prices; Source: IQVIA MAT, Nov 2023 value figures
Diabetes market share and market growth in Region China

Diabetes market growth and Novo Nordisk market share

- Novo Nordisk (NN) market share: 32%
- Market growth (right axis)
- NN growth (right axis)

Diabetes market size and growth

- Nov 2020: 28 billion DKK
- Nov 2023: 25 billion DKK

- NN: 28 billion DKK with -10% market growth
- Company A: 0 billion DKK with -10% market growth
- Others: 2 billion DKK with -11% market growth

Note: Due to contractual obligations, competitor names are not disclosed. Company A represents an actual company.
Region China covers Mainland China, Taiwan, and Hong Kong. Market values are based on the list prices.
Source: IQVIA, Nov 2023, Value, MAT.
GLP-1 market share and market growth in Region China

Note: Due to contractual obligations, competitor names are not disclosed. Company A represents an actual company; Region China covers Mainland China, Taiwan, and Hong Kong; Market values are based on the list prices.

Source: IQVIA, Nov 2023, Value, MAT.
Insulin market size and volume share of growth and market share in Region China

Market growth is YTD current vs YTD previous year

NN: Novo Nordisk; Note: Region China covers Mainland China, Taiwan, and Hong Kong; Market values are based on the list prices

Source: IQVIA, Nov 2023, LHS graph - Value, RHS Graph - Volume, MAT

1Market growth is YTD current vs YTD previous year
NN: Novo Nordisk; Note: Region China covers Mainland China, Taiwan, and Hong Kong; Market values are based on the list prices
Source: IQVIA, Nov 2023, LHS graph - Value, RHS Graph - Volume, MAT
Region China remains a key strategic opportunity

Region China is a large market with ~140 million people living with diabetes

- **Sales**
  - Region China: 83%
  - Rest of IO: 17%

- **Patients**
  - Region China: 77%
  - Rest of IO: 23%

Outcome of VBP insulin in China
- Price cut ~40-50% as a result of VBP
- Retained ~50% of own brand volume in scope
- Resource re-allocation towards growth products

Opportunities and strategic priorities

**Large growing diabetes market**
- Market of 25 bDKK mainly consisting of OAD and insulin
- Diabetes market growth of ~10%

**Bring innovation faster to market**
- Diabetes: Rybelsus® and Icodec
- Rare disease: Across portfolio

**Treat more patients**
- Expand patient base across new insulins and GLP-1s

VBP: Volume-based procurement; OAD: Oral anti-diabetes; IO: International Operations
Note: IQVIA value in China only covers ~60% of the market; Region China includes Mainland China, Taiwan and Hong Kong
Source: Full year 2023 numbers based on Company Announcement (sales) and Diabetes Atlas, 10th edition, (patients)
Rest of World at a glance

Diabetes trend in population

- Population with diabetes
- Diabetes growth rate

Diabetes trend estimates based on the following International Diabetes Foundation defined regions: South & Central America, Southeast Asia


Diabetes market by value and Novo Nordisk market share

Novo Nordisk reported sales

<table>
<thead>
<tr>
<th>Full year 2023</th>
<th>Sales (mDKK)</th>
<th>Growth$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable GLP-1$^3$</td>
<td>8,658</td>
<td>45%</td>
</tr>
<tr>
<td>Rybelsus®</td>
<td>3,026</td>
<td>131%</td>
</tr>
<tr>
<td>Total GLP-1</td>
<td>11,684</td>
<td>61%</td>
</tr>
<tr>
<td>Total insulin$^4$</td>
<td>10,095</td>
<td>4%</td>
</tr>
<tr>
<td>Other Diabetes care$^5$</td>
<td>434</td>
<td>-9%</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>22,213</td>
<td>27%</td>
</tr>
<tr>
<td>Obesity care$^6$</td>
<td>2,476</td>
<td>20%</td>
</tr>
<tr>
<td>Diabetes &amp; Obesity care</td>
<td>24,689</td>
<td>27%</td>
</tr>
<tr>
<td>Rare disease$^7$</td>
<td>3,389</td>
<td>-31%</td>
</tr>
<tr>
<td>Total</td>
<td>28,078</td>
<td>15%</td>
</tr>
</tbody>
</table>

1 CAGR calculated for last 5-year period
2 At constant exchange rates; $^3$ Comprises Victoza®, Ozempic®;
$^4$ Comprises Tresiba®, Xultophy®,Levemir®,NovoMix®,Ryzodeg®,NovoRapid® and Fiasp®; $^5$ Comprises NovoNorm® and needles; $^6$ Comprises Saxenda®;
$^7$ Comprises primarily Esperic®, Refixa®,NovoSeven®,NovoEight® and Nordropin®
Diabetes market share and market growth in Rest of World

NN market share
Market growth (right axis)
NN growth (right axis)

Diabetes market size and growth

Nov 2020 | Nov 2023
---|---
NN market share | 20% | 23%
Market growth (right axis) | 4% | 5%
NN growth (right axis) | 22% | 23%

Source: IQVIA, Nov 2023, value, MAT

Note: Due to contractual obligations competitor names are not disclosed. Company A represents an actual company. Rest of world Market values are based on the list prices.

NN: Novo Nordisk
GLP-1 market share and market growth in Rest of World

NN market share and NN share of growth:
- Novo Nordisk market share: ~121%
- NN share of growth: ~84%
- Market growth (right axis): ~47%
- NN growth (right axis): 0%

GLP-1 market size and growth:
- Novo Nordisk: 3 billion
- Company A: 9 billion
- Others: 12 billion
- Market size: ~160%
- Market growth (right axis): ~29%
- NN market share: 73%
- NN share of growth: 9

Note: Due to contractual obligations, competitor names are not disclosed. Company A represents an actual company. Market values are based on the list prices.
Source: IQVIA, Nov 2023, Value, MAT.
Insulin market size and volume market share in Rest of World

Insulin market share and market size (DKK billion)

<table>
<thead>
<tr>
<th>Type</th>
<th>Novo Nordisk</th>
<th>Competitors</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting</td>
<td>42%</td>
<td>58%</td>
<td>59%</td>
</tr>
<tr>
<td>Fast-acting</td>
<td>63%</td>
<td>37%</td>
<td>5</td>
</tr>
<tr>
<td>Premix</td>
<td>83%</td>
<td>17%</td>
<td>2</td>
</tr>
<tr>
<td>Human</td>
<td>71%</td>
<td>29%</td>
<td>2</td>
</tr>
</tbody>
</table>

Market growth¹

<table>
<thead>
<tr>
<th>Type</th>
<th>Market growth¹</th>
<th>Δ Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long-acting</td>
<td>-2.1%</td>
<td>+0.7%</td>
</tr>
<tr>
<td>Fast-acting</td>
<td>-3.8%</td>
<td>+0.3%</td>
</tr>
<tr>
<td>Premix</td>
<td>-6.4%</td>
<td>+0.7%</td>
</tr>
<tr>
<td>Human</td>
<td>-6.9%</td>
<td>+4.8%</td>
</tr>
</tbody>
</table>

1Market growth is YTD current vs YTD previous year; NN: Novo Nordisk
Note: Share of growth not depicted due to too high numbers;
Market values are based on the list prices
Source: IQVIA, Nov 2023; LHS graph - Value, RHS Graph - Volume, MAT
Obesity market share and market growth in Rest of World

**Obesity market growth and Novo Nordisk market share**

**Obesity market size and growth**

- **NN market share**
- **NN Growth**
- **Market growth (Right Axis)**

**Note:** Market values are based on the list prices.

Source: IQVIA, Nov 2023, Value, MAT.
North America Operations

USA health care system
NAO at a glance
North America Operations growth has accelerated

North America Operations reported sales growth per therapy area

- GLP-1
- Insulin
- Other diabetes
- Obesity care
- Rare disease
- Growth at CER

CER: Constant exchange rate
US health insurance is dominated by a few large commercial payers

US population by health insurance status has been stable in recent years

<table>
<thead>
<tr>
<th>Year</th>
<th>Managed care</th>
<th>Uninsured</th>
<th>Medicare</th>
<th>Medicaid/CHIP</th>
<th>Public exchanges</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>326</td>
<td>3%</td>
<td>7%</td>
<td>23%</td>
<td>18%</td>
</tr>
<tr>
<td>2021</td>
<td>333</td>
<td>4%</td>
<td>9%</td>
<td>22%</td>
<td>17%</td>
</tr>
</tbody>
</table>

Source: Centres for Medicare and Medicaid services, office of the actuary, National Health expenditures Projections

1 2017 data reflect historical data through Oct 2017
2 Managed care population is slightly underestimated as only population under the age 65 is captured to avoid double counting with those eligible for Medicare. Source: Centres for Medicare and Medicaid services, office of the actuary, National Health expenditures Projections

Covered lives by PBM

<table>
<thead>
<tr>
<th>PBM</th>
<th>2017</th>
<th>2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVS Caremark</td>
<td>45%</td>
<td>46%</td>
</tr>
<tr>
<td>MedImpact</td>
<td>18%</td>
<td>17%</td>
</tr>
<tr>
<td>UnitedHealth</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Humana Prime</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>Express Scripts/Cigna</td>
<td>23%</td>
<td>22%</td>
</tr>
<tr>
<td>All other PBM</td>
<td>5%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Sources: The 2023 Economic Report on U.S. Pharmacies and PBMs (Published on www.DrugChannels.net)

Development of Novo Nordisk rebates and net sales in the US

<table>
<thead>
<tr>
<th>Year</th>
<th>Net sales</th>
<th>Rebates, % of gross sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>56%</td>
<td>64%</td>
</tr>
<tr>
<td>2017</td>
<td>59%</td>
<td>69%</td>
</tr>
<tr>
<td>2019</td>
<td>71%</td>
<td>74%</td>
</tr>
<tr>
<td>2021</td>
<td>74%</td>
<td>75%</td>
</tr>
<tr>
<td>2023</td>
<td>75%</td>
<td>75%</td>
</tr>
</tbody>
</table>

Source: Novo Nordisk Annual Report 2023
# North America Operations at a glance

## Diabetes trend in population

<table>
<thead>
<tr>
<th>Year</th>
<th>Population with diabetes</th>
<th>Diabetes growth rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>51</td>
<td>11%</td>
</tr>
<tr>
<td>2030</td>
<td>57</td>
<td>10%</td>
</tr>
<tr>
<td>2045</td>
<td>63</td>
<td></td>
</tr>
</tbody>
</table>

## Diabetes market by value and Novo Nordisk market share

<table>
<thead>
<tr>
<th>GLP-1 MS</th>
<th>Insulin MS</th>
<th>OAD MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>46.0% 1</td>
<td>0.5% 1</td>
<td>17.3% 1</td>
</tr>
</tbody>
</table>

## Novo Nordisk reported sales

<table>
<thead>
<tr>
<th></th>
<th>Full year 2023</th>
<th>Sales (mDKK)</th>
<th>Growth 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Injectable GLP-1 3</td>
<td>73,154</td>
<td></td>
<td>54%</td>
</tr>
<tr>
<td>Rybelsus®</td>
<td>11,361</td>
<td></td>
<td>43%</td>
</tr>
<tr>
<td>Total GLP-1</td>
<td>84,515</td>
<td></td>
<td>52%</td>
</tr>
<tr>
<td>Total insulin 4</td>
<td>10,792</td>
<td></td>
<td>-23%</td>
</tr>
<tr>
<td>Other Diabetes care 5</td>
<td>325</td>
<td></td>
<td>-30%</td>
</tr>
<tr>
<td>Diabetes care</td>
<td>95,632</td>
<td></td>
<td>36%</td>
</tr>
<tr>
<td>Obesity care 6</td>
<td>33,317</td>
<td></td>
<td>212%</td>
</tr>
<tr>
<td>Diabetes &amp; Obesity care</td>
<td>128,949</td>
<td></td>
<td>60%</td>
</tr>
<tr>
<td>Rare disease 7</td>
<td>7,680</td>
<td></td>
<td>-1%</td>
</tr>
<tr>
<td>Total</td>
<td>136,629</td>
<td></td>
<td>54%</td>
</tr>
</tbody>
</table>

1 CAGR calculated for 5-year period
2 At constant exchange rates; 3 Comprises Victoza®, Ozempic®; 4 Comprises Tresiba®, Xultophy®,Levemir®,NovoMix®,Fsap® and NovoRapid®; 5 Comprises Novonorm® and needles; 6 Comprises Saxenda® and Wegovy®; 7 Comprises primarily NovoSeven®, NovoEight®, Esperoct®, NovoThirteen®, Refixia®, Norditropin®, Vagifem® and Activelle®.


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At constant exchange rates; 3 Comprises Victoza®, Ozempic®; 4 Comprises Tresiba®, Xultophy®,Levemir®,NovoMix®,Fsap® and NovoRapid®; 5 Comprises Novonorm® and needles; 6 Comprises Saxenda® and Wegovy®; 7 Comprises primarily NovoSeven®, NovoEight®, Esperoct®, NovoThirteen®, Refixia®, Norditropin®, Vagifem® and Activelle®.
Diabetes market share and market growth in North America Operations

**Diabetes market growth and Novo Nordisk market share**

- **Nov 2020**
  - NN market share: 23%
  - Market growth: 30%
  - NN growth: 43%

- **Nov 2023**
  - NN market share: 35%
  - Market growth: 32%
  - NN growth: 43%

**Diabetes market size and growth**

- **Nov 2022**
  - Novo Nordisk: 705 billion DKK
  - Company A: 70 billion DKK
  - Others: 69 billion DKK

- **Nov 2023**
  - Novo Nordisk: 34% (869 billion DKK)
  - Company A: -23% (69 billion DKK)
  - Others: -30% (26 billion DKK)

**Note:** Due to contractual obligations, competitor names are not disclosed. Company A represents an actual company. Market values are based on the list prices.

**Source:** IQVIA, Nov 2023, value, MAT
GLP-1 market share and market growth in North America Operations

Note: Due to contractual obligations competitor names are not disclosed. Company A represents an actual company. Market values are based on the list prices.

Source: IQVIA, Nov 2023, value, MAT
Insulin market size and volume market share in North America Operations

- **Insulin market share and market size (DKK billion):**
  - Total: 42% (199 billion)
  - Long-acting: 37% (101 billion)
  - Fast-acting: 51% (76 billion)
  - Premix: 6
  - Human: 24%

- **Market growth¹:**
  - Total: -7.3%
  - Long-acting: -8.3%
  - Fast-acting: -5.2%
  - Premix: -18.0%
  - Human: -5.8%

- **Δ Market share:**
  - Total: -0.9%
  - Long-acting: -1.2%
  - Fast-acting: -0.8%
  - Premix: +0.8%
  - Human: -0.1%

1. Market growth is YTD current vs YTD previous year.

NN: Novo Nordisk; Note: Insulin market numbers do not reflect rebates. Share of growth not depicted due to too high numbers. Market values are based on the list prices.

Source: IQVIA, Nov 2023, L+G graph – Value, RHS Graph - Volume, MAT, all countries.
Obesity market share and market growth in North America Operations

**Obesity market growth and Novo Nordisk market share**

- **NN market share**
- **Market growth (right axis)**
- **NN growth (right axis)**

**Obesity market size and growth**

- **NN Obesity care**: Nov 2022 - 19.1 billion, Nov 2023 - 37.5 billion
- **Others**: Nov 2022 - 93%, Nov 2023 - 96%
- **Novo Nordisk (NN)**: Nov 2020 - 203%, Nov 2023 - 96%

**Note:**
- Share of growth not depicted due to too high numbers;
- Market values are based on the list prices;
- Source: IQVIA, Nov 2023, value, MAT, all countries.
Financials

Profit and loss, capital allocation 142
Currencies 147
Solid sales growth driven by Diabetes and Obesity care

Reported annual sales 2019-2023

DKK billion

<table>
<thead>
<tr>
<th>Year</th>
<th>Rare disease</th>
<th>Diabetes and Obesity care</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>84%</td>
<td>16%</td>
</tr>
<tr>
<td>2020</td>
<td>85%</td>
<td>15%</td>
</tr>
<tr>
<td>2021</td>
<td>86%</td>
<td>14%</td>
</tr>
<tr>
<td>2022</td>
<td>88%</td>
<td>12%</td>
</tr>
<tr>
<td>2023</td>
<td>93%</td>
<td>7%</td>
</tr>
</tbody>
</table>

+17% growth

Expected development towards 2025

- **Gross margin**: Remain broadly stable
- **S&D cost ratio**: Gradually decline enabled by attractive sales growth
- **R&D cost ratio**: Gradually increase to expand and diversify pipeline
- **Administration cost ratio**: Decline driven by efficiency gains
- **Operating margin**: Remain broadly stable

Note: The outlined expected developments are aspirations and not long-term financial targets.
Solid operating profit growth driven by Diabetes care

Operating profit

- DKK billion
- Percent of sales

- 2019: $11\%$ (6\%), $3\%$ (7\%), $8\%$ (13\%), $28\%$ (15\%), $37\%$ (44\%)
- 2020
- 2021
- 2022
- 2023

Operating profit split by franchise

- 2019: $19\%$ (81\%), $3\%$ (97\%)
- 2023

CER: Constant exchange rates
Resource allocation in Novo Nordisk is guided by investing in future growth while delivering attractive shareholder returns

Corporate strategy guides resource allocation

**Diabetes**
- Strengthen leadership by offering innovative medicines and driving patient outcomes

**Obesity**
- Strengthen leadership through market development and by offering innovative medicines and driving patient outcomes

**Rare Disease**
- Secure a leading position by leveraging full portfolio and expanding into adjacent areas

**Cardiovascular & Emerging Therapy Areas**
- Establish position in cardiovascular disease and build a presence in emerging therapy areas

Focus on driving sustained **sales growth**

- **Commercial investments** in growth markets and products
- **R&D investments** in future growth assets

**Expected primary sales growth drivers towards 2030**

- **GLP-1**
- **Diabetes**
- **Obesity**
- **Rare disease**
- **CETA**

**Waves of growth**

---

R&D: Research and Development; CETA: Cardiovascular & Emerging Therapy Areas
Net profit has been converted to cash and returned to shareholders

Cash conversion and allocation (2023)

<table>
<thead>
<tr>
<th>DKK billion</th>
<th>Net profit</th>
<th>Free cash flow</th>
<th>Cash return</th>
</tr>
</thead>
<tbody>
<tr>
<td>(100%)</td>
<td>84</td>
<td>BD</td>
<td>(74%)</td>
</tr>
</tbody>
</table>

- **Dividend**: 62 billion
- **Share buyback**: 32 billion

**Strategic capital allocation priorities**

**Business development investments to enhance R&D pipeline**
**CAPEX investments to meet demand including R&D pipeline**

**Deliver competitive capital allocation to shareholders**
- Continued share buybacks and dividends

**Financial flexibility within current credit ratings**
- Net debt to EBITDA ratio around zero

**Mainly debt finance major business development projects**
- 2021 bond issuance at an all-inclusive interest rate of ~0%
- 2022 bond issuance at an all-inclusive interest rate of ~1%

R&D: Research and Development; CAPEX: Capital expenditure; EBITDA: Earnings before interest, taxes, depreciation and amortisation; BD: Business development (investments in intangible assets)
Rare disease segment has lower profitability driven by higher investments in R&D

Diabetes and Obesity care P&L – full year 2023

Rare disease P&L – full year 2023

P&L: Profit and Loss; COGS: Cost of goods sold; OOI: Other operating income; OP: Operating profit; S&D: Sales and distribution costs; R&D: Research and development costs; Admin: Administrative costs
Currency impact on Novo Nordisk’s P/L

Operational currency impact

- All movements in currencies will directly impact the individual reported functional lines of the Novo Nordisk’s P&L statement
- The currency effect on e.g. operating profit growth is the difference between the reported growth and the operating profit growth at CER
- Key currencies account for around 80% of the total currency exposure
- No hedging effects are included in the operating profit
- Sensitivity table gives an indication of gain/loss of a 5% immediate change in exchange rates compared to exchange rates on announcement day

Financial currency impact

- All gain/losses from hedging contracts are included in the financial income/expenses
- Hedged cover for key currencies:
  - USD 12 months
  - JPY 12 months
  - CAD 9 months
  - GBP 0 months
  - CNY 12 months
- Hedging is primarily performed with the use of forward contracts
- Net financials includes hedging gain/loss including the cost of hedging and the effect from currency gain/losses of balances in non-hedged currencies
- Hedging costs are the interest rate differentials between DKK and hedged currencies

<table>
<thead>
<tr>
<th></th>
<th>2023</th>
<th>2022</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Income statement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net sales</td>
<td>232,261</td>
<td>176,954</td>
</tr>
<tr>
<td>Cost of goods sold</td>
<td>35,765</td>
<td>28,448</td>
</tr>
<tr>
<td>Gross profit</td>
<td>196,496</td>
<td>148,506</td>
</tr>
<tr>
<td><strong>Sales and distribution costs</strong></td>
<td>56,743</td>
<td>46,217</td>
</tr>
<tr>
<td>Research and development costs</td>
<td>32,443</td>
<td>24,047</td>
</tr>
<tr>
<td>Administrative costs</td>
<td>4,855</td>
<td>4,467</td>
</tr>
<tr>
<td>Either operating income and expenses</td>
<td>119</td>
<td>1,034</td>
</tr>
<tr>
<td>Operating profit</td>
<td>102,574</td>
<td>74,809</td>
</tr>
<tr>
<td><strong>Financial income</strong></td>
<td>2,945</td>
<td>2,394</td>
</tr>
<tr>
<td>Financial expenses</td>
<td>645</td>
<td>5,986</td>
</tr>
<tr>
<td><strong>Profit before income taxes</strong></td>
<td>104,674</td>
<td>69,062</td>
</tr>
<tr>
<td>Income taxes</td>
<td>(20,991)</td>
<td>(13,537)</td>
</tr>
<tr>
<td><strong>Net profit</strong></td>
<td>83,683</td>
<td>55,525</td>
</tr>
<tr>
<td><strong>Earnings per share</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic earnings per share (DKK)</td>
<td>18,67</td>
<td>12,26</td>
</tr>
<tr>
<td>Diluted earnings per share (DKK)</td>
<td>18,62</td>
<td>12,22</td>
</tr>
</tbody>
</table>

Note: Example is based on Annual Report 2023
Operating profit expected to be negatively impacted by currencies in 2024, partly countered by net financials

FY 2023
- Negative FX impact on operating profit of -5.0 bDKK
- Positive FX impact on net financials of +1.7 bDKK
- Foreign exchange net gain of -3.3 bDKK

FY 2024 outlook
- Currency impact on Operating profit is expected to be -2%-points
- Net financial items is expected to be a gain of around DKK 1.3 billion mainly driven by gains on USD hedging contracts and interest income (cash and marketable securities).

1 Year-to-date realised data and remainder expected flat currency development based on the spot rate as of 9 Jan 2024.

USD: United States dollar; DKK: Danish Kroner; CNY: Chinese yuan renminbi; JPY: Japanese yen; CAD: Canadian Dollar; GBP: British pound sterling; RUB: Russian Ruble; INR: Indian rupee; ARS: Argentine Peso; BRL: Brazilian Real; TRY: Turkish New Lira
Purpose & Sustainability

Sustainable business 150
Environmental responsibility 153
Social responsibility 155
Governance 160
Long-term value to society is driven by a strong sense of purpose and by being a responsible business

Foundation ownership enables long-term focus on shared value creation

**Novo Nordisk Foundation**

**Novo Holdings**

<table>
<thead>
<tr>
<th>Votes</th>
<th>Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>77.1%</td>
<td>28.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Votes</th>
<th>Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>22.9%</td>
<td>72.0%</td>
</tr>
</tbody>
</table>

1,075 million A shares (nominal value DKK 107 million)
3,435 million B shares (nominal value DKK 344 million)

ESG\(^1\) responsibility has been anchored in Articles of Associations since 2004

Socially responsible

Driving change to defeat serious chronic diseases

Environmentally responsible

Sustainable business

Financially responsible

The Novo Nordisk Way guides our behaviour

---

\(^1\) Known as the Triple Bottom Line at time of implementation

ESG: Environmental, Social and Governance

Note: Ownership as of 31 December 2023
2023 statement of ESG performance

Environmental performance

- Energy consumption for operations (1,000 GJ)
  - 2023: 3,784
  - 2022: 3,677
  - 2021: 3,387

- Share of renewable power for production sites
  - 2023: 100%
  - 2022: 100%
  - 2021: 100%

- Scope 1 emissions (1,000 tonnes CO\(_2\)e)
  - 2023: 76
  - 2022: 77
  - 2021: 77

- Scope 2 emissions (1,000 tonnes CO\(_2\)e)
  - 2023: 16
  - 2022: 16
  - 2021: 16

- Water consumption for production sites (1,000 m\(^3\))
  - 2023: 4,150
  - 2022: 3,918
  - 2021: 3,488

Social performance

- Patients
  - Patients reached with Novo Nordisk's Diabetes and Obesity care products (estimate in millions)
    - 2023: 41.6
    - 2022: 36.3
    - 2021: 34.6
  - Hereof reached via the Novo Nordisk Access to Insulin Commitment (estimate in millions)
    - 2023: 2.4
    - 2022: 1.8
    - 2021: 1.7

- People & employees
  - Year-end employees (total)
    - 2023: 52,249
    - 2022: 41,033
    - 2021: 31,846

Governance Performance

- Business ethics reviews
  - 2023: 40
  - 2022: 35
  - 2021: 37

- Employee turnover
  - 2023: 5.5%
  - 2022: 8.2%
  - 2021: 11.0%

- Gender in senior leadership positions (ratio men:women)
  - 2023: 64.3%
  - 2022: 55.4%
  - 2021: 46.4%

- Frequency of occupational accidents (number per million working hours)
  - 2023: 1.5
  - 2022: 1.5
  - 2021: 1.3

- Total tax contribution (DKK million)
  - 2023: 51,247
  - 2022: 36,003
  - 2021: 32,593

1. 2023 is the first year of reporting all emission categories in CO\(_2\)e. Comparison figures for scope 1, 2 and part of scope 3 emissions are measured in CO\(_2\).
2. 2022 was the first year of full scope 3 emissions’ disclosure, which in 2021 and previously was limited to business flights and product distribution.
3. 2023 is the first year of reporting Obesity as part of number of patients reached. Comparison figures are adjusted accordingly.
With Circular for Zero, Novo Nordisk aspires to have zero environmental impact

**Environmental aspirations**

**Circular products**
Upgrade existing and design new products based on circular principles and solve the end-of-life product waste challenge to close the resource loop

**Circular company**
Eliminate environmental footprint from operations and drive a circular transition across the company aspiring for zero environmental impact

**Circular supply**
Proactive collaboration with suppliers to embed circular thinking for reduced environmental impact across the value chain and switch towards circular sourcing and procurement

**Current environmental impact**

<table>
<thead>
<tr>
<th>CO₂ emissions</th>
<th>Waste</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>3,831 thousand tonnes in scope 1, 2 and 3</td>
<td>800+ million prefilled plastic pens produced every year</td>
<td>Everything Novo Nordisk purchases</td>
</tr>
</tbody>
</table>
Novo Nordisk pledges to reach net-zero emissions across the entire value chain by 2045

Emissions from scope 1, 2 and 3

<table>
<thead>
<tr>
<th>Scope 1</th>
<th>Scope 2</th>
<th>Partial Scope 3</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1</td>
<td>86</td>
<td>75</td>
<td>161</td>
</tr>
<tr>
<td>Scope 2</td>
<td>76</td>
<td>129</td>
<td>205</td>
</tr>
<tr>
<td>Partial Scope 3</td>
<td>78</td>
<td>15</td>
<td>93</td>
</tr>
<tr>
<td>Total</td>
<td>221</td>
<td>203</td>
<td>424</td>
</tr>
</tbody>
</table>

Targets:
- **2030**: Zero emissions from operations and transportation
- **2045**: Net zero emissions across full value chain

Key initiatives to reduce CO₂ emissions across all three scopes

**Scope 1 - Direct emissions from own sources (9% reduction vs 2019)**
- **Company cars**: 100% electric or plug-in hybrid electric cars by 2030
- **Energy**: Ongoing transition to renewable energy in production facilities resulted in reduced emissions

**Scope 2 - Indirect emissions from purchased energy (80% reduction vs 2019)**
- **Production**: Sourcing 100% of renewable power at production sites since 2020

**Scope 3 - Other indirect emissions across value chain (26% reduction vs 2019)**
- **Suppliers**: >400 key suppliers have committed to source renewable power
- **Product distribution**: Alliances with various providers for Sustainable Aviation Fuel that will reduce emissions from air transport significantly.

1. Scope 3 are limited to emissions from business flights and product distribution. 2019 and 2022 figures have been restated by adding three thousand tonnes of CO₂, related to business flights, for both years.

Note: To further align with the Greenhouse Gas Protocol, in 2023 scope 1, 2 and partial scope 3 emissions are measured in CO₂e.
Reaching more patients will increase the plastic footprint, a challenge Novo Nordisk has started to address

Growing volumes impact Novo Nordisk’s plastic footprint

ILLUSTRATIVE

<table>
<thead>
<tr>
<th>Plastic volume</th>
<th>2023</th>
<th>2030</th>
</tr>
</thead>
<tbody>
<tr>
<td>14,000 tonnes of plastic in production of devices</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38,000 tonnes base case scenario for delivery systems</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Change to sustainable plastic
- Engage with suppliers to pursue shift to **sustainable plastic**
- Drive innovation via **partnerships** to e.g. repurpose medical waste

Reduce plastic consumption
- Drive **portfolio decisions** towards lower plastic consumption
- Drive switch towards **durable devices** in relevant markets

Avoid plastic waste on landfill
- **Take-back**¹ pilot in Denmark with partners leading to >23% device return
- **Take-back** expansion to UK, Brazil and France with ambition to establish industry solution for scaling

¹ More information on the pilot called “Returpen™” can be found here: Returpen.dk
Social responsibility is core to Novo Nordisk and initiatives focus on prevention, access and innovation

...accelerating prevention to bend the curve...

...providing access to affordable care for vulnerable patients in every country...

...innovating to improve lives...

... and thereby help society rise to one of its biggest challenges
In 2023, more than 6.7 million people with diabetes were reached with access and affordability initiatives

6.7 out of 40.5 million people were reached with access and affordability initiatives

<table>
<thead>
<tr>
<th>Million patients</th>
<th>40.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.7</td>
<td>34.9</td>
</tr>
</tbody>
</table>

A number of focused programmes (as of full year 2023)

- **Access to Insulin Commitment**
  - 3 USD ceiling price for human insulin vial offered to 77 low- and middle-income countries, reaching 2.4 million patients in 2023
  - 2.6 million patients reached at or below the ceiling price in countries outside the commitment

- **Changing Diabetes® in Children**
  - 52,249 children reached at the end of 2023, across 29 countries
  - More than half of the newly enrolled children reached through expansion in Asian countries mainly India, Pakistan, Indonesia and Vietnam

- **Vulnerability assessments**
  - Ensure access and affordable insulin and strengthen comprehensive diabetes care for vulnerable population groups
  - There are currently 22 active Affordability Plans in 20 countries across APAC, LATAM and SEEMEA regions based on completed vulnerability assessments

- **US affordability offerings**
  - In 2023, DKK 358 billion were provided in discounts and rebates in the US, amounting to 74% of US gross sales

---

1. The access and affordability programmes are not mutually exclusive, implying that the sum of the reach of each programme cannot be interpreted as the total unique number of people with diabetes reached. More info on Novo Nordisk access and affordability programmes can be found at [Access & affordability (novonordisk.com)]
2. Changing Diabetes® in Children is a public-private partnership between the International Society for Paediatric and Adolescent Diabetes, the World Diabetes Foundation, Roche, and Novo Nordisk.
In the US, net prices have declined in the last five years

The US population by health insurance coverage

- 333 million people
- 47% Government insurance schemes
- 46% Private insurance schemes
- 7% Uninsured

Insulin net prices\(^1\) have declined

Net prices\(^1\) across the full Novo Nordisk portfolio\(^2\) declined

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\(^1\)Percentage 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, indexed to base year 2019, and is not reflective of the magnitude of individual list price actions.

\(^2\)NN US Product Portfolio is inclusive of Diabetes, Obesity and Rare disease products.

Government insurance schemes cover Medicare, Medicaid and public exchanges, some of these with high deductibles.

Source: Novo Nordisk Annual Report 2023
## Barriers to access go beyond price

<table>
<thead>
<tr>
<th>Diabetes Compass launched with World Diabetes Foundation in 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Many healthcare systems in LMICs are overburdened</td>
</tr>
<tr>
<td>• Aims to reduce vulnerabilities through <strong>innovative digital solutions</strong> to support health workers and people with diabetes</td>
</tr>
<tr>
<td>• Pilots in <strong>Sri Lanka</strong>, <strong>Tanzania</strong>, and <strong>Milawi</strong> have been launched to evaluate results and understand the impact of digital solutions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Thermal solution for human insulin can address one key access to care barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Strict <strong>insulin storage recommendations</strong> are hard to meet in humanitarian settings and where access to refrigeration is low</td>
</tr>
<tr>
<td>• The <strong>positive scientific opinion</strong> received from EMA in April 2022 supports obtaining the national approvals for additional option for storage outside of refrigeration prior to first use</td>
</tr>
<tr>
<td>• <strong>National country approvals</strong> in 29 countries</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>iCARE initiative towards strengthening health infrastructure in Middle Africa</th>
</tr>
</thead>
<tbody>
<tr>
<td>• A business-integrated model improving access to treatment and care</td>
</tr>
<tr>
<td>• <strong>Capacity:</strong> over 3,500 HCPs trained¹</td>
</tr>
<tr>
<td>• <strong>Affordability:</strong> 37,400 underserved patients reached with insulin¹</td>
</tr>
<tr>
<td>• <strong>Reach:</strong> Expanded partnerships with distributors to reduce mark-ups</td>
</tr>
<tr>
<td>• <strong>Empowerment:</strong> over 8,000 patients enrolled in patient empowerment programmes¹</td>
</tr>
</tbody>
</table>

¹Values are FY2023

Note: The Diabetes Compass was launched by the World Diabetes Foundation with more information on [Diabetes Compass | World diabetes foundation](https://www.diabetescompass.org). Diabetes Compass is funded by a 100 million DKK joint donation from Novo Nordisk A/S and the Novo Nordisk Foundation. HCP: Health care professional; LMIC: Low- and middle-incomes countries.
The journey towards being a sustainable employer starts with being inclusive and diverse

2025 aspiration supporting Diversity and Inclusion

Diversity & Inclusion aspirational targets:
• 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

Diversity & Inclusion aspirations in action:
• D&I is continuously embedded in HR processes and policies across the employee life cycle
• All areas have local D&I action plans to address local challenges and opportunities
• All leaders must embrace their role as inclusive leaders

Diversity & Inclusion progress:
• Inclusion Index in 2023 stands at 82%, the same as in 2022
• End of December 2023 41% of leaders in senior leadership positions were women, compared to 39% end of December 2022

1 Senior leadership defined as executive vice presidents, senior vice presidents, corporate vice presidents, and vice presidents; D&I: Diversity and inclusion
Note: Full social statements to be found in Novo Nordisk Annual Report 2023. No formulated 2025 aspiration exist for “all leaders”, but Novo Nordisk aspires for balanced gender representation at all managerial levels
## Structure in place to ensure corporate governance

<table>
<thead>
<tr>
<th>Rules and Regulations</th>
<th>Governance structure</th>
<th>Assurance measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Danish and foreign laws and</td>
<td>Shareholders</td>
<td>Audit financial data and review social and</td>
</tr>
<tr>
<td>regulations</td>
<td>A and B share structure</td>
<td>environmental data (internal and external)</td>
</tr>
<tr>
<td>Corporate governance standards¹</td>
<td>Board of Directors²</td>
<td>Facilitation (internal)</td>
</tr>
<tr>
<td>Articles of Association</td>
<td>Chairmanship</td>
<td>Quality audit and inspections (internal and</td>
</tr>
<tr>
<td>Novo Nordisk Way</td>
<td>Audit Committee</td>
<td>external)</td>
</tr>
<tr>
<td></td>
<td>Nomination Committee</td>
<td></td>
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<td></td>
<td>Remuneration Committee</td>
<td></td>
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<tr>
<td></td>
<td>R&amp;D Committee</td>
<td></td>
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<tr>
<td></td>
<td>Executive Management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Organisation</td>
<td></td>
</tr>
</tbody>
</table>

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¹ The corporate governance standards designated by Nasdaq Copenhagen and New York Stock Exchange.  
² In 2022, the Board of Directors met ten times.
Novo Nordisk has a sustainable tax approach

Sustainable tax approach approved by the BoD

1 | Commercially driven
- Business structures driven by commercial considerations
- Pay taxes where value is generated
- Effective tax rate of ~20% for 2023

2 | Responsible
- No artificial structures or tax havens
- Transfer pricing principles compliant with OECD guidelines
- Advanced pricing agreements covering ~70% of revenue

3 | Transparent
- Open about tax practices and maintain cooperative relationships with tax authorities
- Tax approach published on novonordisk.com
- Total tax contribution in 2023 around DKK 39 billion

Corporate income taxes by region – three year average in DKK billion

<table>
<thead>
<tr>
<th>Region</th>
<th>IP rights¹</th>
<th>Production²</th>
<th>Sales³</th>
<th>Corporate income taxes</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Operations</td>
<td></td>
<td></td>
<td></td>
<td>14.2</td>
</tr>
<tr>
<td>- Denmark</td>
<td></td>
<td></td>
<td></td>
<td>12.2</td>
</tr>
<tr>
<td>- EMEA (excl. Denmark)</td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>- Region China</td>
<td></td>
<td></td>
<td></td>
<td>0.6</td>
</tr>
<tr>
<td>- Rest of World</td>
<td></td>
<td></td>
<td></td>
<td>0.4</td>
</tr>
<tr>
<td>North America Operations</td>
<td></td>
<td></td>
<td></td>
<td>1.1</td>
</tr>
<tr>
<td>- The US</td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>15.3</td>
</tr>
</tbody>
</table>

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.

OECD: The Organisation for Economic Co-operation and Development

Note: All figures and graphs are average 2021-2023
ESG is integrated in reporting and remuneration as well as recognised externally

ESG is included in integrated reporting and short- and long-term remuneration

We strive to adhere to sustainability frameworks for our ESG reporting

ESG rankings by third-party agencies recognise Novo Nordisk’s efforts

Rating agency

AAA

Top 15% in industry group ‘pharmaceuticals’

Ranked #53 among CK Global 100

A (Climate)

A- (Water)

Ranked 11th out of 20 companies

CDP: Carbon Disclosure Project; MSCI: Morgan Stanley Capital International; TCFD: Taskforce on Climate-related Financial Disclosures; SASB: Sustainability Accounting Standards Board
Investor contact information

Share information

Novo Nordisk’s B shares are listed on the stock exchange in Copenhagen under the symbol ‘NOVO B’. Its ADRs are listed on the New York Stock Exchange under the symbol ‘NVO’.

For further company information, visit Novo Nordisk on: www.novonordisk.com

Access the full investor presentation here:

Investor Relations contacts

Novo Nordisk A/S
Investor Relations
Novo Allé 1
DK-2880 Bagsværd

Daniel Muusmann Bohsen  +45 3075 2175  dabo@novonordisk.com
David Heiberg Landsted  +45 3077 6915  dhel@novonordisk.com
Sina Meyer  +45 30796656  azey@novonordisk.com
Frederik Taylor Pitter  +45 30758259  fptr@novonordisk.com
Mark Joseph Root (USA)  +1 848 213 3219  mjhr@novonordisk.com