



# Novo Nordisk -a focused healthcare company

Investor presentation Full year 2022

# **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 2022 and Form 20-F, which both were filed with the SEC in February 2023 in continuation of the publication of this Annual Report 2022, 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 breeches, Novo Nordisk's ability to successfully market current and new products, exposure to product liability and legal proceedings and investigations, changes in governmental laws and related interpretation thereof, including on reimbursement, intellectual property protection and regulatory controls on testing, approval, manufacturing and marketing, perceived or actual failure to adhere to ethical marketing practices, investments in and divestitures of domestic and foreign companies, unexpected growth in costs and expenses, strikes and other labour market dispute, failure to recruit and retain the right employees, failure to maintain a culture of compliance, and epidemics, pandemics or other public health crises, and the effects of domestic or international crises, civil unrest, war or other conflict.

For an overview of some, but not all, of the risks that could adversely affect Novo Nordisk's results or the accuracy of forward-looking statements in this Annual Report 2022, reference is made to the overview of risk factors in 'Risk management' of this Annual Report 2022.

Unless required by law, Novo Nordisk is under no duty and undertakes no obligation to update or revise any forward-looking statement after the distribution of this Annual Report 2022, whether as a result of new information, future events, or otherwise.

#### **Important drug information**

Victoza<sup>®</sup> and Ozempic<sup>®</sup> are approved for the management of type 2 diabetes only Saxenda<sup>®</sup> and Wegovy<sup>®</sup> are approved for the treatment of obesity only

## Strategic Aspirations 2025 | Highlights full year 2022

Light blue indicates developments in Q4 2022



Purpose and sustainability (ESG)

#### Progress towards zero environmental impact

• Carbon emissions decreased by 29% vs 2019<sup>1</sup>

#### **Adding value to society**

- Medical treatment provided to 36.3 million people living with diabetes
- Reaching more than 41,000 children in Changing Diabetes<sup>®</sup> in Children programme

#### Being recognised as a sustainable employer

 Share of women in VP+ positions increased to 39% from 36% in 2021



Innovation and therapeutic focus

#### Further raise innovation bar for Diabetes treatment

- Completion of phase 3a trials with QW insulin icodec
- Completion of phase 2 trial with CagriSema in T2D
   Develop superior treatment solutions for obesity
- Phase 3 initiated with CagriSema in people with obesity

#### Strengthen and progress Rare disease pipeline

- Concizumab phase 3 trial completed<sup>2</sup>
- Phase 3a trial initiated with Mim8 in Haemophilia A **Establish presence in Other serious chronic diseases**
- Two phase 1 trials initiated in NASH utilising siRNA



Diabetes value market share increased by 1.8%-points to 31.9%<sup>3</sup>

**Obesity care sales of DKK 16.9 billion** (+84% at CER)

Rare disease sales of DKK 20.5 billion (+1% at CER)



### Sales growth of 16% (CER) and Operating profit growth of 15% (CER)

- Sales in International Operations grew by 13% (CER)
- Sales in the US grew by 19% (CER) with 73% of sales coming from products launched since 2015

**Gross margin positively impacted** by continued productivity gains in Product Supply

**Free cash flow** of DKK 57.4 billion and DKK 49.4 billion returned to shareholders in 2022

-inancials

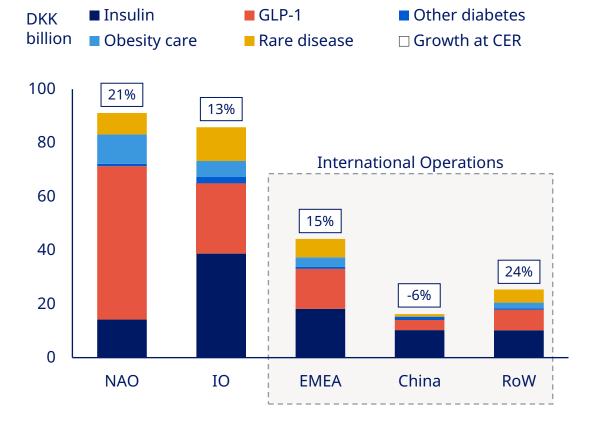
Commercial execution

¹Partial scope 3 limited to CO2 emissions from business flights and product distribution; ²in people with Haemophilia A and B with and without inhibitors; ³MAT (Moving annual total) value market share EMA: European Medicines Agency; VP: Vice president; QD: Once-daily; QW: Once-weekly; CER: Constant exchange rates; T2D: Type 2 diabetes; HA: Haemophilia A; HB: Haemophilia B; SCD: Sickle Cell Disease Note: The strategic aspirations are not a projection of Novo Nordisk's financial outlook or expected growth

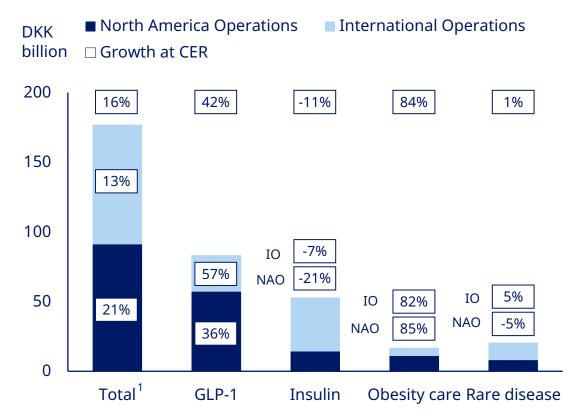
Full year 2022

# Sales growth of 16% driven by both operating units

#### Reported geographic sales split for the full year 2022



#### Reported therapy area sales and growth for the full year 2022



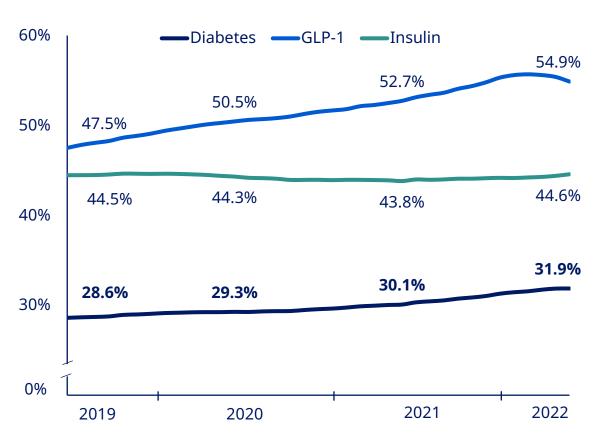
<sup>1 &#</sup>x27;Other diabetes' is included in Total

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Investor presentation

### Diabetes value market leadership increased by 1.8%-points to 31.9%

#### Novo Nordisk global diabetes value market shares



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

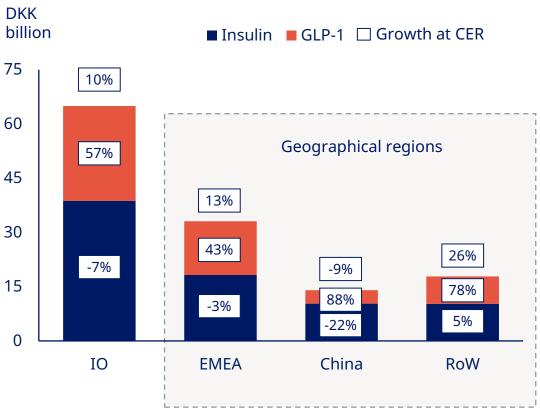
**Diabetes care sales grew by 14%** with global value market share increase driven by GLP-1 market share gains in both IO and NAO

GLP-1 value market share has increased by 2.2%-points in the last 12 months, driven by:

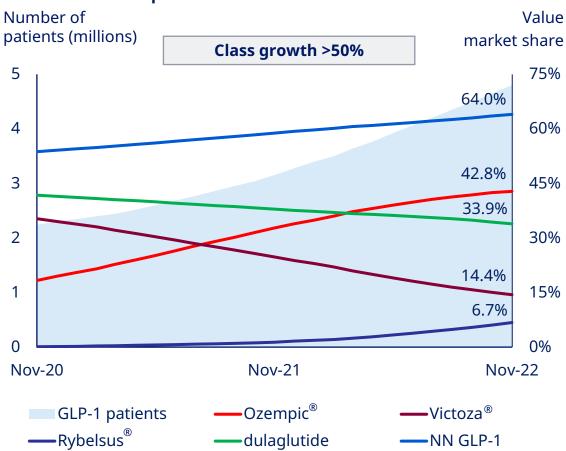
- Ozempic® launches and uptake in 75 countries
- Rybelsus® uptake in North America Operations and launches in International Operations
- Global GLP-1 volume growth of ~50%
- GLP-1 is only ~5% of total diabetes prescriptions

# International Operations diabetes care sales growth is driven by GLP-1 performance

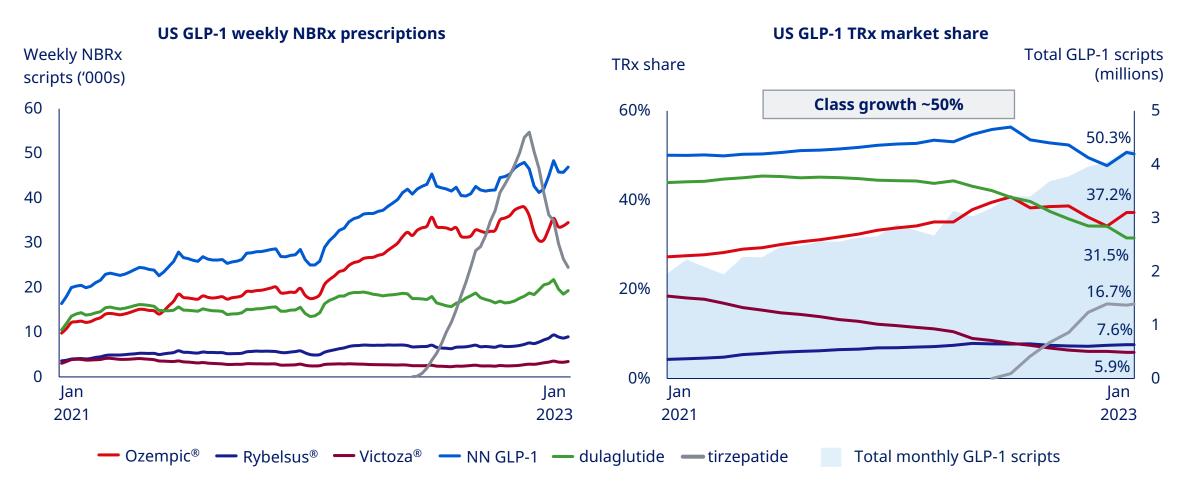
# Reported Diabetes care sales and growth per IO geography



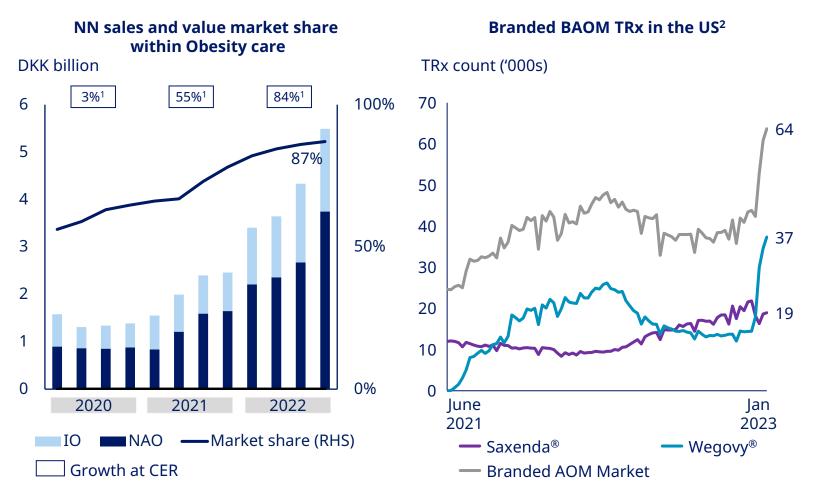
#### **GLP-1** patients and value market share in IO



# GLP-1 class expansion continues in the US with volume growth across our portfolio in the fourth quarter of 2022



# Obesity care sales grew by 84% in 2022 driven by both the US and IO





#### The US

- Broad commercial formulary access of more than 80%
- All Wegovy® dose strengths made available in the US in December 2022

#### **International Operations**

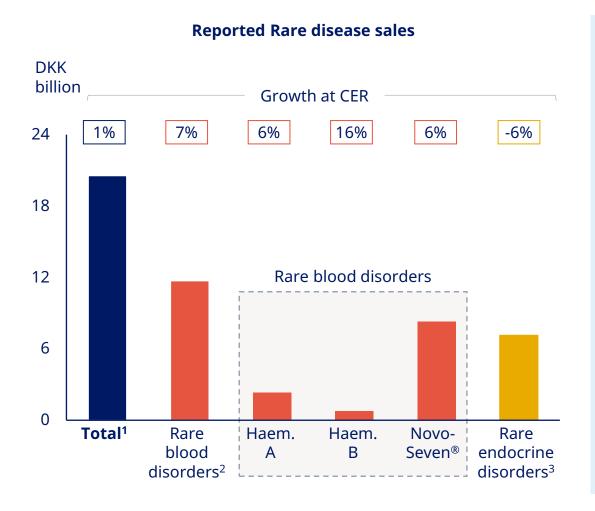
- Wegovy® launched in Denmark and Norway
- Additional commercial launches expected during 2023

<sup>&</sup>lt;sup>1</sup>Annual growth at CER. Each TRx data points represents one week of data

<sup>&</sup>lt;sup>2</sup> IQVIA weekly,13 |an 2023

Investor presentation Full year 2022

# Rare disease sales increased by 1% driven by International Operations



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

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#### Rare disease sales increase is driven by:

- 5% sales decline in North America Operations
- 5% sales growth in International Operations

#### Rare blood disorders sales increased by 7%, driven by:

- NovoSeven® performance
- Uptake of launch products Esperoct® and Refixia®

#### Rare endocrine disorders sales decreased by 6% driven by:

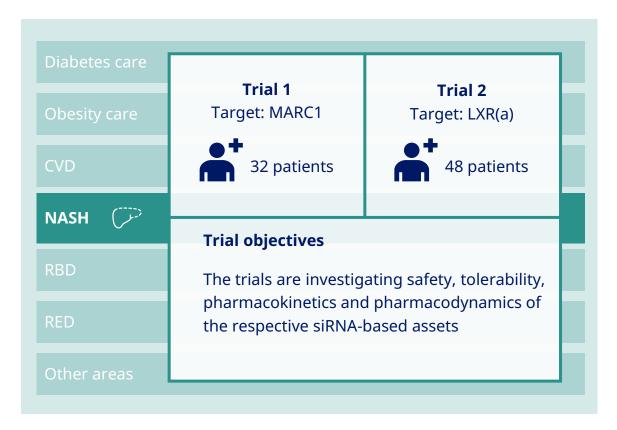
- North America Operations sales declined by 18% driven by supply constraints for Norditropin<sup>®</sup> and lower realised prices in the US
- Novo Nordisk is the leading company in the global human growth disorder market with a value market share of ~35%

<sup>&</sup>lt;sup>1</sup>Total includes "Other Rare disease", which consists of primarily Vagifem® and Activelle®; <sup>2</sup> Comprises NovoSeven®, NovoEight®, Esperoct®, Refixia® and NovoThirteen®; <sup>3</sup> Primarily Norditropin®; Note: NovoThirteen® is not shown for Rare blood disorders breakdown, only for the total bar.

Haem. A: Haemophilia A; Haem. B: Haemophilia B; Unless otherwise specified, sales growth is at constant exchange rates

# First two human dose initiations with Dicerna in line with ambition presented at Capital Markets Day 2022

#### First two phase 1 trials in NASH with siRNA technology initiated



#### **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

### **R&D** milestones

Clinical milestones<sup>1</sup> Regulatory milestones<sup>1</sup> H<sub>2</sub> 2023 **Project** H1 2023 **Diabetes care Insulin Icodec EU/US/CN** submission Oral semaglutide (25/50mg) Phase 3 results Phase 2 results FDC semaglutide/GIP OW Phase 3a initiation Cagrisema T2D **Oral GLP-1/GIP** Phase 1 results **Obesity care** Phase 4 results **STEP HFpEF** Semaglutide sc. (7.2 mg) ✓ Phase 3b initation Oral semaglutide (50 mg) Phase 3 results **PYY 1875** Phase 1/2 results Phase 3b results SELECT CVOT **Oral Amycretin** Phase 1 results Rare disease Sogroya® (Somapacitan) EU/US/JP decision (GHD) ✓ EU submission (HAwI/HBwI) Concizumab US/JP decision(HAwI/HBwI) Other serious chronic diseases Ziltivekimab (HFpEF) Phase 3b initiation

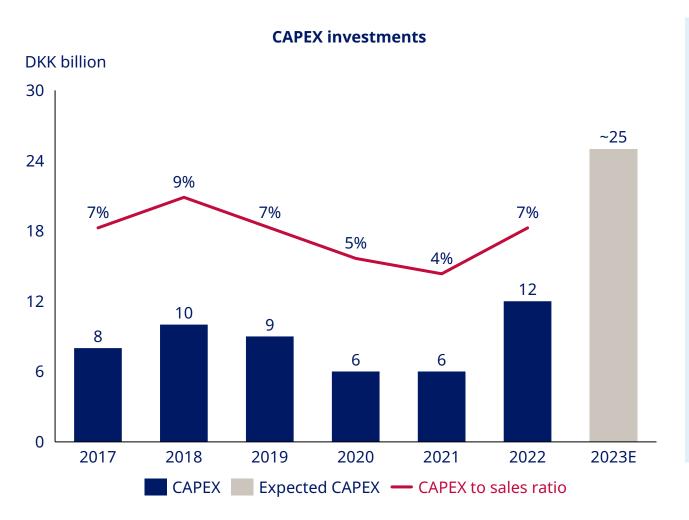
<sup>&</sup>lt;sup>1</sup> Expected to be published in the given quarter or in the subsequent quarterly company announcement HA/BwI: Haemophilia A/B with inhibitors; FDC: Fixed dose combination, OW: once weekly; T2D: Type 2 Diabetes Mellitus; US: United States; EU: European Union; JP: Japan, CVOT: Cardiovascular Outcomes Trial; GHD: Growth Hormone Deficiency; HFpEF: Heart failure with preserved ejection fraction; GLP-1: Glucagon Like Peptide 1; GIP: Gastric inhibitory polypeptide

Novo Nordisk® Full year 2022

# Financial results – Full year of 2022

| T. D. (1)                           | Full year 2022 | Full year 2021 | Change<br>(reported) | Change |
|-------------------------------------|----------------|----------------|----------------------|--------|
| In DKK million                      |                |                | (reported)           | (CER)  |
| Sales                               | 176,954        | 140,800        | 26%                  | 16%    |
| Gross profit                        | 148,506        | 117,142        | 27%                  | 17%    |
| Gross margin                        | 83.9%          | 83.2%          |                      |        |
| Sales and distribution costs        | (46,217)       | (37,008)       | 25%                  | 16%    |
| Percentage of sales                 | 26.1%          | 26.3%          |                      |        |
| Research and development costs      | (24,047)       | (17,772)       | 35%                  | 29%    |
| Percentage of sales                 | 13.6%          | 12.6%          |                      |        |
| Administration costs                | (4,467)        | (4,050)        | 10%                  | 6%     |
| Percentage of sales                 | 2.5%           | 2.9%           |                      |        |
| Other operating income and expenses | 1,034          | 332            | 211%                 | 178%   |
| Operating profit                    | 74,809         | 58,644         | 28%                  | 15%    |
| Operating margin                    | 42.3%          | 41.7%          |                      |        |
| Financial items (net)               | (5,747)        | 436            |                      |        |
| Profit before income tax            | 69,062         | 59,080         | 17%                  |        |
| Income taxes                        | (13,537)       | (11,323)       | 20%                  |        |
| Effective tax rate                  | 19.6%          | 19.2%          |                      |        |
| Net profit                          | 55,525         | 47,757         | 16%                  |        |
| Diluted earnings per share (DKK)    | 24.44          | 20.74          | 18%                  |        |

## Step-up in CAPEX to meet demand for current and future products



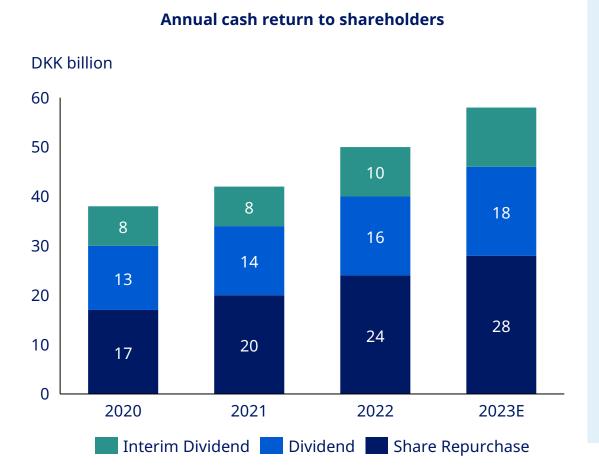
#### **Ensure readiness to meet future demands**



- Capital expenditure is expected to be around DKK 25 billion in 2023
- Investments primarily at existing manufacturing sites, for growth of marketed products and future pipeline products
- Both active pharmaceutical ingredient (API) production and fill-finish capacity to be expanded across TAs
- CAPEX to sales ratio is expected to be low double digit in the coming years

### Attractive capital allocation to shareholders

# Attractive capital anotation to sharen



#### **Capital allocation**

- The proposed final dividend of 8.15 DKK per share, in addition to the interim dividend of 4.25 DKK per share, corresponds to full year dividend of 12.40 DKK per share
- Total dividend per share increasing 19% in 2022
- Total capital allocation for 2022 of 49 bDKK to shareholders between share buy back and dividend
- For 2023, we expect to initiate a new 12-month share repurchase programme of up to DKK 28 billion

### Financial outlook for 2023

Expectations
1 February 2023

| Sales growth – at CER              | 13% to 19%                       |  |  |
|------------------------------------|----------------------------------|--|--|
| Sales growth - reported            | Around 4 percentage points lower |  |  |
| Operating profit growth – at CER   | 13% to 19%                       |  |  |
| Operating profit growth - reported | Around 5 percentage points lower |  |  |
| Financial items (net)              | Gain of around DKK 2.4 billion   |  |  |
| Effective tax rate                 | 19% to 21%                       |  |  |
| Free cash flow                     | DKK 60 to 68 billion             |  |  |

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### 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 Other serious chronic diseases focusing on CVD, NASH 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

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### 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**

| 23 March 2023    | Annual General Meeting                                 |
|------------------|--|
| 04 May 2023      | Financial statement for the first three months of 2023 |
| 10 August 2023   | Financial statement for the first six months of 2023   |
| 02 November 2023 | Financial statement for the first nine months of 2023  |

#### **Investor Relations contacts**

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

Mark Joseph Root (USA)

Daniel Muusmann Bohsen +45 3075 2175 <u>dabo@novonordisk.com</u>

David Heiberg Landsted +45 3077 6915 <u>dhel@novonordisk.com</u>

Jacob Martin Wiborg Rode +45 3075 5956 <u>jrde@novonordisk.com</u>

+1 848 213 3219

mjhr@novonordisk.com

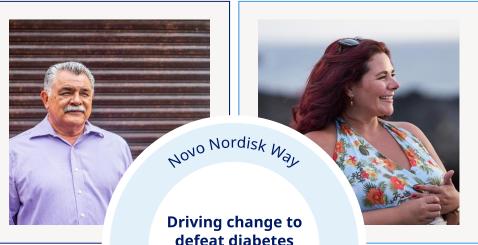
# **Appendix**

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## Novo Nordisk Corporate Strategy

#### Diabetes care

Strengthen leadership by offering innovative medicines and driving patient outcomes



### **Obesity care**

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

#### Rare disease

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

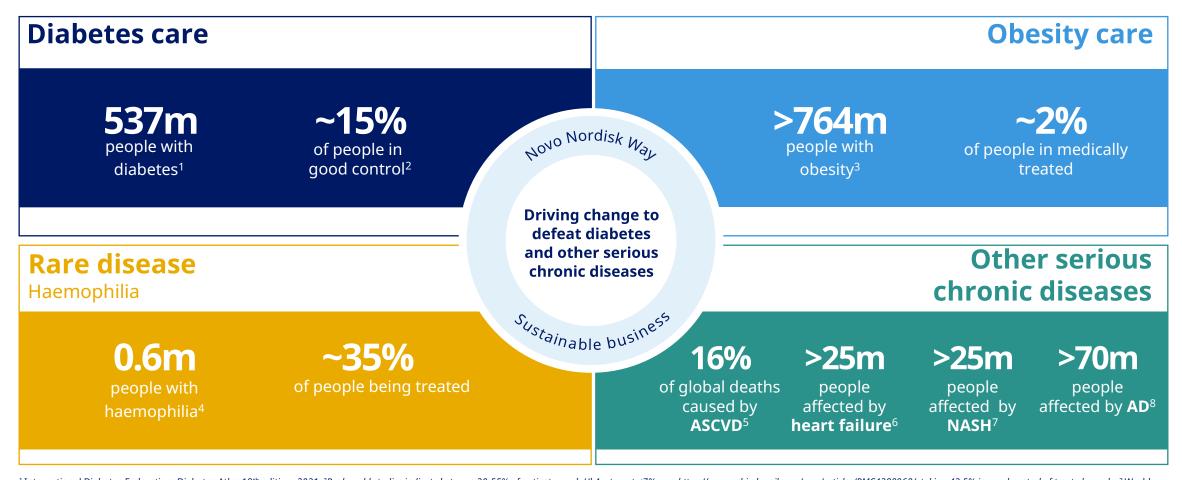


# Other serious chronic diseases

**Establish presence** by building competitive pipeline and scientific leadership

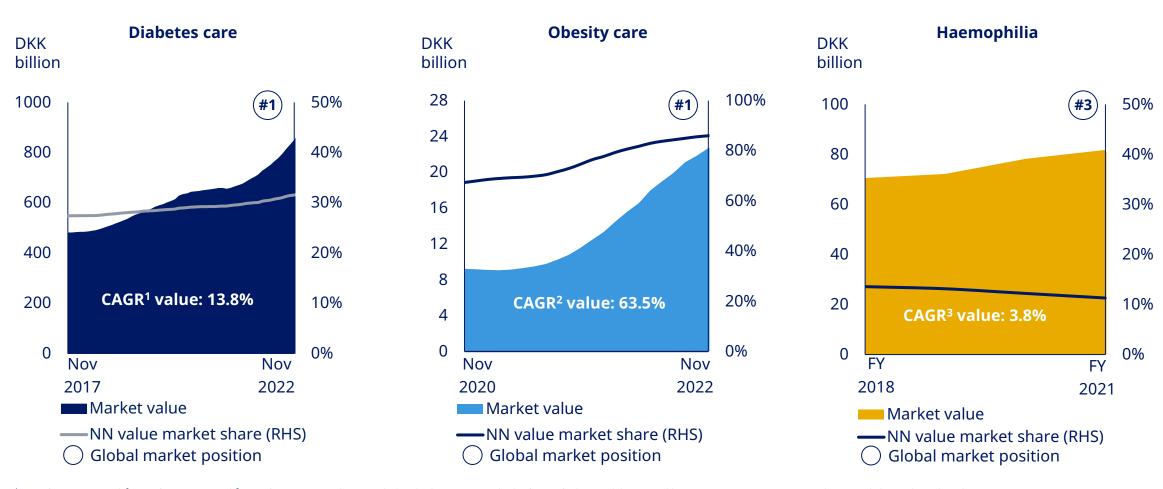
Novo Nordisk® Full year 2022

# Novo Nordisk's opportunity is in the large unmet needs across all therapy areas in scope



<sup>1</sup> International Diabetes Federation: Diabetes Atlas 10<sup>th</sup> edition, 2021; <sup>2</sup>Real-world studies indicate between 30-55% of patients reach HbA<sub>1c</sub> target <7% .e.g. <a href="https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4388968/">https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4388968/</a>, taking 42.5% in good control of treated people; <sup>3</sup> World Diabetes Atlas 2022; <sup>4</sup> WFH annual survey 2020 (120 of 147 countries responded): Prevalence by calculating expected number of patients using 20.9 per 100.000 in haemophilia Identified patients as proxy for receiving some sort of treatment; <sup>5</sup> "The top 10 causes of death", WHO, 9 December 2020 (ASCVD denoted as ischaemic heart disease); <sup>6</sup>Global Public Health Burden of Heart Failure, Apr. 2017: https://pubmed.ncbi.nlm.nih.gov/28785469/; <sup>7</sup>Estes C, Modeling the epidemic of non-alcoholic fatty liver disease demonstrates an exponential increase in burden of disease, Hepatology, 2018; <sup>8</sup>The World Alzheimer Report 2015, The Global Impact of Dementia, Alzheimer's Disease International (ADI), London.

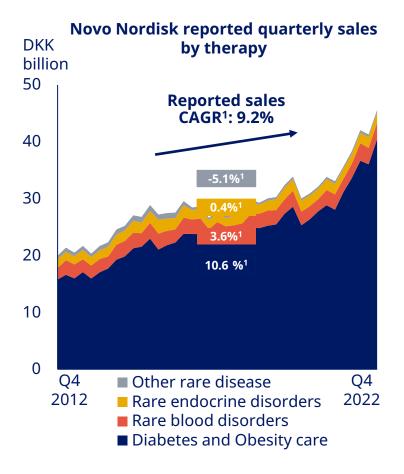
# Novo Nordisk has leading positions in diabetes, obesity and haemophilia



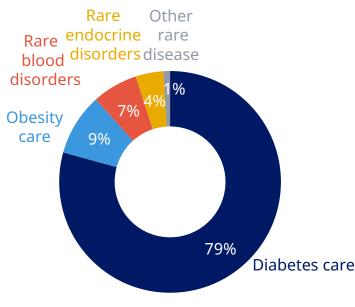
<sup>&</sup>lt;sup>1</sup> CAGR for 5-year period; <sup>2</sup> CAGR for 2-year period; <sup>3</sup> CAGR for 3-year period; RHS: Right-hand side; Note: Annual sales figures for haemophilia A, B and bypassing agent segments, Recombinant and plasma derived products; Source: Company reports for haemophilia market; IQVIA MAT, Nov 2022; Note: Diabetes and Obesity care market values are based on list prices in the US.

NN: Novo Nordisk.

# Sales growth of 16%, driven by the GLP-1 portfolio for diabetes and obesity treatment







Sales of DKK 177.0 billion (+26%)

### Reported sales and growth breakdown for the full year 2022

| Therapy                               | Sales<br>(mDKK) | Growth | Share of growth |
|---------------------------------------|-----------------|--------|-----------------|
| Total GLP-1 <sup>2</sup>              | 83,371          | 42%    | 98%             |
| Long-acting insulin <sup>3</sup>      | 16,741          | -13%   | -10%            |
| Premix insulin <sup>4</sup>           | 10,562          | -10%   | -5%             |
| Fast-acting insulin <sup>5</sup>      | 17,463          | -7%    | -5%             |
| Human insulin                         | 8,186           | -16%   | -6%             |
| Total insulin                         | 52,952          | -11%   | -26%            |
| Other Diabetes care <sup>6</sup>      | 3,225           | -15%   | -2%             |
| Total Diabetes care                   | 139,548         | 14%    | 69%             |
| Obesity care <sup>7</sup>             | 16,864          | 84%    | 30%             |
| Diabetes and Obesity care             | 156,412         | 19%    | 99%             |
| Rare blood disorders <sup>8</sup>     | 11,706          | 7%     | 3%              |
| Rare endocrine disorders <sup>9</sup> | 7,138           | -6%    | -2%             |
| Other Rare disease <sup>10</sup>      | 1,698           | -3%    | 0%              |
| Rare disease                          | 20,542          | 1%     | 1%              |
| Total                                 | 176,954         | 16%    | 100%            |

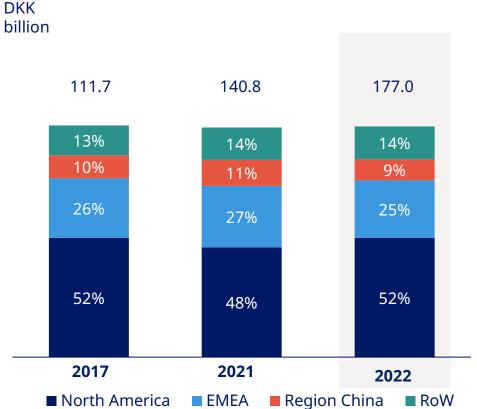
¹ CAGR for 10-year period; ² Comprises Victoza®, Ozempic®, Rybelsus®; ³ Comprises Tresiba®, Xultophy® and Levemir®; ⁴ Comprises Ryzodeg® and NovoMix®; ⁵ Comprises Fiasp® and NovoRapid®; ⁶ Primarily Novonorm®, needles and GlucaGen® HypoKit®; ⊓ Comprises Saxenda® and Wegovy®; ® Comprises NovoSeven®, NovoEight®, NovoThirteen®, Refixia®, and Esperoct®; ⁰ Comprises NovoItropin® and Macrillen™; ¹¹ Primarily Vagifem® and Activelle®

Note: Sales numbers are reported in Danish kroner; Growth is at constant exchange rate, except for total sales growth of 26%; Refixia® and NovoThirteen® are launched as Rebinyn® and TRETTEN®, respectively, in North America.

# Sales growth of 16%, driven by both NAO and IO with 21% and

# 13% sales growth respectively





#### Reported sales and growth breakdown for the full year 2022

| Regions                  | Sales<br>(mDKK) | Growth | Share of<br>growth |
|--------------------------|-----------------|--------|--------------------|
| International Operations | 85,847          | 13%    | 40%                |
| EMEA                     | 44,236          | 15%    | 24%                |
| Region China             | 16,209          | -6%    | -4%                |
| RoW                      | 25,402          | 24%    | 20%                |
| North America Operations | 91,107          | 21%    | 60%                |
| Hereof USA               | 84,656          | 19%    | 53%                |
| Total sales              | 176,954         | 16%    | 100%               |

# Novo Nordisk holds solid patent protection, high barriers to entry, and a collaborative approach to innovation

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

|   | EU/US patent<br>protection <sup>1</sup> |
|---|---|
| OZEMPÍC° semaglutide injection  | 2031/32²                                |
| RYBELSUS° semaglutide tablets   | 2031/2032 <sup>2,3</sup>                |
| Fiasp° fast-acting insulin aspart                                     | 20304                                   |
| esperoct®<br>turoctocog alfa pegol                                    | 2034/32²                                |
| Xultephy* insulin degludec/liraglutide [rDNA origin] injection        | 2028/29                                 |
| insulin degludec [rDNA origin] injection                              | 2028/29                                 |
| 70% insulindegludec and 30% insulin aspart<br>(rDNA origin) injection | 2028/29                                 |
| refixia®  | 2027/28                                 |
| ViCTOZA°<br>liraglutide injection                                     | 20235                                   |

#### Barriers to entry for biosimilar players

#### **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

#### Manufacturing

- Economies of scale
- Up-front CAPEX requirements with slow return on investment

#### Commercialisation

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

### Partnerships and acquisitions support future R&D







Oral formulations of therapeutics



Gene editing for haemophilia



Novel treatments for CVD/Rare disease

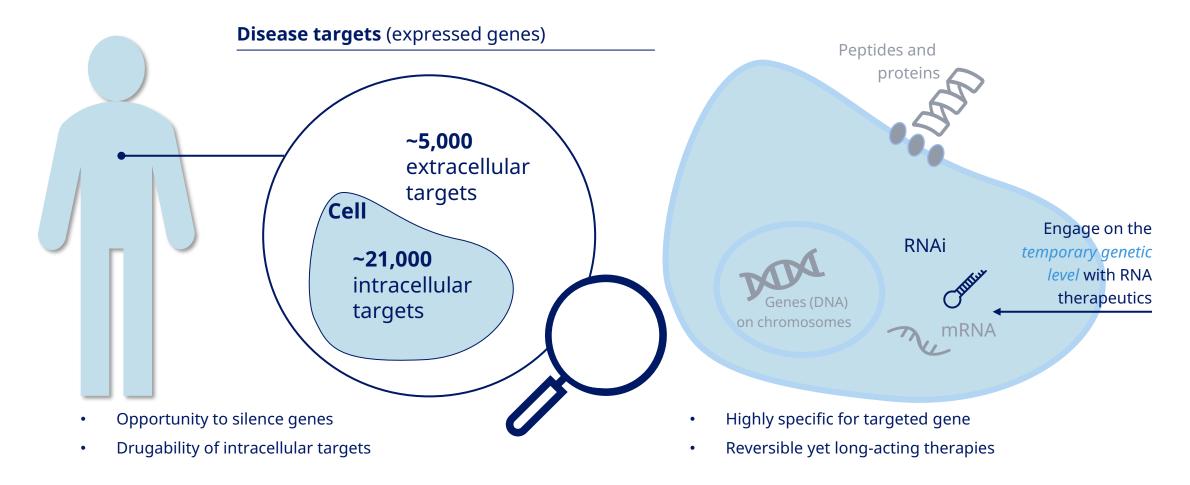






<sup>&</sup>lt;sup>1</sup>List does not include all marketed products. <sup>2</sup> Current estimates. Wegovy® patent identical to Ozempic® patent; <sup>3</sup> Tablet formulation and once-daily treatment regimen are protected by additional patents expiring in 2031-2034; <sup>4</sup>Formulation patent; active ingredient patent has expired; <sup>5</sup> Saxenda® patent identical to Victoza® patent. PK: Pharmacokinetic, PD: Pharmacodynamic; CAPEX: Capital expenditure; siRNA: Silencing ribonucleic acid; NASH: Non-alcoholic steatohepatitis; CVD: Cardiovascular disease

# The acquisition of Dicerna Pharmaceuticals and their RNAi technology in 2021 provided access to intracellular targets



# 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

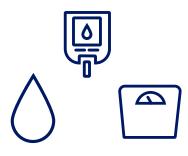
Global commercial reach and leader in chronic disease care



**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<sub>1c</sub> for diabetes

**Tomorrow:** Normalise living with diabetes supported by digital solutions

#### investor presentation

# Core capabilities and additional technology platforms open up new opportunities across therapy areas

### **Technology platforms Proteins / Peptides** Oligonucleotides / RNAi Stem cells Genome editing / Gene therapy **Diabetes care Obesity care** areas **CVD Therapy NASH RBD RED** Other areas

**Exploratory** potential

Injectable administration

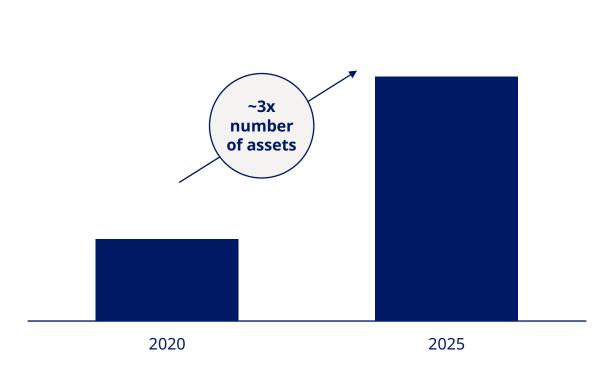
Oral administration

Currently active

# 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

Novo Nordisk® Investor presentation Full year 2022

# Pipeline supports significant growth opportunities across all four strategic focus areas

#### PHASE 1

NN1845 - GSI

NN1471 – Pumpinsulin

NN9041 - DNA Immunotherapy

NN9541 - Oral GLP-1/GIP co-agonist

NN9917 – SemaDapa FDC

NN9904 - Once weekly oral sema

NN9847 – Oral Amycretin

 $NN6020 - DCR-AUD^1$ 

NN6582 – LXR(a)

NN6581 - MARC1

#### PHASE 2

NN9389 – FDC Sema – OW GIP

NN9388 - Cagrisema

NN9775 - PYY 1875 analogue

NN7533 – Ndec

NN9931 – Gilead NASH

NN9500 - FGF-21 NASH

NN6021 – Belcesiran

NN6019 - ATTR Cardiomypathy

#### PHASE 3

NN1535 - Icosema

NN1436 – Insulin Icodec

NN9924 – Oral Semaglutide 25 and 50 mg

NN9838 – Cagrisema

NN9932 – Oral Semaglutide 50mg obesity<sup>2</sup>

NN9931 – Semaglutide NASH

NN6535 - Semaglutide in AD

NN6018 - Ziltivekimab

NN7769 - Mim8

NN7535 - Etavopivat

#### Other PHASE 3 trials

SOUL - Oral semaglutide 14.0 mg CVOT

FOCUS - Semaglutide 1.0 mg in diabetic retinopathy

FLOW - Semaglutide 1.0 mg in CKD

STRIDE - Semaglutide 1.0 mg in PAD

STEP - Semaglutide 2.4mg in HFpEF

SELECT - Semaglutide 2.4mg in obese population

#### SUBMITTED

NN8640 - Sogroya® - QW GHD3

NN7415 - Concizumab4

NN7022 - Nedosiran

#### **APPROVED**

Tresiba<sup>®</sup>

Xultophy®

Levemir® Ryzodea®

NovoMix<sup>®</sup>

Fiasp®

NovoRapid®

Rybelsus<sup>®</sup>

Ozempic<sup>®6</sup>

Victoza<sup>®</sup>

Wegovy®

Saxenda<sup>®</sup>

NovoSeven®

NovoEiaht<sup>®</sup>

Esperoct<sup>®</sup>

NovoThirteen®

Refixia<sup>®</sup>

Norditropin®

Sogroya<sup>®5</sup>





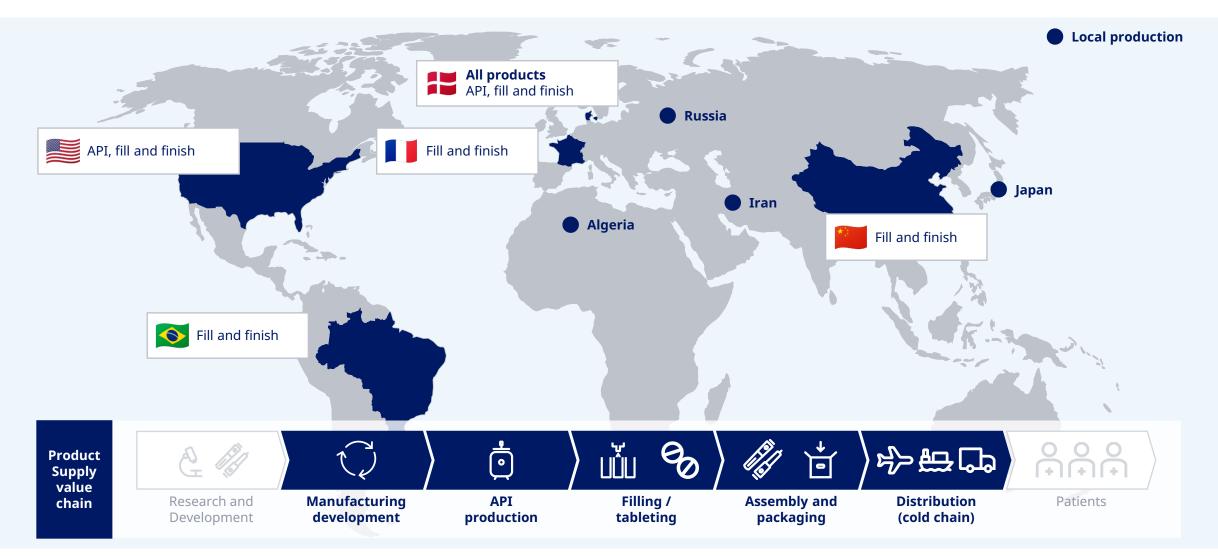






Dicerna-Alcohol Use Disorder; <sup>2</sup> 25 mg trial also initiated; <sup>3</sup> Study conducted in growth hormone disorders; <sup>4</sup> Submitted to EU/US/JP in HwI; <sup>5</sup> Approved in the EU, the US and Japan, for adult growth hormone disorder, <sup>6</sup> higher doses of injectable semaglutide (8) mg and 16 mg) tested in phase 2; PYY: Peptide YY; QW: Once-weekly; mAb: monocolonal antibody; GDF15: Growth differentiation factor 15; Sema: Semaglutide; FGF-21: Fibroblast growth factor 21; LAI: Long-acting insulin; GHD: Growth hormone disorder; GSI: Glucose Sensitive Insulin; HFpEF; heart failure with preserved ejection fraction; AD: Alzheimer's Disease; FDC; Fixed-dose combination; NASH; Nonalcoholic Steatohepatitis; US; United States; IP; Japan; PAD; Peripheral arterial disease; CKD; chronic kidney disease

### Novo Nordisk has a global manufacturing setup



# Diabetes care

Disease and market GLP-1 segment Insulin segment

33

42

49



# 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:**

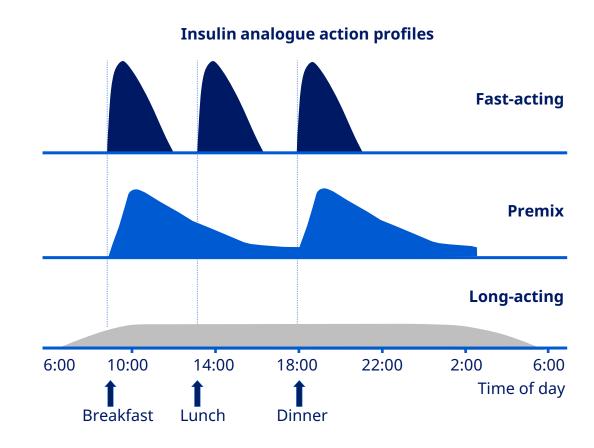
**Type 1 diabetes:** Complete insulin deficiency due to destruction of betacells in the pancreas

**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





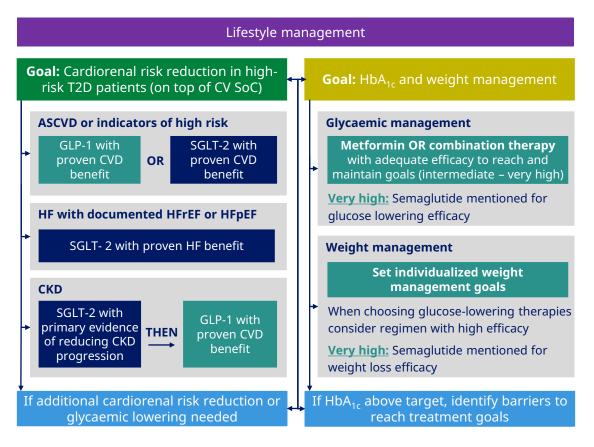
# GLP-1s have positive effects beyond glycaemic control and treatment guidelines now reflect the CV risk benefits

#### Medications for treatment of type 2 diabetes

| Class                  | Tff: a a a v | Hypo Weight |         | Cardiovas            | cular effects  |
|------------------------|--------------|-------------|---------|----------------------|----------------|
| Class                  | Efficacy     | risk        | change  | ASCVD                | HF             |
| Metformin              | High         | No          | Neutral | Potential<br>Benefit | Neutral        |
| Sulfonylurea           | High         | Yes         | Gain    | Neutral              | Neutral        |
| TZDs                   | High         | No          | Gain    | Potential<br>Benefit | Increased risk |
| DPP-IV inhibitors      | Intermediate | No          | Neutral | Neutral              | Potential risk |
| SGLT-2<br>inhibitors   | Intermediate | No          | Loss    | Benefit              | Benefit        |
| GLP-1                  | High         | No          | Loss    | Benefit/<br>Neutral¹ | Neutral        |
| Long-acting<br>insulin | High         | Yes         | Gain    | Neutral              | Neutral        |
| Fast-acting<br>insulin | High         | Yes         | Gain    | Neutral              | Neutral        |

<sup>&</sup>lt;sup>1</sup> Benefit: dulaglutide, liraglutide, semaglutide; Neutral: exenatide once weekly, lixisenatide Hyp: Hypoglycaemia; ASCVD: Atherosclerotic cardiovascular disease; HF: Heart failure: TZDs: Thiazolidinediones Source: Adapted from: "Standards of Medical Care in Diabetes – 2022" Supplement 1, p.133; diabetes.org. American Diabetes Association.

#### **Updated ADA/EASD diabetes treatment guidelines**

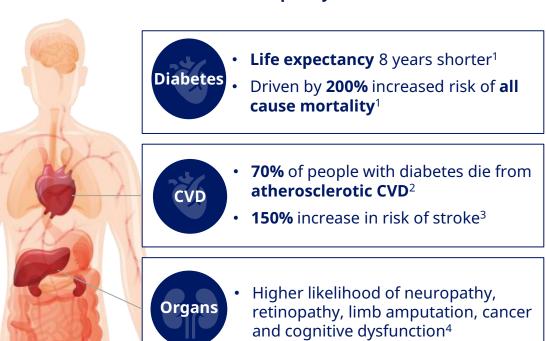


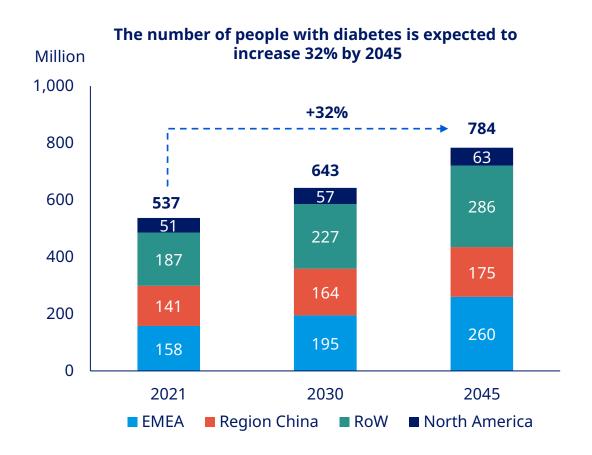
T2D: Type 2 diabetes; CVD: Cardiovascular Disease; SoC: Standard of Care; HF: Heart failure; CKD: Chronic Kidney Disease; ADA: American Diabetes Association; EASD: European Association for the Study of Diabetes Sources Adapted from: "Management of Hyperglycemia in Type 2 Diabetes, 2022. A Consensus Report 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)

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# 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



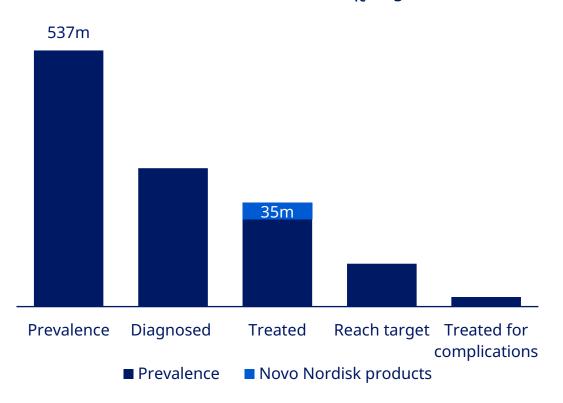


<sup>&</sup>lt;sup>1</sup> Diabetes Care 2017 Mar; 40 (3): 338-345; <sup>2</sup> https://www.who.int/cardiovascular\_diseases/en/;

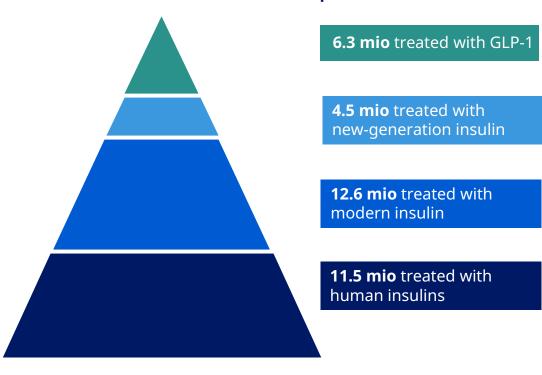
<sup>&</sup>lt;sup>3</sup> https://www.diabetes.org/diabetes/complications.; CVD: Cardiovascular disease; OAD: Oral anti-diabetic

<sup>&</sup>lt;sup>4</sup> Diabetes Care 2005 Ian:28(1):164-176

### 1 in 2 adults go undiagnosed and more treated patients should reach their HbA<sub>1C</sub> target



### Of the 537 million, 36.3 million<sup>1</sup> people are currently treated with Novo Nordisk diabetes products

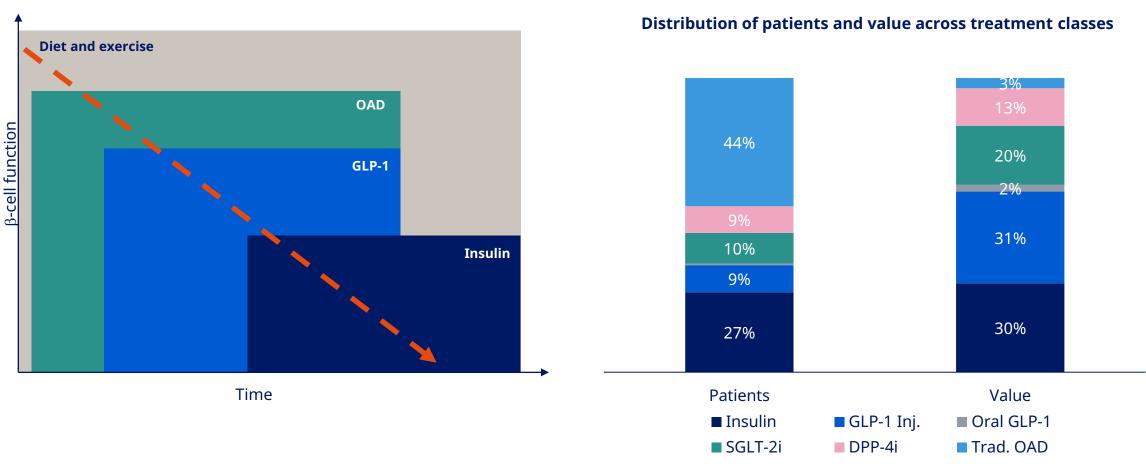


Source : Diabetes prevalence and diagnosed are based on Diabetes Atlas  $10^{th}$  edition, 2021; Treated is based on IQVIA patient data; real-world studies indicate between 30-55% of patients reach  $HbA_{1c}$  target <7% .e.g. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4388968/

<sup>1</sup> 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 2022 (total available in Novo Nordisk Annual Report 2022)

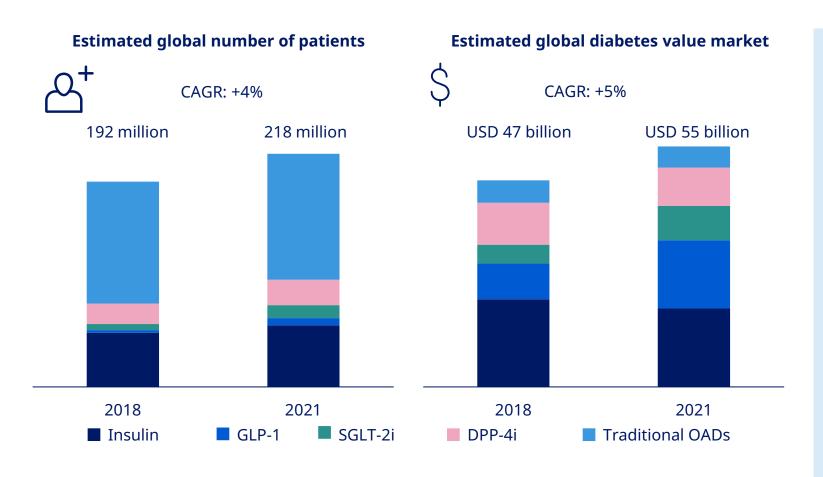
Full year 2022

### Diabetes is a chronic disease requiring treatment intensification over time



Note: Patient distribution across treatment classes is indicative and based on data for USA, Germany, France. Other OADs cover: metformin, sulfonylurea, thiazolidinediones. Source: IQVIA PharMetrix claims data, IQVIA disease analyser, IQVIA MIDAS; value figures based on IQVIA MAT, Nov 2022 OAD: Oral anti-diabetic

## GLP-1 and SGLT-2i have been driving the value growth of the global diabetes care market



#### **Diabetes market dynamics**

- Continued strong growth momentum in GLP-1 and SGLT-2i segments
- DPP-4i segment to have first patent expiries on key products within the coming two years
- Flat insulin volume growth and continued insulin pricing pressure

### 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

Portfolio and pipeline

## semaglutide tablets

High dose oral semaglutide

**Uncontrolled on** current OAD



Ozempic® 2.0 mg

**Needing first** injectable



Icodec

**Needing first** basal insulin



IcoSema

**Needing more than** basal insulin





**Needing added meal**time insulin control

Digital health solutions

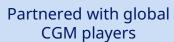


NovoPen®6 / NovoPen Echo® Plus are smart insulin pens and launched in 14 countries







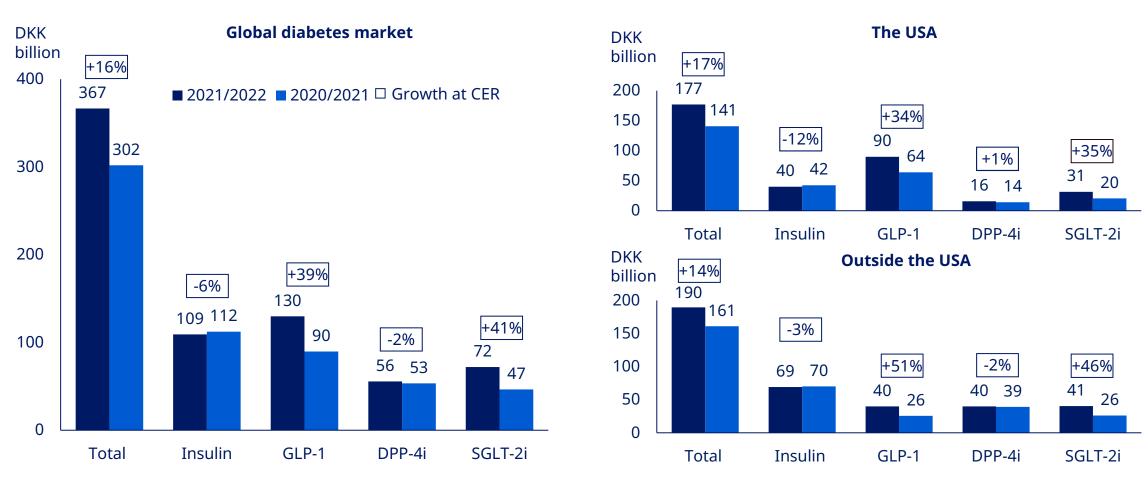






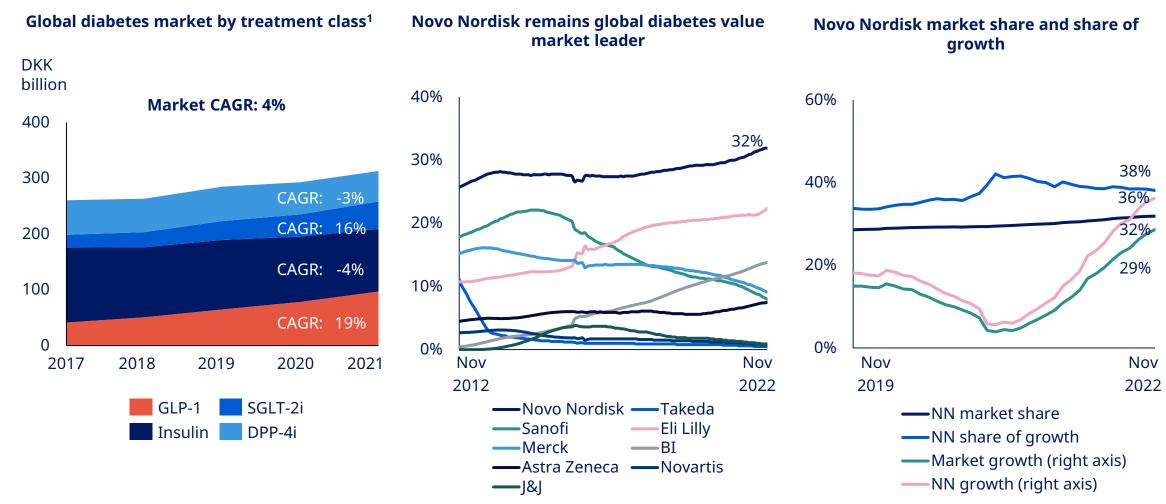


## The total branded diabetes market has a global value of DKK ~365 billion annually



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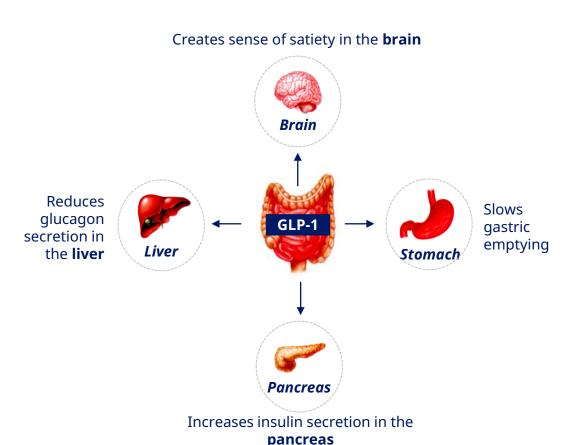
### Novo Nordisk has a leadership position within the growing diabetes market



<sup>&</sup>lt;sup>1</sup> Data is based on company reported sales from Sanofi, Eli Lilly, AstraZeneca, GSK, Novartis, Johnson & Johnson, and Merck. Data does not include generic metformin, sulphonylureas or thiazolidinedione BI: Boehringer Ingelheim; J&J: Johnson & Johnson; NN: Novo Nordisk Source: IQVIA MAT, Nov 2022 value figures Note: IQVIA data can be inflated due to use of list prices in the US

### GLP-1 effect dependent on blood glucose level

### GLP-1 mechanism of action when blood sugar levels increase



#### Semaglutide holds a plethora of therapeutic opportunities<sup>1</sup>



**FOCUS - Diabetic retinopathy outcomes trial** 

Semaglutide s.c; ~1,500 patients, T2D ≥10 years



**SOUL - Cardiovascular outcomes trial** 

Oral semaglutide; ~9,600 patients, T2D, established CVD or CKD



**SELECT - Cardiovascular outcomes trial** 

Semaglutide 2.4 mg, ~17,500 patients with obesity and without diabetes, event driven



**Semaglutide in NASH** 

Semaglutide s.c.; phase 3 and 2 trials



FLOW - Chronic kidney disease outcomes trial

Semaglutide 1.0 mg; ~3,200 patients, T2D, moderate to severe CKD



STRIDE – Peripheral artery disease trial

Semaglutide 1.0 mg; ~ 800 patients with T2D and PAD



**Alzheimer's Disease** 

Oral Semaglutide 14 mg; ~ 3,700 patients with early Alzheimer's disease



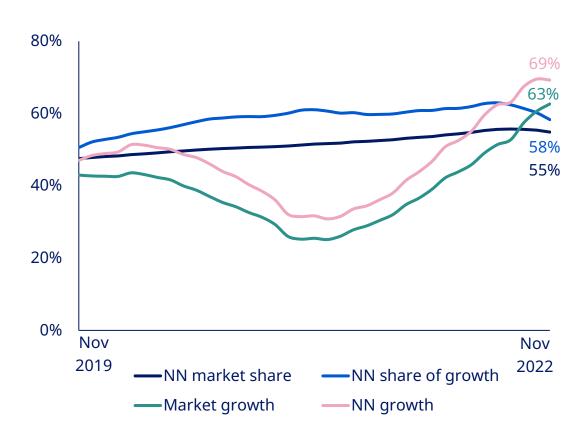
STEP - HFPEF

Semaglutide 2.4 mg; ~ 600 patients with obesity-related HFpEF

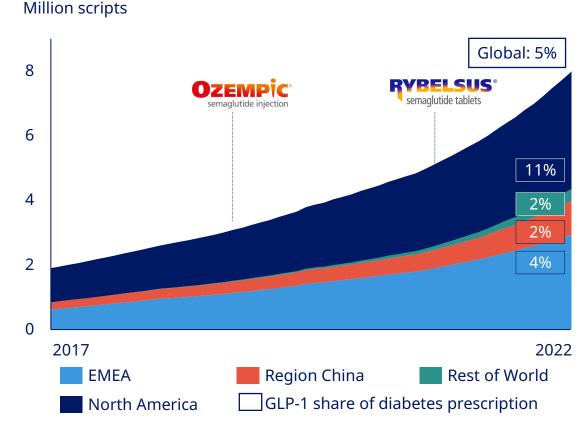
<sup>1</sup> List is not exhaustive

### Novo Nordisk has 55% of the global GLP-1 market, while GLP-1 penetration of diabetes volume varies across regions

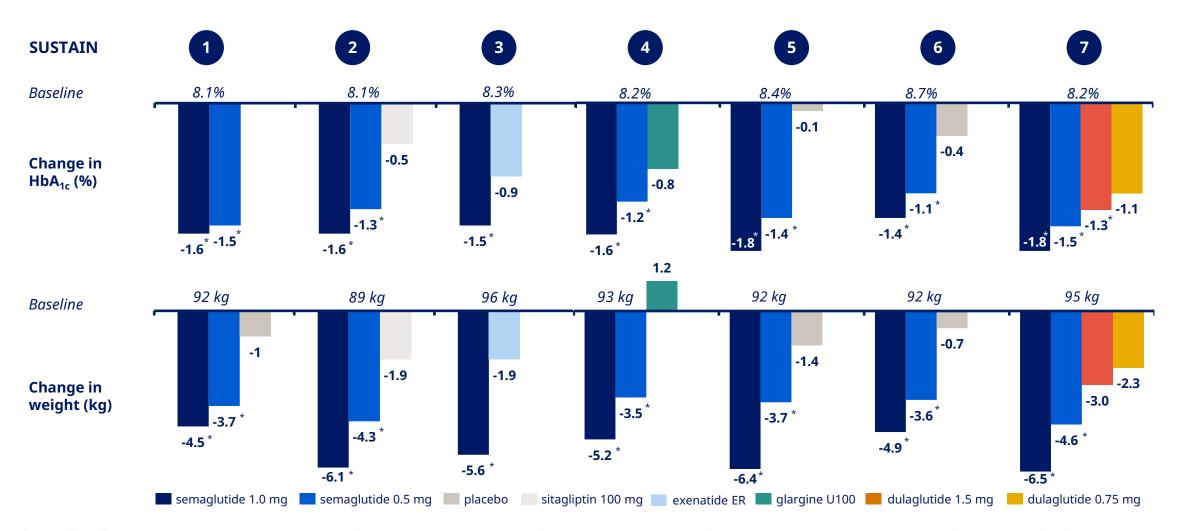
#### **GLP-1** market growth and Novo Nordisk market share



#### 5% of total diabetes prescriptions use a GLP-1 with large differences across markets

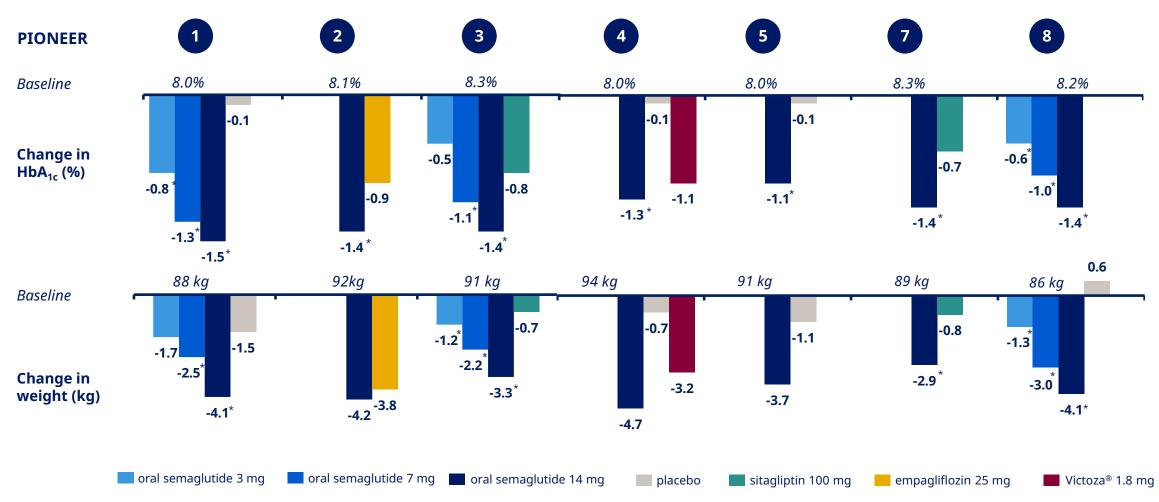


### SUSTAIN trials with subcutaneous semaglutide



<sup>\*</sup> 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

### PIONEER programme with oral semaglutide



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; PIONEER 3: QD oral sema vs victoza® 1.8 mg and placebo in people with T2D; PIONEER 5: 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

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## Semaglutide 2.0 mg s.c. and high dose oral sema hold potential to bring patients needing treatment intensification to target

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

| Estimand                    | Trial product | estimand | Treatment policy estimand |        |  |  |
|-----------------------------|---------------|----------|---------------------------|--------|--|--|
| Once-weekly semaglutide     | 2.0 mg        | 1.0 mg   | 2.0 mg                    | 1.0 mg |  |  |
| HbA <sub>1c</sub> reduction | 2.2%*         | 1.9%     | 2.1%*                     | 1.9%   |  |  |
| Body weight reduction (kg)  | 6.9*          | 6.0      | 6.4                       | 5.6    |  |  |
| $HbA_{1c} < 7.0\%^{1}$      | 68%           | 58%      |                           |        |  |  |

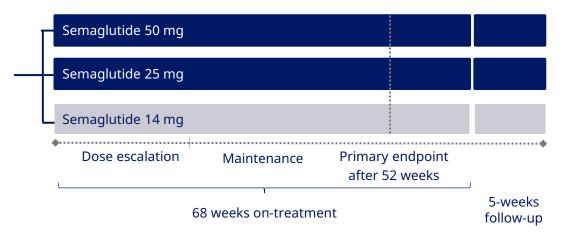
Efficacy: Semaglutide 2.0 mg s.c. showed superior HbA<sub>1c</sub> reduction with more patients reaching target<sup>1</sup> versus semaglutide 1.0 mg s.c.

Safety: Semaglutide 2.0 mg appeared to have a safe and well-tolerated profile Gastrointestinal adverse events were similar for semaglutide 2.0 mg Nausea rates around 15%

Treatment discontinuation rates below 5%

#### Label expansion application approved in the US and the EU

#### Phase 3 trial with oral semaglutide 25 mg and 50 mg in T2D has been initiated



**Objective:** Trial will assess efficacy for patients in need of improved outcomes

**Primary endpoint:** Confirm superiority of semaglutide 25 mg and 50 mg once-daily versus oral semaglutide 14 mg on HbA<sub>1c</sub> reduction

<sup>&</sup>lt;sup>1</sup>ADA recommended treatment target

<sup>\*</sup>Statistically significant

S.c.: subcutaneous; Sema: Semaglutide; T2D: Type 2 diabetes

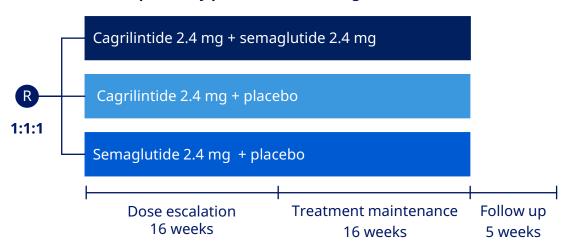
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Investor presentation

Full year 202

## Phase 2 trial for CagriSema in people with type 2 diabetes has been successfully completed

#### **Exploratory phase 2a trial of CagriSema in T2D**

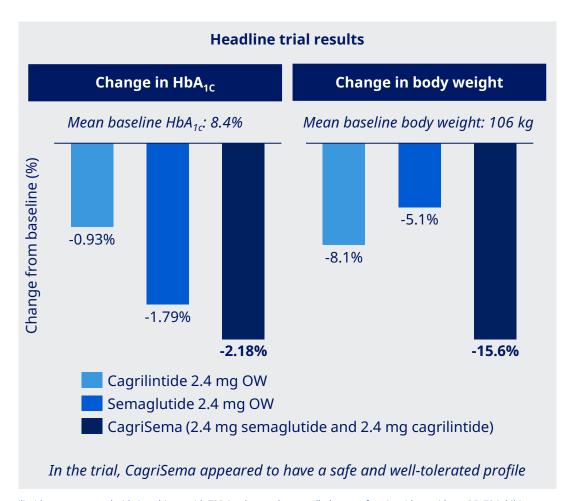


#### **Primary endpoint:**

Change from baseline (week 0) to week 32 in  $HbA_{1c}$ 

#### **Inclusion criteria** (92 people):

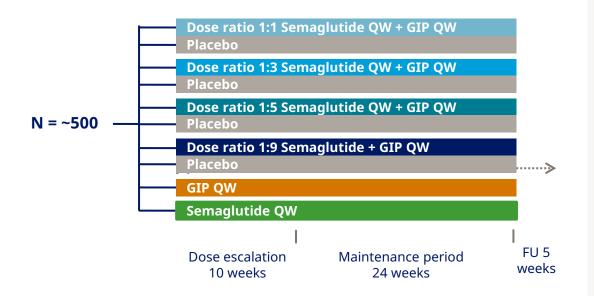
- Type 2 diabetes
- HbA<sub>1c</sub> 7.5–10.0%
- Metformin +/- SGLT2i
- BMI ≥27 kg/m2



Note: Trial product estimands shown; *T*rial 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 T2D: Type 2 diabetes, BMI: body mass index; HbA1c: *G*lycosylated haemoglobin; OW: Once-weekly

## A fixed dose combination with GIP entered phase 2 in the second half of 2021 in people with type 2 diabetes

#### Phase 2 trial design for semaglutide in combination with GIP



#### **Inclusion criteria:**

- Age ≥ 18-75 years
- BMI: 25-39.9 kg/m2
- HbA1c: 7.0-10.0%
- Diet/exercise ± metformin
- Type 2 diabetes

#### **Objective:**

Compare the effect on glycaemic control and body weight of semaglutide in combination with GIP vs semaglutide and vs GIP

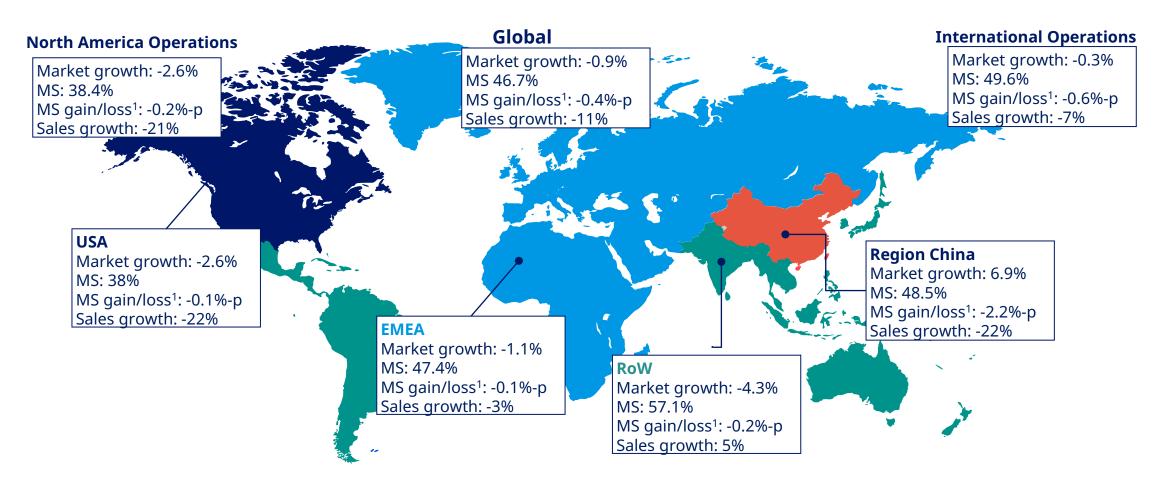
#### **Primary endpoint:**

Change from baseline to week 34 in HbA1c (%-point)

#### **Trial start:**

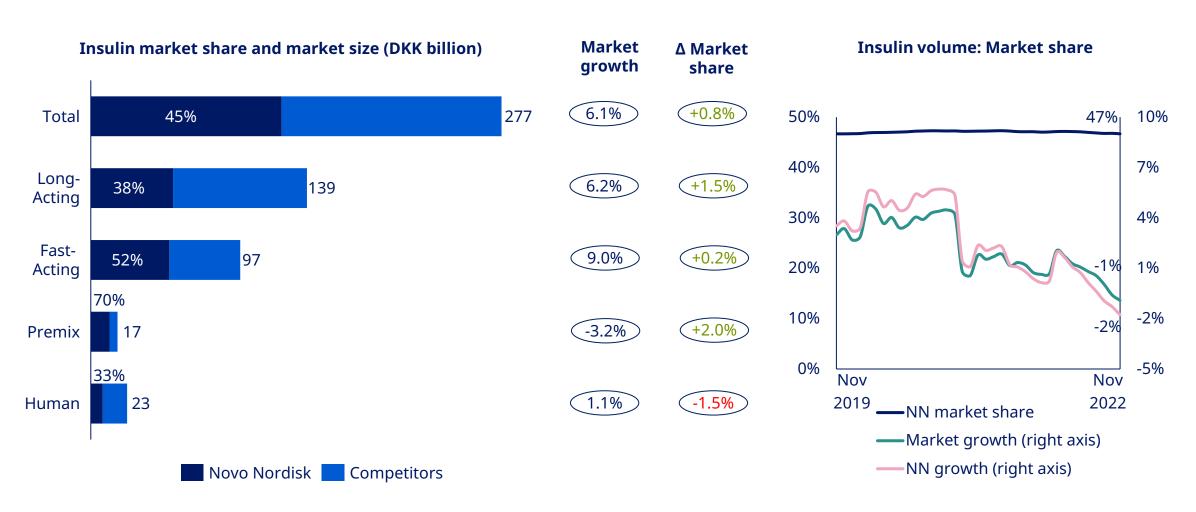
39-week trial was initiated in Q4 2021

### Novo Nordisk global insulin market leadership at 46.7% and the global insulin volume market declined by 0.9%



Source: IQVIA MAT, Nov 2022 volume figures

### Insulin market size and volume share of growth and market share



# Insulin icodec, a basal insulin intended for once-weekly treatment, may reduce the disease burden for patients

### Bringing the strongest value proposition to market



**Reduction of disease burden** with once-weekly treatment



**Tested for superior HbA<sub>1c</sub>** and **TiR** vs glargine and standard-of-care and similar safety profile of Tresiba®



App-based offering and connected smart pen to optimise titration and support compliance and data collection



Reduced environmental footprint

Insulin icodec phase 3 programme completed in 2022

ONWARDS 1 984 people insulin-naïve, 78-week, vs insulin glargine U100

ONWARDS 2 526 people on basal, 26week, vs insulin degludec

ONWARDS 3 588 people insulin-naïve, 26-week, vs insulin degludec

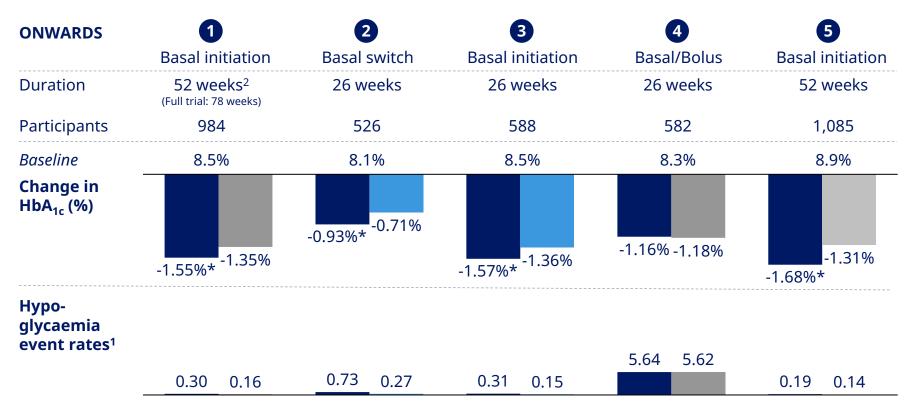
ONWARDS 4 582 people on both basal and bolus, 26-week, vs insulin degludec

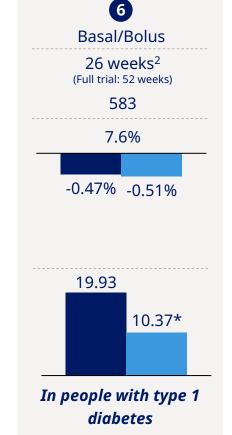
ONWARDS 5 1,085 people, insulin-naïve using app-based dosing recommendations, 52-week

ONWARDS 6 582 people, type 1 diabetes using bolus insulin, 52-week, vs insulin degludec

2022

## The full ONWARDS programme with once-weekly insulin Icodec completed in 2022





In people with type 2 diabetes: No statistical difference in estimated hypoglycaemia events

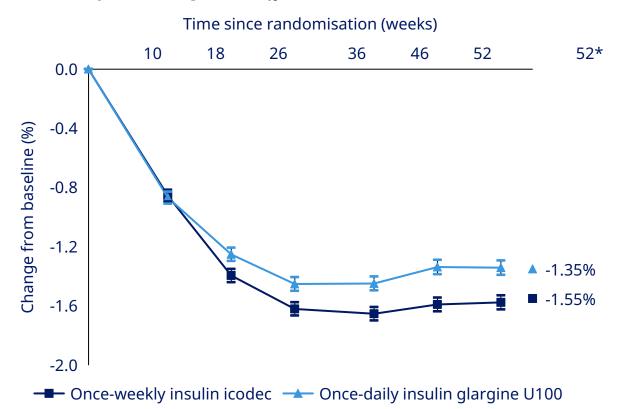


\* Statistically significant in terms of superiority. ¹Severe or clinically significant hypoglycaemia events (blood glucose <3 mmol/L) per patient year ² Duration refers to trial main phase. T1D: Type 1 diabetes; T2D: Type 2 diabetes
ONWARDS 1: QW insulin icodec vs QD insulin glargine U100 both with non-insulin anti-diabetic treatment in insulin-naïve people with T2D; ONWARDS 2: QW insulin icodec vs QD insulin degludec in insulin-naïve people with T2D; ONWARDS 4: QW insulin icodec vs QD insulin in people with T2D treated with basal and bolus insulin; ONWARDS 5: QW insulin icodec vs QD basal insulin with an app providing dosing recommendation in insulin-naïve people with T2D; ONWARDS 6: QW insulin icodec vs QD insulin degludec both with mealtime insulin in people with T1D

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## ONWARDS 1 met its primary endpoint and demonstrated superior HbA<sub>1c</sub> reduction compared to insulin glargine U100

#### Superior change in HbA<sub>1c</sub> from baseline over time 52 weeks



*Note: Overall baseline HbA*<sub>1c</sub> *of 8.5%* 

#### **Inclusion criteria**

- T2D treated with OADs\* ± GLP-1 s.c.
- Age  $\geq$  18 years, HbA<sub>1c</sub> 7.0-11.0%, BMI  $\leq$  40 kg/m<sup>2</sup>

#### **Endpoints:**

- Once-weekly insulin icodec achieved a superior reduction in estimated HbA<sub>1c</sub> of -1.55% compared to -1.35% for insulin glargine U100 **(ETD:-0.19%)**
- Superior time in range for insulin icodec vs insulin glargine U100 broadly equal to one additional hour in range per day

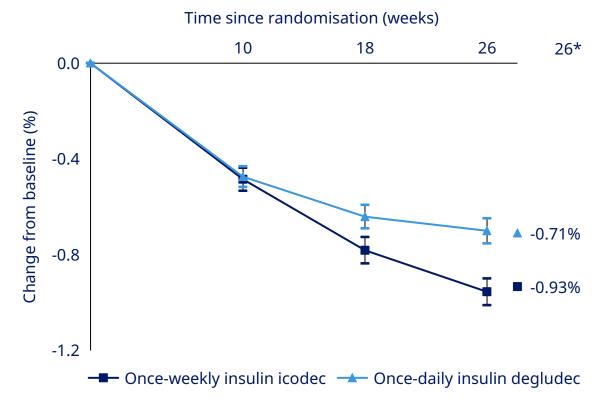
#### Safety:

- No statistically significant difference in estimated rates of severe or clinically significant hypoglycaemia events
- Insulin icodec appeared to have a safe and well-tolerated profile

<sup>\*</sup>Lines are based on observed data where the value denoted after 52 weeks is estimated mean value derived based on multiple imputation ETD: Estimate treatment difference

## ONWARDS 2 met its primary endpoint and demonstrated superiority on HbA<sub>1c</sub> reduction compared to insulin degludec

#### Superior change in HbA<sub>1c</sub> from baseline over time 26 weeks



*Note: Overall baseline HbA*<sub>1c</sub> *of 8.13%* 

#### **Inclusion criteria:**

- T2D treated with basal insulin ± OADs\* ± GLP-1 s.c.
- Age ≥18 years, HbA1c 7-10%, BMI ≤ 40 kg/m2

#### **Endpoints:**

- Once-weekly insulin icodec achieved a superior reduction in estimated HbA1c compared to insulin degludec (ETD: -0.22%)
- ONWARDS 2 showed a statistically significant improvement in quality of life compared to insulin degludec

#### Safety:

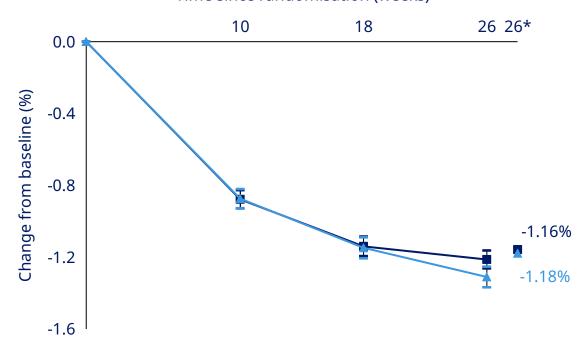
- No statistically significant difference in estimated rates of severe or clinically significant hypoglycaemia events
- In the trial, once-weekly insulin icodec appeared to have a safe and well-tolerated profile

<sup>\*</sup>Lines are based on observed data where the value denoted after 26 weeks is estimated mean value derived based on multiple imputation ETD: Estimate treatment difference

# ONWARDS 4 achieved primary endpoint of HbA<sub>1c</sub> non-inferiority with no statistically significant difference in hypoglycaemic events

#### Change in HbA<sub>1c</sub> from baseline over time 26 weeks

#### Time since randomisation (weeks)



#### Overall hypoglycaemic episodes in the trial

| On treatment  | Insulin icodec |        |     |      | In  | Insulin glargine U100 |     |       |  |
|---|----------------|--------|-----|------|-----|-----------------------|-----|-------|--|
|   | N              | (%)    | E   | R    | N   | (%)                   | E   | R     |  |
| Level 2:<br>Clinically<br>significant<br>hypo                   | 148            | (50.9) | 937 | 5.60 | 160 | (55.0)                | 935 | 5.61  |  |
| <b>Level 3</b> :<br>Severe hypo                                 | 4              | (1.4)  | 7   | 0.04 | 2   | (0.7)                 | 3   | 0.018 |  |
| Level 3 or 2:<br>Severe or<br>clinically<br>significant<br>hypo | 150            | (51.5) | 944 | 5.64 | 162 | (55.7)                | 938 | 5.62  |  |

Once-weekly insulin icodec Once-daily insulin glargine U100

*Note: Overall baseline HbA*<sub>1c</sub> of 8.3%

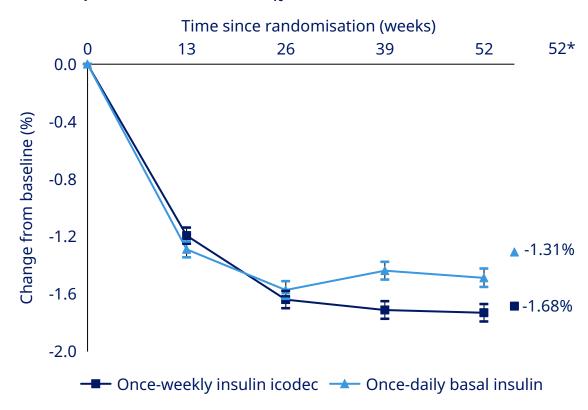
<sup>\*</sup>Lines are based on observed data where the value denoted after 26 weeks is estimated mean value derived based on multiple imputation

Hypo: hypoglycaemia; N: Number of subjects with one or more events, %: Percentage of subjects with one or more events; E: Number of events; R: Rate (number of events per patient year of exposure, hypoglycaemia alert value (level 1): Plasma glucose value of

< 3.9 mmol/L (70 mg/dL) and >= 3.0 mmol/L (54 mg/dL) confirmed by BG meter. Clinically significant hypoglycaemia (level 2): Plasma glucose value of < 3.0 mmol/L (54 mg/dL) confirmed by blood glycose meter. Severe hypoglycaemia (level 3): Hypoglycaemia with severe cognitive impairment requiring external assistance for recovery.

### ONWARDS 5 met its primary endpoint and demonstrated superior HbA<sub>1c</sub> reduction vs once-daily basal insulin analogues

#### Superior reduction in HbA<sub>1c</sub> from baseline over time 52 weeks



*Note: Overall baseline HbA*<sub>1c</sub> of 8.9%

#### Highlights from the trial (includes real-world elements)

#### **Inclusion criteria** (1,085 participants):

- Insulin-naïve people with type 2 diabetes
- No limitations on use of oral antidiabetic treatments
- Age ≥ 18 years, HbA<sub>1c</sub> > 7.0%

#### **Endpoints:**

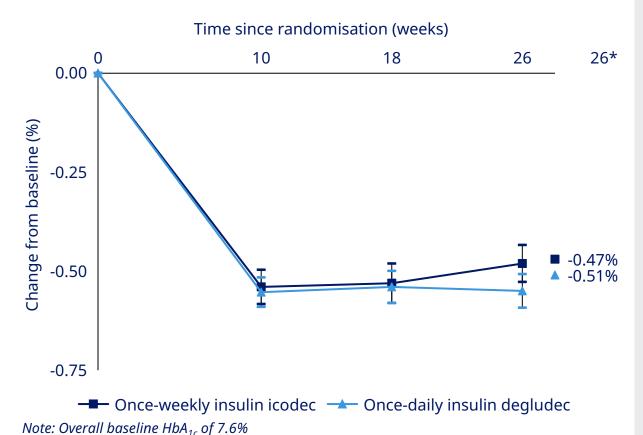
- · Once-weekly insulin icodec achieved a superior reduction in estimated HbA<sub>1c</sub> of -1.68%-points compared with -1.31%-points for the once-daily basal insulins (ETD: -0.38%-points)
- Icodec achieved a superior improvement in health-related quality of life (DTSQ score) and compliance (TRIM-D score) questionnaires

#### Safety:

- No statistically significant difference in estimated rates of severe or clinically significant hypoglycaemia events
- In the trial, once-weekly insulin icodec appeared to have a safe and well-tolerated profile

# ONWARDS 6 met its primary endpoint of demonstrating non-inferiority in reducing HbA<sub>1c</sub> compared to insulin degludec

#### Non-inferior change in HbA<sub>1c</sub> from baseline over 26 weeks



#### **Inclusion criteria**

- T1D treated with basal-bolus insulin
- Age ≥ 18 years, HbA<sub>1c</sub> < 10%</li>

#### **Endpoint:**

- From an overall baseline HbA<sub>1c</sub> of 7.6%, once-weekly insulin icodec achieved a reduction in estimated HbA<sub>1c</sub> of -0.47% compared to -0.51% for insulin degludec in a T1D population
- Estimated treatment difference: 0.05%

#### Safety:

- A statistical difference in the estimated rates of severe or clinically hypoglycaemia events
  - 19.93 events for insulin icodec vs 10.37 events for insulin degludec

<sup>\*</sup> Lines are based on observed data where the value denoted after 26-week is estimated mean value 26 derived based on multiple imputation T1D: Type 1 diabetes

## Phase 3 trial programme, COMBINE, has been initiated with IcoSema

#### **IcoSema characteristics**



IcoSema is a fixed dose combination of insulin icodec and semaglutide

 Simple and convenient once-weekly injection



Phase 3a programme with IcoSema

- Aims to confirm efficacy and safety across three global trials
- Expected completion during 2024

#### 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<sub>1c</sub> 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<sub>1c</sub> 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<sub>1c</sub> non-inferiority
- Sec. endpoint: Weight and hypo superiority

2021 > 2022 > 2023 > 2024

Obesity care

Obesity disease background 60
Obesity market development 64
Innovation 65



### 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<sup>1</sup>

#### Obesity impacts both the individual and society at large



~3% of global GDP and >8% of healthcare budget per country<sup>3</sup>

#### The obesity narrative is changing



**Media:** Shift to more empathetic tone



**Healthcare professionals:** 

Increased recognition among societies within healthcare

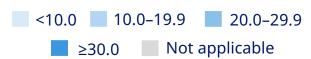


Policymakers: More government recognition



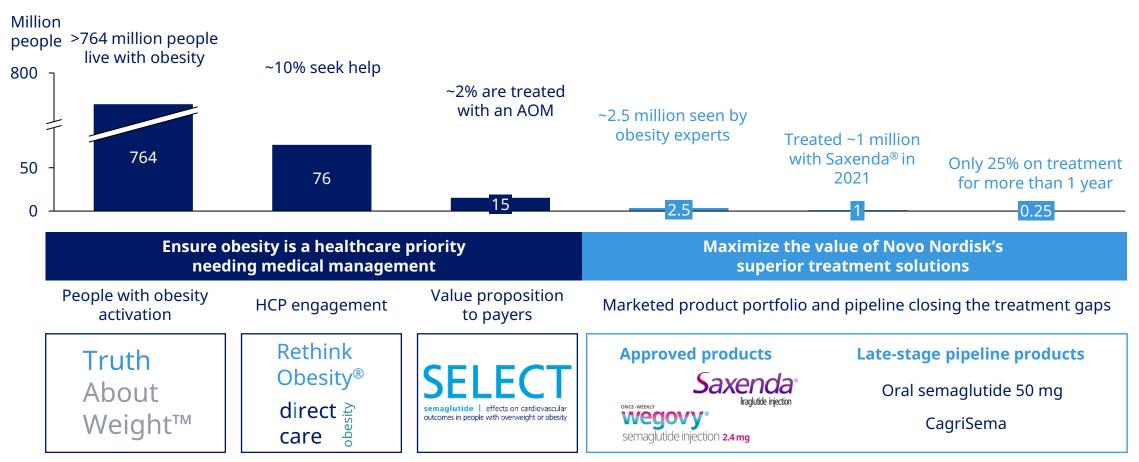
**People with obesity:** Patient groups are encouraging PwO to seek treatment

**Obesity prevalence (%)** 



Note: Obesity is defined as BMI > 30.

# Patient-centric strategy designed to activate more people with obesity, drive HCP engagement, and improve market access



### Large opportunity for activating more people with obesity to seek treatment and increasing the number of prescribers

Wegovy® patient characteristics in the US



**70%** 

81%

**37.8** 

31%

of patients **new to anti**obesity medication<sup>1</sup>

of patients are **female** 

**Average BMI** 

of patients have ≥3 comorbidities

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

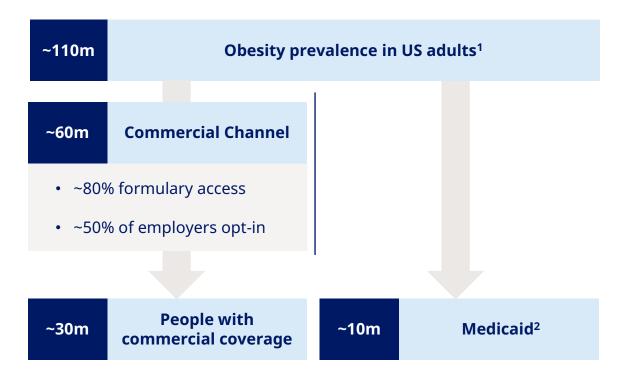
140

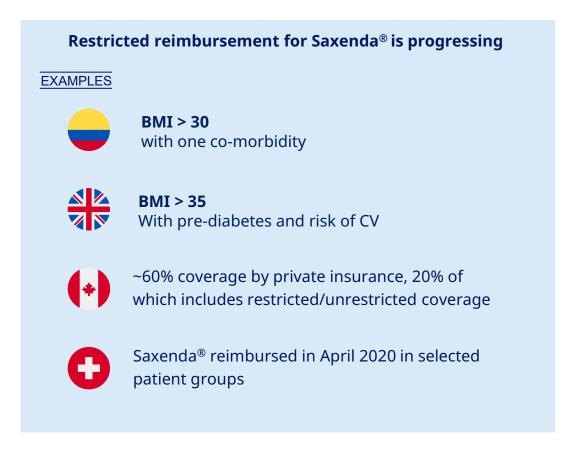
million people with a BMI > 27

| BMI<br>(million of people)                  | 27-30<br>(43) | 30-35<br>(52) | 35-40<br>(25) | ≥40<br>(20) | Total<br>(140) |
|---|---------------|---------------|---------------|-------------|----------------|
| No obesity-related comorbidity <sup>1</sup> | 7             | 6             | 2             | 2           | 17             |
| Any obesity-related comorbidity             | 36            | 46            | 23            | 18          | 123            |
| Hereof metabolic syndrome <sup>3</sup>      | 21            | 26            | 14            | 12          | 72             |

## Patient access to anti-obesity medications is improving in both the US and IO

The~40 million people having access to Wegovy® is nearly the number of people with diabetes in the US (~50 million)





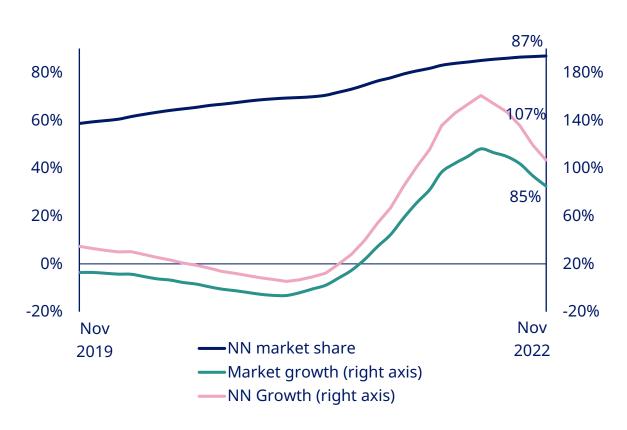
Note: Obesity is defined as BMI > 30.

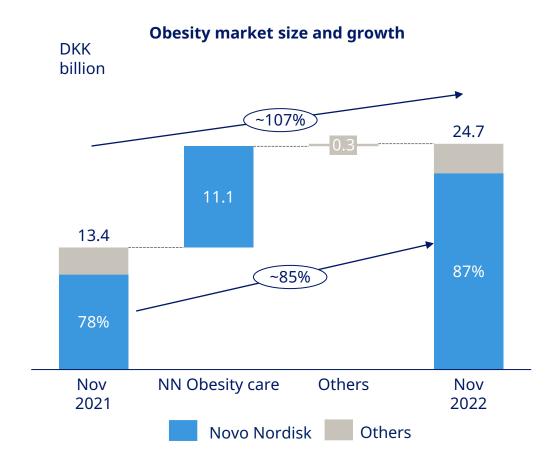
¹ Prevalence: Adult obesity facts. Centers for Disease Control and Prevention, https://www.cdc.gov/obesity/data/adult.html; US Census Bureau. QuickFacts: United States. https://www.census.gov/quickfacts/fact/table/US#viewtop. Accessed Mar, 2021.;

<sup>&</sup>lt;sup>2</sup> Also includes DoD and government employees

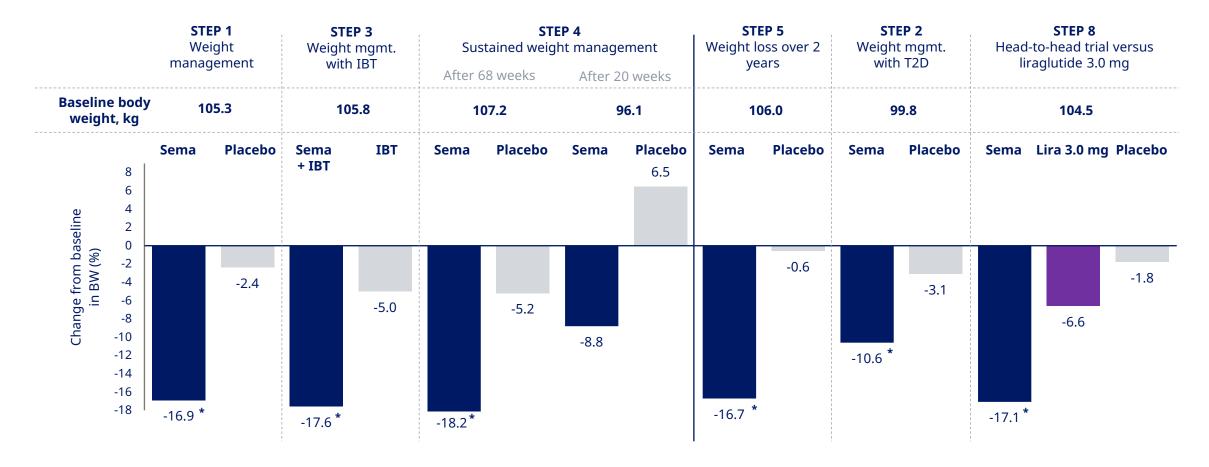
## Global obesity market growth has been accelerating with Novo Nordisk capturing the majority of growth

#### Obesity market growth and Novo Nordisk value market share





# 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



<sup>\*</sup> 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

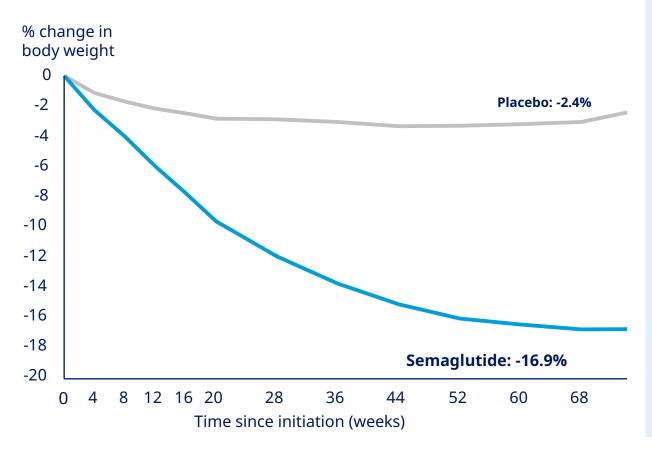
Novo Nordisk®

Investor presentation

Full year 2022

## 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



#### **Data from STEP 1**



- Average age 46
- 74.1% women
- Average BMI 37.9 kg/m<sup>2</sup>



Improvements in lipid profile as well as C-reactive protein



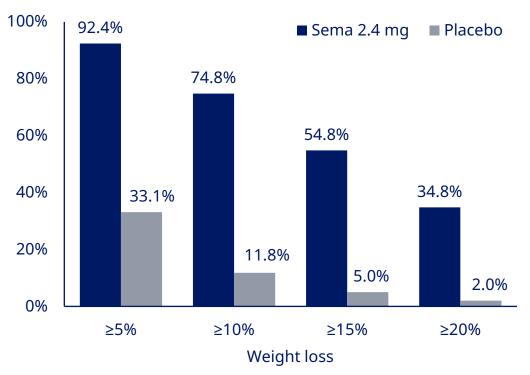
Semaglutide improved health-related quality of life as measured by SF-36 and IWQoL-lite-CT

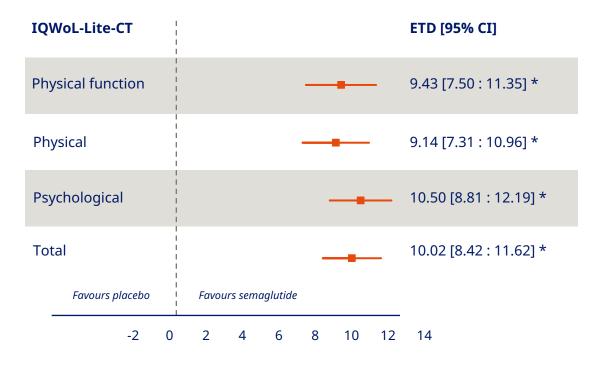
## In STEP 1, 34.8% of patients treated with sema reached ≥20% weight loss and reported improved quality of life versus placebo

#### **Categorical weight loss**

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

#### Proportion of patients



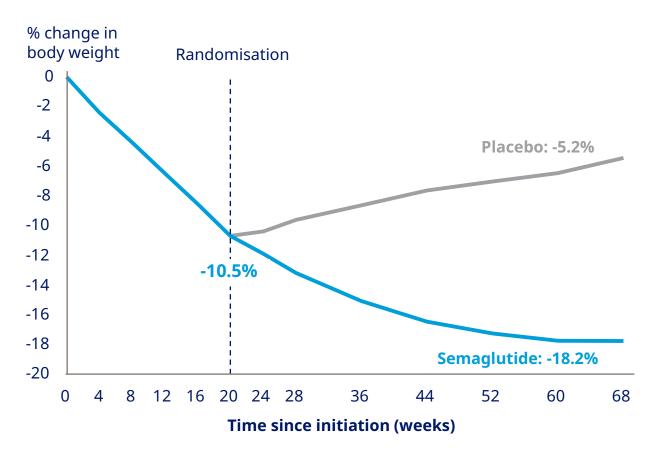


Descriptive statistic only. Based on the on-treatment data, i.e. data for people that are on-treatment at week 68 Sema: semaglutide

<sup>\*</sup> 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/m<sup>2</sup>



Trial highlights that obesity is a chronic disease requiring sustained treatment

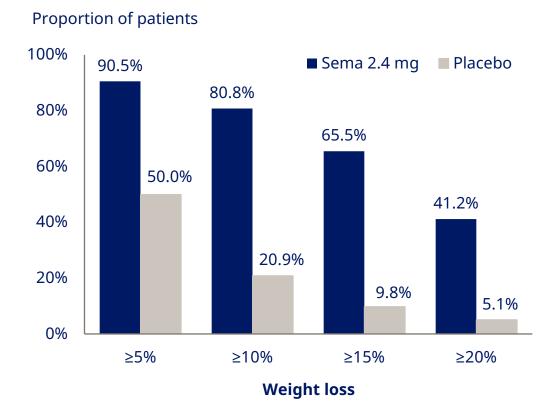


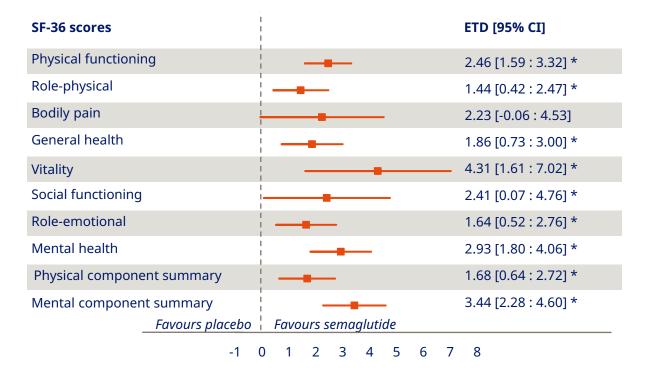
Improvements on a panel of cardiovascular risk markers

## 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**

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

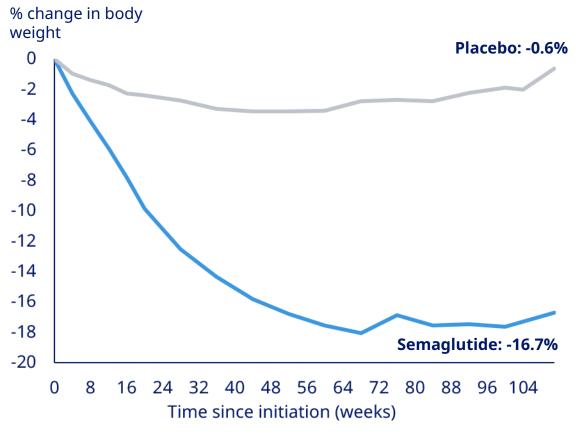




Descriptive statistics only. Based on the on-treatment data, i.e. data for people that are on-treatment at week 68 Sema: semaglutide

## In STEP 5, people treated with semaglutide 2.4 mg sustained their weight loss over 2 years

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

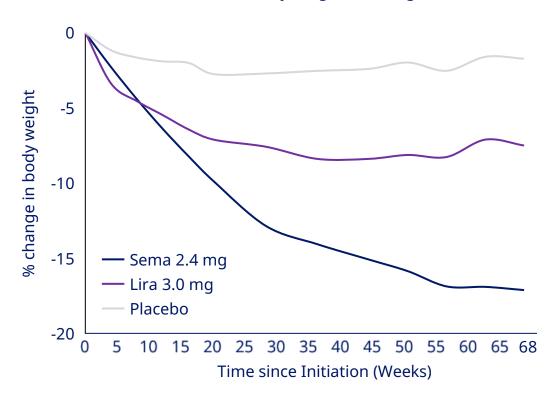


## **Data from STEP 5 40%** of patients lost ≥ 20% of their body weight Semaglutide appeared to have a safe and well-tolerated profile Improvements in lipid profiles as well as C-reactive protein

Change in body weight in % depicts observed means since time of randomisation; trial product estimand; mean body weight: 106.0 kg

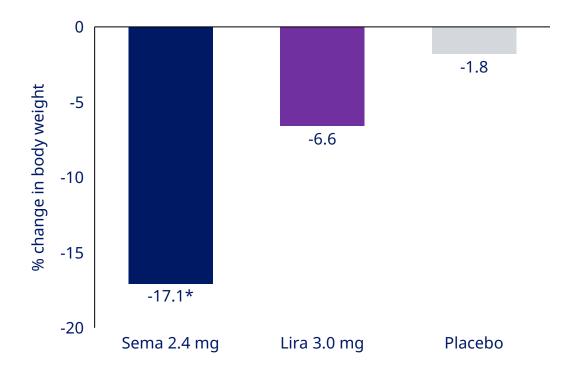
#### STEP 8 observed mean change in body weight<sup>1</sup>

Mean baseline body weight: 104.5 kg



#### Statistically significant weight loss with sema 2.4 mg vs lira 3.0 mg

Mean baseline body weight: 104.5 kg



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 trial investigating oral semaglutide 50 mg in obesity initiated in Q3 2021 and expected to complete in H1 2023

#### Global trial planned was started in H2 2021



#### **Inclusion criteria**

- BMI:  $\geq$ 27 kg/m<sup>2</sup> with  $\geq$  1 weight-related comorbidity, or
- BMI ≥30 kg/m<sup>2</sup>
- Weight-related comorbidities are hypertension, dyslipidaemia, obstructive sleep apnoea and CVD

#### **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%

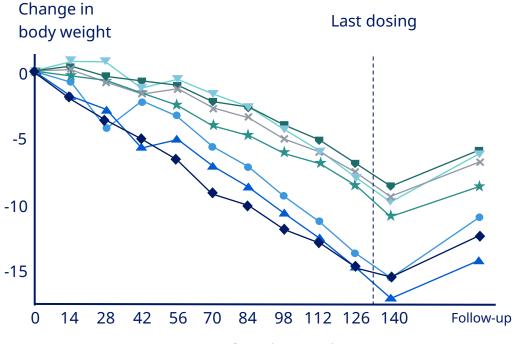
#### **OASIS** programme scope

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

## In a 20-week phase 1 trial, CagriSema showed weight loss of 17% and appeared to have a safe and well tolerated profile

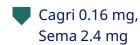
#### Weight loss for different doses of CagriSema in phase 1

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



|                           | n=12    | n=12     | n=12    | n=12     | n=12     | n=11     | n=24    |
|---------------------------|---------|----------|---------|----------|----------|----------|---------|
|                           | N (%)   | N (%)    | N (%)   | N (%)    | N (%)    | N (%)    | N (%)   |
| AEs                       | 11 (92) | 12 (100) | 11 (92) | 12 (100) | 12 (100) | 11 (100) | 23 (96) |
| SAEs <sup>1</sup>         | 0       | 0        | 0       | 1 (8)    | 0        | 0        | 0       |
| AEs leading to withdrawal | 1 (8)   | 0        | 0       | 1 (8)    | 0        | 0        | 0       |
| GI disorders              | 7 (58)  | 10 (83)  | 7 (58)  | 10 (83)  | 11 (92)  | 9 (82)   | 19 (79) |

Time since first dosing (days)



Cagri 0.3 mg, Sema 2.4 mg

🛖 Cagri 0.6 mg, Sema 2.4 mg Cagri 1.2 mg, Sema 2.4 mg Cagri 2.4 mg Sema 2.4 mg Cagri 4.5 mg, Sema 2.4 mg

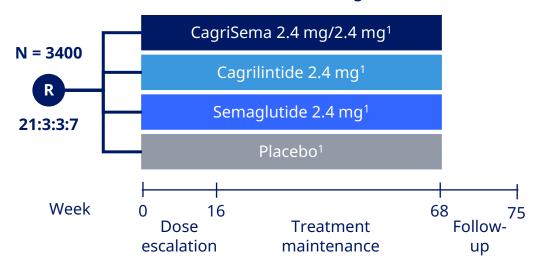
 Placebo, Sema 2.4 mg

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.

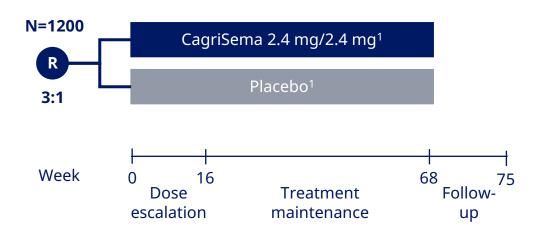
<sup>&</sup>lt;sup>1</sup>The serious adverse event was meningitis

## The CagriSema phase 3 programme, REDEFINE, was initiated in the fourth quarter of 2022

#### **REDEFINE 1 trial design**



#### **REDEFINE 2 trial design**



#### **Inclusion criteria**

#### **REDEFINE 1:**

- BMI: ≥ 30 kg/m<sup>2</sup> or ≥ 27 kg/m<sup>2</sup> and ≥1 comorbidity
- Excludes diabetes diagnosis or  $HbA_{1c} \ge 6.5\%$

#### **REDEFINE 2:**

- BMI: ≥ 27 kg/m<sup>2</sup>
- Type 2 diabetes, HbA<sub>1c</sub> < 10%

### **Primary endpoints:**

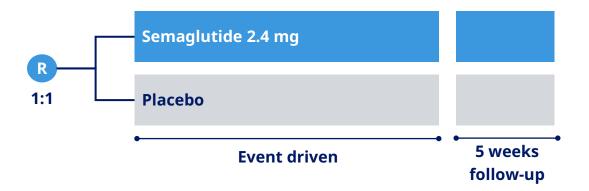
- Change in body weight (%)
- Achieve ≥ 5% body weight reduction

#### **Confirmatory secondary endpoints:**

- Change in waist circumference
- HbA<sub>1c</sub>
- Systolic blood pressure
- Patient reported outcomes<sup>2</sup>

## The SELECT cardiovascular outcomes trial expected to complete in the middle of 2023

### SELECT trial with 17,500 people with 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.

#### **Primary endpoint**

Time from randomisation to first occurrence of 3-point MACE<sup>1</sup>

#### **Secondary confirmatory endpoints**

Time from randomisation to first occurrence of

- CV death
- HF composite endpoint
- All-cause death

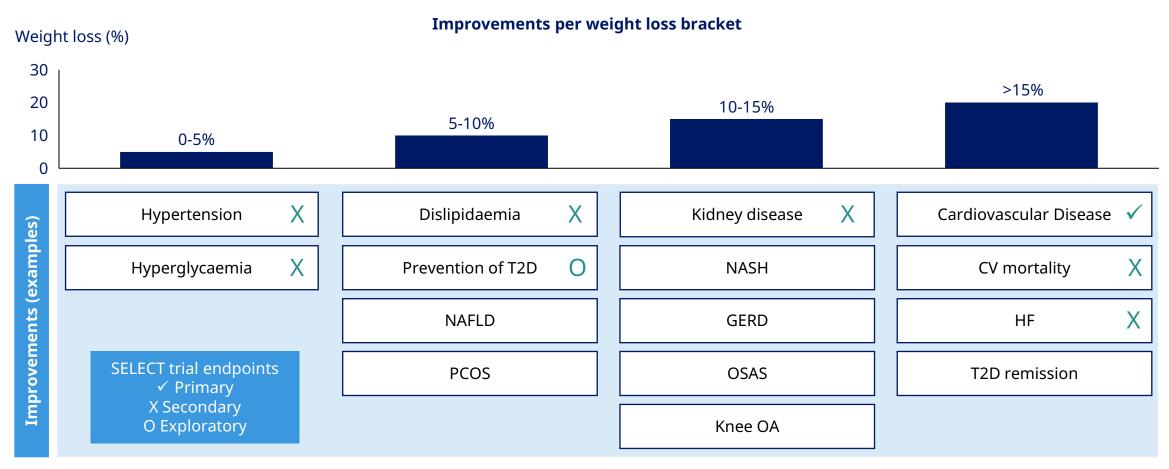
#### **Selected Secondary Supportive endpoints**

- 5-point MACE composite
- 5-component composite nephropathy endpoint
- Glucose metabolism endpoints and other metabolic parameters

#### **Estimated completion**

The trial is expected to complete in the middle of 2023

# The cardiovascular trial, SELECT, addresses many comorbidities that can be improved with weight management



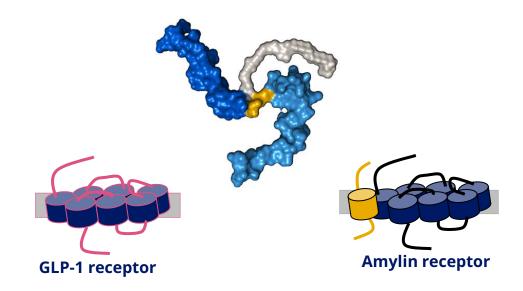
T2D: Type 2 diabetes; NAFLD: Non-alcoholic fatty liver disease; PCOS: Polycystic ovary syndrome; NASH: Non-alcoholic steatohepatitis; GERD: Gastroesophageal reflux disease; OSAS: Obstructive sleep apnea syndrome; OA: Osteoarthritis HF: Heart failure

Sources: Garvey WT et al. Endocr Pract 2016;22(Suppl. 3):1–203; Look AHEAD Research Group. Lancet Diabetes Endocrinol 2016;4:913–21; Lean ME et al. Lancet 2018;391:541–5; Benraoune F and Litwin SE. Curr Opin Cardiol 2011;26:555–61; Sundström J et al. Circulation 2017;135:1577–85., Morales E and Praga M. Curr Hypertens Rep 2012;14:170-176

# Oral amycretin entered phase 1 in Q2 2022, combining protein and peptide expertise with oral technology

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



**Utilising the SNAC technology** 

#### **People**

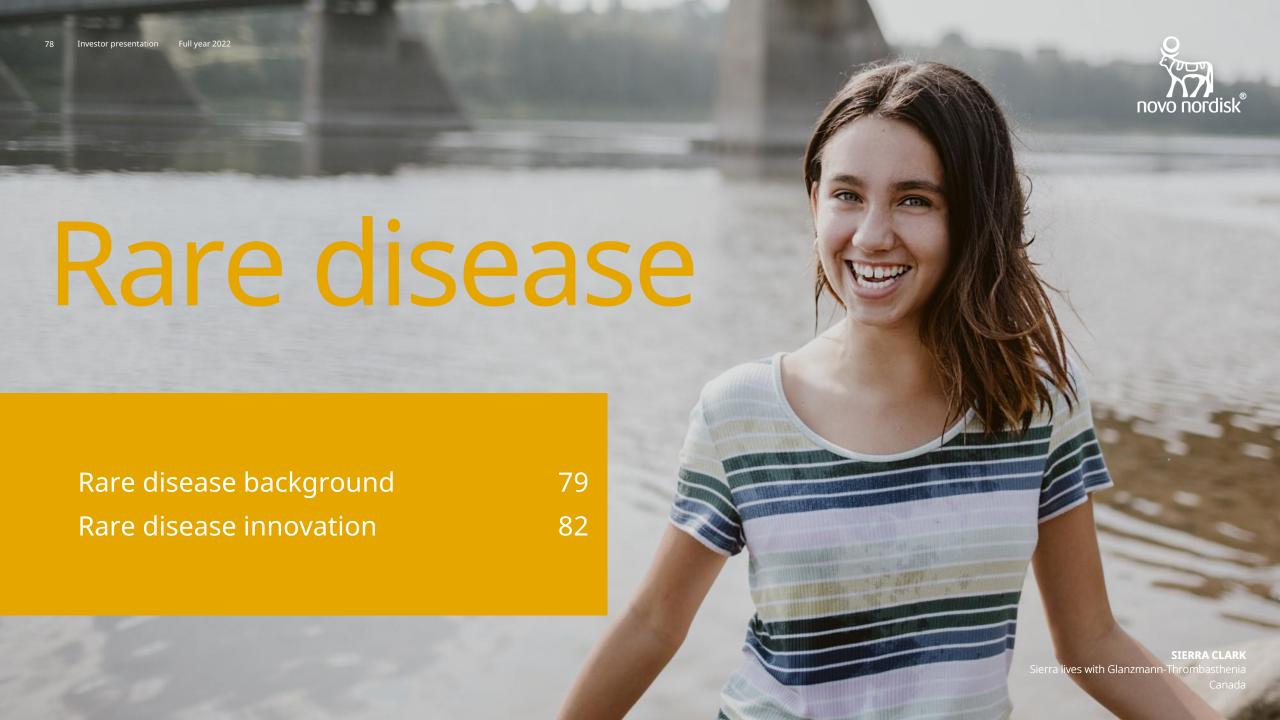
living with overweight or obesity, and otherwise healthy Multiple ascending dose cohorts
 Single ascending dose cohorts

#### **Trial objectives**

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

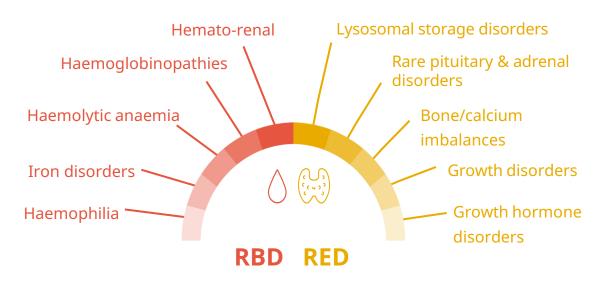
#### **Trial initiation**

Phase 1 was initiated in Q2 2022

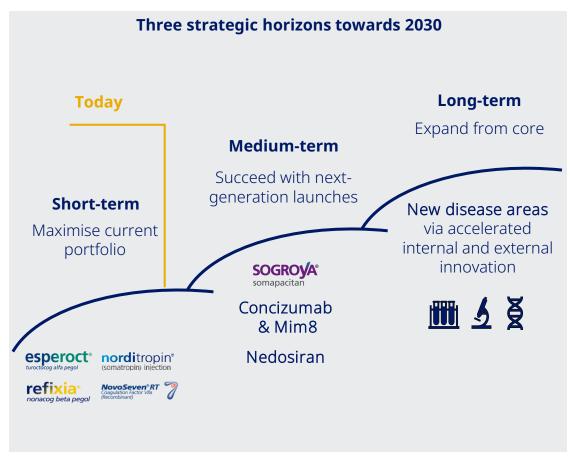


## Building upon a 40-year legacy to capture the Rare disease strategic opportunity

### A strategy anchored in Rare blood and endocrine disorders

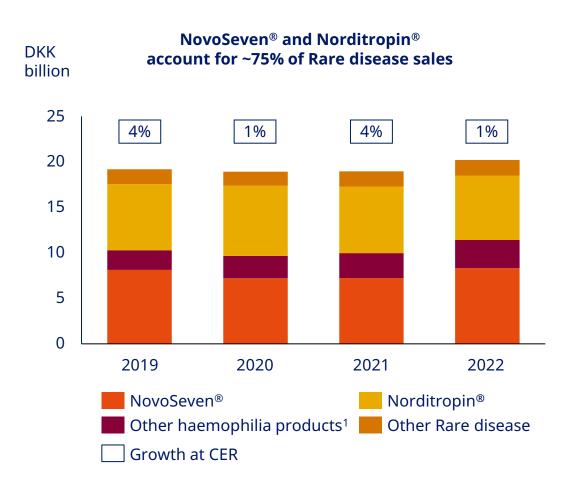


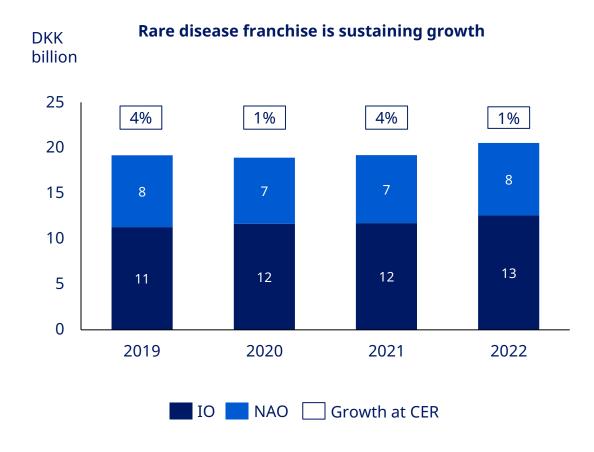
Rare blood disorders Rare endocrine disorders



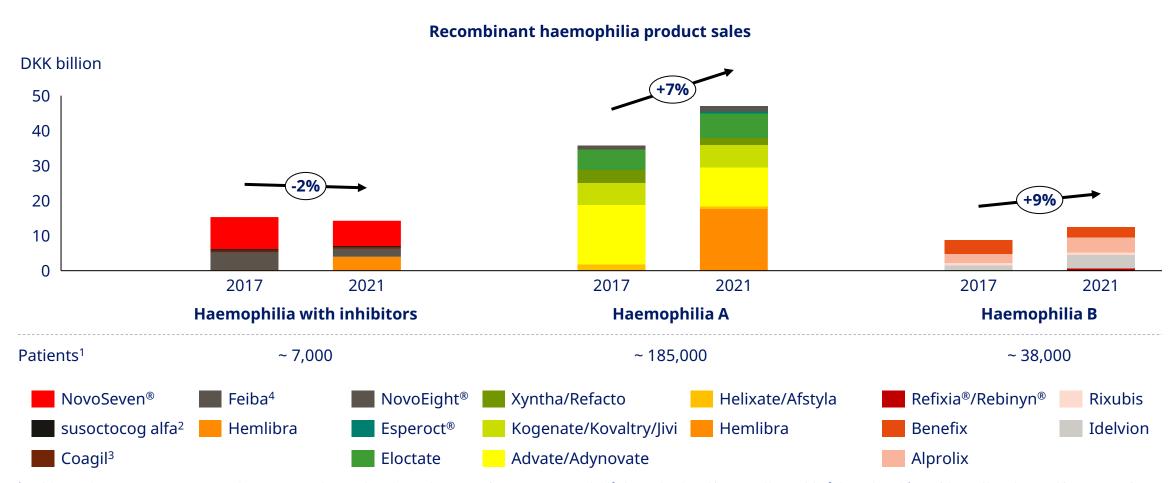
Full year 2022

## Rare disease sales increased by 1%, driven by commercial execution and key brands Esperoct® and Refixia®





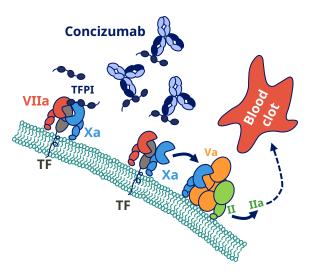
## Haemophilia is a rare disease with severe unmet medical needs but the market is highly competitive



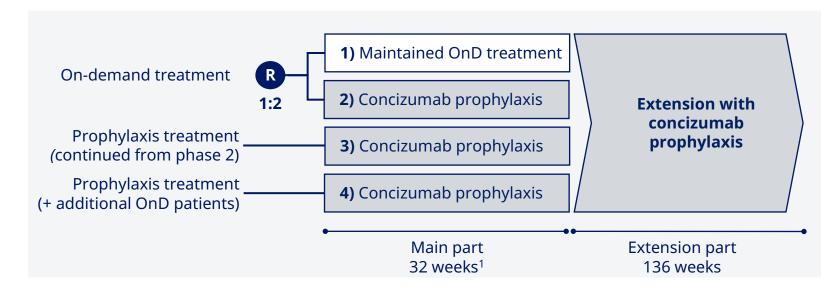
<sup>&</sup>lt;sup>1</sup> Total diagnosed patients in segment, WFH annual survey 2021 (numbers may be understated as 118 out of 147 countries responded); <sup>2</sup> Obizur only indicated for acquired haemophilia; <sup>3</sup> Plasma-derived; <sup>4</sup> Part of the Hemlibra sales is used for treatment of haemophilia A patients in 2021

# 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**

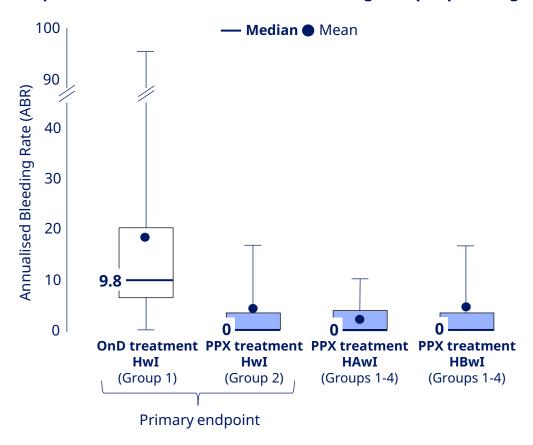
Number of treated bleeding episodes from start of treatment to the end of the main phase

#### **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

## 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**



#### **Key highlights**

#### **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

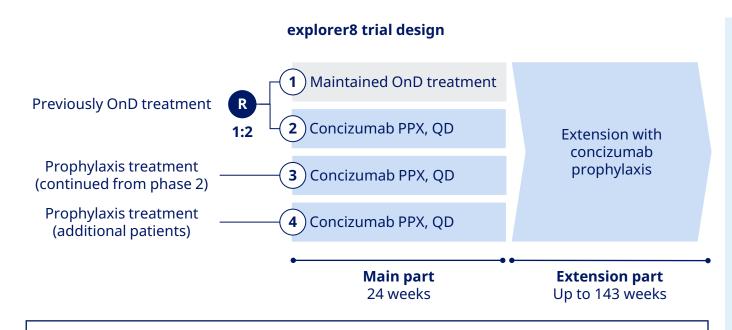
#### Safety

Concizumab appeared to have a **safe and well tolerated** profile

#### **Status**

- US/IP submission for inhibitor indications completed in Q3 2022
- Explorer8 in non-inhibitor patients is completed in Q3 2022

# Main part of the explorer8 trial with concizumab in people with HA or HB without inhibitors has been completed



#### **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)

#### **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 noninferiority 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<sup>1</sup>

#### **Next steps**

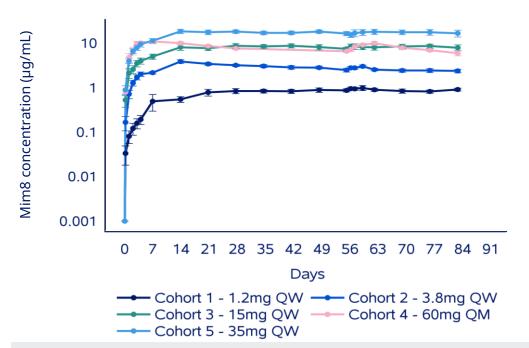
- Initial commercial launch for concizumab is expected to be focused on HwI followed by Haemophilia B
- Further assessment of development opportunities and submissions based on the results from the explorer8 trial

<sup>&</sup>lt;sup>1</sup> 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; Prophylaxis: PPX; OnD: On-demand, QD: Once-daily

Novo Nordisk® Novo Nordisk®

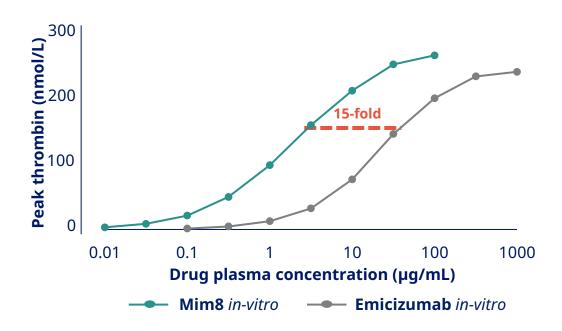
# Interim data from Mim8 phase 1/2 show that PK/PD profiles support weekly to monthly low volume dosing

## Mim8 pharmacokinetic properties support weekly and monthly 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



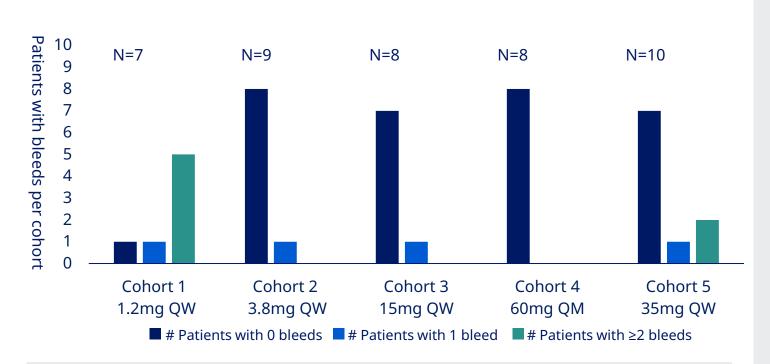
- The PD marker, peak thrombin generation, increased with Mim8 dose
- In-vitro exposure-response curves in haemophilia A-like plasma show a 15-fold higher potency of Mim8 compared to emicizumab

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; Windyga 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

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



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)

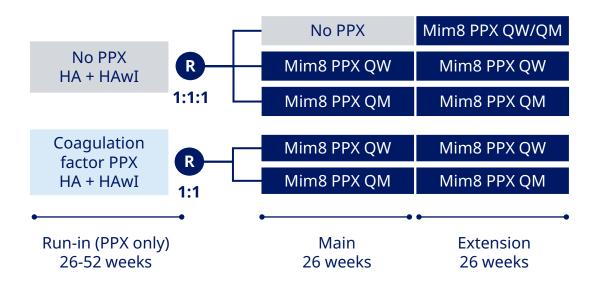
#### **Anti-Mim8 antibodies**

No occurrence of anti-Mim8 antibodies detected

#### Overall, no safety concern observed

## 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

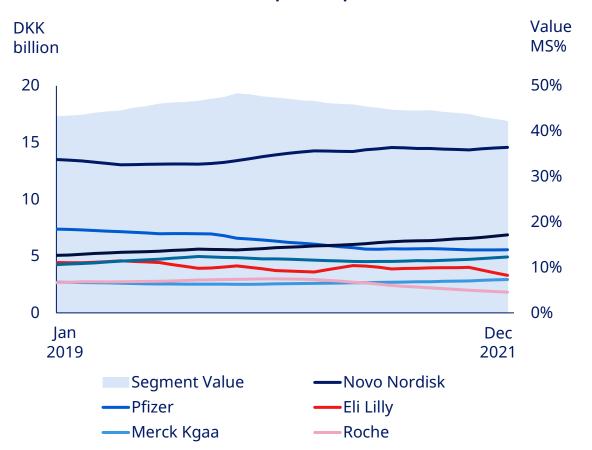
#### **Key trial endpoints**

- 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, is expected to initiate treatment with Mim8 in the coming months

## While Norditropin<sup>®</sup> is the market leader within GHD market, Sogroya® represents an opportunity for patients

#### Novo Nordisk leadership in competitive hGH market



#### A portfolio offering across markets

### Sogroya<sup>®</sup> launches

- Once-weekly efficacious treatment on par with Norditropin<sup>®</sup>
- Appears to have safe profile and no injection site reactions
- Simple and easy-to-use device
- Phase 3 trials toward broad range of indications (e.g. SGA, Turner, Noonan, ISS) to expand the market

### Norditropin® strategy

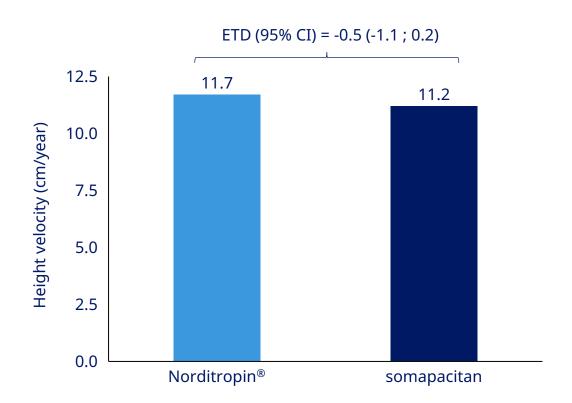
- Apply a market-fit approach to support specific markets and patient groups
- Broad label across eight indications

norditropin® (somatropin) injection

SOGRO

# Sogroya® phase 3 trial successfully completed with aspirational target product profile achieved

#### Phase 3a trial results in children with GHD



#### **Key highlights**

#### **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 burden<sup>1</sup> compared to Norditropin<sup>®</sup>

#### **Next steps**

Submission took place in Q2 2022

<sup>&</sup>lt;sup>1</sup> 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

## Novo Nordisk and 2seventy bio extend partnership in nextgeneration genome editing for people with haemophilia A

#### Lifelong correction via a unique modality





FVIII gene engineered and packed in an AAV vehicle

### Utilising the skills of both 2seventy bio and Novo Nordisk

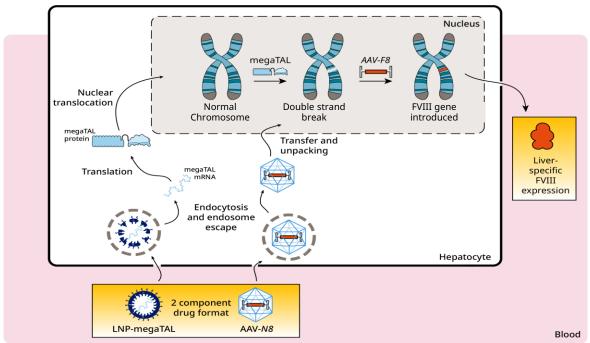


Utilisation of **megaTAL**<sup>™</sup> technology, invivo mRNA manufacturing/purification platform, and gene editing know-how

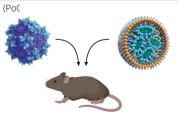


**Haemophilia A** understanding and protein and molecular engineering capabilities

#### Mode of action



AAV vector with N8 gene (PoC design)



F8-/- Rag2-/- mouse

LNP-formulated surrogate megaTAL targeting site specific locus



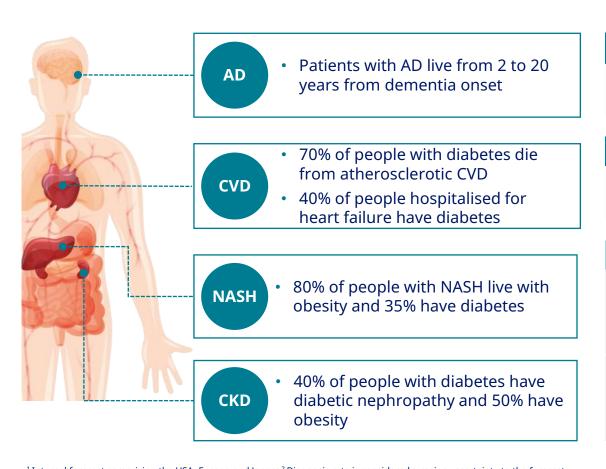


The unmet needs 92
Cardiovascular disease 93
Non-alcoholic steatohepatitis 96
Alzheimer's disease 103
Stem cells 106

## Novo Nordisk is expanding into other serious chronic diseases

#### Serious chronic diseases are often associated with diabetes and obesity

### New therapeutic areas represent patient populations with high unmet medical needs



|    | Estimated patients |
|----|--------------------|
| AD | ~85 million        |

|     | Estimated patients | Number of related deaths |
|-----|--------------------|--------------------------|
| CVD | ~420 million       | ~20 million annually     |

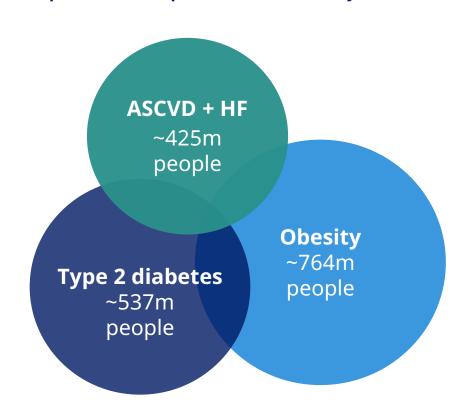
|      | Estimated patients          | Diagnosis rate |
|------|-----------------------------|----------------|
| NASH | ~15-40 million <sup>1</sup> | ~20%²          |
| CKD  | ~200 million                | ~20%           |

¹ Internal forecast comprising the USA, Europe and Japan; ² Diagnosis rate is considered a major uncertainty to the forecast CVD: Cardiovascular disease; NASH: Non-alcoholic Steatohepatitis; CKD: Chronic kidney disease; AD: Alzheimer's Disease Sources: Alzheimer's Association report: 2020 Alzheimer's disease facts and figures, 2020 (16:391-460), Diabetes Care 2005 Jan; 28(1): 164-176; Abera SF et al. Global, Regional, and National Burden of Cardiovascular Diseases for 10 Causes, 1990 to 2015, 2017; 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

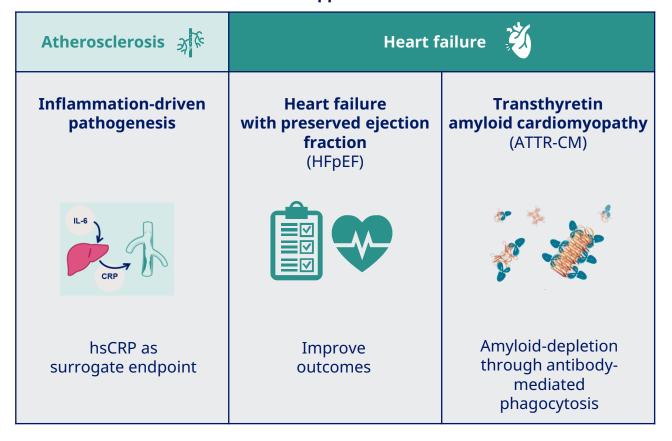
Novo Nordisk®

## Large patient overlaps between diabetes, obesity, and CVD have guided the focused approach in CVD

#### Population overlap between T2D, obesity and CVD



#### Focused approach in CVD



# Innovative late-stage CVD pipeline provides opportunities to make a difference for many patients

#### **Focus areas**

#### Near-term

Leverage broader CV indications to establish presence with Cardiologists and build an adequate PCP footprint for entry of stand-alone CVD product

#### Medium-term

Utilise leading scientific and commercial capabilities to launch first CVD stand-alone product

#### Long-term

Expand pipeline with differentiated MoAs through leading discovery and translational capabilities

#### **Examples of unmet needs in CVD pipeline**

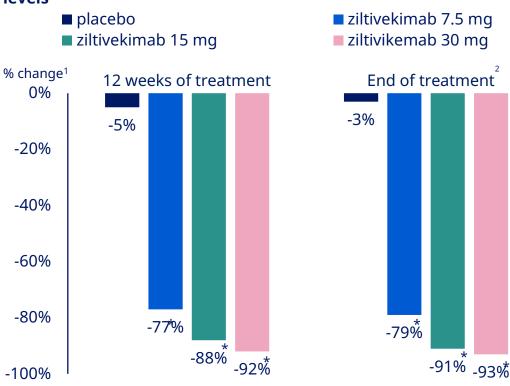
| Category                      | Broader in  | ndications                   | Stand-alone CVD   |  |  |
|-------------------------------|---|------------------------------|---|--|--|
| <b>Study</b><br>Current phase | HFpEF<br>Phase 3<br>Sema 2.4mg                      | PAD<br>Phase 3<br>Sema 1.0mg | ATTR-CM Phase 2 was initiated in 2022 NNC6019               |  |  |
| Global unmet need (people)    | ~13m  | ~200m                        | No consensus (estimated 0.1-<br>2.8 cases per 10,000 in EU) |  |  |
| Potential<br>differentiators  | 1 <sup>st</sup> in class<br>indication <sup>1</sup> | First and only for T2D       | Reverse disease pathology                                   |  |  |
| Potential<br>launch year      | 2023/24   | 2023/24                      | 2028  |  |  |
|                               |   |                              |   |  |  |

PCP: Primary Care Physician; CV(D): 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 Sources: HFpEF: Savarese G, Lund LH. Global Public Health Burden of Heart Failure, 3 April 2017; PAD: Shu J, Santulli G. Update on peripheral artery disease: Epidemiology and evidence-based facts, 22 May 2018; ATTR-CM: Orphan Maintenance Assessment Report for tafamidis, EMA, 17 February 2020

<sup>1</sup> Specifically for a functional outcomes trial in an obese patient population

## Ziltivekimab phase 2b RESCUE trial was successfully completed

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



- Zilti QM showed reductions in inflammation biomarkers<sup>3</sup>
- Zilti 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<sup>4</sup>
- The phase 3 cardiovascular outcomes trial was initiated in Q3 2021

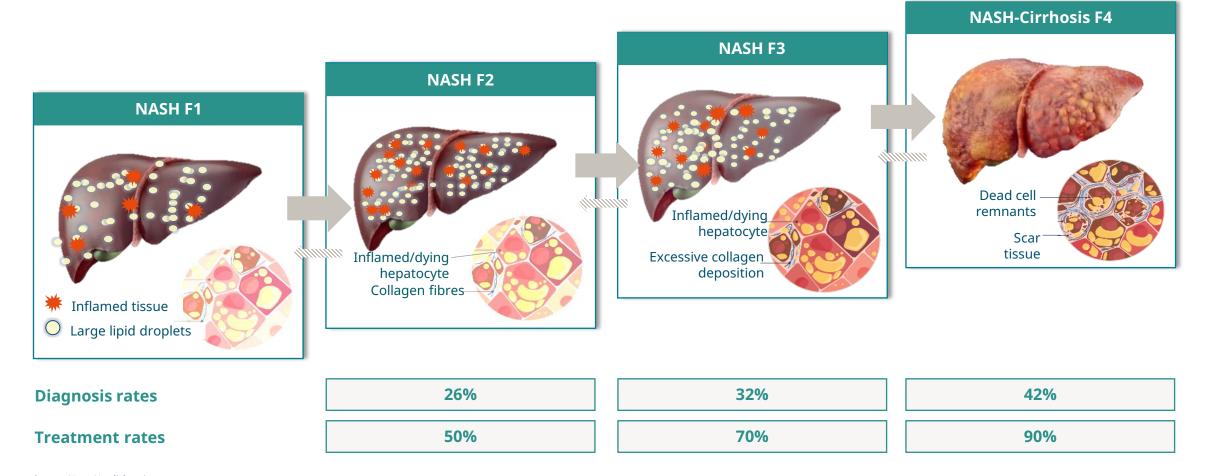
<sup>1</sup> Primary endpoint was the median percent change in hsCRP, \* Indicates statistical significance, p < .0001

<sup>&</sup>lt;sup>2</sup> End of treatment is defined as the average of values at week 23 and week 24

<sup>&</sup>lt;sup>3</sup> Inflammation biomarkers include: Fibrinogen, serum amyloid A, haptoglobin and NTproBNP

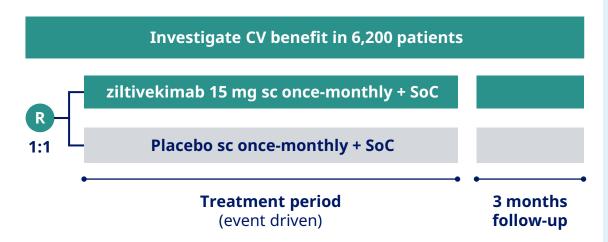
<sup>&</sup>lt;sup>4</sup> Inflammation is defined as c-reactive protein levels greater than 2

# NASH is a progressive disease with no existing treatment and low diagnosis rates today



# ZEUS trial with ziltivekimab aims to validate the link between inflammation and major adverse cardiovascular events

#### Phase 3 CVOT trial ZEUS with ziltivekimab



#### **Objective**

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

#### **Primary endpoints**

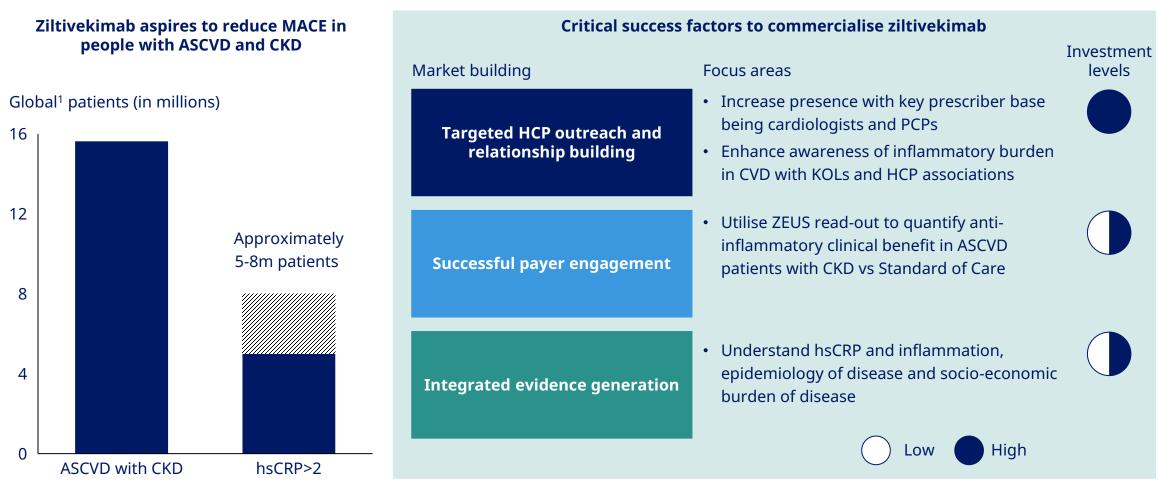
• Time to the first occurrence of 3-point MACE (CV death, non-fatal MI or non-fatal stroke)

### **Secondary confirmatory endpoints**

- Time to first occurrence of expanded MACE<sup>1</sup>
- 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

<sup>&</sup>lt;sup>1</sup> MACE includes CV death, non-fatal MI or non-fatal stroke, Expanded MACE includes: (CV death, 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



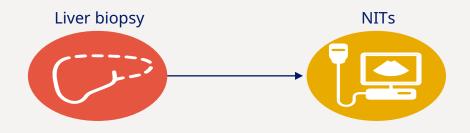
<sup>&</sup>lt;sup>1</sup> Includes US, EU5 (Germany, France, Spain, Italy, United Kingdom) and Japan MACE or major adverse cardiovascular events includes CV death, non-fatal MI or non-fatal stroke; ASCVD: Atherosclerotic cardiovascular disease; CKD: Chronic kidney disease; HCP: Healthcare professional; PCP: Primary care physician KOL: Key opinion leader; hsCRP: High-sensitivity C-reactive protein

## NASH patient journey underscores key barriers to overcome for Novo Nordisk to be successful

#### Hurdles ~22 million people are expected to live with NASH F2-F4c by 2030 25 Low disease Inadequate patient No treatment **Few patients** awareness 20 referrals1 options receiving **NASH** diagnosis prevalence 15 10 **Market preparation priorities Build strong presence** Increase diagnosis rate **Evidence generation** Create urgency to treat in NASH Momentum towards NITs in Build understanding of importance of addressing clinical practice and guidelines Build strong speciality-referral underlying cause of disease NITs for diagnosis, screening and process • Stop clinical progression amongst monitoring Engage Endos, Hepas and PCPs physicians and payers Indicates expected investment level

## Novo Nordisk is supporting use of non-invasive tests for NASH diagnosis

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



**Guidelines:** NITs represented in guidelines

**Practitioners:** ~80% of HCPs perform NASH 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 NASH diagnosis

Real world

- Linking biomarkers and liver histology to outcomes
- · Disease understanding

External

- Consortia
- Collaborations with academia and other healthcare companies

Phase 2 trial with FGF21

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

Validate

diagnostic tests

Validate

tests for monitoring

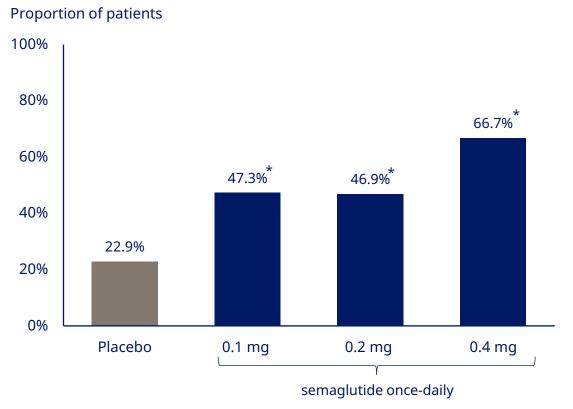
Validate

for prognosis

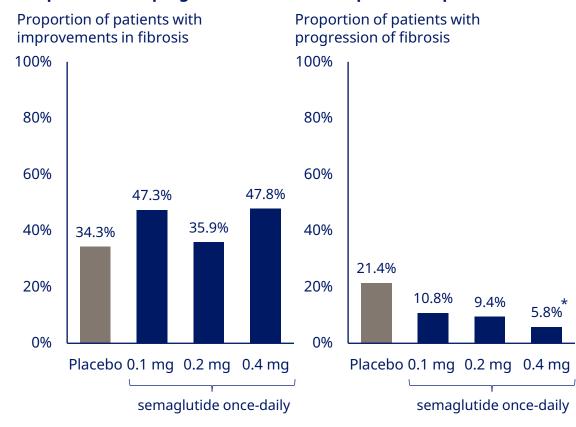
Note: FDA De Novo provides a marketing pathway to classify novel medical devices for which general controls alone, or general and special controls, provide reasonable assurance of safety and effectiveness for the intended use, but for which there is no legally marketed predicate device.

## In phase 2, semaglutide showed significant improvements in **NASH** resolution

### Semaglutide showed resolution of NASH with no worsening of fibrosis versus placebo in the phase 2 trial<sup>1</sup>



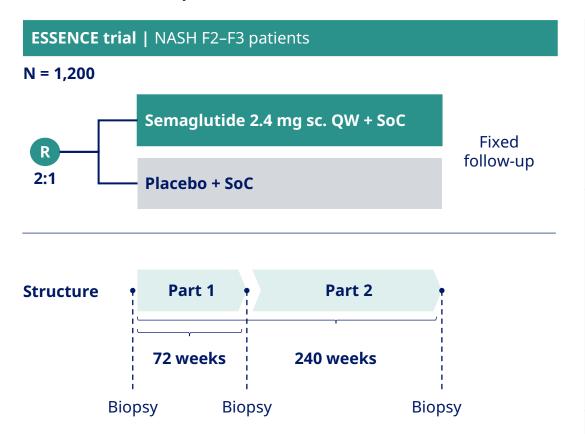
### Semaglutide showed numerical improvements in fibrosis and fewer patients had progression of fibrosis vs placebo in phase 2 trial<sup>1</sup>



Note: \*statistically significant at 72 weeks (p<0.05 vs placebo). Based on a complete case analysis, using people with an evaluable biopsy at end of trial. Analysis included patients with fibrosis stage 1, 2, or 3 at baseline. Data is from the semaglutide in NASH

# Phase 3a trial ESSENCE with semaglutide 2.4 mg for the treatment of NASH was initiated in Q1 2021

The phase 3a ESSENCE trial in NASH



### 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 NASH and no worsening of liver fibrosis
- Improvement in liver fibrosis and no worsening of NASH

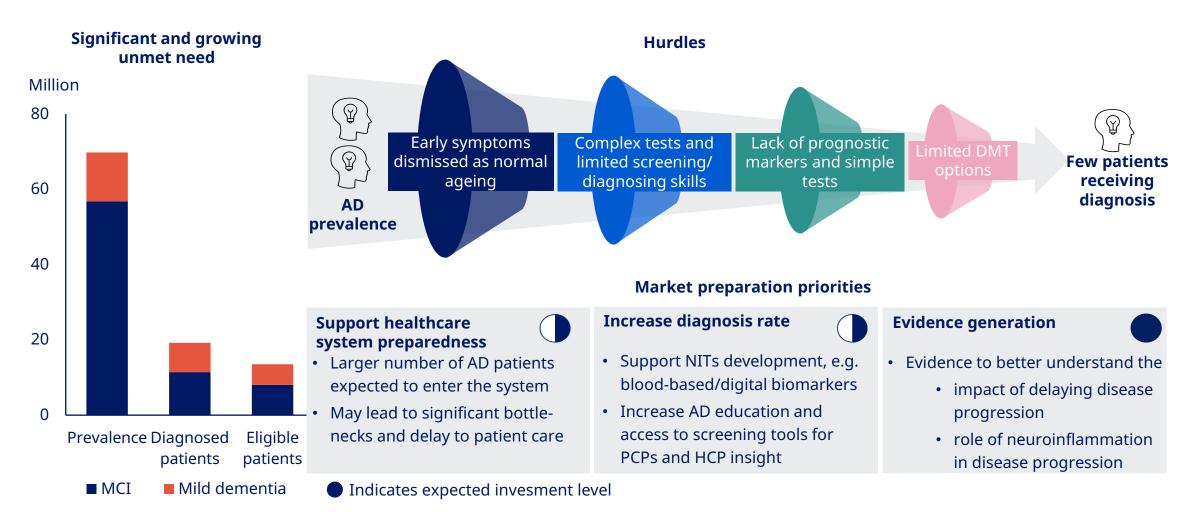
Part 2 | Lowers the risk of liver-related clinical events vs placebo

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

## AD patient journey is complex and underscores key barriers to overcome for Novo Nordisk to be successful



# 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<sup>1</sup>

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

#### TRUVEN claims database<sup>1</sup>

 31% lower risk of dementia after >2 years of GLP-1 exposure

### Danish registry<sup>2</sup>

 42% lower odds of dementia after GLP-1 exposure

#### FAERS (FDA database)<sup>3</sup>

 64% lower odds of AD after liraglutide exposure



#### **Randomised controlled trials**

**53%** lower risk of dementia diagnosis with liraglutide/semaglutide in NN's CVOTs in T2D<sup>4</sup>

**Less decline** in cerebral glucose metabolism (FDG-PET) with liraglutide in AD<sup>5</sup>

Reduced incidence of **major adverse CV events** in T2D with semaglutide incl. stroke<sup>6</sup>

Systemic anti-inflammatory effects with semaglutide<sup>7,8</sup>

Short-term **memory improvement** with liraglutide in people with obesity<sup>9</sup>

**Reduced cognitive decline** with dulaglutide in patients with T2D<sup>10</sup>



#### **Pre-clinical studies**

**Improved memory function** with GLP-1<sup>11</sup> incl. semaglutide<sup>12</sup>

Reduced phospho-tau accumulation<sup>13</sup>

**Reduced neuroinflammation** with GLP-1<sup>14,15</sup> incl. semaglutide<sup>16</sup>

**Reduced atherosclerosis** with liraglutide and semaglutide<sup>17</sup>

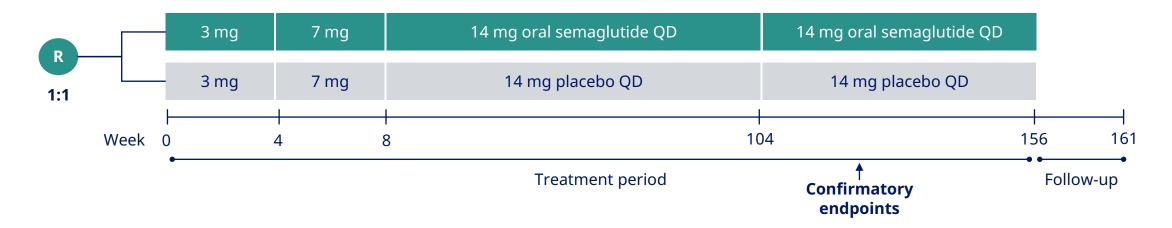
Systemic **anti-inflammatory** effects with semaglutide<sup>17</sup>

AD: Alzheimer's disease; CI: confidence interval; RWE: Real world evidence

¹NN data on file, Danish register: Dementia cases based on diagnosis (ICD10) or treatment (anticholinesterases, memantine); ²Wium-Andersen IK et al. Eur J Endocrinol. 2019;181(5):499-507; ³Akimoto H et al. Am J Alzheimers Dis Other Demen. 2020;35:1-11; ¹Ballard et al. Presented online at the Alzheimer's Association International Conference (AAIC), 27–31 July 2020; ⁵Gejl M et al. Front Aging Neurosci 2016;8:108; ⁵Husain M et al. Diabetes Care 2019;42:2272–2281; ⁵Vacian Me tal. Jalzheimers Dis 2015;46:877–888; ¹²Preliminary data in NN ongoing pre-clinical studies; ¹³Hansen HH et al. Brain Res 2016;1634:158–170; ¹⁴Brundin L et al. Vature Med 2018;24:931–938; ¹⁵Secher A et al. Oral presentation at Virtual Alzheimer's Disease/Parkinson's Disease International Conference, 9–14 March 2021; ¹¹Rakipovski G et al. IACC Basic Transl Sci 2018;3:844–857

## 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

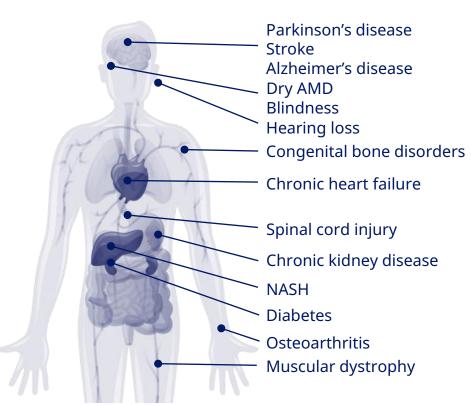
#### **Inclusion criteria**

- 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

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## There is broad potential for cell therapies and Novo Nordisk has capabilities to explore the potential

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



Multiple sites: Cancers and wound healing

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

| Focus area  | Novo Nordisk capabilities  |
|---|--|
| Pluripotent stem cell                             | In-depth know-how on embryonic pluripotent stem cells                                    |
| Bank of several<br>undifferentiated stem<br>cells | Exploitation of quality controlled stem cells  |
| Differentiated to specific cell types             | IP-protected protocols for differentiation   |
| Upscaling, manufacturing and delivery/devices     | GMP-grade cell manufacturing<br>and development of cell delivery<br>devices <sup>1</sup> |
| Clinical development and regulatory affairs       | Early interactions with regulators<br>Clinical trial experience                          |

## Potential first human dose with cell therapy in collaboration with Heartseed and others

Utilise internal capabilities and disease understanding for stem cell development

### **Internal capabilities** Therapeutic areas **GMP-grade** production Parkinson's disease capability Chronic heart Academic collaborations failure 2 first human dose projects upcoming Ethical stem Type 1 diabetes cell practices IP positions on Dry age-related macular degeneration differentiation protocols

### **Accelerate innovation through partnerships**



• iPSC derived cardiomyocyte spheroids for direct injection into heart



- hESC derived dopaminergic progenitor neurons for placing into the brain
- Parkinson's disease



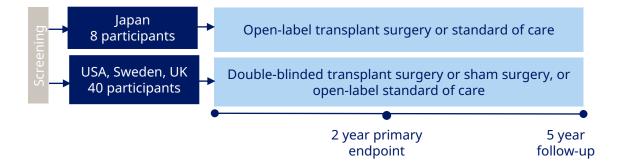
- Novo Nordisk scientists embedded at UCSF lab
- Process development, manufacturing, QA/QC, facilities and operations at Fremont site

# 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 ≤40%
 NYHA cardiac function classification grade ≥II
 HS-001 low dose
 26-week follow-up

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



#### **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:** 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



# International Operations

**International Operations** 

**EMEA** 

**Region China** 

Rest of World

110

116

121

126

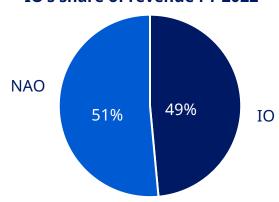
# Growth momentum has increased driven by demographics and utilisation of full product portfolio



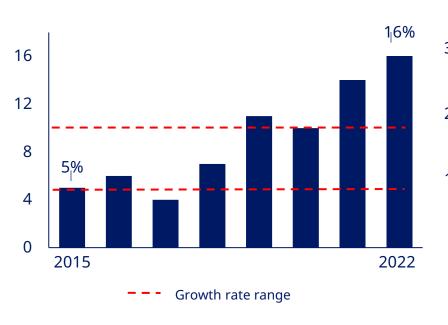
>487m live with diabetes

live with obesity

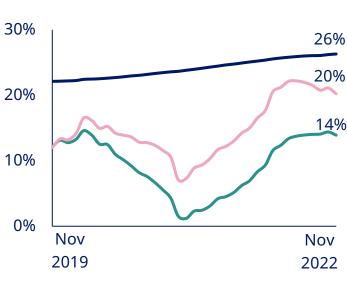
## IO's share of revenue FY 2022



## Historic growth has been in the range of 5-10%



### **Growth momentum in IO**



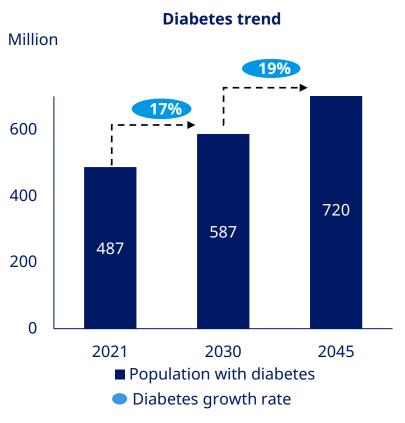
—NN Diabetes market share

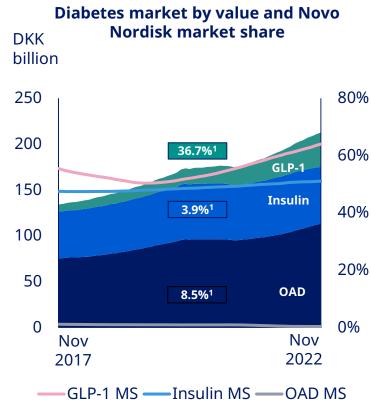
—Market growth

---NN Diabetes growth

111 Investor presentation Full year 2022 Novo Nordisk®

## International Operations at a glance





### **Novo Nordisk reported sales**

| Full year 2022                   | Sales<br>(mDKK) | Growth <sup>2</sup> |
|----------------------------------|-----------------|---------------------|
| Total GLP-1 <sup>3</sup>         | 26,196          | 57%                 |
| Long-acting insulin <sup>4</sup> | 11,403          | -1%                 |
| Premix insulin <sup>5</sup>      | 10,023          | -9%                 |
| Fast-acting insulin <sup>6</sup> | 10,826          | -3%                 |
| Human insulin                    | 6,508           | -18%                |
| Total insulin                    | 38,760          | -7%                 |
| Other Diabetes care <sup>7</sup> | 2,428           | -11%                |
| Diabetes care                    | 67,384          | 10%                 |
| Obesity care <sup>8</sup>        | 5,886           | 82%                 |
| Diabetes & Obesity care          | 73,270          | 14%                 |
| Rare disease <sup>9</sup>        | 12,577          | 5%                  |
| Total                            | 85,847          | 13%                 |

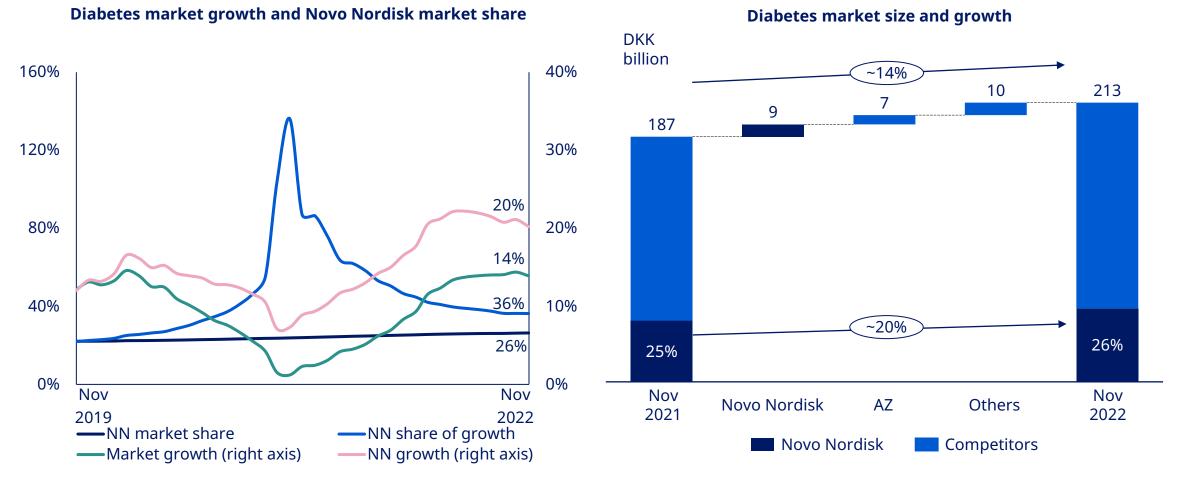
Diabetes trend estimates based on the following International Diabetes Foundation defined regions: Africa, Europe, Middle East and North Africa, South and Central America, South East Asia and Western Pacific; Source: International Diabetes Federation: Diabetes Atlas 10<sup>th</sup> Edition 2021

<sup>&</sup>lt;sup>1</sup> CAGR calculated for 5-year period; Competitor insulin value market shares, as of Nov 2022: Novo Nordisk 51%, Sanofi 27% and Eli Lilly 13%; Competitor GLP-1 value market shares, as of Nov 2022: Novo Nordisk 64%, Eli Lilly 34% and AstraZeneca 1%; OAD: Oral anti-diabetic; MS: Market share; Source: IQVIA MAT, Nov 2022 value figures

<sup>&</sup>lt;sup>2</sup> At Constant exchange rates; <sup>3</sup> Comprises Victoza®, Ozempic®, and Rybelsus®; <sup>4</sup> Comprises Tresiba®, Xultophy® and Levemir®; <sup>5</sup> Comprises Ryzodeg® and NovoMix®; <sup>6</sup> Comprises Fiasp® and NovoRapid®; <sup>7</sup> Comprises NovoNorm® and needles; <sup>8</sup> Obesity care comprises Saxenda® and Wegovy®; <sup>9</sup> Comprises primarily NovoSeven®, NovoEight®, NovoThirteen®, Refixia®, Esperoct®, Norditropin®, Vagifem® and Activelle®

Novo Nordisk® Investor presentation

# Diabetes market share and market growth in International **Operations**

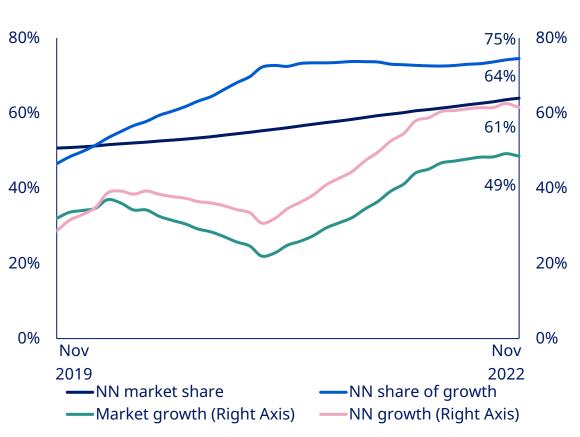


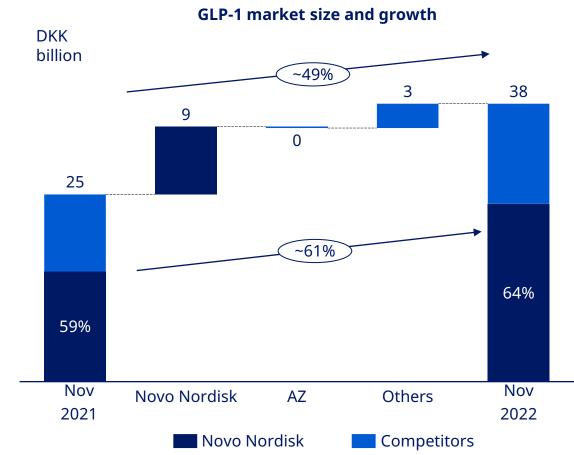
113 Investor presentation Full year 2022 Novo Nordisk®

## GLP-1 market share and market growth

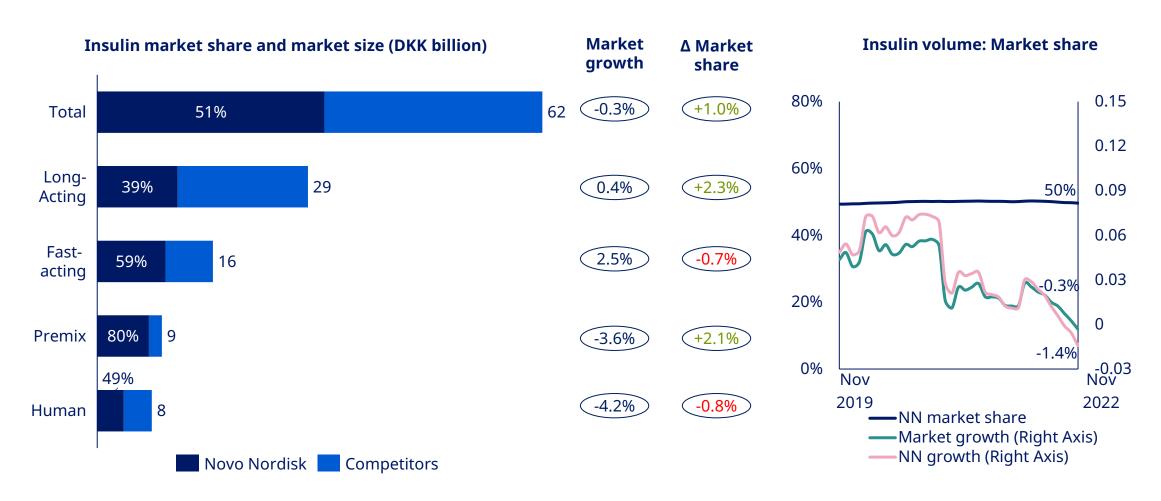


**GLP-1** market growth and Novo Nordisk market share

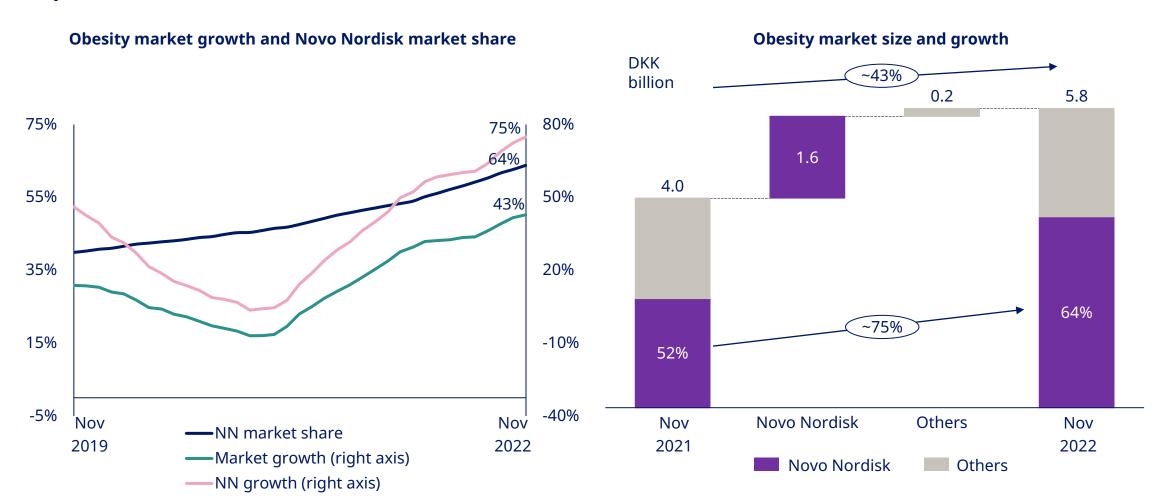




# Insulin market size and volume share of growth and market share in International Operations

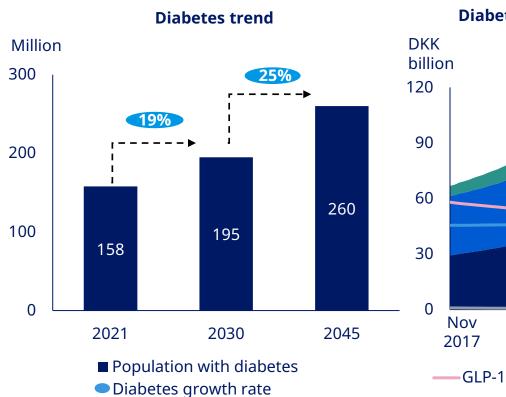


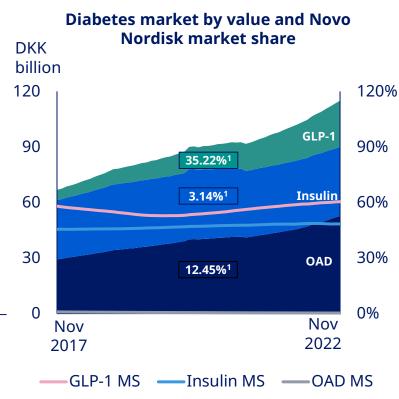
# Obesity market share and market growth in International **Operations**



# EMEA at a glance







## **Novo Nordisk reported sales**

| Full year 2022                   | Sales<br>(mDKK) | Growth <sup>2</sup> |
|----------------------------------|-----------------|---------------------|
| Total GLP-1 <sup>3</sup>         | 14,855          | 43%                 |
| Long-acting insulin <sup>4</sup> | 7,157           | 4%                  |
| Premix insulin <sup>5</sup>      | 2,622           | -13%                |
| Fast-acting insulin <sup>6</sup> | 6,456           | -2%                 |
| Human insulin                    | 1,983           | -10%                |
| Total insulin                    | 18,218          | -3%                 |
| Other Diabetes care <sup>7</sup> | 717             | -2%                 |
| Diabetes care                    | 33,790          | 13%                 |
| Obesity care <sup>8</sup>        | 3,615           | 96%                 |
| Diabetes & Obesity care          | 37,405          | 18%                 |
| Rare disease <sup>9</sup>        | 6,831           | -1%                 |
| Total                            | 44,236          | 15%                 |

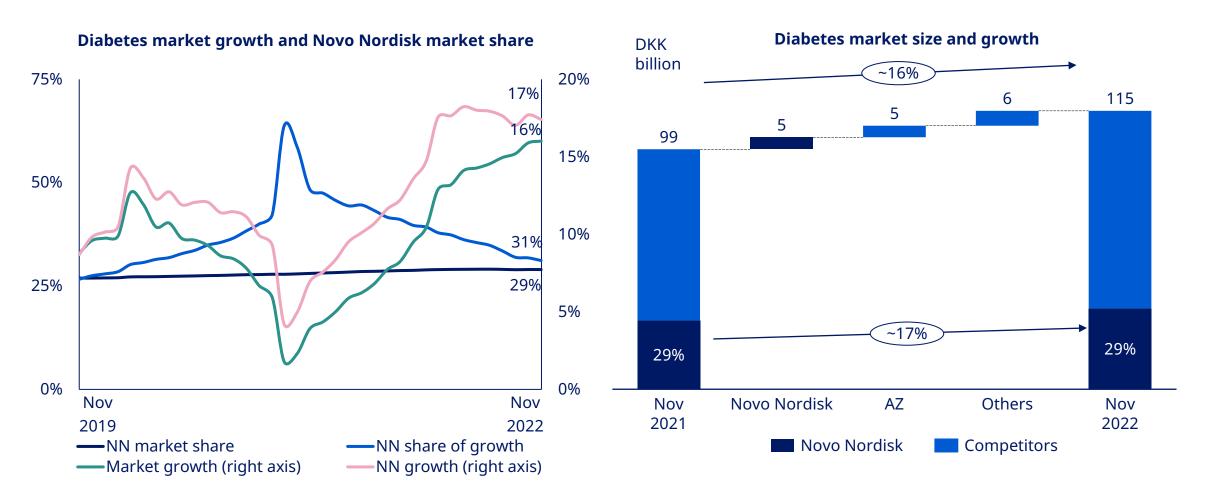
Diabetes trend estimates based on the following International Diabetes Foundation defined regions: Africa, Europe, Middle East and North Africa, South and Central America, South East Asia and Western Pacific Source: International Diabetes Federation: Diabetes Atlas 10<sup>th</sup> Edition 2021; EMEA: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

<sup>&</sup>lt;sup>1</sup> CAGR calculated for 5-year period; Competitor insulin value market shares, as of Nov 2022: Novo Nordisk 48%, Sanofi 32% and Eli Lilly 16%; Competitor GLP-1 value market shares, as of Nov 2022: Novo Nordisk 61%, Eli Lilly 38% and AstraZeneca 2%; OAD: Oral anti-diabetic; MS: Market share; Source: IQVIA MAT, Nov 2022 value figures

<sup>&</sup>lt;sup>2</sup> At Constant exchange rates; <sup>3</sup> Comprises Victoza®, Ozempic®, and Rybelsus®; <sup>4</sup> Comprises Tresiba®, Xultophy® and Levemir®; <sup>5</sup> Comprises Ryzodeg® and NovoMix®; <sup>6</sup> Comprises Fiasp® and NovoRapid®; <sup>7</sup> Comprises NovoNorm® and needles; <sup>8</sup> Obesity care comprises Saxenda® and Wegovy®; <sup>9</sup> Comprises primarily NovoSeven®, NovoEight®, NovoThirteen®, Esperoct®, Refixia®, NordItropin®, Vagifem® and Activelle®

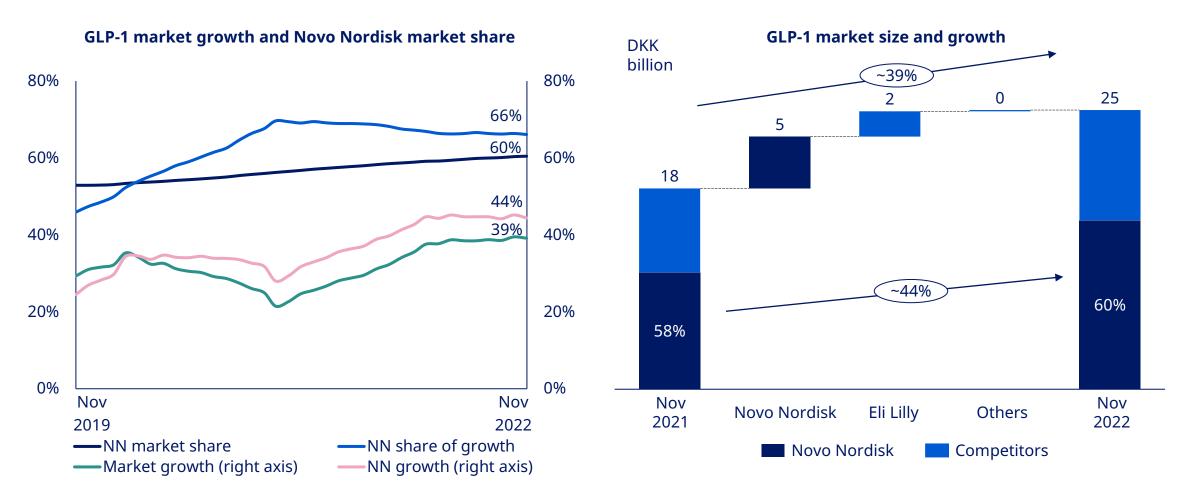


## Diabetes market share and market growth in EMEA



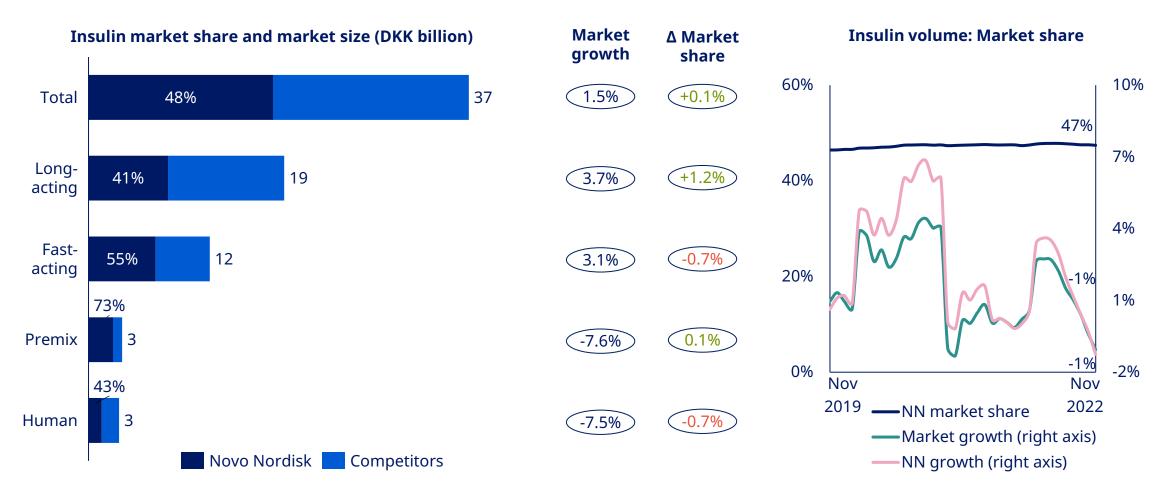


## GLP-1 market share and market growth in EMEA



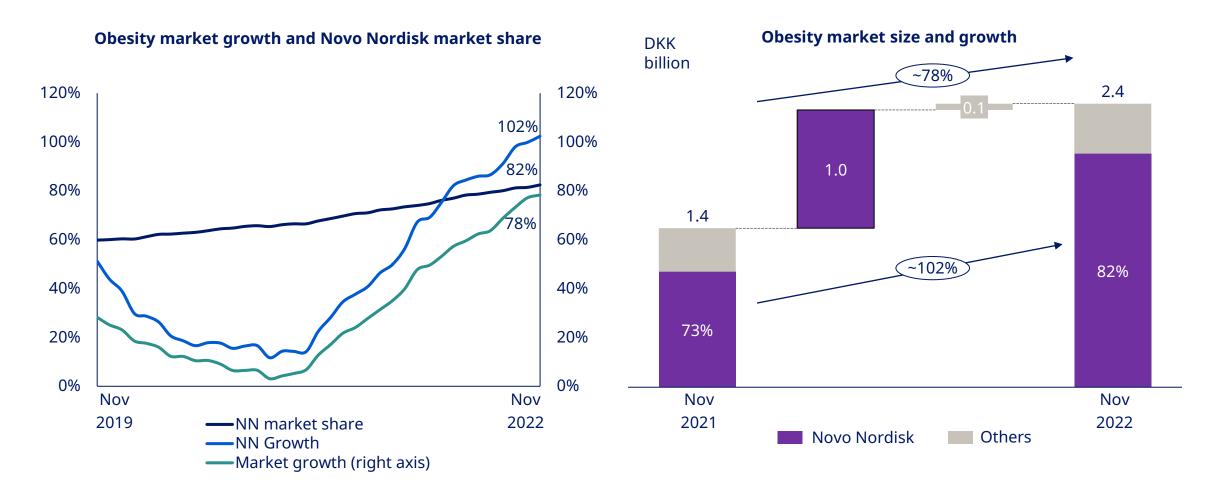
## Insulin market size and volume market share in EMEA



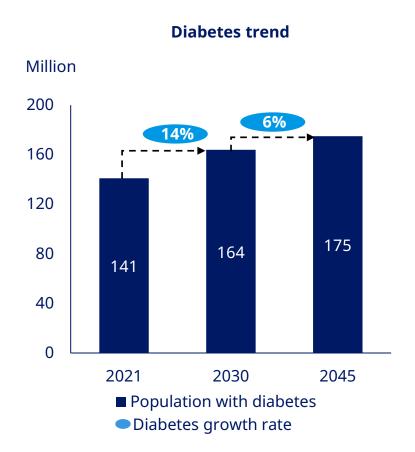


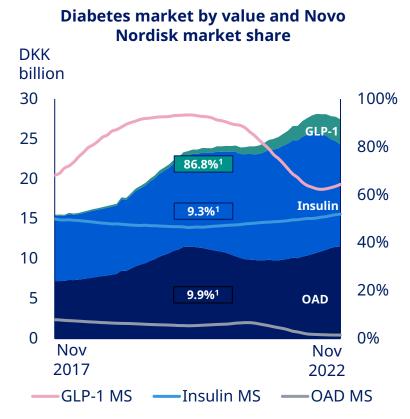


## Obesity market share and market growth in EMEA



## Region China at a glance





## **Novo Nordisk reported sales**

| Full year 2022                   | Sales<br>(mDKK) | Growth <sup>2</sup> |
|----------------------------------|-----------------|---------------------|
| Total GLP-1 <sup>3</sup>         | 3,737           | 88%                 |
| Long-acting insulin <sup>4</sup> | 1,636           | -27%                |
| Premix insulin <sup>5</sup>      | 4,912           | -13%                |
| Fast-acting insulin <sup>6</sup> | 1,942           | -21%                |
| Human insulin                    | 1,812           | -38%                |
| Total insulin                    | 10,302          | -22%                |
| Other Diabetes care <sup>7</sup> | 1,181           | -24%                |
| Diabetes care                    | 15,220          | -9%                 |
| Obesity care <sup>8</sup>        | 133             | 105%                |
| Diabetes & Obesity care          | 15,353          | -9%                 |
| Rare disease <sup>8</sup>        | 856             | 101%                |
| Total                            | 16,209          | -6%                 |

OAD: Oral anti-diabetic; MS: Market Share; Source: IQVIA MAT, Nov 2022 value figures Norditropin®

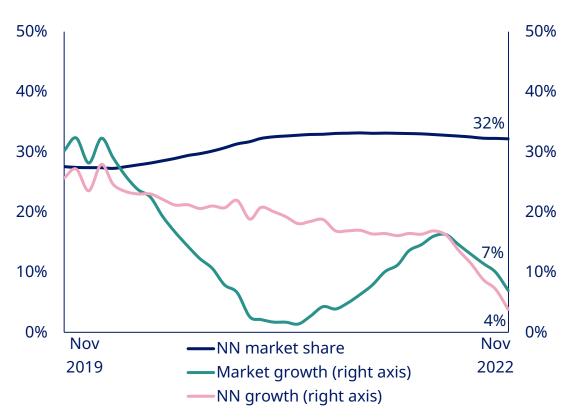
<sup>&</sup>lt;sup>1</sup> CAGR calculated for last 5-year period

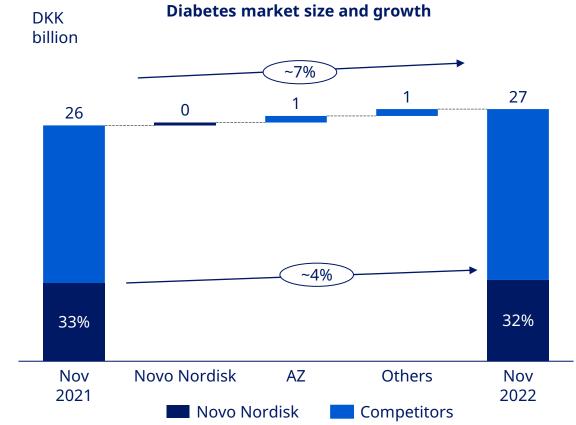
Competitor insulin value market shares, as of Nov 2022: Novo Nordisk 52%, Sanofi 15%, Comprises Tresiba®, Xultophy® and Levemir®; <sup>5</sup> Comprises NovoMix® and Gan & Lee 0.1% and Eli Lilly 7%; Competitor GLP-1 value market shares, as of Nov 2022: Ryzodeg®; <sup>6</sup> Comprises NovoRapid®; <sup>7</sup> Comprises NovoNorm® and needles; <sup>8</sup> Novo Nordisk 64% and Eli Lilly 29%

<sup>&</sup>lt;sup>2</sup> At constant exchange rates; <sup>3</sup> Comprises Victoza® and Ozempic®; <sup>4</sup> Comprises Saxenda<sup>®</sup>; <sup>9</sup> Comprises primarily NovoSeven<sup>®</sup>, NovoEight<sup>®</sup> and

# Diabetes market share and market growth in Region China

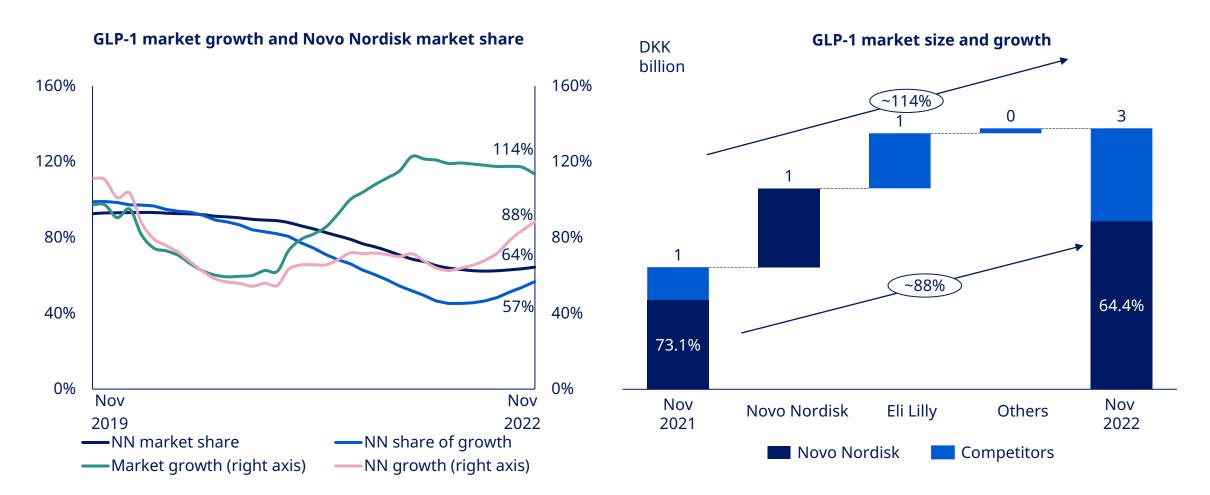






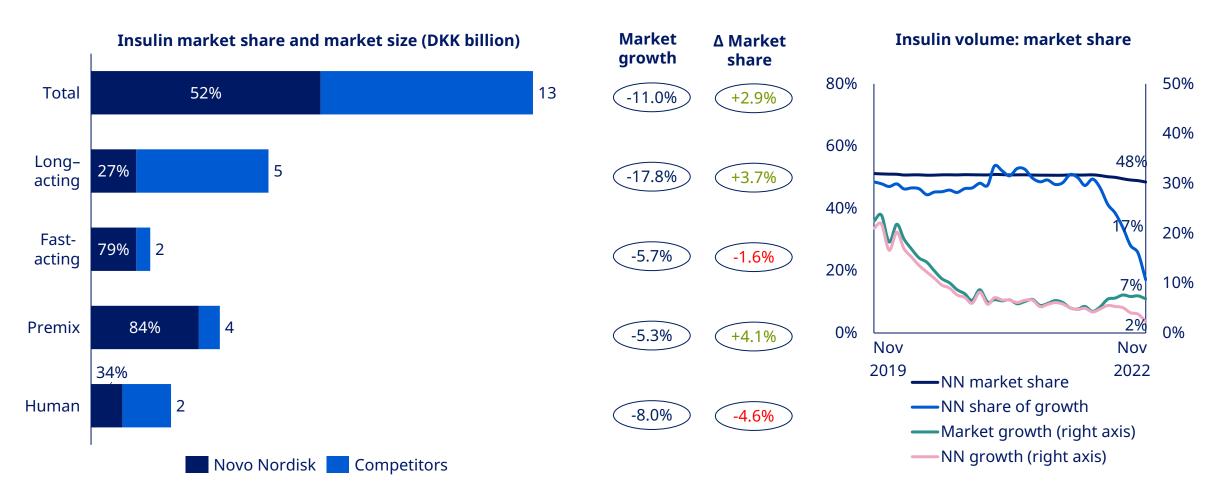


## GLP-1 market share and market growth in Region China





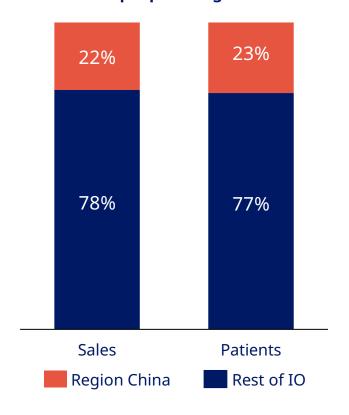
# Insulin market size and volume share of growth and market share in Region China





## Region China remains a key strategic opportunity

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



### **Outcome of VBP insulin in China**

- Price cuts ~40-50% as a result of VBP
- Keeps ~50% of own brand volume in scope
- Resource re-allocation towards growth products





Novo Mix

(biphasic insulin aspart)





human insulin Mixtard 30









## Opportunities and strategic priorities Large growing diabetes market



- Market of 26 bDKK mainly consisting of OAD and insulin
- Diabetes market growth of ~11%

### **Bring innovation faster to market**



- Diabetes: Rybelsus® and ONWARDS programme for Icodec
- Rare disease: Across portfolio



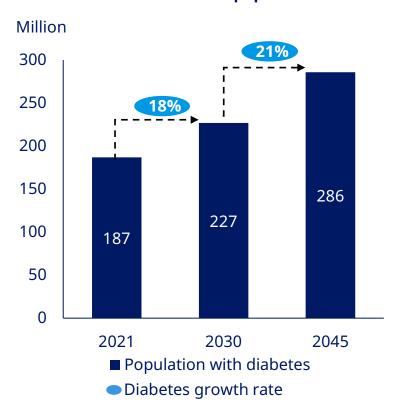
### **Treat more patients**

Expand patient base across new insulins and GLP-1s



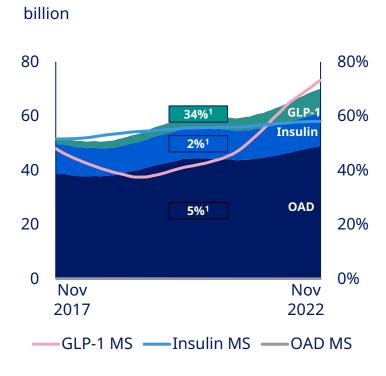
## Rest of World at a glance

### **Diabetes trend in population**



## Diabetes market by value and Novo Nordisk market share

DKK



## **Novo Nordisk reported sales**

| Full year 2022                   | Sales<br>(mDKK) | Growth <sup>2</sup> |
|----------------------------------|-----------------|---------------------|
| Total GLP-1 <sup>3</sup>         | 7,604           | 78%                 |
| Long-acting insulin <sup>4</sup> | 2,610           | 11%                 |
| Premix insulin <sup>5</sup>      | 2,489           | 5%                  |
| Fast-acting insulin <sup>6</sup> | 2,428           | 11%                 |
| Human insulin                    | 2,713           | -4%                 |
| Total insulin                    | 10,240          | 5%                  |
| Other Diabetes care <sup>7</sup> | 530             | 11%                 |
| Diabetes care                    | 18,374          | 26%                 |
| Obesity care <sup>8</sup>        | 2,138           | 61%                 |
| Diabetes & Obesity care          | 20,512          | 29%                 |
| Rare disease <sup>9</sup>        | 4,890           | 5%                  |
| Total                            | 25,402          | 24%                 |

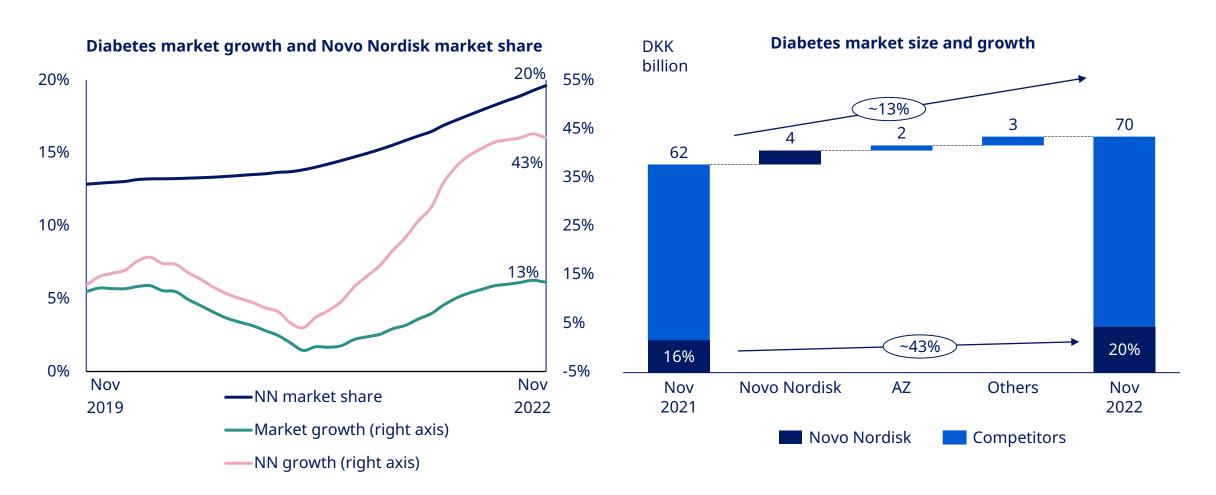
<sup>&</sup>lt;sup>1</sup> CAGR calculated for last 5-year period

Competitor insulin value market shares, as of Nov 2022: Novo Nordisk 58%, Sanofi 24% and Eli Lilly 13%; Competitor GLP-1 value market shares, as of Nov 2022: Novo Nordisk 73%, Eli Lilly 26% and AstraZeneca 0.4%

OAD: Oral anti-diabetic; MS: Market Share; Source: IQVIA MAT, Nov 2022 value figures

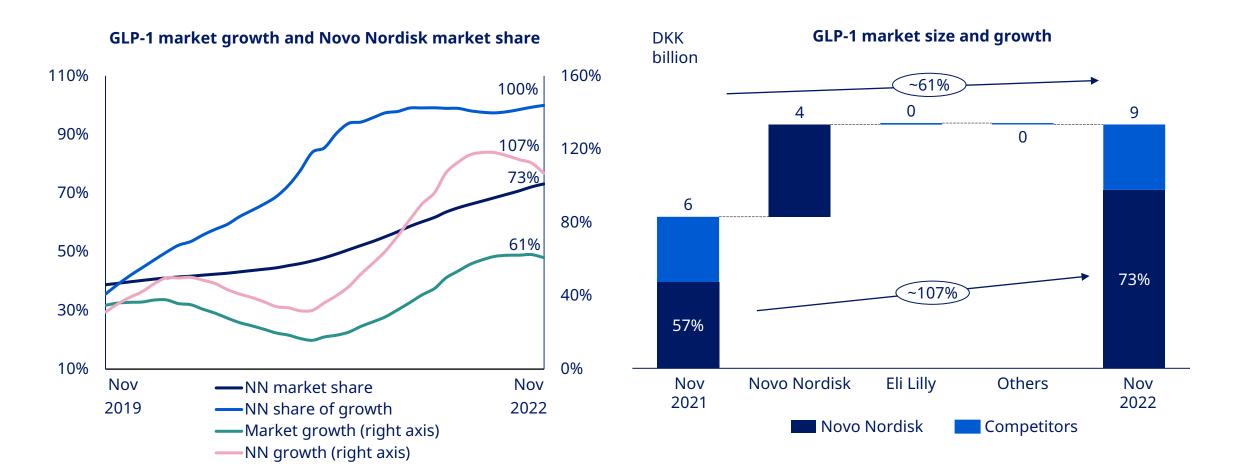
<sup>&</sup>lt;sup>2</sup> At constant exchange rates; <sup>3</sup> Comprises Victoza®, Ozempic® and Rybelsus®; <sup>4</sup> Comprises Tresiba®, Xultophy® and Levemir®; <sup>5</sup> Comprises NovoMix® and Ryzodeg®; <sup>6</sup> Comprises NovoRoptio® and Fiasp®; <sup>7</sup> Comprises NovoNorm® and needles; ; <sup>8</sup> Comprises Saxenda®; <sup>9</sup> Comprises primarily Esperoct®, Refixia®, NovoSeven®, NovoSeyen®, NovoS

# Diabetes market share and market growth in Rest of World

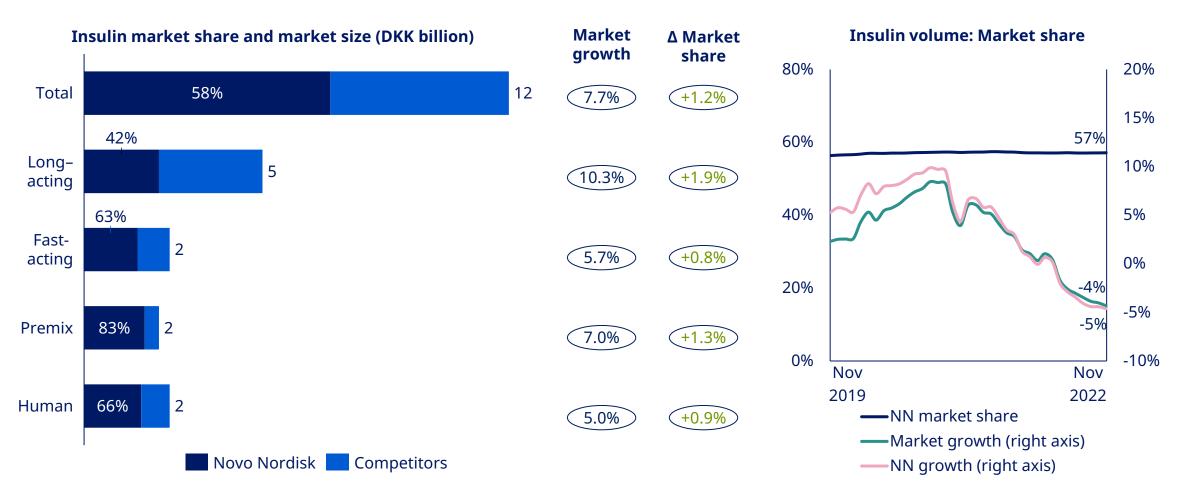




# GLP-1 market share and market growth in Rest of World

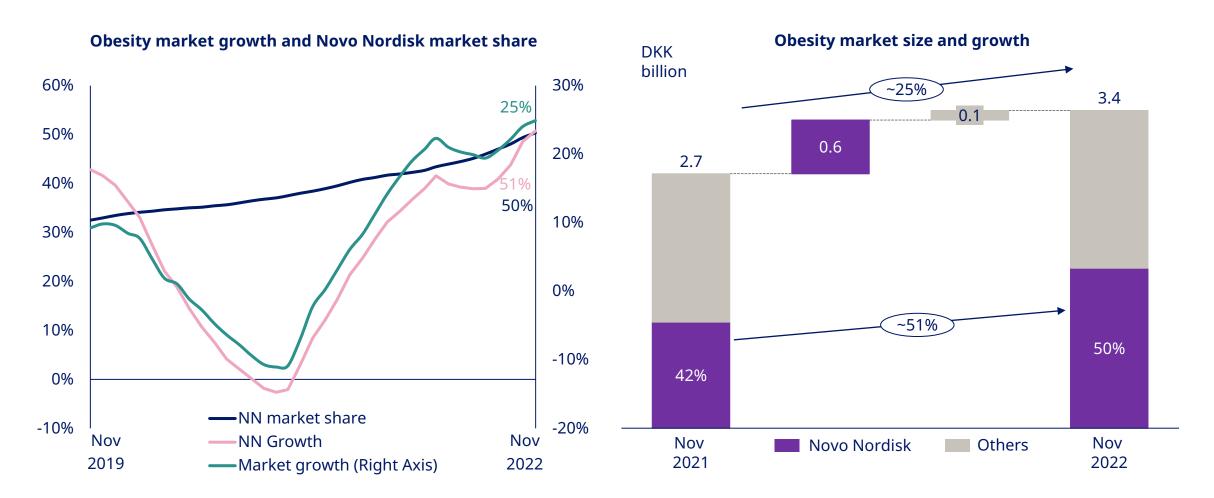


# Insulin market size and volume market share in Rest of World





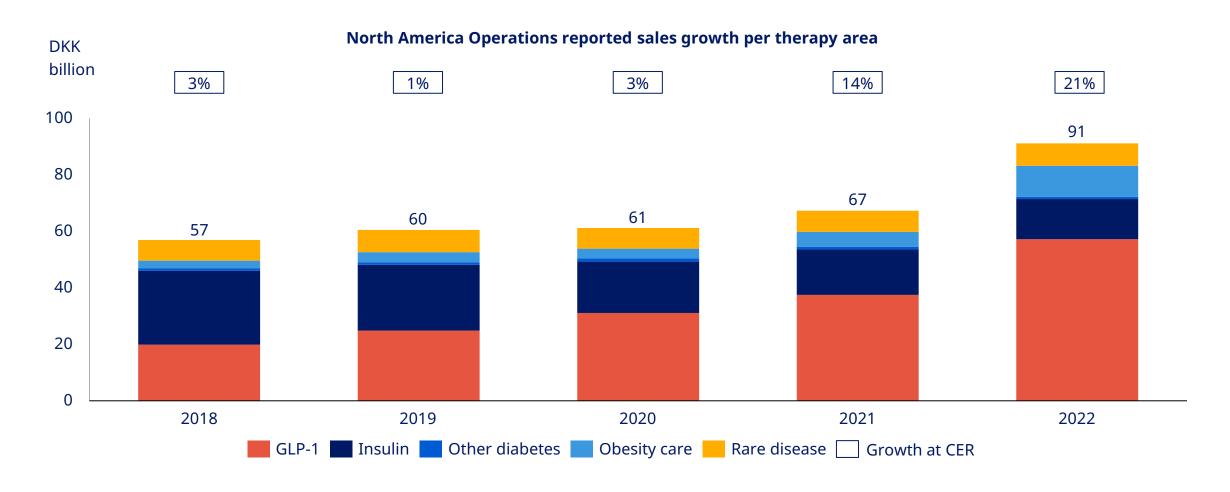
# Obesity market share and market growth in Rest of World





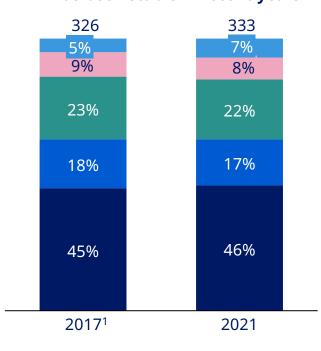
## North America Operations growth has accelerated



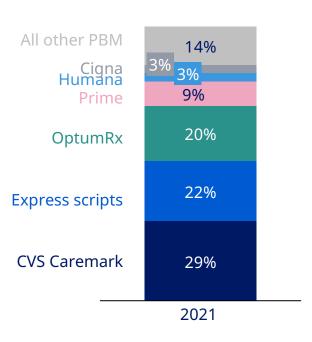


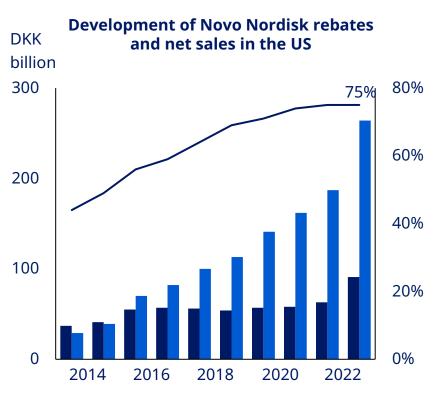
# US health insurance is dominated by a few large commercial payers

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



## **Covered lives by PBM**







Managed care<sup>2</sup>

Medicare

Uninsured

Public exchanges

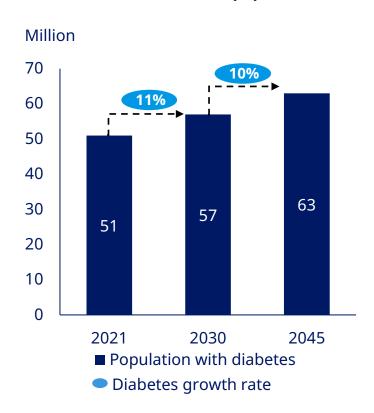
Medicaid/CHIP <sup>1</sup>2017 data reflect historical data through Oct 2017

<sup>&</sup>lt;sup>2</sup> 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

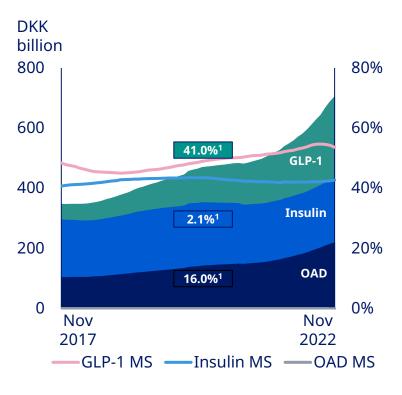


## North America Operations at a glance

### **Diabetes trend in population**



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



### <sup>1</sup> CAGR calculated for 5-year period

Competitor insulin value market shares, as of Nov 2022: Novo Nordisk 43%, Eli Lilly 30% and Sanofi 25%; Competitor GLP-1 value market shares, as of Nov 2022: Novo Nordisk 54%, Eli Lilly 45% and AstraZeneca 2%

OAD: Oral anti-diabetic; MS: Market Share; Source: IQVIA MAT, Nov 2022 value figures

## **Novo Nordisk reported sales**

| Full year 2022                   | Sales<br>(mDKK) | Growth <sup>2</sup> |
|----------------------------------|-----------------|---------------------|
| Total GLP-1 <sup>3</sup>         | 57,175          | 36%                 |
| Long-acting insulin <sup>4</sup> | 5,338           | -32%                |
| Premix insulin <sup>5</sup>      | 539             | -31%                |
| Fast-acting insulin <sup>6</sup> | 6,637           | -13%                |
| Human insulin                    | 1,678           | -7%                 |
| Total insulin                    | 14,192          | -21%                |
| Other Diabetes care <sup>7</sup> | 797             | -25%                |
| Diabetes care                    | 72,164          | 18%                 |
| Obesity care <sup>8</sup>        | 10,978          | 85%                 |
| Diabetes & Obesity care          | 83,142          | 24%                 |
| Rare disease <sup>9</sup>        | 7,965           | -5%                 |
| Total                            | 91,107          | 21%                 |

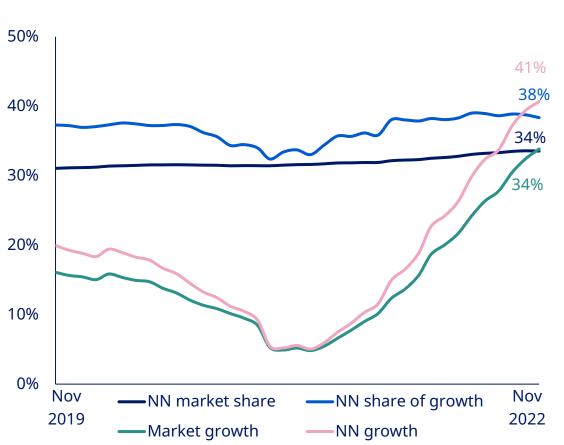
<sup>&</sup>lt;sup>2</sup> At constant exchange rates; <sup>3</sup> Comprises Victoza<sup>®</sup>, Ozempic<sup>®</sup>, and Rybelsus<sup>®</sup>;

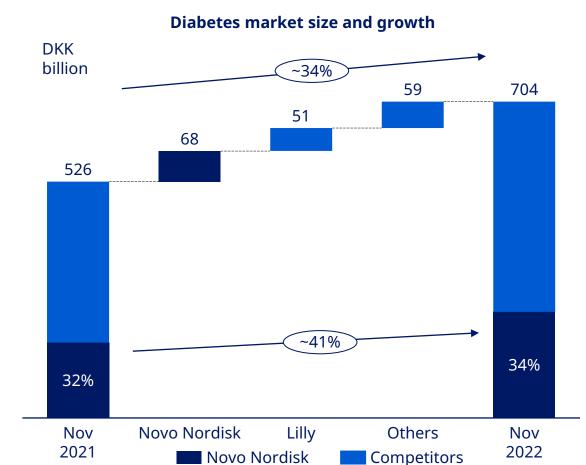
<sup>&</sup>lt;sup>4</sup> Comprises Tresiba<sup>®</sup>, Xultophy<sup>®</sup> and Levemir<sup>®</sup>; <sup>5</sup> Comprises NovoMix<sup>®</sup>; <sup>6</sup> Comprises Fiasp® and NovoRapid®; <sup>7</sup> Comprises NovoNorm® and needles; <sup>8</sup>

Comprises Saxenda® and Wegovy® 9 Comprises primarily NovoSeven®, NovoEight® Esperoct®, NovoThirteen®, Refixia®, Norditropin®, Vagifem® and Activelle®

# Diabetes market share and market growth in North America Operations





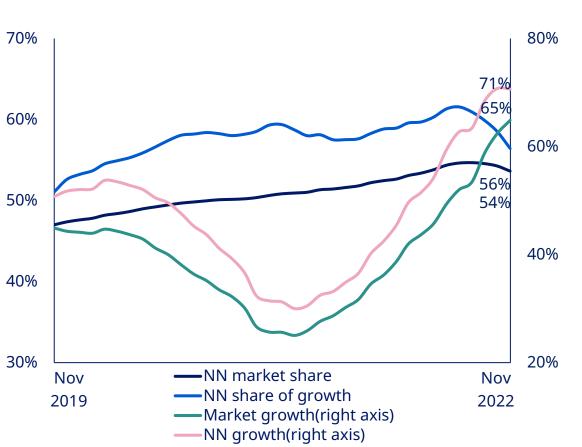


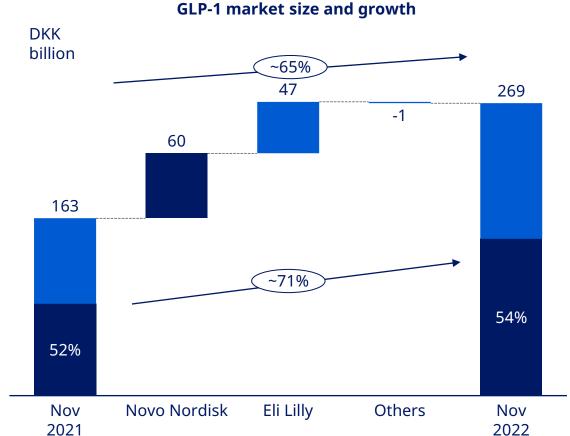
Source: IQVIA, Nov 2022, value, MAT; NN: Novo Nordisk



# GLP-1 market share and market growth in North America Operations







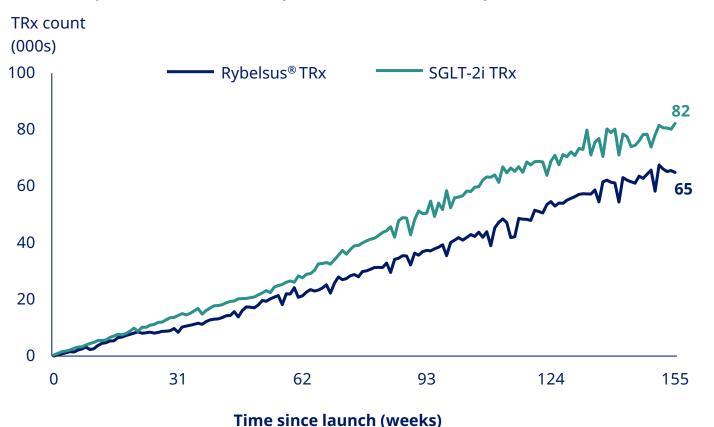
Competitors

Novo Nordisk



# Total Rybelsus® TRx volume is steadily growing in the US

## Rybelsus<sup>®</sup> and SGLT-2i<sup>1</sup> uptake in the US<sup>2</sup> since respective launches

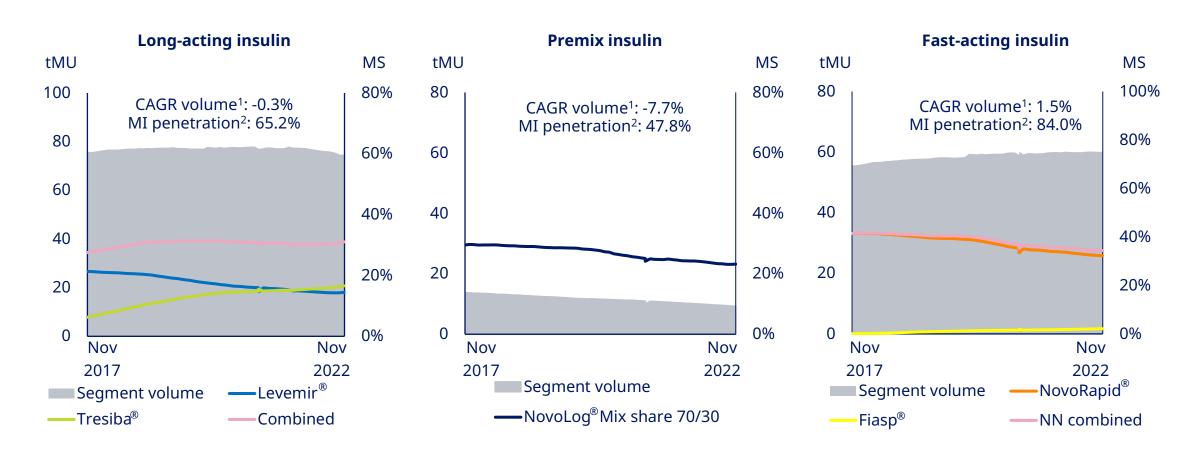


## In the full year 2022, Rybelsus® sales account for 24% share of growth of NAO sales

- Successful Rybelsus® launch despite COVID-19 impacting the first year of launch
- Rybelsus® TRx continues to steadily increase
- Achieved global blockbuster status in 2022

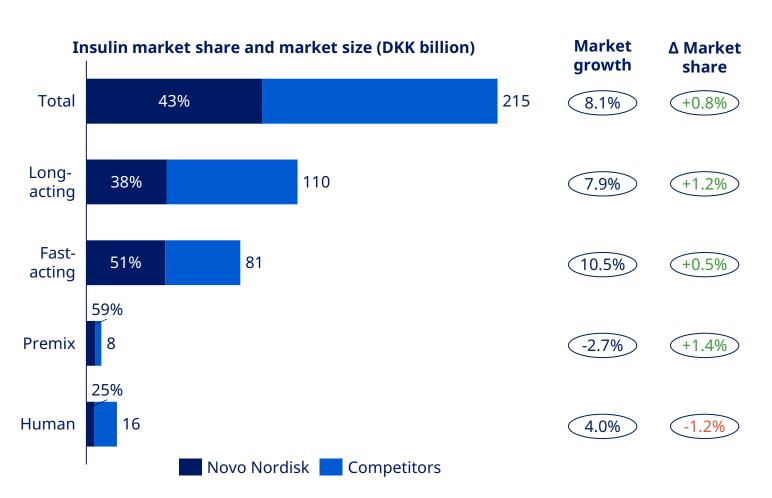


# Novo Nordisk volume market shares in the three insulin segments



<sup>&</sup>lt;sup>1</sup> CAGR for 5-year period; <sup>2</sup> Includes new-generation insulin. tMU: Thousand mega units; MS: Market Share Source: IQVIA monthly MAT, Nov 2022 volume figures NN: Novo Nordisk

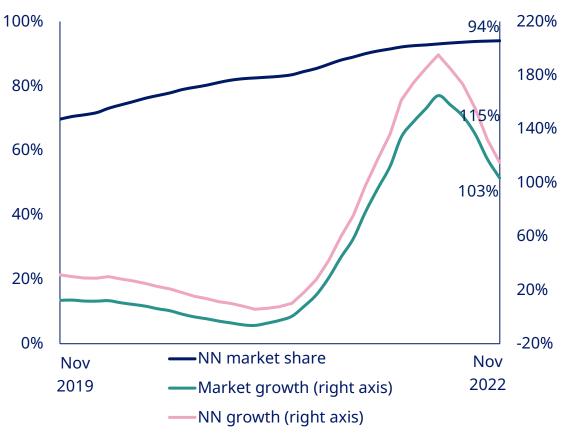
# Insulin market size and volume market share in North America Operations



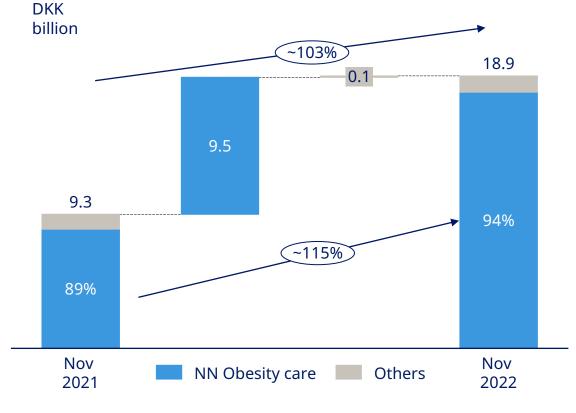


# Obesity market share and market growth in North America Operations



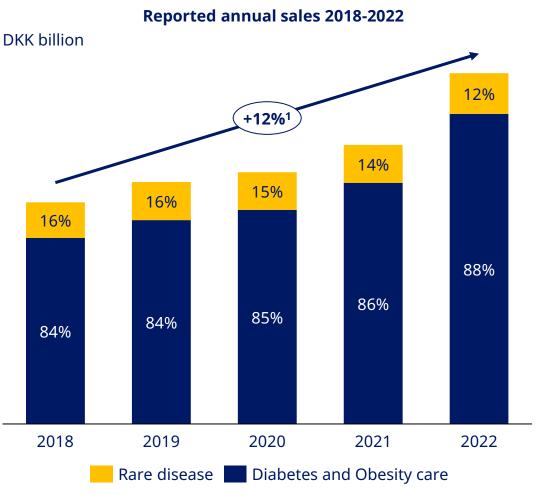


# Obesity market size and growth





# Solid sales growth driven by Diabetes and Obesity care

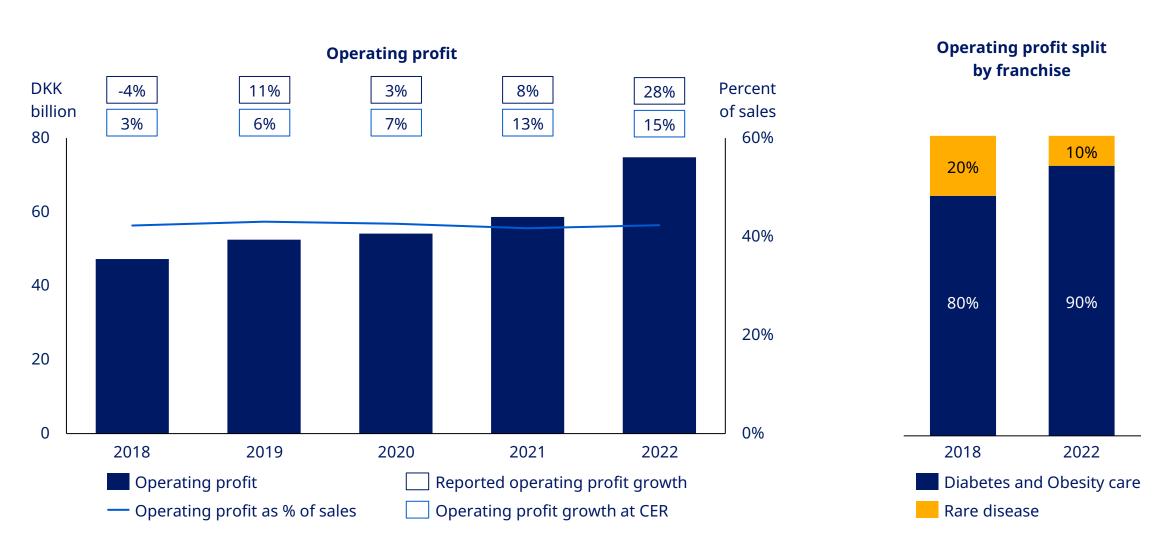




Investor presentation

<sup>&</sup>lt;sup>1</sup> CAGR for 5-year period

## Solid operating profit growth driven by Diabetes care



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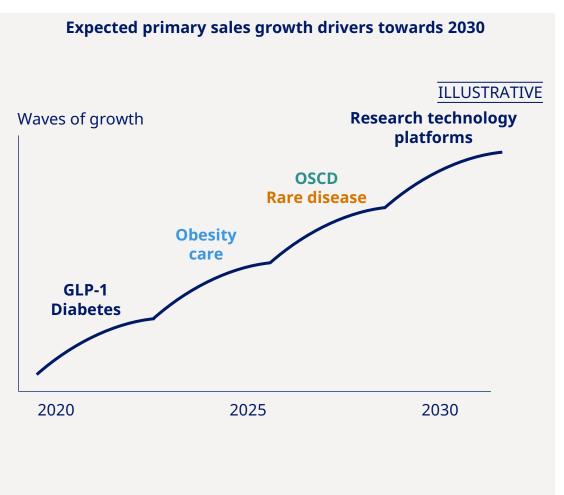
# Resource allocation in Novo Nordisk is guided by investing in future growth while delivering attractive shareholder returns

## **Corporate strategy guides resource allocation**



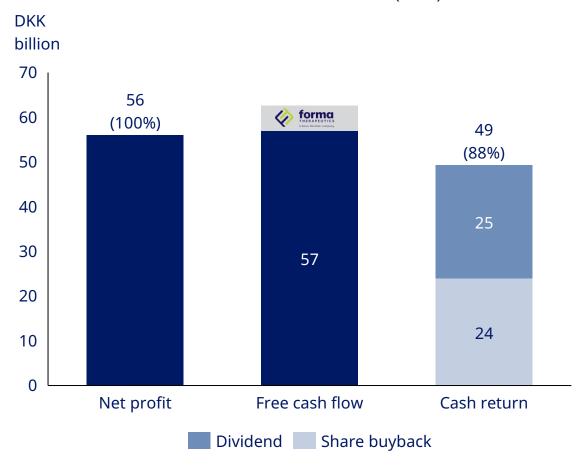
### Focus on driving sustained sales growth

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



# Net profit has been converted to cash and returned to shareholders

## Cash conversion and allocation (2022)



## 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

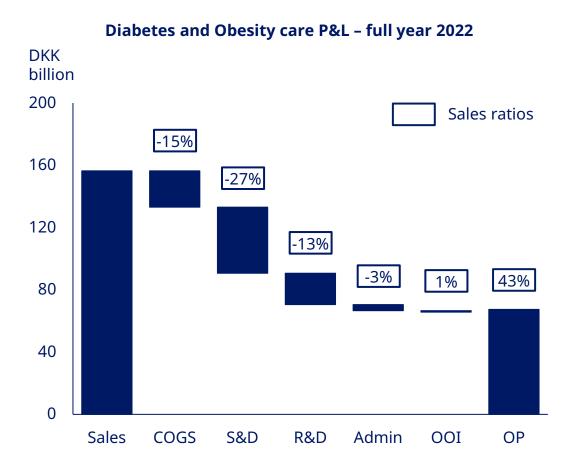
## Financial flexibility within current credit ratings

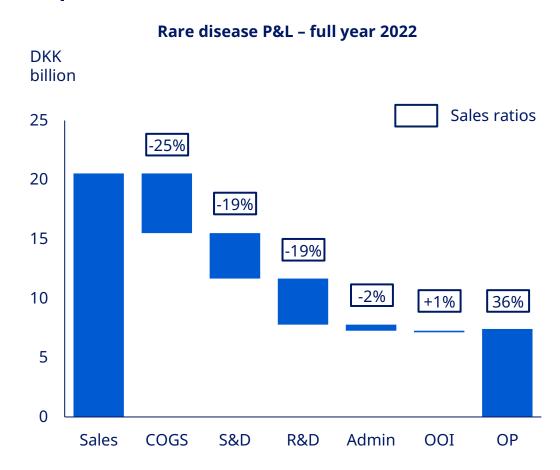
- Moody's: A1 since 2012, S&P Global: AA- since 2013
- Net debt to EBITDA ratio around zero

## Mainly debt finance major business development projects

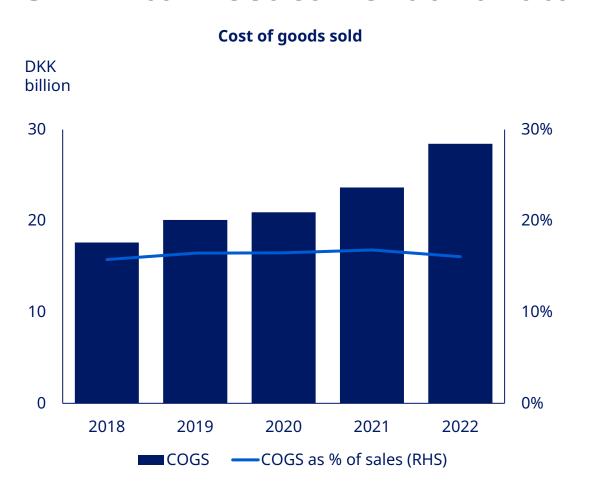
- 2021 bond issuance at an all-inclusive interest rate of ~0%
- 2022 bond issuance at an all-inclusive interest rate of ~1%

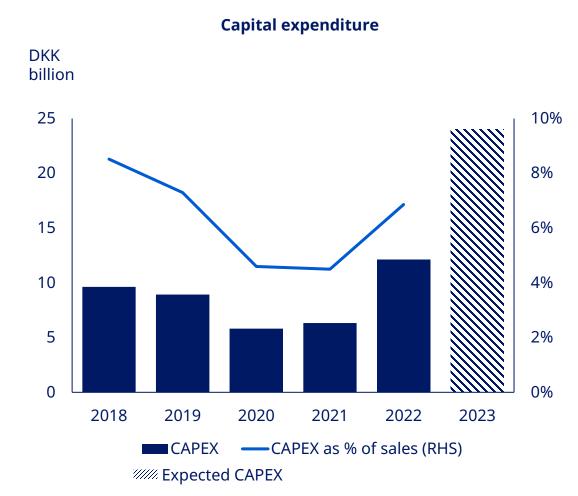
# Rare disease segment has lower profitability driven by higher investments in R&D including the acquisition of Forma in 2022





# Stable COGS as percentage of sales, while there is a step-up in CAPEX to meet current and future demands





# Currency impact on Novo Nordisk's P/L

#### **Operational currency impact**

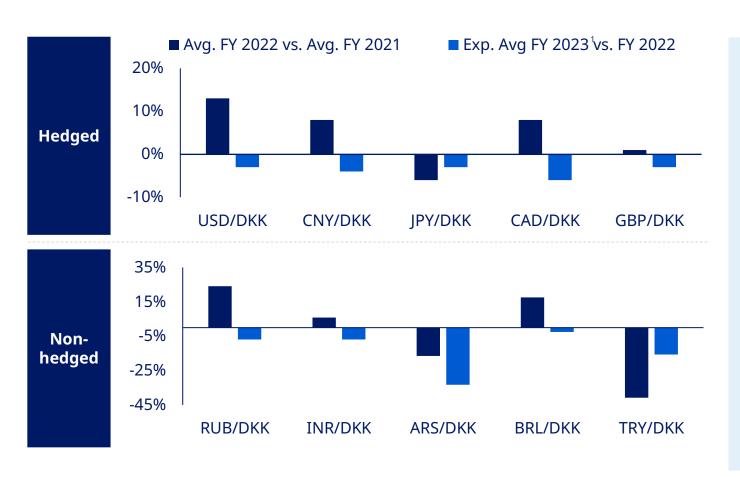
- All movements in currencies will directly impact the individual reported functional lines of the Novo Nordisk's P&L statement
- The currency effect on e.g. operating profit growth is the difference between the reported growth and the operating profit growth at CER
- Key currencies account for around 75% 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

| 2022     | 2021   |
|----------|--|
|          |  |
| 176,954  | 140,800  |
| (28,448) | (23,658)   |
| 148,506  | 117,142  |
| (46,217) | (37,008)   |
| (24,047) | (17,772)   |
| (4,467)  | (4,050)  |
| 1,034    | 332  |
| 74,809   | 58,644   |
| 239      | 2,887  |
| (5,986)  | (2,451)  |
| 69,062   | 59,080   |
| (13,537) | (11,323)   |
| 55,525   | 47,757   |
|          |  |
| 24.51    | 20.79  |
| 24.44    | 20.74  |
| •        | 176,954 (28,448) 148,506 (46,217) (24,047) (4,467) 1,034 74,809 (5,986) 69,062 (13,537) 55,525 |

#### Financial currency impact

- All gain/losses from hedging contracts are included in the financial income/expenses
- All key currencies are hedged:
  - USD 12 months
  - IPY 12 months
  - CAD 9 months
  - GBP 10 months
  - CNY 1 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

# Operating profit expected to be negatively impacted by currencies in 2023, partly countered by net financials



#### FY 2022

- Positive impact on operating profit of DKK 7.6 billion
- Foreign exchange net gain of DKK 2.9 billion

#### FY 2023 outlook

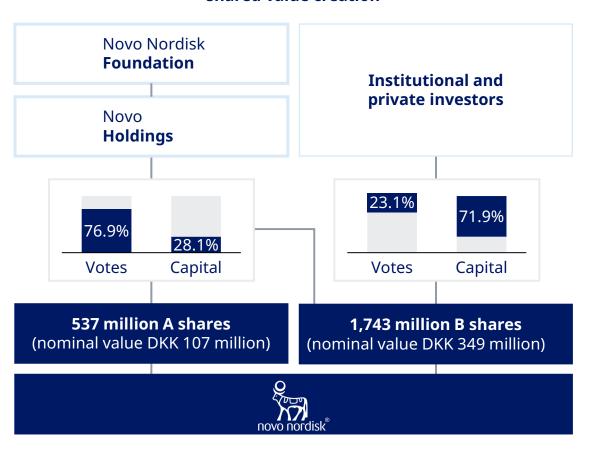
- Currency impact on Operating profit is expected to be -5%-points
- Net financial items is expected to be a gain of DKK 2.4 billion mainly driven by gains on hedging contracts due to depreciation of the USD vs 2022 average

<sup>&</sup>lt;sup>1</sup> Year-to-date realised data and remainder expected flat currency development based on the spot rate as of 26 January 2023
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



# 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



# ESG<sup>1</sup> responsibility has been anchored in Articles of Associations since 2004



The Novo Nordisk Way guides our behaviour

<sup>&</sup>lt;sup>1</sup> Known as the Triple Bottom Line at time of implementation ESG: Environmental, Social and Governance

2022

2021

2020

# 2022 statement of ESG performance

|                   |                           | -  | 2022    | 2021    | 2020    |
|-------------------|---------------------------|--|---------|---------|---------|
|                   |                           | Resources  |         |         |         |
|                   |                           | Energy consumption for operations (1,000 GJ)   | 3,677   | 3,387   | 3,191   |
|                   |                           | Share of renewable power for production sites  | 100%    | 100%    | 100%    |
|                   |                           |  |         |         |         |
| _                 |                           | Water consumption for production sites (1,000 m <sup>3</sup> )   | 3,918   | 3,488   | 3,368   |
| Env               | /ironmental               | Breaches of environmental regulatory limit values  | 75      | 12      | 15      |
| KV Em De          | erformance                | Emissions and waste  |         |         |         |
|                   |                           | Scope 1 emissions (1,000 tonnes)   | 76      | 77      | 75      |
| ערש               |                           | Scope 2 emissions (1,000 tonnes)   | 16      | 16      | 15      |
|                   |                           | Scope 3 emissions (1,000 tonnes) <sup>1</sup>  | 2,041   | NA      | NA      |
|                   |                           | Waste from production sites (tonnes)   | 213,505 | 180,806 | 140,783 |
|                   |                           |  | 213,303 | 100,000 | 140,763 |
|                   |                           | Patients   | 0.5.0   | 24.6    | 22.2    |
|                   |                           | Patients reached with Novo Nordisk's Diabetes care products (estimate in millions)                     | 36.3    | 34.6    | 32.8    |
|                   |                           | - Hereof reached via the Novo Nordisk Access to Insulin Commitment (estimate in millions) <sup>2</sup> | 1.8     | 1.7     | 3.2     |
|                   |                           | - Hereof children reached through Changing Diabetes® in Children (cumulative)                          | 41,033  | 31,846  | 28,296  |
|                   |                           | People & employees   |         |         |         |
|                   |                           | Employees (total)  | 55,185  | 48,478  | 45,323  |
|                   |                           | Employee turnover  | 8.2%    | 11.0%   | 7.9%    |
|                   | Social<br>performance     | Sustainable Employer Score <sup>3</sup>  | 85%     | 84%     | N/A     |
| Ω                 |                           | Frequency of occupational accidents (number per million working hours)                                 | 1.5     | 1.3     | 1.3     |
| $\simeq$          |                           | Gender in leadership positions (ratio men:women)   | 56:44   | 57:43   | 59:41   |
| $\Omega$ $\Omega$ |                           |  |         |         |         |
|                   |                           | Gender in senior leadership positions (ratio men:women)  | 61:39   | 64:36   | 65:35   |
|                   |                           | Gender in the Board of Directors (ratio men:women)   | 54:46   | 67:33   | 62:38   |
|                   |                           | Societies  |         |         |         |
|                   |                           | Total tax contribution (DKK million)   | 36,003  | 32,593  | 26,376  |
|                   |                           | Donations and other contributions (DKK million)  | 126     | 92      | 158     |
|                   |                           | Change in average list price across US product portfolio (% change to previous year)                   | 2.4%    | 1.6%    | 2.3%    |
|                   |                           | Change in average net price across US product portfolio (% change to previous year)                    | -12.7%  | -12.3%  | -16.9%  |
|                   |                           | Change in average list price across US insulin portfolio (% change to previous year)                   | 0.0%    | 0.0%    | 0.5%    |
|                   |                           | Change in average net price across US insulin portfolio (% change to previous year)                    | -19.5%  | -10.9%  | -26.9%  |
|                   |                           |  | -19.3%  | -10.9%  | -20.9%  |
|                   | Governance<br>Performance | Governance processes   | 25      | 27      | 22      |
|                   |                           | Business ethics reviews  | 35      | 37      | 32      |
|                   |                           | Employees trained in business ethics   | 99%     | 98%     | 99%     |
| (O)               |                           | Supplier audits  | 294     | 253     | 177     |
|                   |                           | Product recalls  | 3       | 1       | 0       |
| P                 |                           | Failed inspections   | 0       | 0       | 0       |
|                   |                           | Values and trust   |         |         |         |
|                   |                           | Facilitations of the Novo Nordisk Way  | 36      | 34      | 26      |
|                   |                           | Company reputation (scale 0-100) <sup>4</sup>  | 82.3    | 82.6    | N/A     |
|                   |                           | Animals purchased for research   | 79,750  | 47,879  | 50,036  |
|                   |                           | תווווומוס פעו כוומספע וטו דפספמוכוז  | 19,150  | 47,079  | 20,036  |

<sup>1. 2022</sup> is the first year of full Scope 3 emissions' disclosure, which in 2020 and 2019 was limited to business flights and product distribution. 2. In 2020, the ceiling price was lowered from USD 4 to USD 3 which affects the comparability of 2021 and prior years 3. In 2021, the engagement survey was entirely redesigned to support Novo Nordisk's strategic goals. As a result, comparison to previous surveys is not appropriate. 4. In 2021, Company reputation replaced Company trust in order to capture more dimensions of how Novo Nordisk is perceived by external stakeholders.

# With Circular for Zero, Novo Nordisk aspires to have zero environmental impact

# circular **Ezero**

# **Current environmental impact**



CO2 emissions 2,133 thousand tonnes in Scope 1, 2 and 3 (2022)<sup>1</sup>



Waste 600+ million prefilled plastic pens produced every year



**Resources Everything Novo** Nordisk purchases



# **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

**Environmental aspirations** 



# **Circular company**

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



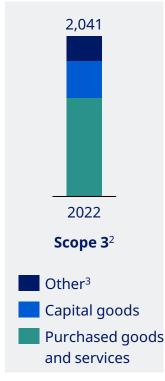
# **Circular supply**

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

# Novo Nordisk pledges to reach net-zero emissions across the entire value chain by 2045

#### CO<sub>2</sub> emissions from scopes 1, 2 and 3 for full year 2022





#### Key initiatives to reduce CO<sub>2</sub> emissions across all three scopes

#### Scope 1 - Direct emissions from own sources (12% reduction)<sup>4</sup>

- **Company cars:** 100% electric or plug-in hybrid electric cars by 2030
- Biogas: Conversion from natural gas to biogas in 2 production facilities

### Scope 2 - Indirect emissions from purchased energy (79% reduction)<sup>4</sup>

• **Production:** Sourcing 100% of renewable power at sites since 2020

### Scope 3 - Other emissions across value chain

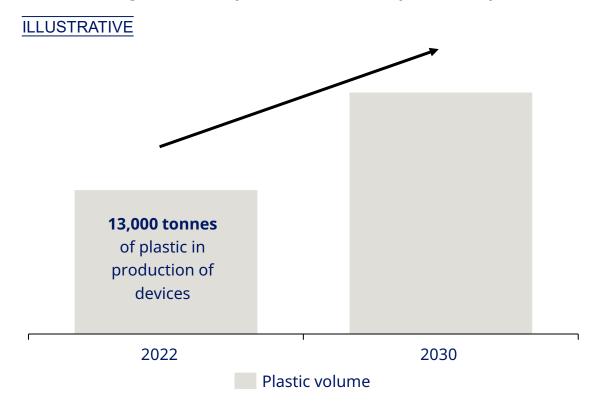
- **Suppliers:** >400 key suppliers have committed to source renewable power
- Product distribution: Alliances with Kuehne+Nagel and SkyNRG for Sustainable Aviation Fuel that will reduce emissions from air transport significantly

Source: Novo Nordisk Annual Report 2022

<sup>&</sup>lt;sup>1</sup> CO2 emissions from operations and transportation represents the emissions from production, offices and labs, cars, business flights and product distribution; <sup>2</sup> 2022 is the first year of full Scope 3 emissions according to the Greenhouse Gas Protocol, which in 2021 was limited to product distribution and business flights. The calculation of Scope 3 emissions is substantially based on estimations and therefore inherently uncertain; <sup>3</sup> Full details available in the Novo Nordisk Annual Report 2022; c 2019 is used as baseline across Scope 1 and 2.

# Reaching more patients will increase the plastic footprint, a challenge Novo Nordisk has started to address

## **Growing volumes impact Novo Nordisk's plastic footprint**



## 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<sup>1</sup> pilot in Denmark with partners leading to >20% device return
- Take-back expansion to UK, Brazil and France with ambition to establish industry solution for scaling



<sup>&</sup>lt;sup>1</sup> 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...

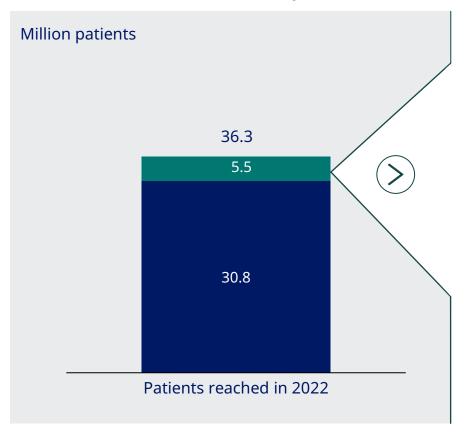


...**innovating** to improve lives...

... and thereby help society rise to one of its biggest challenges

# In 2022, more than 5 million people with diabetes were reached with access and affordability initiatives

# 5.5 out of 36.3 million people were reached with access and affordability initiatives



## A number of focused programmes (as of full year 2022)

# Access to Insulin Commitment

- 3 USD ceiling price for human insulin vial offered to 76 low- and middle-income countries, reaching ~1.8 million patients in 2022
- 2.5 million patients reached at or below the ceiling price in countries outside the commitment<sup>1</sup>

## Changing Diabetes® in Children

- ~41,000 children reached at the end of 2022, across 26 countries in three regions (APAC, LATAM and SEEMEA)
- More than half of the 9,187 newly enrolled children reached through expansion in Ethiopia, Sudan, Kenya and Uganda

# Vulnerability assessments

- Ensure availability of affordable insulin for vulnerable patients
- Completed vulnerability assessments, resulting in 25 plans being implemented across APAC, LATAM and SEEMEA regions

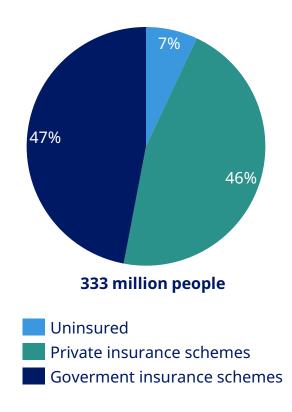
# US affordability offerings

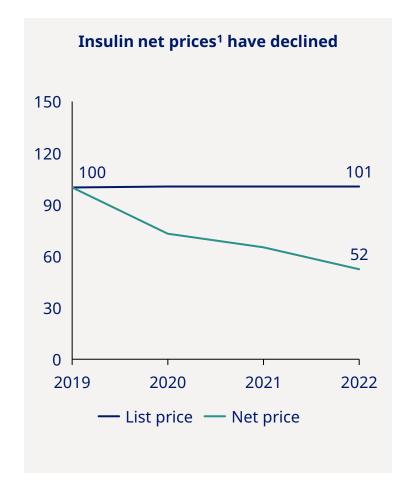
- Suite of affordability offerings including unbranded biologics, My \$99 insulin and more
- In 2022, DKK 261 billion were provided in discounts and rebates in the US, amounting to 75% of US gross sales

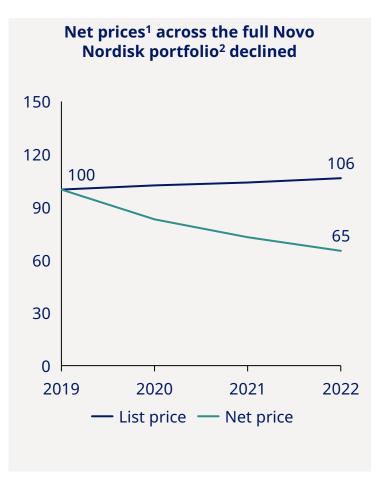
<sup>1.</sup> The access and affordability programmes are not mutually exclusive, implying that the sum of the reach of each programme cannot be interpreted as the total unique number of people with diabetes reached. More info on Novo Nordisk access and affordability programmes can be found at: Access & 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







# Barriers to access go beyond price

# Diabetes Compass launched with World Diabetes Foundation

- Many healthcare systems in LMICs are overburdened
- Aims to reduce vulnerabilities through innovative digital solutions to support health workers and people with diabetes
- Pilots in Sri Lanka and Tanzania have been launched
- Roll-out of digital products expected to begin in 2023



# Thermal solution for human insulin can address one key access to care barrier

- Strict insulin storage recommendations are hard to meet in humanitarian settings and where access to refrigeration is low
- The positive scientific opinion received from EMA in April supports obtaining the national approvals for additional option for storage outside of refrigeration prior to first use
- National submission ongoing in >50 countries, e.g. submitted in India and Bangladesh in July 2022



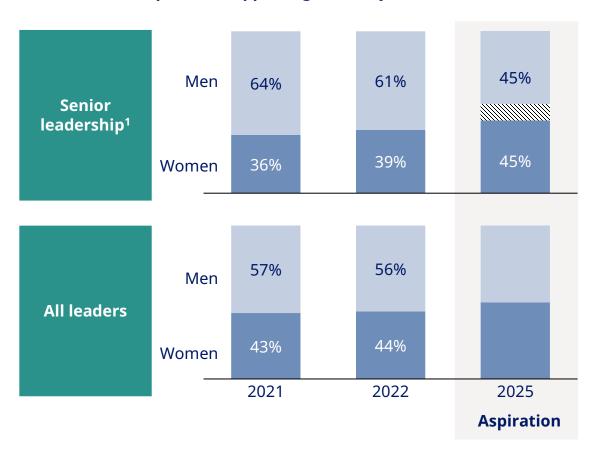
# iCare initiative towards strengthening health infrastructure in Middle Africa

- A business-integrated model improving access to treatment and care
- Capacity: 6,300 HCPs trained
- **Affordability:** 32,300 underserved patients reached with insulin
- Reach: Onboarded new distributors to reduce mark-ups
- **Empowerment:** 10,900 patients enrolled in patient empowerment programmes



# The journey towards being a sustainable employer starts with being inclusive and diverse

## 2025 aspiration supporting Diversity and Inclusion



## Driving an inclusive and diverse workplace

### **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 has increased from 78% in 2021 to 82% in 2022
- End of 2022 39% of leaders in senior leadership positions were women, compared to 36% end 2021

<sup>&</sup>lt;sup>1</sup> 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 2022. No formulated 2025 aspiration exist for "all leaders", but Novo Nordisk aspires for balanced gender representation at all managerial levels½

# Structure in place to ensure corporate governance

| Rules and Regulations                       |   | Go                 | Assurance measures      |                           |               |   |  |
|---|---|--------------------|-------------------------|---------------------------|---------------|---|--|
| Danish and foreign laws and regulations     | Shareholders<br>A and B share structure |                    |                         |                           |               | Audit financial data and review social and environmental data (internal and external) |  |
|   | tions  Board of Directors <sup>2</sup>  |                    |                         |                           |               |   |  |
| Corporate governance standards <sup>1</sup> | Chairmanship                            | Audit<br>Committee | Nomination<br>Committee | Remuneration<br>Committee | R&D Committee | Facilitation (internal)   |  |
| Articles of Association                     | Executive Management                    |                    |                         |                           |               | Quality audit and inspections   |  |
| Novo Nordisk Way                            | k Way Organisation                      |                    |                         |                           |               | (internal and external)   |  |

<sup>1.</sup> 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 2022

## 2 | Responsible

- No artificial structures or tax havens
- Transfer pricing principles compliant with OECD guidelines
- Advanced pricing agreements covering ~65% 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 2022 around DKK 36 billion

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

| Region                   | IP rights <sup>1</sup> | Production <sup>2</sup> | Sales <sup>3</sup> | Corporate<br>income taxes |
|--------------------------|------------------------|-------------------------|--------------------|---------------------------|
| International Operations |                        | •                       |                    | 11.0                      |
| - Denmark                | •                      |                         |                    | 9.6                       |
| - EMEA (excl. Denmark)   |                        |                         |                    | 0.7                       |
| - Region China           |                        |                         |                    | 0.4                       |
| - Rest of World          |                        |                         |                    | 0.3                       |
| North America Operations |                        |                         |                    | 1.0                       |
| - The US                 |                        |                         |                    | 0.8                       |
| Total                    |                        |                         |                    | 12.0                      |
| Share of category        | Share of               | f category              | $\bigcirc$ s       | hare of category          |

<sup>1.</sup> 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 2020-2022

Remuneration

Report 2022

# ESG is integrated in reporting and remuneration as well as recognised externally

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



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

Rating agency





AAA



Top 13% in industry group 'pharmaceuticals'



A (Climate)
A- (Water)



Ranked 11<sup>th</sup> out of 20 companies





DRIVING AMBITIOUS CORPORATE CLIMATE ACTION







# 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 <u>dabo@novonordisk.com</u>

David Heiberg Landsted +45 3077 6915 <u>dhel@novonordisk.com</u>

Jacob Martin Wiborg Rode +45 3075 5956 <u>jrde@novonordisk.com</u>

Mark Joseph Root (USA) +1 848 213 3219 <u>mjhr@novonordisk.com</u>