REGION CHINA
Forward-looking statements

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• 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.

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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 presentation, reference is made to the overview of risk factors in ‘Risk management enables better decision-making’ on pp 41-43 in the Annual Report 2018.

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Important drug information

• Victoza® is approved for the management of type 2 diabetes only
• Saxenda® is approved in the USA and the EU for the treatment of obesity only

Note: All notes, sources and abbreviations for this presentation are found in the appendix.
China is the second biggest pharma market globally, with high unmet needs.

### Largest Pharmaceutical Market Globally

<table>
<thead>
<tr>
<th>Country</th>
<th>GDP Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>6.1%</td>
</tr>
<tr>
<td>US</td>
<td>2.4%</td>
</tr>
<tr>
<td>EU</td>
<td>1.5%</td>
</tr>
<tr>
<td>JP</td>
<td>0.9%</td>
</tr>
</tbody>
</table>

### Sustained Solid GDP Growth and Increasing Disposable Income

- **Diabetes Population**: 121mn
- **Diagnosed**: 56mn
- **Treated**: 39mn
- **Achieve Targets**: 19mn

### Large Unmet Needs in Diabetes

- China: 12.1mn
- US: 3.9mn

### Significant Diversity and Complexity Across Provinces

- **Beijing**: USD 21,000 GDP per capita, 4.6 doctors per patient
- **Xinjiang**: USD 7,400 GDP per capita, 2.6 doctors per patient
Health is at the centre of government policy, creating a positive environment for sustainable growth

Capitalising on opportunities provided by positive changes in policy and regulatory environment

Healthy China Action 2019-2030

- Diabetes prevention and control among 15 projects, with specific goals:
  - Diabetes awareness rate (from baseline 36% to 50% in 2022)
  - Diabetes standard management rate (from baseline 50% to 60% in 2022)

Accelerated approvals

<table>
<thead>
<tr>
<th>Year</th>
<th>Time to approval</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>~14 yrs</td>
</tr>
<tr>
<td>2006</td>
<td>~12 yrs</td>
</tr>
<tr>
<td>2012</td>
<td>~6 yrs</td>
</tr>
<tr>
<td>2017</td>
<td>~2 yrs</td>
</tr>
</tbody>
</table>

Reimbursement

<table>
<thead>
<tr>
<th>Year</th>
<th>Updates to NRDL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>1st</td>
</tr>
<tr>
<td>2004</td>
<td>2nd</td>
</tr>
<tr>
<td>2009</td>
<td>3rd</td>
</tr>
<tr>
<td>2017</td>
<td>4th</td>
</tr>
<tr>
<td>2018</td>
<td>5th</td>
</tr>
<tr>
<td>2019</td>
<td>6th</td>
</tr>
</tbody>
</table>

Responding to challenges by mitigating risks and managing issues as they become certain

Cost containment

- Volume-based purchasing
- Price erosion (bidding)

Competition

- 15 local insulin manufacturers comprising 33% of the market
- 20+ local biosimilars launches by 2023
Novo Nordisk has a strong presence and a clear strategy to continue growth and leadership in Region China.

Celebrating 25 years of success in Region China
~7 million patients treated in 2019\(^1\)

Novo Nordisk Annual sales and share of growth per product group

<table>
<thead>
<tr>
<th>Year</th>
<th>Obesity</th>
<th>GLP-1</th>
<th>HI</th>
<th>OAD</th>
<th>MI+NGI</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>80%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2017</td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2018</td>
<td>26%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>-25%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Growth rates 2016-2019:
- +6%
- +8%
- +15%

WIN+2025 strategy to become the trusted partner in diabetes, enabling 60 million patients treated by 2025\(^1\)

Maximise portfolio

Drive commercial excellence

Shape market

Accelerate innovation
The diabetes market continues its dynamic growth with insulin remaining as the core segment.

**Region China diabetes market by product class**

- **DKK billion**
  - 2018: 16
  - 2017: 14
  - 2016: 12
  - 2019: 18

- **Product class dynamics highlight opportunities**
  - **Insulin**
    - Modern-insulin and new-generation insulin continue to grow
    - Human insulin challenged by conversion to modern insulin
  - **Modern non-insulin anti-diabetic**
    - Emerging segment, driven by reimbursement and new entrants
  - **Oral anti-diabetic**
    - Price pressures with exposure to volume-based purchasing
Sustaining leadership in insulin is achieved by winning in all three modern and new-generation insulin segments.

### Insulin segment size and market share (DKK bn)

<table>
<thead>
<tr>
<th>Segment</th>
<th>Novo Nordisk</th>
<th>Competitors</th>
<th>Segment growth</th>
<th>Δ NN market share 2019 vs. 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>47%</td>
<td></td>
<td>9.5</td>
<td>12%</td>
</tr>
<tr>
<td>Basal</td>
<td>15%</td>
<td></td>
<td>3.5</td>
<td>17%</td>
</tr>
<tr>
<td>Premix</td>
<td>77%</td>
<td></td>
<td>2.5</td>
<td>7%</td>
</tr>
<tr>
<td>Bolus</td>
<td>80%</td>
<td></td>
<td>1.1</td>
<td>17%</td>
</tr>
<tr>
<td>Human</td>
<td>46%</td>
<td></td>
<td>2.3</td>
<td>3%</td>
</tr>
</tbody>
</table>

Win in all three insulin segments through commercial excellence

Gain basal insulin market share with dedicated sales force

Strengthen premix
Acceleration of the GLP-1 franchise is driven by Victoza® and is expected to expand with semaglutide.

**Strong market share and growth with Victoza®**
- Market share 100%
- CAGR: 41%
- DKK million
- 400
- 300
- 200
- 100
- 0

- Sep 2016
- Sep 2019

**Increasing competition but strong upcoming portfolio and tactics in place**
- Increasing GLP-1 competition from new entrants into NRDL
- Dedicated sales organisation to focus on GLP-1

**GLP-1 penetration levels across Novo Nordisk regions**
- GLP-1 value of total diabetes by region
- Ozempic® launched
- Updated treatment guidelines
- LEADER results
- Dulaglutide launched
- 1st weekly GLP-1 launched
- Victoza® launched

**Region**
- China: 2% (Vic 2%)
- AAMEO: 3%
- LATAM: 7%
- J&K: 7%
- Europe: 13%
- NAO: 21%
Strengthening Biopharm’s footprint and building the obesity market is expected to diversify future business

While only representing ~2% of China sales, Biopharm holds strong growth potential.

Obesity is a growing problem in China but market development is needed.

Government advocates individuals pay attention to their weight in Healthy China 2030 Action Plan.

~124mn people with obesity

2016 2017 2018 2019

+27% +56%

<table>
<thead>
<tr>
<th>Year</th>
<th>Haemophilia (m)</th>
<th>Growth hormone (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>150</td>
<td>0</td>
</tr>
<tr>
<td>2017</td>
<td>200</td>
<td>0</td>
</tr>
<tr>
<td>2018</td>
<td>225</td>
<td>0</td>
</tr>
<tr>
<td>2019</td>
<td>275 (estimated)</td>
<td>0</td>
</tr>
</tbody>
</table>

~ DKK million
Novo Nordisk supports building the ecosystem to enable early diagnosis, proper treatment, and better control.

- **Drive early diagnosis**
  - **BlueCare**
    - Through screening
    - 2016-current
    - 640,000 patients
    - 280,000 high-risk

- **Build infrastructure**
  - **BlueCounty**
    - Build endocrinology depts in country hospitals
    - 2017-current
    - 947 hospitals
    - 897 counties

- **Build capability**
  - **BlueGP**
    - Build GP capabilities through training
    - 2017-current
    - 45 cities
    - 2,200 GPs

- **Improve adherence**
  - **BlueConnect**
    - App-based platform to connect HCPs and patients
    - 2018-current
    - 18,700 patients
The future promises to deliver a more innovative and more diversified portfolio.
The future promises to deliver a more innovative and more diversified portfolio
Closing Remarks

The pharma market in Region China continues to grow and Novo Nordisk is well-positioned to capitalise.

Novo Nordisk has a holistic strategy to drive sustainable growth in Region China in the long-term.

Novo Nordisk focuses on maximising the portfolio and driving growth in all major segments beyond insulins and beyond diabetes.

Novo Nordisk remains a trusted partner, working with stakeholders to change diabetes and other serious chronic diseases.
Sources, Notes and Abbreviations – Region China


- **Slide 4:** ¹Time from CTA submission to approval; source: DXY insight database; ²Currently only 1 data point for biologic import product; ³Opened for oncology products only

- **Slide 5:** ¹Number for mainland China only; ²First nine months, 2019; source: Company reported numbers; OAD: Oral anti-diabetic; MI: Modern insulin; NGI: New-generation insulin

- **Slide 6:** ¹3-year CAGR; ²Year-to-date; Note: Modern non-insulin anti-diabetic (MNIAD) includes GLP-1, DPP-IV, and SGLT-2; source: IQVIA, MAT, Sep 2019, IQVIA covers around 50% of the total Chinese market (hospital data); OAD: Oral anti-diabetic; MNIAD: Modern non-insulin anti-diabetic; HI: Human insulin; MI: Modern insulin; NGI: New-generation insulin

- **Slide 7:** Source: IQVIA, MAT, Sep 2019; IQVIA covers around 50% of the total Chinese market (hospital data)

- **Slide 8:** ¹3-year CAGR; Source: IQVIA, MAT, Sep 2019; IQVIA covers around 50% of the total Chinese market (hospital data)

- **Slide 9:** ¹First 9 months, 2019; ²Obesity as defined by Chinese standard = BMI>28; number is for adults only; source: Nutrition and Chronic Diseases of Chinese Resident in 2012 (published in 2015), see also Healthy China Action (2019-2030)

- **Slide 11:** ¹Innovative products: Product with a compound or formulation patent; Diversified means products other than insulin

- **Slide 12:** ¹Innovative products: Product with a compound or formulation patent; Diversified means products other than insulin
Region China: Diabetes market share and market growth

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

- **NN share of growth**: Red line
- **NN market share**: Blue line
- **Market growth**: Yellow line

<table>
<thead>
<tr>
<th></th>
<th>Sep 2016</th>
<th>Sep 2018</th>
<th>Sep 2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>NN share of growth</td>
<td>31%</td>
<td>28%</td>
<td>28.9%</td>
</tr>
<tr>
<td>NN market share</td>
<td>20%</td>
<td>17%</td>
<td>~17%</td>
</tr>
<tr>
<td>Market growth</td>
<td>12%</td>
<td>~12%</td>
<td>~12%</td>
</tr>
</tbody>
</table>

**Diabetes market size and growth**

- **Novo Nordisk**: 0.6 billion
- **Hangzhou Huadong**: 0.3 billion
- **Others**: 1.9 billion

- **Total**: 19.3 billion

**Source**: IQVIA, September 2019, Value, MAT, all countries
### Region China: Insulin market size and volume share of growth and market share

<table>
<thead>
<tr>
<th>Insulin market share and market size (DKK billion)</th>
<th>Market growth</th>
<th>Δ Market share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>9.5</td>
<td>12%</td>
</tr>
<tr>
<td>Basal</td>
<td>3.5</td>
<td>17%</td>
</tr>
<tr>
<td>Bolus</td>
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<td>17%</td>
</tr>
<tr>
<td>Premix</td>
<td>2.5</td>
<td>7%</td>
</tr>
<tr>
<td>Human</td>
<td>2.3</td>
<td>3%</td>
</tr>
</tbody>
</table>

### Insulin volume: Share of growth and market share

- **NN share of growth**
  - Oct 2016: 54%
  - Sep 2019: 50%

- **NN market share**
  - Oct 2016: 40%
  - Sep 2019: 12%

- **Market share**
  - Oct 2016: 17%
  - Sep 2019: 12%

### Source
IQVIA, Sep 2019, LHS graph – Value, RHS Graph - Volume, MAT, all countries
Region China: GLP-1 market share and market growth

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

- **Sep 2016**: 53% Market share, ~82% Growth
- **Sep 2019**: 101% Market share, ~101% Growth

**GLP-1 market size and growth**

- **Sep 2018**:
  - Novo Nordisk: 0.2 DKK billion, ~82%
  - AstraZeneca: 0.0 DKK billion
  - Others: 0.0 DKK billion
  - Total: 0.2 DKK billion

- **Sep 2019**:
  - Novo Nordisk: 0.4 DKK billion, ~101%
  - AstraZeneca: 0.0 DKK billion
  - Others: 0.0 DKK billion
  - Total: 0.4 DKK billion

Source: IQVIA, September 2019, Value, MAT, all countries; Share of growth not depicted due to too high numbers