Agenda

Highlights and key events

Sales update

R&D update

Financials and outlook
Forward-looking statements

Novo Nordisk’s reports filed with or furnished to the US Securities and Exchange Commission (SEC), including the company’s Annual Report 2015 and Form 20-F, which are both filed with the SEC in February 2016 in continuation of the publication of the Annual Report 2015, and presentations made, 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, including interest rate and currency exchange rate fluctuations, delay or failure of projects related to research and/or development, unplanned loss of patents, interruptions of supplies and production, product recall, unexpected contract breaches or terminations, government-mandated or market-driven price decreases for Novo Nordisk’s products, introduction of competing products, reliance on information technology, Novo Nordisk’s ability to successfully market current and new products, exposure to product liability and legal proceedings and investigations, changes in governmental laws and related interpretation thereof, including on reimbursement, intellectual property protection and regulatory controls on testing, approval, manufacturing and marketing, perceived or actual failure to adhere to ethical marketing practices, investments in and divestitures of domestic and foreign companies, unexpected growth in costs and expenses, failure to recruit and retain the right employees, and failure to maintain a culture of compliance.


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 presentation, whether as a result of new information, future events or otherwise.

Important drug information

- Victoza® (liraglutide 1.2 mg & 1.8 mg) is approved for the management of type 2 diabetes only
- Saxenda® (liraglutide 3 mg) is approved in the US and EU for the treatment of obesity only
Highlights – Full year 2015

Sales development
- Sales increased by 22% in Danish kroner and 8% in local currencies
  - North America and International Operations grew by 32% and 19% in Danish kroner, respectively
  - Victoza® increased by 34% in Danish kroner and continues to drive the growth of the GLP-1 market
  - Levemir® increased by 29% in Danish kroner and gains market share in the US despite increased competition
  - Tresiba® launched in the US and continues to perform well in countries with similar reimbursement as insulin glargine

Research and Development
- Tresiba® shows lower rate of hypoglycaemia than insulin glargine in SWITCH 2 trial in people with type 2 diabetes
- SUSTAIN 2 trial, comparing semaglutide vs sitagliptin in people with type 2 diabetes, successfully completed
- SUSTAIN 4 trial, comparing semaglutide vs insulin glargine in people with type 2 diabetes, successfully completed

Financials
- Operating profit growth of 43% in Danish kroner; adjusted for partial NNIT divestment, growth was 14% in local currencies
- Diluted earnings per share increased 34% to 13.52 DKK per share
- 2016 financial outlook:
  - Sales growth is expected to be 5-9% measured in local currencies
  - Operating profit growth is also expected to be 5-9% measured in local currencies, adjusted for the partial divestment of NNIT and out-licensing income from the divestment of inflammation assets, both in 2015
- Updated long-term financial targets
  - The target for operating profit growth has been set at 10%
  - A new operating margin target has not been established, as operating margin is expected to remain around 44%
  - The targets for operating profit after tax to net operating assets and cash-to-earnings ratio remain unchanged
North America is the main contributor to growth

Sales as reported – Full year 2015

<table>
<thead>
<tr>
<th>Region</th>
<th>Growth</th>
<th>Share of growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>11%</td>
<td>62%</td>
</tr>
<tr>
<td>Europe</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>International Operations</td>
<td>15%</td>
<td>26%</td>
</tr>
<tr>
<td>Region China</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Japan &amp; Korea</td>
<td>5%</td>
<td>4%</td>
</tr>
<tr>
<td>Total sales</td>
<td>8%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Sales of DKK 107.9 billion (+22%)
Growth is driven by modern insulin and Victoza®

Sales as reported – Full year 2015

Sales of DKK 107.9 billion (+22%)

Growth analysis – Full year 2015

<table>
<thead>
<tr>
<th>Local currencies</th>
<th>Growth</th>
<th>Share of growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>New-generation insulin¹</td>
<td>109%</td>
<td>10%</td>
</tr>
<tr>
<td>Modern insulin</td>
<td>7%</td>
<td>41%</td>
</tr>
<tr>
<td>Human insulin</td>
<td>(1%)</td>
<td>(1%)</td>
</tr>
<tr>
<td>Victoza®</td>
<td>18%</td>
<td>32%</td>
</tr>
<tr>
<td>Other diabetes and obesity care²</td>
<td>5%</td>
<td>2%</td>
</tr>
<tr>
<td>Diabetes and obesity care</td>
<td>9%</td>
<td>84%</td>
</tr>
<tr>
<td>Haemophilia</td>
<td>3%</td>
<td>4%</td>
</tr>
<tr>
<td>Norditropin®</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Other biopharmaceuticals⁴</td>
<td>13%</td>
<td>5%</td>
</tr>
<tr>
<td>Biopharmaceuticals</td>
<td>6%</td>
<td>16%</td>
</tr>
<tr>
<td>Total</td>
<td>8%</td>
<td>100%</td>
</tr>
</tbody>
</table>

¹ Comprises Tresiba®, Ryzodeg® and Xultophy®
² Predominantly oral antidiabetic products, needles and Saxenda®
³ Comprised NovoSeven®, NovoEight® and NovoThirteen®
⁴ Predominantly hormone replacement therapy
Victoza® maintains leadership in the faster growing US GLP-1 market

**US GLP-1 market development**

- **MAT GLP-1 TRx (000)**
  - Growth rate
  - Total TRx

- **MAT volume growth rate**
  - Dec 2012
  - Dec 2015

- **US GLP-1 market shares**
  - GLP-1 TRx market share
  - Dec 2012
  - Dec 2015

Source: IMS NPA MAT, December 2015
North America drives strong Levemir® growth despite increased competition

Levemir® sales growth driven by strong performance in North America

- North America: 19%
- Europe: -2%
- IO: 11%
- China: 5%
- Japan & Korea: -15%

Growth in local currency

Levemir® has gained US market share despite introduction of glargine U300

- glargine U300: 65%
- glargine U100: 24%
- NPH: 10%

Note: Reported sales full year 2015

Source: IMS MAT volume figures, November 2015
Roll-out of Tresiba® is progressing and Tresiba® is now launched in the US

**Key launch observations**

- **Tresiba® launched in 39 countries**
  - Tresiba® has shown solid penetration in markets with similar reimbursement as insulin glargine
  - Penetration of Tresiba® remains modest in markets with restricted market access compared to insulin glargine
  - Tresiba® distribution in Germany ceased in January 2016
  - Tresiba® launched in Spain in January 2016

- **Tresiba® launched in the US in January 2016**
  - Dialogue with payers regarding formulary access is ongoing and coverage is increasing

**Tresiba® value share of basal insulin segment in selected countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>0%</th>
<th>4%</th>
<th>8%</th>
<th>12%</th>
<th>16%</th>
<th>20%</th>
<th>24%</th>
<th>28%</th>
<th>32%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switzerland</td>
<td>33%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Netherlands</td>
<td>22%</td>
<td>24%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td>14%</td>
<td></td>
<td>7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td>12%</td>
<td>12%</td>
<td>15%</td>
<td>15%</td>
<td>27%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td></td>
<td>4%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argentina</td>
<td>4%</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>2%</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Greece</td>
<td>2%</td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Limited IMS coverage in India
Source: IMS Monthly value figures, November 2015
Steady prescription uptake for Saxenda®

Prescription volume uptake of anti-obesity medications (AOM) recently launched in the US

<table>
<thead>
<tr>
<th>TRx Volume (000)</th>
<th>Contrave®</th>
<th>Belviq®</th>
<th>Qsymia®</th>
<th>Saxenda®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr 2015</td>
<td>63</td>
<td>44</td>
<td>42</td>
<td>11</td>
</tr>
<tr>
<td>Dec 2015</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key observations

- Encouraging Saxenda® uptake continues in Q4 2015 despite market seasonality with lower anti-obesity prescription volumes in the second half compared to the first half of the year.

- Saxenda® is now the leader in value market share¹ at ~31% among branded AOM, and the only branded product significantly growing value in Q4 2015.

- Saxenda® has contracted coverage with multiple large pharmacy benefit managers, and is currently growing share in each account².

- Saxenda® has been launched in the US, Canada, Denmark and Italy.

Note: IMS reporting for new launches may reflect data instability due to small volume and/or supplier reporting.

Source: IMS NPA TRx, weekly data, 8 January 2016

¹ IMS NSP, Monthly data, November 2015
² IMS Xponent PlanTrak
**Tresiba® shows lower rate of hypoglycaemia than insulin glargine in SWITCH 2 trial**

**SWITCH 2 Trial design**

<table>
<thead>
<tr>
<th>Tresiba® once daily ± OAD</th>
<th>Tresiba® once daily ± OAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGlar once daily ± OAD</td>
<td>IGlar once daily ± OAD</td>
</tr>
</tbody>
</table>

- 721 people with type 2 diabetes
- Randomised 1:1 Double-blinded
- 16 week titration
- 16 week HbA1c stable
- 16 week titration
- 16 week HbA1c stable

**Headline results**

<table>
<thead>
<tr>
<th>Event rate per 100 patient years exposed in maintenance period</th>
<th>Tresiba®</th>
<th>IGlar</th>
<th>Tresiba® reduction vs IGlar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Severe or BG confirmed symptomatic hypoglycemia</td>
<td>186</td>
<td>265</td>
<td>30%*</td>
</tr>
<tr>
<td>Severe or BG symptomatic nocturnal confirmed hypoglycemia</td>
<td>55</td>
<td>94</td>
<td>42%*</td>
</tr>
<tr>
<td>Severe hypoglycaemia</td>
<td>5</td>
<td>9</td>
<td>46%</td>
</tr>
<tr>
<td>Severe hypoglycaemia (Full treatment period)</td>
<td>4</td>
<td>9</td>
<td>51%*</td>
</tr>
</tbody>
</table>

* p < 0.001; BG: blood glucose;
Note: The confirmatory secondary endpoint of proportions of subjects experiencing severe hypoglycaemia during the maintenance period did not reach statistical significance.

1. After 20% dose reduction if coming from previous twice-daily treatment
   Note: Daily injections of both Tresiba® and insulin glargine evenly split between morning and evening
   IGlar: insulin glargine; OAD: oral anti-diabetic
In phase 3a trials semaglutide shows best in-class potential on HbA$_{1c}$ reduction across treatment cascade

**Comparison of HbA$_{1c}$ lowering effect in SUSTAIN 1, 2, 3 and 4 trials**

- **SUSTAIN 1**: 8.1%
  - Baseline: 8.1%
  - Change in HbA$_{1c}$ (%): -1.6
  - 72% patients HbA$_{1c}$ ≤ 7%

- **SUSTAIN 2**: 8.1%
  - Baseline: 8.1%
  - Change in HbA$_{1c}$ (%): -1.6
  - 78% patients HbA$_{1c}$ ≤ 7%

- **SUSTAIN 3**: 8.4%
  - Baseline: 8.2%
  - Change in HbA$_{1c}$ (%): -1.5
  - 67% patients HbA$_{1c}$ ≤ 7%

- **SUSTAIN 4**: 8.2%
  - Baseline: 8.1%
  - Change in HbA$_{1c}$ (%): -1.6
  - 73% patients HbA$_{1c}$ ≤ 7%

* $p < 0.001$; QD: once daily; QW: once weekly; sema: semaglutide

Source: Novo Nordisk on file (NN9535-3623, NN9535-3624, NN9535-3625, NN9535-3626)
In phase 3a trials semaglutide shows best in-class weight lowering potential across treatment cascade

Comparison of weight lowering effect in SUSTAIN 1, 2, 3 and 4 trials

* p < 0.001; QD: once daily; QW: once weekly; sema: semaglutide

Source: Novo Nordisk on file (NN9535-3623, NN9535-3624, NN9535-3625, NN9535-3626)
### Key development milestones

<table>
<thead>
<tr>
<th><strong>Diabetes</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Phase 3b trial initiated comparing Xultophy® (IDegLira) (NN9068) with insulin glargine in 104-week study</td>
<td></td>
</tr>
<tr>
<td>• Faster-acting insulin aspart (NN1218) filed for regulatory approval in the EU and the US for the treatment of type 1 and 2 diabetes</td>
<td></td>
</tr>
<tr>
<td>• Phase 1 trial initiated with a liver-preferential mealtime insulin (NN1406)</td>
<td></td>
</tr>
<tr>
<td>• LATIN T1D (NN9211) discontinued in phase 3 development</td>
<td></td>
</tr>
<tr>
<td>• Phase 2 trial initiated with Anti-IL 21 and liraglutide in people with recent onset type 1 diabetes (NN9828)</td>
<td></td>
</tr>
<tr>
<td>• OG987GT (NN9926) and OG987SC (NN9927) discontinued in phase 1 development following the decision to enter phase 3a with oral semaglutide</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Haemophilia</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Novo Nordisk files for regulatory approval of long-acting factor IX, N9-GP (NN7999) in the EU for the treatment of haemophilia B</td>
<td></td>
</tr>
<tr>
<td>• Novo Nordisk completes 3b extension trial mentor 2 with rFXIII, NovoThirteen®</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Other</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Novo Nordisk plans to initiate a phase 2 clinical programme in 2H 2016 to investigate semaglutide for the treatment of non-alcoholic steatohepatitis (NASH)</td>
<td></td>
</tr>
</tbody>
</table>
Strong R&D newsflow expected to continue in 2016

<table>
<thead>
<tr>
<th>Project</th>
<th>Past 3 months</th>
<th>Within 3 months</th>
<th>Within 6 months</th>
<th>In ~6-9 months</th>
<th>In ~9-12 months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tresiba®</td>
<td></td>
<td>SWITCH 1</td>
<td></td>
<td></td>
<td>DEVOTE</td>
</tr>
<tr>
<td>Once-weekly semagludine</td>
<td></td>
<td>SUSTAIN 5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>SUSTAIN 6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LEADER</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Victoza®</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OI338GT</td>
<td></td>
<td></td>
<td>Phase 2a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amylin analogue</td>
<td></td>
<td></td>
<td>Phase 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N9-GP</td>
<td></td>
<td></td>
<td>US submission</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Somapacitan</td>
<td></td>
<td></td>
<td>Phase 2¹</td>
<td></td>
<td>Phase 1</td>
</tr>
<tr>
<td>Xultophy®</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Glucagon 530L</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results available

Project timeline:
- SWITCH 2: within 3 months
- SUSTAIN 2, SUSTAIN 4: within 6 months
- SUSTAIN 5: in ~6-9 months
- SUSTAIN 6: in ~9-12 months
- LEADER: in ~9-12 months
- Phase 2a, Phase 1, US submission, Phase 2¹:
- FDA regulatory decision: in ~9-12 months
- Phase 1:

Note: Indicated timeline as of financial release for full year 2015 on 3 February 2016; ¹ Adult growth hormone disorder
# Financial results – Full year 2015

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2014</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sales million</strong></td>
<td>107,927</td>
<td>88,806</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Gross profit</strong></td>
<td>91,739</td>
<td>74,244</td>
<td>24%</td>
</tr>
<tr>
<td><strong>Gross margin</strong></td>
<td>85.0%</td>
<td>83.6%</td>
<td></td>
</tr>
<tr>
<td><strong>Sales and distribution costs</strong></td>
<td>28,312</td>
<td>23,223</td>
<td>22%</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>26.2%</td>
<td>26.2%</td>
<td></td>
</tr>
<tr>
<td><strong>Research and development costs</strong></td>
<td>13,608</td>
<td>13,762</td>
<td>(1%)</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>12.6%</td>
<td>15.5%</td>
<td></td>
</tr>
<tr>
<td><strong>Administration costs</strong></td>
<td>3,857</td>
<td>3,537</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Percentage of sales</strong></td>
<td>3.6%</td>
<td>4.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Other operating income, net</strong></td>
<td>3,482</td>
<td>770</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Non-recurring income from the IPO of NNIT</strong></td>
<td>2,376</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td><strong>Operating profit</strong></td>
<td>49,444</td>
<td>34,492</td>
<td>43%</td>
</tr>
<tr>
<td><strong>Net financials</strong></td>
<td>(5,961)</td>
<td>(396)</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>Profit before income tax</strong></td>
<td>43,483</td>
<td>34,096</td>
<td>28%</td>
</tr>
<tr>
<td><strong>Tax</strong></td>
<td>8,623</td>
<td>7,615</td>
<td>13%</td>
</tr>
<tr>
<td><strong>Effective tax rate</strong></td>
<td>19.8%</td>
<td>22.3%</td>
<td></td>
</tr>
<tr>
<td><strong>Net profit</strong></td>
<td>34,860</td>
<td>26,481</td>
<td>32%</td>
</tr>
<tr>
<td><strong>Diluted earnings per share (DKK)</strong></td>
<td>13.52</td>
<td>10.07</td>
<td>34%</td>
</tr>
<tr>
<td><strong>Diluted earnings per share (DKK) adjusted for partial divestment of NNIT</strong></td>
<td>12.58</td>
<td>10.07</td>
<td>25%</td>
</tr>
</tbody>
</table>
Appreciation of key currencies against the Danish krone drive significant positive currency impact in 2015

### Hedged Currencies

<table>
<thead>
<tr>
<th>Currency</th>
<th>2014 average</th>
<th>2015 average</th>
<th>Spot rate</th>
<th>Impact of a 5% move</th>
<th>Hedging (months)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USD</td>
<td>562</td>
<td>673</td>
<td>686</td>
<td>2,000</td>
<td>12</td>
</tr>
<tr>
<td>CNY</td>
<td>91.2</td>
<td>107.0</td>
<td>104.2</td>
<td>300</td>
<td>11</td>
</tr>
<tr>
<td>JPY</td>
<td>5.32</td>
<td>5.56</td>
<td>5.65</td>
<td>150</td>
<td>12</td>
</tr>
<tr>
<td>GBP</td>
<td>925</td>
<td>1,028</td>
<td>981</td>
<td>85</td>
<td>12</td>
</tr>
<tr>
<td>CAD</td>
<td>509</td>
<td>526</td>
<td>489</td>
<td>70</td>
<td>11</td>
</tr>
</tbody>
</table>

### Non-hedged Currencies

<table>
<thead>
<tr>
<th>Currency</th>
<th>2014 average</th>
<th>2015 average</th>
<th>Spot rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>RUB</td>
<td>14.8</td>
<td>11.1</td>
<td>9.0</td>
</tr>
<tr>
<td>INR</td>
<td>9.20</td>
<td>10.49</td>
<td>10.1</td>
</tr>
<tr>
<td>ARS</td>
<td>0.69</td>
<td>0.73</td>
<td>0.49</td>
</tr>
<tr>
<td>BRL</td>
<td>239</td>
<td>205</td>
<td>172</td>
</tr>
<tr>
<td>TRY</td>
<td>257</td>
<td>248</td>
<td>231</td>
</tr>
</tbody>
</table>

1 DKK per 100; 2 As of 01 February 2016; 3 Operating profit in DKK million per annum; 4 USD and Chinese Yuan traded offshore (CNH) used as proxy; 5 Operating profit impact of one of the non-hedged currencies fluctuating 5% is in the range of DKK -10 to +30 million.
Financial outlook for 2016

<table>
<thead>
<tr>
<th>Expectations 3 February 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sales growth - local currencies</td>
</tr>
<tr>
<td>Sales growth - reported</td>
</tr>
<tr>
<td>Operating profit growth - local currencies</td>
</tr>
<tr>
<td>Operating profit growth - reported</td>
</tr>
<tr>
<td>Net financials</td>
</tr>
<tr>
<td>Effective tax rate</td>
</tr>
<tr>
<td>Capital expenditure</td>
</tr>
<tr>
<td>Depreciation, amortisation and impairment losses</td>
</tr>
<tr>
<td>Free cash flow</td>
</tr>
</tbody>
</table>

The financial outlook is based on an assumption of a continuation of the current business environment and given the current scope of business activities and has been prepared assuming that currency exchange rates remain at the level as of 01 February 2016.
Long-term financial targets are based on the pursuit of double digit growth for the diabetes care franchise

Reported Novo Nordisk diabetes care sales by treatment class

- Insulin
- GLP-1
- Other diabetes care

DKK billion

CAGR\(^1\) 11.2%

2011 2012 2013 2014 2015

Expected future growth drivers for Novo Nordisk’s diabetes care franchise

- **Volume growth**: Continued underlying growth of the global insulin market
- **Market share gain**: Market share gains driven by best in-class insulin portfolio
- **Value upgrade**: Continued upgrade from older generations of insulin
- **GLP-1 franchise**: Continued expansion of the GLP-1 market and launch of once-weekly GLP-1

\(^1\) CAGR in local currencies for 2011-2015
# Updated long-term financial targets

## Performance against long-term financial targets

<table>
<thead>
<tr>
<th></th>
<th>Average 2012-2015&lt;sup&gt;1&lt;/sup&gt;</th>
<th>Result 2015</th>
<th>Previous Target&lt;sup&gt;2&lt;/sup&gt;</th>
<th>Updated Target</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating profit growth</strong></td>
<td>23%</td>
<td>43%</td>
<td>15%</td>
<td>10%</td>
</tr>
<tr>
<td>Operating profit growth in local currencies&lt;sup&gt;3&lt;/sup&gt;</td>
<td>15%</td>
<td>14%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Operating margin</strong></td>
<td>40%</td>
<td>46%</td>
<td>40%</td>
<td>N/A&lt;sup&gt;4&lt;/sup&gt;</td>
</tr>
<tr>
<td><strong>Operating profit after tax to net operating assets</strong></td>
<td>111%</td>
<td>149%</td>
<td>125%</td>
<td>125%</td>
</tr>
<tr>
<td><strong>Cash to earnings (three year average)</strong></td>
<td>97%</td>
<td>97%</td>
<td>90%</td>
<td>90%</td>
</tr>
</tbody>
</table>

---

1 Simple average of reported figures 2012-2015; 2 The long-term financial targets were last updated in connection with the 2012 annual results; 3 Adjusted for the partial divestment of NNIT in 2015; 4 A new target has not been established, as operating margin is expected to remain around 44%
Organic growth enables steady cash return to shareholders via dividends and share repurchase programmes

Annual cash return to shareholders

<table>
<thead>
<tr>
<th>Year</th>
<th>Free cash flow</th>
<th>Share repurchase</th>
<th>Dividend</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>12</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>2013</td>
<td>14</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>2014</td>
<td>15</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>2015</td>
<td>17.5</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>2016E</td>
<td>14</td>
<td>16</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Dividends are allocated to the year of dividend pay. For 2016 expected free cash flow is DKK 36-39 billion. Share repurchase programmes run for 12 months starting February until end January of the following year.

Proposed dividend and introduction of interim dividend

- Board of Directors to propose 28.0% increase in dividend to DKK 6.40 per share of DKK 0.20 at Annual General Meeting on 18 March 2016
- Proposal corresponds to a payout ratio of 46.6%
- Adjusted for the partial divestment of NNIT the payout ratio is 50.0%
- Board of Directors to propose introduction of interim biannual dividends at the Annual General Meeting on 18 March 2016
- Subject to final approval, Novo Nordisk intends to introduce the first interim dividend in August 2016
Closing remarks

**Solid market performance**

- ≥10% annual diabetes care market growth driven by diabetes prevalence
- 28% market share in diabetes care and solid leadership position
- 47% insulin volume market share with leadership position across all regions
- 45% modern and new-generation insulin volume market share
- 67% GLP-1 value market share with strong global leadership position

**Promising pipeline**

- The only company with a full portfolio of novel insulin products
- Semaglutide portfolio offers expansion opportunity with both injectable and oral administration
- Xultophy® supports promising outlook for insulin and GLP-1 combination therapy
- Saxenda® and multiple early stage development projects hold potential within obesity
- Broad pipeline within haemophilia and growth hormone disorders

Source: IMS MAT November 2015 volume and value (DKK) figures
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 the internet at: novonordisk.com

Investor Relations contacts

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

<table>
<thead>
<tr>
<th>Name</th>
<th>Phone</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peter Hugreffe Ankersen</td>
<td>+45 3075 9085</td>
<td><a href="mailto:phak@novonordisk.com">phak@novonordisk.com</a></td>
</tr>
<tr>
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<td><a href="mailto:dabo@novonordisk.com">dabo@novonordisk.com</a></td>
</tr>
<tr>
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<td><a href="mailto:mrz@novonordisk.com">mrz@novonordisk.com</a></td>
</tr>
<tr>
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<td>+45 3079 8519</td>
<td><a href="mailto:kpvj@novonordisk.com">kpvj@novonordisk.com</a></td>
</tr>
</tbody>
</table>

Upcoming events

- 18 Mar 2016  Annual General Meeting 2016
- 29 Apr 2016  Financial statement for the first three months of 2016
- 05 Aug 2016  Financial statement for the first six months of 2016
- 28 Oct 2016  Financial statement for the first nine months of 2016
Appendix

1. Novo Nordisk at a glance
2. Diabetes
3. Biopharmaceuticals
4. Financials
5. Sustainability
Novo Nordisk at a glance

Global leader in diabetes care

- A **focused** pharmaceutical company with **leading positions** in diabetes, haemophilia and growth hormone
- **Pursuit of double digit top line growth for diabetes care franchise** driven by diabetes pandemic
- Significant **growth opportunities** fuelled by global presence and strong R&D pipeline
- **High barriers to entry** in biologics
- **Operating profit growth** targeting **10%**
- Earnings **conversion to cash** targeting **90%**
- **Cash generated returned to shareholders**

Global insulin market leadership

- **Global insulin market share**: 47%
- European Market share: 47%
- **Japan & Korea** Market share: 49%
- **North America** Market share: 38%
- **China** Market share: 55%
- **International Operations** Market share: 55%

Source: IMS MAT November, 2015 volume figures
Novo Nordisk works with four strategic focus areas based on five core capabilities

<table>
<thead>
<tr>
<th>Strategic priorities</th>
<th>Core capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expand leadership in <strong>DIABETES</strong></td>
<td>Engineering, formulating, developing and delivering protein-based treatments</td>
</tr>
<tr>
<td>Establish presence in <strong>OBESITY</strong></td>
<td>Deep disease understanding</td>
</tr>
<tr>
<td>Pursue leadership in <strong>HAEMOPHILIA</strong></td>
<td>Efficient large-scale production of proteins</td>
</tr>
<tr>
<td>Expand leadership in <strong>GROWTH DISORDERS</strong></td>
<td>Planning and executing global launches of new products</td>
</tr>
</tbody>
</table>

**The Novo Nordisk Way**

- Engineering, formulating, developing and delivering protein-based treatments
- Deep disease understanding
- Efficient large-scale production of proteins
- Planning and executing global launches of new products
- Building and maintaining a leading position in emerging markets

**Driving change to defeat diabetes and other serious chronic conditions**
Novo Nordisk has leading positions in diabetes, haemophilia and growth disorders

**Diabetes**
- DKK billion: 400
- Market value: 40%
- Novo Nordisk value market share: 35%
- Global market position: 30%
- CAGR\(^1\) value: 16.2%

**Haemophilia**
- DKK billion: 70
- Market value: 40%
- Novo Nordisk value market share: 35%
- Global market position: 30%
- CAGR\(^1\) value: 4.9%

**Growth disorders**
- DKK billion: 32
- Market value: 40%
- Novo Nordisk value market share: 35%
- Global market position: 30%
- CAGR\(^1\) value: 2.8%

---

\(^1\) CAGR for 5-year period

Source: IMS MAT November, 2015 value figures
Double digit top line growth driven by diabetes pandemic

Novo Nordisk reported quarterly sales by therapy

<table>
<thead>
<tr>
<th>DKK billion</th>
<th>Q4 2005</th>
<th>Q4 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5,05</td>
<td>11,82</td>
</tr>
</tbody>
</table>

Reported sales CAGR¹: 11.8%

Diabetes Atlas 7th Edition projects that 642 million people will have diabetes by 2040

<table>
<thead>
<tr>
<th>Million people</th>
<th>North America</th>
<th>Europe</th>
<th>Japan &amp; Korea</th>
<th>China</th>
<th>International Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>151</td>
<td>415</td>
<td>642</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td></td>
<td>151</td>
<td></td>
</tr>
<tr>
<td>2040E</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>642</td>
</tr>
</tbody>
</table>

Note:
1. CAGR for 10-year period
2. Haemophilia includes NovoSeven®, NovoThirteen® (as of Q1 2013) and NovoEight® (as of Q1 2014)

Novo Nordisk has a strong leadership position within the growing diabetes care market

Global diabetes care market by treatment class

- **Total market:**
  - CAGR\(^1\) 14.1%\(^2\)
  - Injectables: CAGR\(^1\) 19.7%

- **CAGR\(^1\)**
  - Insulin 18.2%
  - OAD 8.0%

Global diabetes care value market share

- **CAGR\(^1\)**\(^2\)
  - Novo Nordisk 28%

Source: IMS Monthly MAT November, 2015 value figures

\(^1\) CAGR for 10-year period

\(^2\) Source: IMS Monthly MAT November, 2015 value figures
Significant growth opportunities fuelled by strong R&D pipeline across all four strategic focus areas

**PHASE 1**
- LAI287 – QW basal insulin
- OI320GT – Oral insulin
- NN9748 – PYY analogue
- G530L – Glucagon analogue
- NN9838 – Amylin analogue
- NN9747 – PYY analogue
- NN7415 – Conczizumab

**PHASE 2**
- OG217SC – Oral GLP-1<sup>1</sup>
- OI338GT – Oral insulin<sup>2</sup>
- Semaglutide – QD GLP-1
- Anti-IL-21 and liraglutide
- NN9709 – Dual agonist
- Semaglutide – QD GLP-1

**PHASE 3**
- Semaglutide – QW GLP-1
- N8-GP – Long-acting rFVIII
- Somapacitan – QW GH<sup>3</sup>

**SUBMITTED**
- Xultophy® (US)
- Faster-acting insulin aspart
- N9-GP - Long-acting rFIX (EU)<sup>4</sup>

**APPROVED<sup>5</sup>**
- Levetir®
- NovoRapid®
- NovoMix®
- Tresiba®
- Ryzodeg®
- Xultophy® (EU)
- Victoza®
- Saxenda®
- NovoSeven®
- NovoEight®
- NovoThirteen®
- Norditropin®

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<sup>1</sup> Decided to initiate phase 3a trial in Q1 2016
<sup>2</sup> Phase 2a proof-of-principle trial initiated in June 2015
<sup>3</sup> Phase 3 initiated in adult growth hormone disorder
<sup>4</sup> Submitted to the European Medicines Agency in January 2016; Submission with the US Food and Drug Administration expected 1H 2016
<sup>5</sup> Approved in all triad markets (US, EU and Japan), unless noted
Growth opportunities supported by strong global presence in both sales and manufacturing

<table>
<thead>
<tr>
<th>FTEs in sales regions¹</th>
<th>Total non-HQ/manufacturing FTEs: 17,500¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America:</td>
<td>∼5,300</td>
</tr>
<tr>
<td>Europe:</td>
<td>∼2,800</td>
</tr>
<tr>
<td>International Operations:</td>
<td>∼5,100</td>
</tr>
<tr>
<td>Japan &amp; Korea:</td>
<td>∼1,000</td>
</tr>
<tr>
<td>China:</td>
<td>∼3,300</td>
</tr>
</tbody>
</table>

¹ FTEs represent full-time employee equivalents in Novo Nordisk’s sales regions (excludes a.o. employees in headquarter, research sites and manufacturing sites) as of 31 December 2015

² New Hampshire facility is currently under establishment

³ Establishment of diabetes API facility at site Clayton expected to commence in 2016

Global manufacturing setup

- **West Lebanon, NH, USA (~120)²**
  - Diabetes and biopharmaceutical API production
  - Filling
  - Moulding and assembly
  - Packaging

- **Clayton, NC, USA (~750 FTEs)³**
  - Filling
  - Assembly
  - Packaging

- **Chartres, France (~1,100 FTEs)**
  - Filling
  - Assembly
  - Packaging

- **Montes Claros, Brazil (~900 FTEs)**
  - Filling
  - Assembly
  - Packaging

- **Kaluga, Russia (~200 FTEs)**
  - Filling
  - Assembly
  - Packaging

- **Koriyama, Japan (~70 FTEs)**
  - Filling
  - Moulding and assembly
  - Packaging

- **Tianjin, China (~1,000 FTEs)**
  - Filling
  - Moulding and assembly
  - Packaging

- **Denmark (~9,100 FTEs)**
  - Diabetes and biopharmaceutical API production
  - Filling
  - Moulding and assembly
  - Packaging
High barriers to entry in biologics

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

<table>
<thead>
<tr>
<th>Patent protection</th>
<th>Unique value chain position</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU/US</td>
<td></td>
</tr>
<tr>
<td>2029²</td>
<td>Research &amp; Development</td>
</tr>
<tr>
<td>2028/29</td>
<td></td>
</tr>
<tr>
<td>2028/29</td>
<td>Manufacturing</td>
</tr>
<tr>
<td>2018/19</td>
<td>Commercialisation</td>
</tr>
<tr>
<td>exp 2015/17³</td>
<td>• History of protein engineering</td>
</tr>
<tr>
<td>NovoMix³ (biphasic insulin aspart)</td>
<td>• Highly efficient, flexible and capital intensive manufacturing</td>
</tr>
<tr>
<td>exp/exp</td>
<td>• Global commercial footprint</td>
</tr>
<tr>
<td>NovoRapid3 (insulin aspart)</td>
<td></td>
</tr>
<tr>
<td>2017³/17³</td>
<td></td>
</tr>
<tr>
<td>2023⁴/23⁵</td>
<td></td>
</tr>
<tr>
<td>2017/17³</td>
<td></td>
</tr>
</tbody>
</table>

¹ List is not exhaustive of all marketed Novo Nordisk products. ² Protected by patents on the individual compounds insulin degludec and liraglutide as listed. ³ Assumption paediatric extension ⁴ Saxenda patent identical to the Victoza® patent

Source: Novo Nordisk

Significant barriers to entry for biosimilar players

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

Manufacturing
- Significant economies of scale with incumbents
- Significant 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

PK: Pharmacokinetic, PD: Pharmacodynamic; CAPEX: Capital expenditure
Diabetes and obesity
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 it produces.

Primary classifications:

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

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

---

1 Diabetes fact sheet N°312, WHO, October 2013
Insulin – a hormone enabling blood sugar to enter cells

**Insulin enables glucose to become energy**

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

**Liver**

**Pancreas**

**Muscle**

**Fat cell**

---

The aim of insulin therapy is to recreate normal blood insulin profile

- Short-lived, rapidly generated meal-related peaks (**prandial**)
- Sustained Insulin profile (**basal**)

---

Diabetes pandemic is fuelled by growing rates of obesity

US CDC data on obesity and diabetes prevalence among adults

**Obesity prevalence**
(BMI ≥30 kg/m²)

- **1994**
  - No Data
  - <14.0%
  - 14.0-17.9%
  - 18.0-21.9%

- **2000**
  - 22.0-25.9%
  - ≥26.0%

- **2013**
  - <4.5%
  - 4.5-5.9%
  - 6.0-7.4%
  - 7.5-8.9%
  - ≥9.0%

**Diabetes prevalence**

CDC: Centers for Disease Control and Prevention
Poor diagnosis rates, lack of access to optimal treatment and poor glycaemic control remain global problems.

Diagnosis and optimal treatment remains a challenge – the rule of halves.

The worldwide challenge of glycaemic control: mean HbA1c in type 2 diabetes.

All people with diabetes:
- 50% are diagnosed
- 50% have access to care
- 50% get decent care
- 50% reach target

---

<table>
<thead>
<tr>
<th>Region</th>
<th>HbA1c</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canada</td>
<td>7.31</td>
</tr>
<tr>
<td>US</td>
<td>7.2%2</td>
</tr>
<tr>
<td>Latin America</td>
<td>7.6%3</td>
</tr>
<tr>
<td>China</td>
<td>7.2-9.5%4</td>
</tr>
<tr>
<td>India</td>
<td>7.3-9.3%4</td>
</tr>
<tr>
<td>Japan</td>
<td>7.3-7.7%5</td>
</tr>
<tr>
<td>Korea</td>
<td>7.9-8.7%6</td>
</tr>
<tr>
<td>Russia</td>
<td>7.2-9.5%4</td>
</tr>
<tr>
<td>Germany</td>
<td>6.7-9.2%7</td>
</tr>
<tr>
<td>Greece</td>
<td>7.1-9.7%7,8,4</td>
</tr>
<tr>
<td>Italy</td>
<td>7.7-8.3%4</td>
</tr>
<tr>
<td>Poland</td>
<td>7.3-8.9%6</td>
</tr>
<tr>
<td>Portugal</td>
<td>7.9-9.7%7</td>
</tr>
<tr>
<td>Romania</td>
<td>7.9-9.9%7</td>
</tr>
<tr>
<td>Spain</td>
<td>7.6-9.2%8</td>
</tr>
<tr>
<td>Sweden</td>
<td>7.4-8.7%7</td>
</tr>
<tr>
<td>Turkey</td>
<td>7.6-10.6%7</td>
</tr>
<tr>
<td>UK</td>
<td>7.4-8.7%8</td>
</tr>
</tbody>
</table>

---

UKPDS: Tight glycaemic control reduces risk of micro- and macrovascular complications

Risk reduction by lowering HbA₁c by 1%-point

<table>
<thead>
<tr>
<th>Condition</th>
<th>Incidence risk (%)</th>
<th>Statistically significant improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes-related death</td>
<td>-21%*</td>
<td></td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td>-14%</td>
<td></td>
</tr>
<tr>
<td>Microvascular complications</td>
<td>-37%*</td>
<td></td>
</tr>
<tr>
<td>Peripheral vascular disease</td>
<td>-43%*</td>
<td></td>
</tr>
</tbody>
</table>

Relative risk reduction of intensive vs. conventional treatment (%)

<table>
<thead>
<tr>
<th>Condition</th>
<th>1997</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microvascular disease</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>Diabetes-related death</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Myocardial infarction</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>All-cause mortality</td>
<td>6</td>
<td>13</td>
</tr>
</tbody>
</table>

Insulin is the ultimate care for people with diabetes

Progression of type 2 diabetes and treatment intensification

Diet and exercise

β-cell function

OAD

GLP-1

Insulin

Time

Distribution of patients and value across treatment classes

Patients

Value

Insulin

GLP-1

OAD

Note: Patient distribution across treatment classes is indicative and based on data for US, UK, Germany and France. Value figures based on IMS MAT November 2015
Source: IMS PharMetrix claims data, IMS disease analyser, IMS Midas

OAD: Oral Anti-diabetic Drugs
The insulin market is comprised of three segments

### Insulin action profiles

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

### Global insulin volume market by segment

- **Fast-acting:** CAGR volume\(^1\): 4.8%, CAGR value\(^1\): 19.6%
- **Premix:** 36%, 30%
- **Long-acting:** 34%, 34%

\(^{1}\) CAGR for 5-year period. Value in DKK

Note: US trend data reflect changes to IMS data collection coverage and methodology as of January 2012

Source: IMS Monthly MAT volume and value November (DKK) figures
# Medications used for the treatment of type 2 diabetes

## Commonly prescribed products for the treatment of type 2 diabetes

<table>
<thead>
<tr>
<th>Class</th>
<th>HbA(_{1c}) change</th>
<th>Hypoglycaemia</th>
<th>Weight change</th>
<th>CVD risk factors</th>
<th>Dosing (pr. day)</th>
<th>Contraindication/undesired effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metformin</td>
<td>1.5</td>
<td>No</td>
<td>Neutral</td>
<td>Minimal</td>
<td>2 OADs</td>
<td>Kidney, liver</td>
</tr>
<tr>
<td>Sulfonylurea</td>
<td>1.5</td>
<td>Yes</td>
<td>Gain</td>
<td>None</td>
<td>1 OAD</td>
<td>Essentially none</td>
</tr>
<tr>
<td>TZDs</td>
<td>0.5 - 1.4</td>
<td>No</td>
<td>Gain</td>
<td>Variable</td>
<td>1 OAD</td>
<td>CHF, liver</td>
</tr>
<tr>
<td>DPP-IV inhibitors</td>
<td>0.6 - 0.8</td>
<td>No</td>
<td>Neutral</td>
<td>TBD</td>
<td>1-2 OAD</td>
<td>None</td>
</tr>
<tr>
<td>SGLT-2 inhibitors</td>
<td>0.5 - 0.9</td>
<td>No</td>
<td>Loss</td>
<td>TBD</td>
<td>1 OAD</td>
<td>Genital infections, urinary tract infections</td>
</tr>
<tr>
<td>GLP-1</td>
<td>1.0 - 2.0</td>
<td>No</td>
<td>Loss</td>
<td>TBD</td>
<td>Varies</td>
<td>GI side effects, MTC</td>
</tr>
<tr>
<td>Long-acting insulin</td>
<td>1.5 - 2.5</td>
<td>Yes</td>
<td>Gain</td>
<td>TG and HDL</td>
<td>1 injection</td>
<td>Hypoglycaemia</td>
</tr>
<tr>
<td>Fast-acting insulin</td>
<td>1.5 - 2.5</td>
<td>Yes</td>
<td>Gain</td>
<td>TG and HDL</td>
<td>1-4 injections</td>
<td>Hypoglycaemia</td>
</tr>
</tbody>
</table>

Note: TG and HDL: Beneficial effect on triglycerides and HDL cholesterol; CHF: Congestive heart failure; GI: Gastrointestinal; MTC: Medullary thyroid cancer; TZD: Thiazolidinediones; OAD: Oral anti-diabetic; TBD: to be defined.

Sustained double-digit growth in insulin market

**Global insulin market growth**

<table>
<thead>
<tr>
<th></th>
<th>Nov 2010</th>
<th>CAGR: 4.8%¹</th>
<th>Volume contribution: 33 bDKK</th>
<th>Mix/price contribution: 92 bDKK</th>
<th>Nov 2015</th>
<th>CAGR: 19.6%¹</th>
<th>211 bDKK</th>
</tr>
</thead>
</table>

**The fundamental growth drivers of the insulin market**

**Volume**
- Rising prevalence of diabetes
- Growing overweight and obesity prevalence
- Ageing of populations
- Rising diagnosis rates and treatment rates
- Intensification of insulin regimens

**Value**
- Conversion to modern insulin and new-generation insulin
- Continued device penetration

¹ CAGR for 5-year period

Source: IMS Monthly MAT November, 2015 value figures
Solid insulin volume growth in key regions

**Novo Nordisk regions**

<table>
<thead>
<tr>
<th>Region</th>
<th>Market value(^1)</th>
<th>Mix/price growth</th>
<th>Volume growth</th>
<th>2014 bDKK</th>
<th>2015 bDKK</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>110.4</td>
<td>43%</td>
<td>3%</td>
<td>160.6</td>
<td></td>
</tr>
<tr>
<td>Europe</td>
<td>26.6</td>
<td>3%</td>
<td>2%</td>
<td>28.1</td>
<td></td>
</tr>
<tr>
<td>International Operations(^2)</td>
<td>9.5</td>
<td>2%</td>
<td>11%</td>
<td>10.6</td>
<td></td>
</tr>
<tr>
<td>Region China(^3)</td>
<td>5.4</td>
<td>23%</td>
<td>7%</td>
<td>7.0</td>
<td></td>
</tr>
<tr>
<td>Japan &amp; Korea</td>
<td>4.3</td>
<td>5%</td>
<td>0%</td>
<td>4.5</td>
<td></td>
</tr>
</tbody>
</table>

**Market volume composition**

- North America: 51% Novo Nordisk, 39% Premix, 11% Long-acting
- Europe: 39% Novo Nordisk, 40% Premix, 21% Long-acting
- International Operations: 31% Novo Nordisk, 24% Premix, 45% Long-acting
- Region China: 15% Novo Nordisk, 21% Premix, 64% Long-acting
- Japan & Korea: 36% Novo Nordisk, 38% Premix, 51% Long-acting

**Volume market shares**

- North America: 62% Novo Nordisk, 38%
- Europe: 53% Novo Nordisk, 47%
- International Operations: 45% Novo Nordisk, 55%
- Region China: 45% Novo Nordisk, 55%
- Japan & Korea: 51% Novo Nordisk, 49%

---

1. IMS market value figures reflect list prices and do not account for rebates
2. IMS only covers part of the channels in China and International Operations.
3. Measured in DKK

Source: IMS November 2014 & 2015 Monthly MAT volume and value (DKK) figures
Stable global insulin volume growth

Regional insulin volume growth
- North America
- Europe
- Int. Operations
- China
- Japan & Korea
- World

Regional insulin volume market split
- North America
- Europe
- Int. Operations
- China
- Japan & Korea

Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS Monthly MAT November, 2015 volume figures
Maintaining insulin leadership by sustaining modern insulin market share

Novo Nordisk volume market share across insulin classes

1 Includes animal insulin. 2 Annual value of total insulin class. 3 Includes new generation insulin
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS, Monthly MAT November, 2015 value and volume figures
Strong underlying insulin market growth and steady market share development

Global insulin market

- Device penetration
- Modern insulin penetration

<table>
<thead>
<tr>
<th>Year</th>
<th>Human insulin</th>
<th>Modern insulin</th>
<th>CAGR volume</th>
<th>CAGR value</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>2015</td>
<td></td>
<td></td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

- CAGR volume: 4.8%
- CAGR value: 19.6%

Global modern insulin volume market shares

- Novo Nordisk: 45%
- Sanofi: 35%
- Eli Lilly: 19%

Note: Data is sensitive to changes in IMS data collection and reporting methodology, does not add up to 100% due to other players.

1 Includes new generation insulin.
2 CAGR for 5-year period.
3 Includes new generation insulin.

Note: Data is sensitive to changes in IMS data collection and reporting methodology.
Source: IMS Monthly MAT November, 2015 volume and value (DKK) figures.
Novo Nordisk’s modern insulins continue strong performance within their respective segments

Fast-acting insulin

- Segment volume
- NovoRapid® market share

CAGR\(^1\) volume: 5.1%
MI penetration: 77.1%

Premix insulin

- Segment volume
- NovoMix® market share

CAGR\(^1\) volume: 2.6%
MI penetration: 48.0%

Long-acting insulin

- Segment volume
- Levemir® market share

CAGR\(^1\) volume: 6.1%
MI/NG penetration: 80.3%

---

\(^1\) CAGR for 5-year period

Note: Modern insulin (MI) penetration is of total segment, i.e. including animal and human insulin; NG: new generation; Data is sensitive to changes in IMS data collection and reporting methodology

Source: IMS Monthly MAT November, 2015 volume figures
Still a significant potential for Novo Nordisk on the US modern insulin market

**US insulin market by segments**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Device penetration</th>
<th>Modern Insulin penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fast-acting</td>
<td>120</td>
<td>140</td>
</tr>
<tr>
<td>Premix</td>
<td>100</td>
<td>120</td>
</tr>
<tr>
<td>Long-acting</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>CAGR volume¹: 1.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAGR value¹: 27.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**US modern insulin volume market shares**

<table>
<thead>
<tr>
<th>Company</th>
<th>Nov 2010</th>
<th>Nov 2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Novo Nordisk</td>
<td>41%</td>
<td>41%</td>
</tr>
<tr>
<td>Sanofi</td>
<td>39%</td>
<td>39%</td>
</tr>
<tr>
<td>Eli Lilly</td>
<td>20%</td>
<td>20%</td>
</tr>
</tbody>
</table>

¹ CAGR for 5-year period
² US trend data reflect changes to IMS data collection coverage and methodology as of January 2012

Source: IMS Monthly MAT November, 2015 volume and value (DKK) figures

Source: IMS Monthly MAT November, 2015 volume figures
Novo Nordisk’s modern insulins have gained market share in expanding US insulin market

**US fast-acting insulin**
- CAGR volume\(^1\): 2.9%
- MI penetration: 84.0%

**US premix insulin**
- CAGR volume\(^1\): (7.9%)
- MI penetration: 58.0%

**US long-acting insulin**
- CAGR volume\(^1\): 3.4%
- MI penetration: 89.0%

---

\(^1\) CAGR for 5-year period

Note: US trend data reflect changes to IMS data collection coverage and methodology as of January 2012. Modern insulin (MI) penetration is of total segment, i.e. including human insulin

Source: IMS Monthly MAT November, 2015 volume figures
US health insurance is dominated by few large commercial payers with slow expansion of public insurance coverage

US Population by health insurance status expected to remain stable in coming years

<table>
<thead>
<tr>
<th></th>
<th>Managed care</th>
<th>Medicare</th>
<th>Medicaid</th>
<th>Uninsured</th>
<th>Public exchanges</th>
<th>Other</th>
<th>US population (million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018E</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
</tr>
<tr>
<td>2015 chart</td>
<td>321</td>
<td>321</td>
<td>321</td>
<td>321</td>
<td>321</td>
<td>321</td>
<td>321</td>
</tr>
<tr>
<td>2018E chart</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
<td>329</td>
</tr>
</tbody>
</table>

2015 chart reflects current year contractual status as of November 2015; estimates based on press releases and public information. PBM: Pharmacy Benefit Manager. Note: Medicaid expansion and Public Exchange estimates are based on implementation of existing Affordable Care Act. Medicaid Rx figures do not include dual eligibles covered in Part D or CHIP. Exchanges include Public Exchanges only; Private Exchanges are part of Managed Care; Centers for Medicare and Medicaid Services Office of the Actuary, Congressional Budget Office (CBO), National Association of State Budget Officers (NASBO), US Census and HSG estimates.

Source: Adapted from Health Strategies Group 2015 report.

In 2015 PBMs covered 245 million lives and the market has consolidated

- Express Scripts: 31%
- CVS Health: 24%
- United Healthcare Group (OptumRx) & Catamaran: 21%
- Prime: 9%
- Humana: 4%
- MedImpact: 2%
- All other PBMs: 9%

Note: Medicaid expansion and Public Exchange estimates are based on implementation of existing Affordable Care Act. Medicaid Rx figures do not include dual eligibles covered in Part D or CHIP. Exchanges include Public Exchanges only; Private Exchanges are part of Managed Care; Centers for Medicare and Medicaid Services Office of the Actuary, Congressional Budget Office (CBO), National Association of State Budget Officers (NASBO), US Census and HSG estimates.

Source: Adapted from Health Strategies Group 2015 report.
Sustained leadership position on the European modern insulin market

**European insulin market by segments**

- **Device penetration**
- **Modern Insulin penetration**

**European modern insulin**

**Volume market shares**

- **Novo Nordisk**: 47%
- **Sanofi**: 34%
- **Eli Lilly**: 18%

**Penetration**

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

**CAGR volume**: 2.3%
**CAGR value**: 3.8%

1. CAGR for 5-year period
2. Includes new generation insulin
Source: IMS Monthly MAT November, 2015 volume and value (DKK) figures

---

3. Includes new generation insulin
Source: IMS Monthly MAT November, 2015 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers
Stable leadership position in International Operations

**International Operations insulin market by segments**

- **Device penetration**
- **Modern Insulin penetration**

<table>
<thead>
<tr>
<th>Time</th>
<th>CAGR volume</th>
<th>CAGR value</th>
<th>Penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2010</td>
<td>11.6%</td>
<td>8.7%</td>
<td>100%</td>
</tr>
<tr>
<td>Nov 2015</td>
<td>150</td>
<td>120</td>
<td>100%</td>
</tr>
</tbody>
</table>

**International Operations insulin volume market shares**

- **Novo Nordisk**
- **Sanofi**
- **Eli Lilly**
- **Biocon**

<table>
<thead>
<tr>
<th>Time</th>
<th>Novo Nordisk</th>
<th>Sanofi</th>
<th>Eli Lilly</th>
<th>Biocon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2010</td>
<td>55%</td>
<td>18%</td>
<td>18%</td>
<td>3%</td>
</tr>
<tr>
<td>Nov 2015</td>
<td>55%</td>
<td>18%</td>
<td>18%</td>
<td>3%</td>
</tr>
</tbody>
</table>

1 CAGR for 5-year period. 2 Includes new generation insulin.

Note: IMS only covers the following 13 markets in IO (retail data): Algeria, Argentina, Australia, Brazil, Colombia, Egypt, India, Mexico, NZ, Russia, Saudi Arabia, South Africa & Turkey

Source: IMS Monthly MAT November, 2015 volume and value (DKK) figures

Note: Only top-4 shown

Source: IMS Monthly MAT November, 2015 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers
Sustained leadership position in the Chinese insulin market

**Chinese insulin market by segments**

- **Device penetration**
- **Modern Insulin penetration**

**Chinese insulin volume market shares**

- **Novo Nordisk**
- **Sanofi**
- **Eli Lilly**
- **Shanghai Fosun**
- **Tonghua Dongbao**

1. **CAGR for 5-year period**
2. **Note:** IMS covers around 50% of the total Chinese market (hospital data)
3. **Source:** IMS Monthly MAT November, 2015 volume and value (DKK) figures

---

**Slide 53**

Investor presentation  Full year 2015
Expanding market leadership position in Japan

Japanese insulin market by segments

- Device penetration
- Modern Insulin penetration

CAGR volume: -0.4%
CAGR value: -2.2%

Penetration

- Fast-acting
- Premix
- Long-acting

Japanese modern insulin volume market shares

- Novo Nordisk
- Sanofi
- Eli Lilly

Source: IMS Monthly MAT November, 2015 volume and value (DKK) figures

1 CAGR for 5-year period
2 Includes next generation insulin

Source: IMS Monthly MAT November, 2015 volume figures
Promising Tresiba® performance strengthens total insulin market share in Japan

Japanese basal value market shares

Japanese total insulin value market shares

Source: IMS Monthly November 2015 value figures
GLP-1 effect dependent on level of blood glucose – which reduces risk of hypoglycaemia

GLP-1 mechanism of action when blood sugar levels increase

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

GLP-1 lowers blood glucose in patients with type 2 diabetes

The 8% GLP-1 share of the global diabetes care market is increasing with opportunities for further penetration

Global GLP-1 market

<table>
<thead>
<tr>
<th>GLP-1 value in bDKK</th>
<th>Share of total diabetes care market</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2010</td>
<td>Nov 2015</td>
</tr>
<tr>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>5</td>
<td>2%</td>
</tr>
<tr>
<td>10</td>
<td>4%</td>
</tr>
<tr>
<td>15</td>
<td>6%</td>
</tr>
<tr>
<td>20</td>
<td>8%</td>
</tr>
<tr>
<td>25</td>
<td>10%</td>
</tr>
<tr>
<td>30</td>
<td>12%</td>
</tr>
<tr>
<td>35</td>
<td>14%</td>
</tr>
</tbody>
</table>

CAGR value\(^1\): 38.6%

Victoza®

Other GLP-1

DKK billion

<table>
<thead>
<tr>
<th>Region</th>
<th>GLP-1 share of diabetes care market</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America</td>
<td>9%</td>
</tr>
<tr>
<td>Europe</td>
<td>2%</td>
</tr>
<tr>
<td>IO</td>
<td>1%</td>
</tr>
<tr>
<td>China</td>
<td>2%</td>
</tr>
<tr>
<td>Japan &amp; Korea</td>
<td>1%</td>
</tr>
</tbody>
</table>

\(^1\) CAGR for 5-year period

Source: IMS Monthly MAT November, 2015 value figures (DKK)

Victoza\(^{\circledast}\) sales and GLP-1 value market share of total diabetes care market

Source: Novo Nordisk reported sales for Full Year 2015 and IMS November, 2015 data
Victoza® has a strong position in the global DPP-IV, GLP-1 and SGLT-2 segment

Segment value growth and market share

1 CAGR for 5-year period
Note: Segment only includes DPP-IV, GLP-1 & SGLT-2. Other oral anti-diabetic agents and insulin excluded
Source: IMS MAT November 2015 value figures
The US GLP-1 market continues to expand

**US GLP-1 market**

- **GLP-1 TRx scripts (000)**
  - December 2010: 0
  - December 2015: 500
- **GLP-1 % of diabetes care market**
  - December 2010: 0%
  - December 2015: 10%

**Key observations for Victoza® in the US market**

- Victoza® volume market share within the GLP-1 segment is 56%\(^1\)
- Roughly 67% of commercial and roughly 79% of Medicare Part D lives are covered without restrictions\(^2\)
- Around 64% of new patients are new to treatment or from OAD-only regimens\(^3\)
- Close to 70% of prescriptions are for the 3-pen pack\(^1\)
- Victoza® represents 1.7% of total prescriptions in the US diabetes care market\(^1\)

---

\(^1\) IMS monthly NPA data, December 2015
\(^2\) Fingertip Formulary, November 2015
\(^3\) IMS Monthly LRx Weekly, September, 2015

Source: IMS TRx retail value, monthly NPA data, December 2015
Key Novo Nordisk diabetes care products remain broadly available in the US

Value market shares of key Novo Nordisk products in the US

<table>
<thead>
<tr>
<th>Value market share</th>
<th>Victoza®</th>
<th>NovoLog®</th>
<th>Levemir®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nov 2015

% unrestricted market access of key Novo Nordisk products in the US

<table>
<thead>
<tr>
<th>Unrestricted Market access</th>
<th>Victoza®</th>
<th>NovoLog®</th>
<th>Levemir®</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 2010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>80%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nov 2015

Source: IMS NSP Monthly Custom Feed, November 2015; data displayed as MAT value share
Note: Market shares: NovoLog®: share of rapid acting insulin segment; Levemir®: share of basal insulin segment; Victoza®: share of GLP-1 segment

Source: FingerTip Formulary, November 2015
Note: Unrestricted access excludes prior authorisation, step edits and other restrictions
Levemir® access based on FlexTouch® Pen; NovoLog® access based on FlexPen®
### R&D pipeline: Diabetes and obesity

<table>
<thead>
<tr>
<th>Product/project</th>
<th>Type</th>
<th>Indication</th>
<th>Status (phase)</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Filed</th>
<th>Appr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xultophy® (NN9068)(^1)</td>
<td>Combination of insulin degludec and liraglutide</td>
<td>Type 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faster-acting insulin aspart (NN1218)</td>
<td>New formulation of insulin aspart</td>
<td>Type 1+2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semaglutide (NN9535)</td>
<td>Once-weekly GLP-1 analogue</td>
<td>Type 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OG217SC (NN9924)(^2)</td>
<td>Long-acting once-daily oral GLP-1 analogue</td>
<td>Type 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OI338GT (NN1953)(^3)</td>
<td>Long-acting oral basal insulin analogue</td>
<td>Type 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semaglutide QD (NN9535)</td>
<td>Once-daily GLP-1 analogue</td>
<td>Type 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anti-IL-21 and liraglutide (NN9828)</td>
<td>Immuno-metabolic combination of Anti-IL-21 and liraglutide</td>
<td>Type 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAR709 dual-agonist (NN9709)</td>
<td>A GLP-1/GIP dual agonist</td>
<td>Type 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OI320GT (NN1957)</td>
<td>Long-acting oral basal insulin analogue</td>
<td>Type 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LA1287 (NN1436)</td>
<td>Long-acting once-weekly basal insulin analogue</td>
<td>Type 1+2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prandial (NN1406)</td>
<td>Liver-preferential prandial insulin</td>
<td>Type 1+2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Semaglutide QD (NN9536)</td>
<td>Once-daily GLP-1 analogue</td>
<td>Obesity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G530L (NN9030)</td>
<td>Glucagon analogue</td>
<td>Obesity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NN9838</td>
<td>Long-acting amylin analogue</td>
<td>Obesity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PYY (NN9747)</td>
<td>Peptide YY analogue</td>
<td>Obesity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Approved in EU on 18 Sep 2014. \(^2\) Decided to initiate phase 3a trial in Q1 2016 \(^3\) Phase 2a trial initiated June 2015.
Novo Nordisk current and future product portfolio covers the type 2 diabetes treatment flow\textsuperscript{1}

Overview of current and future products in Novo Nordisk’s diabetes portfolio

<table>
<thead>
<tr>
<th>Second generation analogues</th>
<th>First generation analogues</th>
<th>Human insulin</th>
<th>When basal insulin is not enough</th>
<th>Mealtime insulin control</th>
</tr>
</thead>
<tbody>
<tr>
<td>semaglutide</td>
<td>TRESIBA®</td>
<td>Insulatard®</td>
<td>Once-daily optimisation</td>
<td>RYZODEG® or NovoMix® or NovoRapid®</td>
</tr>
<tr>
<td>ViCTOZA®</td>
<td>Levemir®</td>
<td></td>
<td>Faster acting insulin aspart</td>
<td>Mixtard® 30 or Actrapid®</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{1} Pending clinical development programmes and regulatory processes for semaglutide and faster-acting insulin aspart
Novo Nordisk’s growth opportunities are supported by numerous planned launches within the coming years

Launch country segment volume as share of global segment volume

Source: IMS volume figures September 2015 and Novo Nordisk launch plans
## Competitive Tresiba® label across all three triad markets

### Tresiba® label characteristics in triad markets

<table>
<thead>
<tr>
<th></th>
<th>US</th>
<th>Europe</th>
<th>Japan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Profile</strong></td>
<td>Half-life of 25 hours and duration of</td>
<td>Duration of action beyond 42 hours</td>
<td>Duration of action up to 26 hours in Japanese</td>
</tr>
<tr>
<td></td>
<td>action of at least 42 hours</td>
<td></td>
<td>patients</td>
</tr>
<tr>
<td></td>
<td>Day to day variability of 20%</td>
<td>Four times lower day-to-day variability vs insulin</td>
<td>Four times lower day-to-day variability vs insulin</td>
</tr>
<tr>
<td><strong>Efficacy</strong></td>
<td>Non-inferior HbA(_1c) reduction</td>
<td>Non-inferior HbA(_1c) reduction</td>
<td>Non-inferior HbA(_1c) reduction</td>
</tr>
<tr>
<td></td>
<td>Numerically greater FPG reduction</td>
<td>Numerically greater FPG reduction</td>
<td>Numerically greater FPG reduction</td>
</tr>
<tr>
<td></td>
<td>Numerically lower insulin dose(^1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Safety</strong></td>
<td>Overall safety consistent with insulin</td>
<td>Overall safety consistent with insulin</td>
<td>Overall safety consistent with insulin</td>
</tr>
<tr>
<td></td>
<td>Hypoglycaemia rates for Tresiba®, but not</td>
<td>Lower rate of overall and nocturnal hypoglycaemia</td>
<td>Lower rate of nocturnal hypoglycaemia in Asian</td>
</tr>
<tr>
<td></td>
<td>comparator</td>
<td></td>
<td>subjects</td>
</tr>
<tr>
<td><strong>Convenience</strong></td>
<td>Injection any time of day</td>
<td>Adjusting injection time when needed</td>
<td>In case of missed dose take as soon as possible</td>
</tr>
<tr>
<td></td>
<td>Up to 80 and 160 units per injection</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Observed in majority of the trials
US Tresiba® label reflects the distinctly different product features compared to competitor basal insulins

<table>
<thead>
<tr>
<th>Duration of action</th>
<th>glargine U100</th>
<th>glargine U300</th>
</tr>
</thead>
<tbody>
<tr>
<td>• At least 42 hours</td>
<td>• Up to 24 hours</td>
<td>• Up to 36 hours</td>
</tr>
</tbody>
</table>

**Administration and dosing**

<table>
<thead>
<tr>
<th>Tresiba®</th>
<th>glargine U100</th>
<th>glargine U300</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Once daily at any time of day</td>
<td>• Once daily at any time of day, at the same time every day</td>
<td>• Once daily at any time during the day, at the same time every day</td>
</tr>
<tr>
<td>• Numerically lower dose needed vs glargine U100</td>
<td>• Higher dose needed vs glargine U100</td>
<td></td>
</tr>
</tbody>
</table>

**Pen device**

<table>
<thead>
<tr>
<th>Tresiba®</th>
<th>glargine U100</th>
<th>glargine U300</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 600 units/pen</td>
<td>• 300 units/pen</td>
<td>• 450 units/pen</td>
</tr>
<tr>
<td>• 160 units max per injection</td>
<td>• 80 units max per injection</td>
<td>• 80 units max per injection</td>
</tr>
<tr>
<td>• No push button extension</td>
<td>• Push button extension</td>
<td>• Push button extension</td>
</tr>
</tbody>
</table>

**In-use time**

<table>
<thead>
<tr>
<th>Tresiba®</th>
<th>glargine U100</th>
<th>glargine U300</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 56 days at room temperature</td>
<td>• 28 days at room temperature</td>
<td>• 42 days at room temperature</td>
</tr>
</tbody>
</table>

Note: Comparison based on US Package Inserts (PI) for listed products, not based on head to head comparisons.

1 Based on Glucose Infusion Rate (GIR) data from euglycemic clamp studies; 2 Tresiba PI section 12.2; 3 glargine U100 PI section 12.2; 4 glargine U300 PI section 12.2; 5 Tresiba PI Highlights section; 6 glargine U100 PI Highlights section; 7 glargine U300 PI Highlights section; 8 Tresiba PI section 14; 9 Tresiba PI section 14.1; 10 Tresiba U200 PI
SWITCH 1 trial ongoing with Tresiba® vs insulin glargine to further assess hypoglycaemia profile in type 1 diabetes

**Trial designs**

- **Tresiba® once daily + 2-4 x IAsp**
- **Tresiba® once daily + 2-4 x IAsp**
- **IGlar once daily + 2-4 x IAsp**
- **IGlar once daily + 2-4 x IAsp**

446 people with type 1 diabetes

Randomised 1:1 Double-blinded

16 week titration

16 week HbA₁c stable

16 week titration

16 week HbA₁c stable

**Purpose and endpoints**

**Purpose**
- To document hypoglycaemia benefit in type 1 diabetes

**Primary confirmatory endpoint**
- Severe or BG confirmed symptomatic hypoglycaemic events in HbA₁c maintenance period

**Secondary confirmatory endpoints**
- Severe or BG confirmed symptomatic nocturnal hypoglycaemic events in HbA₁c maintenance period
- Proportion of subjects with ≥ 1 severe hypoglycaemic events in HbA₁c maintenance period

1 After 20% dose reduction if coming from previous twice-daily treatment
Note: Daily injections of both Tresiba® and insulin glargine evenly split between morning and evening
IGlar: insulin glargine; IAsp: insulin aspart

Investor presentation Full year 2015
Real-world data for Tresiba® confirms strong clinical profile and enables uptake

**Study design – Danderyd Diabetes Clinic**

Levemir®
N=131

357 people with type 1 diabetes

Tresiba®

Insulin glargine
N=216

0 20 weeks

**Study aim and key results**

- **Study aim:** Exploring whether the higher cost of insulin degludec compared with insulin detemir or insulin glargine is justified by improved clinical outcomes

- **Key results** (all statistically significant)
  - mean reduction in HbA1c from 8.5% to 8.2%
  - median reduction of 12% of total insulin dose
  - reduction of hypoglycaemic events of 22% and reduction of nocturnal hypoglycaemic events of 56%

- **Conclusion:** Insulin degludec was clinically useful and economically justifiable for the patients with type 1 diabetes

- Controlled studies are needed to confirm these benefits in a larger sample of real-world patients

---

1 The study followed 347 consecutive type 1 diabetes patients who switched to Tresiba® from existing insulins according to predefined switching criteria such as twice daily injection, HbA1c outside acceptable levels or unstable glucose and/or repeated hypoglycaemic events. A total of 10 patients were on human insulin and continuous subcutaneous insulin infusion

2 Median follow-up time

Source: Changes in HbA1c, insulin dose and incidence of hypoglycaemia in patients with type 1 diabetes after switching to insulin degludec in an outpatient setting: an observational study, Lena Landstedt-Hallin, CMRO, 8 June 2015
Faster-acting insulin aspart provides superior glucose control vs NovoRapid® in onset 1 trial

Creating a new formulation that satisfies an unmet medical need

Faster-acting insulin aspart is an innovative formulation of insulin aspart:

- Vitamin B3 (nicotinamide)\(^1\) added to increase early absorption
- Naturally occurring amino acid (arginine)\(^1\) added to obtain stability

Faster-acting insulin aspart is intended to address unmet medical need:

- Faster absorption mimics physiological insulin action profile
- A better profile for pump and future closed loop systems

\(^1\) Concentration many times below recommended dietary daily intake

HbA\(_{1c}\) reduction in onset 1 trial after 26 weeks

<table>
<thead>
<tr>
<th>Time (weeks)</th>
<th>Faster aspart (pm)</th>
<th>Faster aspart (mt)</th>
<th>NovoRapid® (mt)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-0.7</td>
<td>-0.7</td>
<td>-0.7</td>
</tr>
<tr>
<td>2</td>
<td>-0.6</td>
<td>-0.6</td>
<td>-0.6</td>
</tr>
<tr>
<td>4</td>
<td>-0.5</td>
<td>-0.5</td>
<td>-0.5</td>
</tr>
<tr>
<td>6</td>
<td>-0.4</td>
<td>-0.4</td>
<td>-0.4</td>
</tr>
<tr>
<td>8</td>
<td>-0.3</td>
<td>-0.3</td>
<td>-0.3</td>
</tr>
<tr>
<td>10</td>
<td>-0.3*</td>
<td>-0.3*</td>
<td>-0.3*</td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
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<td></td>
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<td>16</td>
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<tr>
<td>18</td>
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<td>20</td>
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<td></td>
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<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>24</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td></td>
<td></td>
<td>-0.3*</td>
</tr>
</tbody>
</table>

\(^*\) \(p<0.05\); pm: post-meal; mt: meal-time

Source: Novo Nordisk on file (NN1218-3852)
Insulin LAI287 offers potential for once-weekly dosing

LAI287 pharmacodynamic profile is compatible with once-weekly dosing

Key results of phase 1 trial

- The trial evaluated short term efficacy and safety during five weeks of treatment
- LAI287 showed dose-dependent exposure and a variability comparable to that of insulin degludec
- Terminal half-life of 185 hours supporting a once-weekly dosing regimen
- LAI287 generally appeared safe and well tolerated, with most frequent adverse event being hypoglycaemia
- The side effects observed in the phase 1 trial will be further investigated

Note: pharmacokinetic simulation

Source: Novo Nordisk on file (NN1436-4057) 48 people with type 2 diabetes, multiple dose, dose escalation trial
Oral insulin OI338GT has the potential to control blood glucose similar to modern insulins

**Phase 1 headline results**
- Three clinical pharmacology trials in a total of 118 healthy volunteers and people with type 2 diabetes
- Dose-dependent glucodynamic effects similar to that of therapeutically relevant subcutaneous doses of insulin glargine at steady state exposure
- OI338GT appeared to have a safe and well tolerated profile

**Phase 2a study design**

- OI338GT + met ± DPP-IV
- Insulin glargine + met ± DPP-IV
- Placebo

50 insulin naïve people with type 2 diabetes

0 8 weeks

Source: Novo Nordisk data on file (NN1953-3832; NN1953-4013; NN1953-3973)

1 Inclusion criteria: Subjects diagnosed (clinically) with type 2 diabetes mellitus for at least 180 days prior to the day of screening; age of 18-70 years (both inclusive) and BMI of 25.0-40.0 kg/m² (both inclusive)
Liver-preferential prandial insulin analogue has potential to reduce hypoglycaemia and weight gain

The liver is important for insulin action

- Elevated hepatic glucose release drives overall higher PPG in people with type 2 diabetes compared to healthy individuals\(^1\)
- >50% of endogenous insulin secretion is cleared by the liver
- Insulinisation of peripheral tissues with current insulin analogues is higher than for endogenous insulin

Rationale and expected benefits of physiologically distributed insulin

**Rationale**
- Mimics physiology of insulin distribution secreted from pancreas
- Less hypoglycaemia
- Less weight gain

**Potential benefits**
- Phase 1 trial with liver-preferential prandial insulin (NN1406) to be initiated in Q4 2015

**Next steps**

PPG: post prandial glucose
\(^1\) Woerle HJ et al. *Am J Physiol Endocrinol Metab* 2006;290:E67–E77
Competitive European label for Xultophy®

Xultophy® is indicated for the treatment of adults with type 2 diabetes in combination with oral glucose-lowering agents

**Profile**
- Xultophy® is a fixed combination product consisting of insulin degludec and liraglutide having complementary mechanisms of action to improve glycaemic control
- Administered as dose steps: One dose step contains 1 unit of insulin degludec and 0.036 mg of liraglutide

**Efficacy**
- On average HbA1c reduction of 1.9%\(^1\) from baseline to end of trial confirmed to be superior against all comparators\(^2\)
- On average 2.7 kg weight loss from baseline in patients inadequately controlled on basal insulin

**Convenience**
- Once-daily administration at any time of the day, preferably at the same time of the day
- The pre-filled pen can provide from 1 up to 50 dose steps in one injection

**Safety**
- Lower rates of confirmed hypoglycaemia than with insulin degludec in patients on metformin +/- pioglitazone
- Fewer experienced gastrointestinal side effects than patients treated with liraglutide

---
\(^1\) Source: DUAL® I (NN9068-3697), DUAL® II (NN9068-3912)
\(^2\) Insulin degludec, liraglutide and placebo
Xultophy® has documented strong efficacy across the treatment cascade

### Xultophy® key clinical results

<table>
<thead>
<tr>
<th></th>
<th>DUAL® I Add-on to metformin ± Pio n = 833</th>
<th>DUAL® II Add-on to metformin ± basal insulin n = 199</th>
<th>DUAL® III Switch from GLP-1 n = 292</th>
<th>DUAL® IV Add-on to SU ± metformin n = 289</th>
<th>DUAL® V Switch from insulin glargine n = 557</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean trial start HbA1c (%)</td>
<td>8.3</td>
<td>8.7</td>
<td>7.8</td>
<td>7.9</td>
<td>8.4</td>
</tr>
<tr>
<td>Mean trial end HbA1c (%)</td>
<td>6.4</td>
<td>6.9</td>
<td>6.4</td>
<td>6.4</td>
<td>6.6</td>
</tr>
<tr>
<td>HbA1c change (%)</td>
<td>-1.9</td>
<td>-1.9</td>
<td>-1.3</td>
<td>-1.45</td>
<td>-1.8</td>
</tr>
<tr>
<td>% to target &lt; 7% (%)</td>
<td>80.6</td>
<td>60.3</td>
<td>75.3</td>
<td>79.2</td>
<td>71.6</td>
</tr>
<tr>
<td>% to target &lt; 6.5% (%)</td>
<td>69.7</td>
<td>45.2</td>
<td>63.0</td>
<td>64.0</td>
<td>55.4</td>
</tr>
<tr>
<td>Confirmed hypoglycaemia (Episodes per 100 PYE)</td>
<td>180.2</td>
<td>153.4</td>
<td>282</td>
<td>351.7</td>
<td>343.3</td>
</tr>
<tr>
<td>Weight change (kg)</td>
<td>-0.5</td>
<td>-2.7</td>
<td>+2.0</td>
<td>+0.5</td>
<td>-1.4</td>
</tr>
</tbody>
</table>

Note: Typical confirmed hypoglycaemia event rates for treatment with basal insulin are 142-369 episodes per 100 PYE (based on insulin glargine event rates from trials NN1250-3586, 3579 and 3672) where the FPG target and hypoglycaemia definition is similar to the DUAL trials
Source: Novo Nordisk Trial IDs: DUAL® I (NN9068-3697), DUAL® II (NN9068-3912), DUAL® III (NN9068-3851), DUAL® IV (NN9068-3951), DUAL® V (NN9068-3952)
SUSTAIN® phase 3a programme to support a broad competitive label for semaglutide

In the SUSTAIN® phase 3a programme, 0.5 mg and 1.0 mg doses of semaglutide are being tested in people with type 2 diabetes.

Note: Estimated timing of trials as listed on www.clinicaltrials.gov excl. data analysis; n= approximate no of randomised patients
Oral peptide delivery – the gastro-intestinal route poses many challenges to absorption of intact macromolecules

**Challenges**

1. Breakdown of drug in the stomach/gastrointestinal tract
2. Passage across the gut barrier into the circulation
3. Ensuring a long circulation half-life

**Solutions**

1. Stabilisation of peptide backbone and side chain
2. Tablet formulation including carrier and/or coating
3. Engineered systemic protraction mechanism
Oral semaglutide dose dependently reduced HbA$_{1c}$ and body weight in a 26-week phase 2 trial in type 2 diabetes

**HbA$_{1c}$ reduction from a mean baseline of 7.9%**

- Placebo
- Sema 2.5 mg
- Sema 5 mg
- Sema 10 mg

**Weight loss from a mean baseline of 92 kg**

- Sema 20 mg
- Sema 40 mg
- Sema 1 mg sc

Inclusion criteria: Type 2 diabetes; 7.0% ≤ HbA$_{1c}$ ≤ 9.5%; treatment with diet and exercise with or without metformin; sc: subcutaneous; sema: semaglutide

Source: Novo Nordisk on file (NN9924-3790)
PIONEER, the global phase 3a programme for oral semaglutide to include >9,300 people with type 2 diabetes

<table>
<thead>
<tr>
<th>Year</th>
<th>Study</th>
<th>Duration</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>PIONEER 1: monotherapy</td>
<td>26 weeks</td>
<td>n=704</td>
</tr>
<tr>
<td>2017</td>
<td>PIONEER 2: vs empagliflozin</td>
<td>52 weeks</td>
<td>n=816</td>
</tr>
<tr>
<td></td>
<td>PIONEER 3: vs sitagliptin</td>
<td>78 weeks</td>
<td>n=1,860</td>
</tr>
<tr>
<td>2018</td>
<td>PIONEER 4: vs liraglutide</td>
<td>52 weeks</td>
<td>n=690</td>
</tr>
<tr>
<td></td>
<td>PIONEER 5: moderate renal impairment</td>
<td>26 weeks</td>
<td>n=324</td>
</tr>
<tr>
<td></td>
<td>PIONEER 6: cardiovascular outcomes</td>
<td>Event driven (&gt;122 MACE), n=3,176</td>
<td></td>
</tr>
<tr>
<td></td>
<td>PIONEER 7: flexible dose escalation</td>
<td>52 weeks</td>
<td>n=500</td>
</tr>
<tr>
<td></td>
<td>PIONEER 8: insulin add-on</td>
<td>26+26 weeks</td>
<td>n=720</td>
</tr>
<tr>
<td></td>
<td>PIONEER 9: JAPAN monotherapy</td>
<td>52 weeks</td>
<td>n=230</td>
</tr>
<tr>
<td></td>
<td>PIONEER 10: JAPAN OAD combination</td>
<td>52 weeks</td>
<td>n=336</td>
</tr>
</tbody>
</table>

Note: Preliminary estimated timing of trials from first patient first visit (FPFV) to last patient last visit (LPLV), n = approximate number of randomised people; MACE: Major Cardiovascular Events; OAD: oral anti-diabetic
Anti-IL 21 in combination with liraglutide is an alternative approach for the treatment of type 1 diabetes

Phase 2 trial design

304 newly diagnosed people with type 1 diabetes

- Anti-IL-21 + liraglutide 1.8 mg
- Placebo + liraglutide 1.8 mg
- Anti-IL-21 + placebo
- Placebo + placebo

Week 0
Dosing
Observation

Rationale for Anti-IL 21 and liraglutide combination product for T1D

- Anti-IL 21 plays an important role in autoimmunity with potential effect on immune disorder
  - Effector cells (T and B lymphocytes and natural killer cells)
  - Pro-inflammatory cytokines
  - Autoantibodies
  - Chemokines
  - Matrix metalloproteinase (MMPs)

- GLP-1 receptor agonist may promote beta-cell recovery
  - Decrease beta-cell stress/apoptosis
  - Stimulate beta-cell neogenesis
  - Expansion of beta-cell mass in rodent models

1 Inclusion criteria: Subjects diagnosed as type 1 diabetes for not more than 12 weeks prior to randomisation; age 18-45 (both inclusive)
Note: If liraglutide 1.8 mg is not tolerated 1.2 mg is administered. ANTI-IL: interleukin
Source: NN9828-4150
More than 20 million people in the US have a BMI above 35 with either pre-diabetes or CV related comorbidities

<table>
<thead>
<tr>
<th>Comorbidity status</th>
<th>BMI 27-29.9</th>
<th>Class I BMI 30-34.9</th>
<th>Class II BMI 35-39.9</th>
<th>Class III BMI 40+</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No CV comorbidities¹</td>
<td>15.5</td>
<td>11.0</td>
<td>4.2</td>
<td>3.0</td>
<td>33.7</td>
</tr>
<tr>
<td>CV comorbidities²</td>
<td>15.1</td>
<td>16.0</td>
<td>6.4</td>
<td>4.1</td>
<td>41.6</td>
</tr>
<tr>
<td>Pre-diabetes³</td>
<td>12.0</td>
<td>14.1</td>
<td>7.2</td>
<td>6.1</td>
<td>39.4</td>
</tr>
<tr>
<td>Type 2 diabetes⁴</td>
<td>2.0</td>
<td>5.0</td>
<td>3.6</td>
<td>2.3</td>
<td>12.9</td>
</tr>
<tr>
<td>Total</td>
<td>44.6</td>
<td>46.1</td>
<td>21.4</td>
<td>15.5</td>
<td>127.6</td>
</tr>
</tbody>
</table>

### The US obesity burden

- Cost of obesity to health care systems of USD 147 billion annually with continued growth

- Around 35% of the US adult population (over 20 years) have obesity (BMI>30)

- Only around 30% of all obesity cases in the US were diagnosed in 2009

- In 2010, only 3 million people in the US or around 3% of the adult population with obesity were treated with anti-obesity medication

---

¹ Normal blood glucose without hypertension and/or dyslipidemia
² Normal blood glucose with hypertension and/or dyslipidemia
³ Impaired Fasting Glucose with or without hypertension and/or dyslipidemia
⁴ Type 2 diabetes with or without hypertension and/or dyslipidemia

Source: 2009-2010 NHANES + revised 2011 CDC estimates and based on US population 2015. Only includes population age 20+. Distribution between obese groups on market map based on NHANES data (including only measured and not self reported BMI and also measured not self-reported diabetes status)
Significant unmet need in obesity management

### Insufficient treatment options
- **All people with obesity**: 100%
- **People diagnosed**: 30%
- **People Rx treated***: 4%

*Rx=prescription, i.e. treated with anti-obesity medication (AOM)

### Significant gaps in obesity treatment
- **Diet and exercise**: Mean weight loss 5-10%
- **Anti-obesity medication with weight loss of 5-10%**
- **Bariatric surgery**

Source: Diagnosis rate, Practice Fusion March 2014 & Treatment rate, Understanding the Treatment Dynamics of the Obesity Market, IMS Database (NPA), August 2014

*Source: Changing Diabetes*
Small but growing market for anti-obesity medication in the US

Value of US obesity market remains small, but it is growing

USD million

<table>
<thead>
<tr>
<th>Year</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>150</td>
<td>150</td>
<td>100</td>
<td>100</td>
<td>150</td>
<td>250</td>
<td>400</td>
</tr>
</tbody>
</table>

Few people treated with AOM in US, but recent launches have contributed to market growth

- **Phentermine and topiramate launch**
- **Lorcaserin launch**
- **Saxenda® launch**
- **Naltrexone HCI and bupropion HCI launch**

**Graph notes:**
- 2015 is MAT November 2015
- Source: IMS NSP Monthly, November 2015

**Trx volume (thousands)**

- Generic TRx volume
- Branded TRx volume
- AOM TRx volume

**Graph notes:**
- Phentermine and topiramate is the fixed combination; naltrexone HCI and bupropion HCI is the second fixed dosed combination to market. AOM: anti-obesity medication
- Source: IMS NPA Monthly, December 2015
Saxenda® demonstrated weight loss in all SCALE® trials

Overview of weight loss (%) in the SCALE® programme

<table>
<thead>
<tr>
<th>Condition</th>
<th>Saxenda®</th>
<th>Placebo</th>
<th>% patients with ≥5% weight loss</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Obesity &amp; Pre-diabetes</strong></td>
<td>8.0%</td>
<td>2.6%</td>
<td>63.2%</td>
</tr>
<tr>
<td>(56 weeks and n=3,731)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Diabetes</strong></td>
<td>5.9%</td>
<td>2.0%</td>
<td>49.9%</td>
</tr>
<tr>
<td>(56 weeks and n=846)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sleep Apnoea</strong></td>
<td>5.7%</td>
<td>1.6%</td>
<td>46.3%</td>
</tr>
<tr>
<td>(32 weeks and n=359)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Maintenance</strong></td>
<td>6.2%</td>
<td>0.2%</td>
<td>50.5%</td>
</tr>
<tr>
<td>(56 weeks and n= 422)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Observed means, last observation carried forward (LOCF) at end of trial. N=number of randomised participants

1 Trial includes 12 week run-in period before randomization

Competitive US label for Saxenda®

Saxenda® approved in the US for chronic weight management in individuals with a BMI ≥30, or ≥27 in the presence of at least one weight-related comorbidity¹

| Profile                      | • GLP-1 receptor agonist – a physiological regulator of appetite and calorie intake  
|                             | • Saxenda® is the first and only GLP-1 receptor agonist approved for weight management |
| Effect on body weight       | • 9 in 10 lose weight and 1 in 3 people lose more than 10% of their body weight²  
|                             | • Average weight loss of 9.2% in completers at one year² |
| Effect on comorbidities     | • Improvements in cardiometabolic risk factors such as hypertension and dyslipidaemia |
| Safety                      | • Boxed warning on thyroid C-cell tumours  
|                             | • Precautions on acute pancreatitis, acute gallbladder disease, serious hypoglycaemia³, heart rate increase, renal impairment, hypersensitivity and suicidal ideation |

¹ Examples include hypertension, type 2 diabetes and dyslipidemia. ² Saxenda® US Package Information. ³ When used with an insulin secretagogue
**Saxenda® targeted at patients with BMI ≥35 and weight-related comorbidities**

<table>
<thead>
<tr>
<th>Saxenda® market approach</th>
<th>Saxenda® launch execution</th>
<th>Aspiration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear patient segmentation</td>
<td>Focus on patients with BMI ≥35 with weight-related comorbidities</td>
<td>Build the market</td>
</tr>
<tr>
<td>Focused prescriber targeting</td>
<td>Focus on current prescribers of anti-obesity medication and GLP-1</td>
<td></td>
</tr>
<tr>
<td>Clear product value proposition</td>
<td>Strengthened by 3-year clinical data</td>
<td></td>
</tr>
<tr>
<td>Focus on engaging prioritised payers and employers</td>
<td>Formulary coverage emerging with more than 50 million lives¹ now covered</td>
<td></td>
</tr>
</tbody>
</table>

**Aspiration**

1 Potential lives covered, based on employer opt-ins

BMI: body mass index
Semaglutide once daily phase 2 dose-finding trial in obesity is designed to optimise treatment outcomes

Once daily semaglutide phase 2 trial design

- Semaglutide 0.05 mg
- Semaglutide 0.1 mg
- Semaglutide 0.2 mg
- Semaglutide 0.3 mg
- Semaglutide 0.4 mg
- Semaglutide 0.3 mg fast escalation
- Semaglutide 0.4 mg fast escalation
- Placebo
- Liraglutide 3 mg

935 people with obesity without diabetes

Phase 2 trial purpose and endpoints

Purpose
- To assess and compare the dose response of five doses of QD sc semaglutide versus placebo in inducing and maintaining weight loss after 52 weeks
- To investigate two different dose escalation regimens

Trial design
- Randomised, controlled, double-blinded
- Diet and exercise counselling in all arms

Primary endpoint
- Relative change from baseline in body weight at 52 weeks

Examples of secondary endpoints
- Proportion of subjects with weight loss of ≥ 5% or ≥ 10% of baseline body weight at 52 weeks

Results from phase 2 trial expected in 2017

QD: once daily; sc: subcutaneous

1 Key inclusion criteria: Male or female ≥18 years, BMI: ≥30 kg/m², Stable body weight (<5 kg change) ≥90 days
Note: Once daily subcutaneous dosing in all arms, 4-week escalation steps in main arms, 2-week escalation steps in fast escalation arms
Long-acting obesity compounds in phase 1 development may have complimentary modes of action

<table>
<thead>
<tr>
<th>Compound</th>
<th>Administration</th>
<th>Mode of action</th>
<th>Clinical development status</th>
</tr>
</thead>
</table>
| G530L – Glucagon analogue | • Once-daily subcutaneous injection in combination with liraglutide | • Stimulation of energy expenditure and satiety promoting a negative energy balance | • Phase 1 initiated Sep 2014  
• Safety/PK of single ascending doses  
• 160 overweight/obese people  
• Expected completion H2 2016 |
| NN9838 – Amylin analogue | • Once-daily subcutaneous injection | • Reduced food intake, thought primarily to be mediated by amylin receptors located in the area postrema | • Phase 1 initiated Dec 2014  
• Safety/PK of single ascending doses  
• 58 overweight/obese people  
• Expected completion H1 2016 |
| NN9747 – PYY analogue | • Once-daily subcutaneous injection | • Reduced food intake via selective stimulation of the Y2 receptor | • Phase 1 initiated Oct 2015  
• Safety/PK of single and multiple doses  
• 120 overweight/obese people  
• Expected completion H1 2017 |

PK: pharmacokinetic
Biopharmaceuticals
Haemophilia: Location of bleedings and the consequences

<table>
<thead>
<tr>
<th>Locations</th>
<th>Consequences of bleedings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head and neck</td>
<td>• Bleeding in the joint space causes a strong inflammatory reaction which predisposes to further bleeding</td>
</tr>
<tr>
<td>Nose and gums</td>
<td>• Inadequate or delayed treatment of repeated joint bleeds results in a “target joint”</td>
</tr>
<tr>
<td>Joints</td>
<td>• The joint is tense, swollen and extremely painful and the mobility is restricted</td>
</tr>
<tr>
<td>Gut</td>
<td>• Eventually the cartilage erodes completely and permanent joint damage (arthropathy) occurs</td>
</tr>
<tr>
<td>Kidneys</td>
<td>• Treatment of arthropathy is orthopaedic surgery</td>
</tr>
<tr>
<td>Muscles</td>
<td></td>
</tr>
<tr>
<td>Joints</td>
<td></td>
</tr>
<tr>
<td>Joints</td>
<td></td>
</tr>
<tr>
<td>Joints</td>
<td></td>
</tr>
</tbody>
</table>

- **Locations**
  - Head and neck
  - Nose and gums
  - Joints
  - Gut
  - Kidneys
  - Muscles
  - Joints

- **Consequences of bleedings**
  - Bleeding in the joint space causes a strong inflammatory reaction which predisposes to further bleeding
  - Inadequate or delayed treatment of repeated joint bleeds results in a “target joint”
  - The joint is tense, swollen and extremely painful and the mobility is restricted
  - Eventually the cartilage erodes completely and permanent joint damage (arthropathy) occurs
  - Treatment of arthropathy is orthopaedic surgery
Haemophilia is a rare disease with severe unmet medical needs

Number of people with haemophilia A and B and haemophilia with inhibitors

- **Haemophilia A**
  - App. 350,000 patients

- **Haemophilia B**
  - App. 70,000 patients

- **Inhibitor segment app. 3,500-4,000 patients**

Low diagnosis and treatment rates within haemophilia

- **Number of people (000)**
  - People with haemophilia: 450
  - Diagnosed: 45%
  - Treated: 15%
  - Prophylactic: 6%
  - Pristine joints: 3%

Note: The inhibitor segment represents people with haemophilia and high titre inhibitors to their normal replacement treatment.

The global haemophilia market is growing by mid-single digits

Sales of recombinant coagulation factors

<table>
<thead>
<tr>
<th></th>
<th>NovoSeven®</th>
<th>Coagil VII®</th>
<th>Xyntha®/Refacto®</th>
<th>Benefix®</th>
<th>Kogenate®/Helixate®</th>
<th>Recombinate®/Advate®</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKK billion</td>
<td>Red</td>
<td>Orange</td>
<td>Green</td>
<td>Orange</td>
<td>Yellow</td>
<td>Green</td>
</tr>
</tbody>
</table>

CAGR\(^1\): 6%

CAGR\(^1\): 9%


<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>rFVIIa</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>rFVIII</td>
<td>15</td>
<td>25</td>
</tr>
<tr>
<td>rFIX</td>
<td>20</td>
<td>30</td>
</tr>
</tbody>
</table>

Strategic positioning of Novo Nordisk’s haemophilia portfolio

<table>
<thead>
<tr>
<th>Novo Nordisk compound</th>
<th>Status</th>
<th>Strategic position</th>
</tr>
</thead>
<tbody>
<tr>
<td>NovoSeven®</td>
<td>Launched</td>
<td>Maintain market leadership</td>
</tr>
<tr>
<td>NovoEight®</td>
<td>Launched</td>
<td>Establish presence in a competitive market place</td>
</tr>
<tr>
<td>N8-GP</td>
<td>Phase 3(^2)</td>
<td>Contribute to market conversion</td>
</tr>
<tr>
<td>N9-GP</td>
<td>Phase 3(^3)</td>
<td>Establish new treatment paradigm</td>
</tr>
<tr>
<td>NovoThirteen®</td>
<td>Launched</td>
<td>Launch first recombinant product</td>
</tr>
</tbody>
</table>

\(^1\) CAGR for 5-year period
Source: Company reported sales for 2014

\(^2\) Submission of N8-GP expected 2017/2018 pending expansion of production capacity
\(^3\) Submitted to the European Medicines Agency in January 2016; Submission with the US Food and Drug Administration expected 1H 2016
NovoSeven® – a unique biologic for the treatment of rare bleeding disorders

NovoSeven® reported sales

<table>
<thead>
<tr>
<th>Quarter</th>
<th>DKK billion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q4 2010</td>
<td>1.50</td>
</tr>
<tr>
<td>Q4 2015</td>
<td>3.00</td>
</tr>
</tbody>
</table>

CAGR¹ 5.3%

Key NovoSeven® properties

- **Product characteristics:** powder and solvent for solution for intravenous injection, available in multiple doses, stable at room temperature
- **MixPro®** administration system launched in 2013
- **Indications:** treatment of spontaneous and surgical bleedings in:
  - Haemophilia A or B patients with inhibitors
  - Acquired haemophilia
  - Congenital FVII deficiency
  - Glanzmann’s thrombasthenia²

¹ CAGR for 5-year period

² Only indicated in Europe and the US
NovoEight® is launched in the US, Europe and Japan for the treatment of people with haemophilia A

Indications:
• Treatment and prophylaxis of bleeding in patients with congenital factor VIII deficiency for all age groups

Key product characteristics:
• Reliability: No inhibitor development in PTPs in one of the largest pivotal trial programmes of any approved rFVIII (n=213)
• Purity and safety: First rFVIII to use a 20nm filter in its purification process
• Portability: Room temperature stability with storage at 30 degrees celsius

Launch status:
• NovoEight® is available in the US, Japan and 15 European countries

Sources: 1 NovoEight® Summary of Product Characteristics. 2 Iorio A et al., Blood 2012; 120(4): 720 – 727. 4 NovoEight® Prescribing Information

1 Picture is not intended for promotional purposes
NovoThirteen®, a recombinant FXIII, provides efficacious and safe haemostatic coverage

Example from NovoThirteen® promotional campaign¹

NovoThirteen® properties and launch performance

**Indication:**
- Long term prophylactic treatment of bleeding in adult and paediatric patients with congenital factor XIII A-subunit deficiency

**Key product characteristics:**
- NovoThirteen® is the only recombinant product for prophylaxis
- NovoThirteen® is well tolerated and has low volume dosing
- NovoThirteen® effectively prevents bleeds and provides a convenient once-monthly regimen

**Launch status:**
- NovoThirteen® is available in 10 countries

¹ Picture is not intended for promotional purposes

# R&D pipeline: Haemophilia and growth disorders

<table>
<thead>
<tr>
<th>Product/project</th>
<th>Type</th>
<th>Indication</th>
<th>Status (phase)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N9-GP (NN7999)¹</td>
<td>GlycoPEGylated long-acting rFIX</td>
<td>Haemophilia B</td>
<td>1 2 3 Filed Appr.</td>
</tr>
<tr>
<td>N8-GP (NN7088)</td>
<td>GlycoPEGylated long-acting rFVIII</td>
<td>Haemophilia A</td>
<td></td>
</tr>
<tr>
<td>Concizumab (NN7415)</td>
<td>Monoclonal anti-TFPI</td>
<td>Haemophilia A, B and with inhibitors</td>
<td></td>
</tr>
<tr>
<td>Somapacitan (NN8640)²</td>
<td>Once-weekly human growth hormone</td>
<td>Growth disorder</td>
<td></td>
</tr>
</tbody>
</table>

¹ Submitted to the European Medicines Agency in January 2016; Submission with the US Food and Drug Administration expected 1H 2016; ² Phase 3 initiated in AGHD
**N9-GP administered once weekly reduces median bleeding rate to 1.0 episode per year in phase 3 trial**

**N9-GP phase 1 pharmacokinetics**

<table>
<thead>
<tr>
<th>Time (h)</th>
<th>0</th>
<th>24</th>
<th>48</th>
<th>72</th>
<th>96</th>
<th>120</th>
<th>144</th>
<th>168</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIX activity (IU/mL)</td>
<td>1.2</td>
<td>1.0</td>
<td>0.8</td>
<td>0.6</td>
<td>0.4</td>
<td>0.2</td>
<td>0.0</td>
<td></td>
</tr>
</tbody>
</table>

- **Steady-state half-life of 110 hours**
- **Median bleeding rate for patients treated on demand was 15.6 episodes per year**
- **Patients on once-weekly prophylactic treatment had a median bleeding rate of 1.0 episode per year when treated with 40 IU/kg**
- Among patients receiving 40 IU/kg:
  - 99% of bleeding episodes treated with only one infusion
  - Two thirds of patients experienced complete resolution of bleeding into target joints
- **N9-GP appeared to have a safe and well tolerated profile with no patients developing inhibitors**

**Next steps**

- **N9-GP Submitted to the European Medicines Agency in January 2016. Submission with the US Food and Drug Administration expected 1H 2016**


Source: Novo Nordisk Company Announcement, 17 May 2013
**N8-GP administered every fourth day reduces median bleeding rate to 1.3 episode per year in phase 3 trial**

**Pathfinder 2 headline results (phase 3)**

- PK documented single dose half-life of 18.4 hours and mean trough level before next dose of 8%
- Patients on every fourth day prophylaxis (50 IU/kg) had a median ABR of 1.3
- 95% of mild to moderate bleeds managed with 1-2 doses
- N8-GP appeared to have a safe and well tolerated profile
- One patient developed inhibitors, as expected in a population of previously treated haemophilia A patients

**Pathfinder 2 extension trial results**

- 55 patients with ≤2 bleeds during 6 months in the main phase were randomised 2:1 to either once-weekly (75 IU/kg) or every fourth day (50 IU/kg) treatment for 180 days
- Patients in both treatment arms had a median ABR of 0

**Next steps**

- Expansion of production capacity; US/EU submission 2018

---

**N8-GP phase 1 pharmacokinetics**

<table>
<thead>
<tr>
<th>FVIII activity (IU/mL)</th>
<th>FVIII</th>
<th>N8-GP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time (h)</td>
<td>0</td>
<td>24</td>
</tr>
<tr>
<td>1.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dose 50 IU/kg (n=8)
One stage clot assay

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Novo Nordisk continues to expand leadership within growth hormone market

**Development in global hGH market**

- **CAGR volume**: 4.2%
- **CAGR value DKK**: 2.8%

**Growth hormone volume market share**

Source: IMS Monthly MAT November, 2015 volume figures and value (DKK) figures

Source: IMS Monthly MAT November, 2015 volume figures
Solid Norditropin® sales growth

**Norditropin® reported sales**

- **CAGR** 10.7% over 5-year period

**Key Norditropin® properties**

- **Product characteristics:** Premixed, prefilled multi-use delivery systems available in multiple strengths, and stable at room temperature
- **Expanded indications:** GHD, GHDA, Noonan Syndrome, Turner Syndrome, SGA indication, Idiopathic short stature
- **Easy to use FlexPro® device**
- **Medical and Clinical support programmes**
- **Patient support programmes**

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1. CAGR for 5-year period

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Slide 98
Financials
Novo Nordisk has delivered sustained double digit growth throughout the last decade

Sales growth in local currencies
2006–2015

Operating profit growth in local currencies
2006–2015

Note: Numbers for 2007 and 2008 are adjusted for the impact of the discontinuation of pulmonary insulin projects; Number for 2015 is adjusted for the non-recurring income related to the partial divestment of NNIT with the dotted component representing this income; average is calculated excluding the effect of the 2015 non-recurring income.
Solid sales growth with especially North America, International Operations and Region China expanding

<table>
<thead>
<tr>
<th>Reported annual sales</th>
<th>Reported annual sales split by region</th>
</tr>
</thead>
<tbody>
<tr>
<td>DKK billion</td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td>75% Diabetes 75% Biopharmaceuticals</td>
</tr>
<tr>
<td>2012</td>
<td>76% Diabetes 76% Biopharmaceuticals</td>
</tr>
<tr>
<td>2013</td>
<td>78% Diabetes 78% Biopharmaceuticals</td>
</tr>
<tr>
<td>2014</td>
<td>78% Diabetes 78% Biopharmaceuticals</td>
</tr>
<tr>
<td>2015</td>
<td>79% Diabetes 79% Biopharmaceuticals</td>
</tr>
<tr>
<td>CAGR 1</td>
<td>12.9% North America 12.9% Europe 12.9%</td>
</tr>
</tbody>
</table>

1 CAGR for 4-year period
Solid operating profit growth driven by diabetes

Operating profit

<table>
<thead>
<tr>
<th>Year</th>
<th>Operating profit in DKK billion</th>
<th>Operating profit as % of sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>2012</td>
<td>32%</td>
<td>20%</td>
</tr>
<tr>
<td>2013</td>
<td>7%</td>
<td>15%</td>
</tr>
<tr>
<td>2014</td>
<td>10%</td>
<td>13%</td>
</tr>
<tr>
<td>2015</td>
<td>43%</td>
<td>21%</td>
</tr>
</tbody>
</table>

Operating profit growth vs last year

- 2011: 18%
- 2012: 32%
- 2013: 7%
- 2014: 10%
- 2015: 21%

Operating profit growth in local currencies

- 2011: 22%
- 2012: 20%
- 2013: 15%
- 2014: 13%
- 2015: 18%

Operating profit therapy split

- Diabetes
  - 2011: 65%
  - 2015: 72%

- Biopharm
  - 2011: 35%
  - 2015: 28%

1. 2015 numbers exclude the impact on operating profit resulting from the non-recurring income related to the partial divestment of NNIT.
Profitability per segment

**Diabetes P&L – full year 2015**

- Sales: $100 billion
- COGS: $80 billion (-16%)
- S&D: $60 billion (-29%)
- R&D: $40 billion (-12%)
- Admin: $20 billion (-4%)
- OOI: $12 billion (+1%)
- OP: $40 billion

**Biopharmaceuticals¹ P&L – full year 2015**

- Sales: $30 billion
- COGS: $24 billion (-11%)
- S&D: $18 billion (-15%)
- R&D: $14 billion (-14%)
- Admin: $4 billion (-4%)
- OOI: $1 billion (+1%)
- OP: $57 billion

¹ Excluding inflammation
Continued decline in relative COGS level combined with stable investment level

Cost of Goods Sold (COGS)

<table>
<thead>
<tr>
<th>Year</th>
<th>COGS (DKK billion)</th>
<th>COGS as % of sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>14.5</td>
<td>0%</td>
</tr>
<tr>
<td>2012</td>
<td>14.0</td>
<td>5%</td>
</tr>
<tr>
<td>2013</td>
<td>13.5</td>
<td>10%</td>
</tr>
<tr>
<td>2014</td>
<td>13.0</td>
<td>15%</td>
</tr>
<tr>
<td>2015</td>
<td>12.5</td>
<td>20%</td>
</tr>
</tbody>
</table>

Capital Expenditure (CAPEX)

<table>
<thead>
<tr>
<th>Year</th>
<th>CAPEX (DKK billion)</th>
<th>CAPEX as % of sales</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>1.0</td>
<td>6%</td>
</tr>
<tr>
<td>2012</td>
<td>1.2</td>
<td>5%</td>
</tr>
<tr>
<td>2013</td>
<td>1.4</td>
<td>4%</td>
</tr>
<tr>
<td>2014</td>
<td>1.6</td>
<td>3%</td>
</tr>
<tr>
<td>2015</td>
<td>1.8</td>
<td>2%</td>
</tr>
</tbody>
</table>
Limited future productivity gains expected, reflecting an increasing level of manufacturing complexity and maturity

After significant improvements, reductions in unit costs of mature products are declining

The complexity of molecules by number of API sidechain production steps is increasing

API: active pharmaceutical ingredient
Long term financial targets: Operating profit growth and operating margin

Operating profit growth

- New long term financial target
- Previous long term financial targets

Operating margin

- Previous long term financial targets

Note: The long term financial targets are based on an assumption of a continuation of the current business environment

1 A new target for operating margin has not been established
Long term financial targets:
Operating profit after tax to net operating assets and cash to earnings

Operating profit after tax to net operating assets

Cash to earnings (three year average)

Note: The long term financial targets are based on an assumption of a continuation of the current business environment
Stable ownership structure
- secured through A and B-share structure

### Share structure

<table>
<thead>
<tr>
<th>Novo Nordisk Foundation</th>
<th>Institutional and private investors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Novo A/S</strong></td>
<td></td>
</tr>
<tr>
<td>75.0% of votes</td>
<td>25.0% of votes</td>
</tr>
<tr>
<td>27.0% of capital</td>
<td>73.0% of capital</td>
</tr>
<tr>
<td><strong>A shares</strong> 537m shares</td>
<td><strong>B shares</strong> 2,063m shares</td>
</tr>
</tbody>
</table>

### The Novo Nordisk Foundation

- The Novo Nordisk Foundation is a self-governing institution that:
  - provides a stable basis for Novo Nordisk
  - supports scientific, humanitarian and social purposes
- All strategic and operational matters are governed by the board and management of Novo Nordisk
- Overlapping board memberships ensure that the Novo Nordisk Foundation and Novo Nordisk share vision and strategy

Note: Treasury shares are included in the capital but have no voting rights
Sustainability

- Of the estimated 382 million people with diabetes, 50% are diagnosed.
- About 50% receive treatment targets.
- Of whom about 50% achieve desired outcomes.

Actual rates of diagnosis, treatment, targets and outcomes vary in different countries.
We are guided by a strong values-based management system with patients at the centre of everything we do

The Novo Nordisk way

• Our ambition is to strengthen our leadership in diabetes.

• We aspire to change possibilities in haemophilia and other serious chronic conditions.

• Our key contribution is to discover and develop innovative biological medicines and make them accessible to patients throughout the world.

The Triple Bottom Line business principle

• Our business philosophy is one of balancing financial, social and environmental considerations.
Long term social performance targets

Patients reached with diabetes care products

<table>
<thead>
<tr>
<th>Number of people reaches with diabetes care products (million)</th>
<th>Realised</th>
<th>Target (2020)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>25</td>
<td>40</td>
</tr>
<tr>
<td>2015</td>
<td>30</td>
<td>40</td>
</tr>
</tbody>
</table>

Average score in annual employee survey (1-5)

<table>
<thead>
<tr>
<th>Average score^2</th>
<th>Realised</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>4.0</td>
<td>4.5</td>
</tr>
<tr>
<td>2015</td>
<td>4.0</td>
<td>4.5</td>
</tr>
</tbody>
</table>

^1 Novo Nordisk estimate

^2 Average score in annual employee survey (1-5)
Treating 40 million patients with diabetes by 2020 is a long term target to be achieved by addressing needs locally

Number of patients treated with Novo Nordisk’s diabetes care products

To reach our target, the global strategy is translated into local action plans
## Changing Diabetes® initiatives aim at changing the rule of halves

<table>
<thead>
<tr>
<th>Prevention</th>
<th>Diagnosis</th>
<th>Access to care</th>
<th>Reach target</th>
<th>Desired outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prevent in future generations</td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
</tr>
<tr>
<td>Drive awareness and policy</td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
</tr>
<tr>
<td>Expand access to affordable care</td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
</tr>
<tr>
<td>Improve health outcomes</td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
<td><img src="true" alt="Checkmark" /></td>
</tr>
</tbody>
</table>

### Initiative examples

- Changing Diabetes® in Pregnancy
- Changing Future Health
- World Diabetes Day
- Cities Changing Diabetes®
- Leadership Forums
- Team Novo Nordisk
- LDC pricing policy
- Working poor – base of pyramid
- Changing Diabetes® in Children
- DAWN2
- Changing Diabetes® barometer
- Training of HCPs
Cities Changing Diabetes aims to break the Rule of Halves and stop urban diabetes from ruining millions of lives

Urban diabetes is on the rise

- Map the challenge in selected cities
- Share learning and best practices on how to break the ‘Rule of Halves’
- Implement action plans with local partners

Cities Changing Diabetes is our response

Public-private partnerships

City partners

- México City
- Tianjin
- Copenhagen
- Shanghai
- Houston
Long term environmental performance targets

**Energy consumption**

- **Target (not to exceed)**
- **Realised**

**Water consumption**

- **Target (not to exceed)**
- **Realised**

*From 2007 to 2011 the target was set as an accumulated reduction over four years from a 2007 baseline.*