novo nordisk – a focused healthcare company

Conference call
Full year 2018

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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 this presentation as well as the company's statutory Annual Report 2018 and Form 20-F, which are both filed with the SEC in February 2019 in continuation of the publication of the Annual Report 2018, and written information released, or oral statements made, to the public in the future by or on behalf of Novo Nordisk, may contain forward-looking statements. Words such as 'believe', 'expect', 'may', 'will', 'plan', 'strategy', 'prospect', 'foresee', 'estimate', 'project', 'anticipate', 'can', 'intend', 'target' and other words and terms of similar meaning in connection with any discussion of future operating or financial performance identify forward-looking statements. Examples of such forward-looking statements include, but are not limited to:

- Statements of targets, plans, objectives or goals for future operations, including those related to Novo Nordisk's products, product research, product development, product introductions and product approvals as well as cooperation in relation thereto,
- Statements containing projections of or targets for revenues, costs, income (or loss), earnings per share, capital expenditures, dividends, capital structure, net financials and other financial measures,
- Statements regarding future economic performance, future actions and outcome of contingencies such as legal proceedings, and
- Statements regarding the assumptions underlying or relating to such statements.

These statements are based on current plans, estimates and projections. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific. Novo Nordisk cautions that a number of important factors, including those described in this presentation, could cause actual results to differ materially from those contemplated in any forward-looking statements.

Factors that may affect future results include, but are not limited to, global as well as local political and economic conditions, 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 recalls, unexpected contract breaches or terminations, government-mandated or market-driven price decreases for Novo Nordisk's products, introduction of competing products, reliance on information technology, 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.

For an overview of some, but not all, of the risks that could adversely affect our results or the accuracy of forward-looking statements in this presentation, reference is made to 'Risk management enables better decision-making' on p 41 and the overview of risk factors in 'Novo Nordisk's key risks' on pp 42-43 of the Annual Report 2018.

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 and 1.8 mg) is approved for the management of type 2 diabetes only
- Saxenda® (liraglutide 3 mg) is approved in the USA and the EU for the treatment of obesity only

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Highlights – Full year 2018

Sales development
- Sales were broadly unchanged in Danish kroner and increased by 5% in local currencies to DKK 111.8 billion
  - International Operations sales increased by 2% in Danish kroner and by 7% in local currencies
  - North America Operations sales decreased by 2% in Danish kroner and increased by 3% in local currencies
  - The GLP-1 diabetes franchise increased by 18% in local currencies and accounted for 78% share of growth

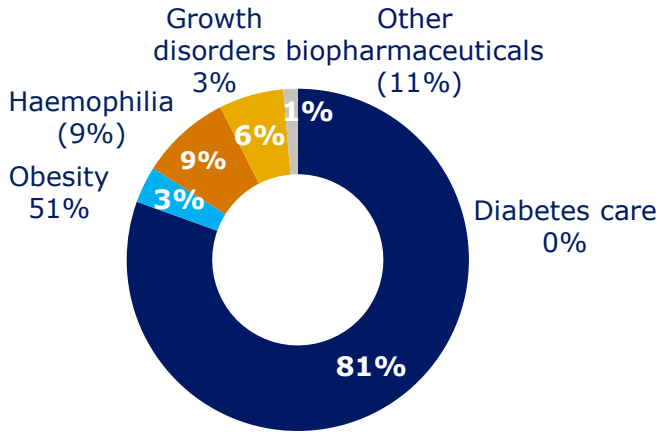
Research and Development
- Completion of the phase 3a PIONEER programme for oral semaglutide, following successful completion of PIONEER 6 and 9
- Oral semaglutide ready for regulatory filing. Filing expected in the USA around end-Q1 2019 with use of priority review voucher
- Completion of phase 2 trials for concizumab (explorer4) and somapacitan (extension, REAL 3)
- Phase 2 trial for LAI287, a once-weekly insulin, initiated to evaluate safety and efficacy
- Phase 1 trial for LAIsema, a once-weekly combination of LAI287 and semaglutide, initiated

Financials
- Operating profit decreased by 4% in Danish kroner and increased by 3% in local currencies to DKK 47.2 billion
- Operating profit increased by 6% in local currencies adjusted for severance costs and the priority review voucher
- Net profit increased by 1% to DKK 38.6 billion and diluted earnings per share increased by 4% to 15.93 DKK per share
- 4% increase in total dividend to DKK 8.15 per share of DKK 0.20 proposed (interim dividend of DKK 3.00 paid in August 2018)
- New 12-months share repurchase programme of up to DKK 15 billion to be initiated in February

2019 financial outlook and target updates
- Sales growth is expected to be 2-5% measured in local currencies (around 2%-points higher reported)
- Operating profit growth is expected to be 2-6% measured in local currencies (around 4%-points higher reported)
- Long term financial targets for OPAT/NOA adjusted from 125% to 80%. Cash to earnings target adjusted from 90% to 85%
- Long term financial target for operating profit growth remains unchanged

Sales growth of 5% mainly driven by Victoza®, Ozempic® and Saxenda®

Sales as reported – full year 2018



Sales of DKK 111.8 billion (0%)

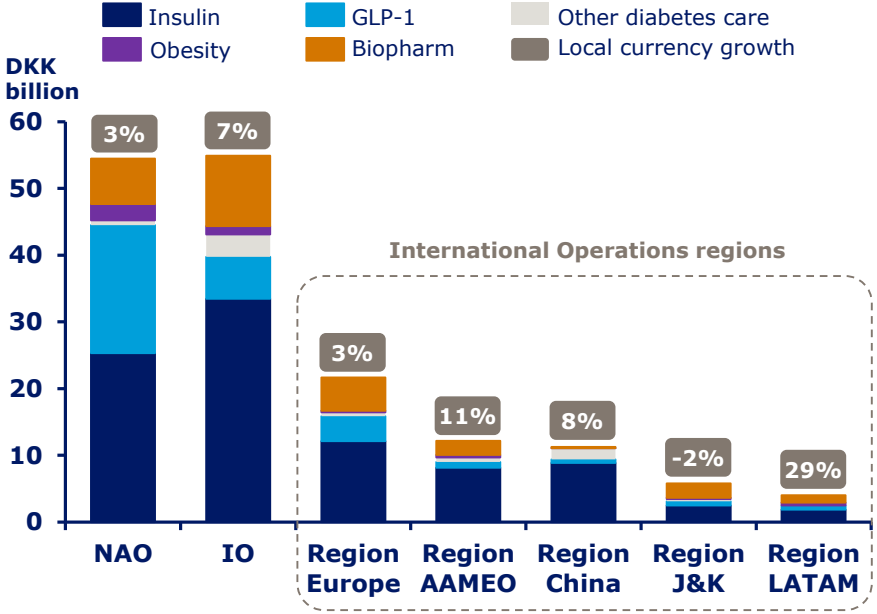
Growth break down – full year 2018

Local currencies	Growth	Share of growth
Long-acting insulin[1]	(2%)	(7%)
Premix insulin[2]	0%	0%
Fast-acting insulin[3]	1%	3%
Human insulin	(1%)	(3%)
Total insulin	**(1%)**	**(7%)**
GLP-1[4]	18%	78%
Other diabetes care[5]	3%	2%
Total diabetes care	**4%**	**73%**
Obesity (Saxenda®)	60%	30%
Diabetes care and obesity total	**6%**	**103%**
Haemophilia[6]	(5%)	(10%)
Growth disorders (Norditropin®)	7%	9%
Other biopharmaceuticals[7]	(8%)	(2%)
Biopharmaceuticals	**(1%)**	**(3%)**
Total	**5%**	**100%**

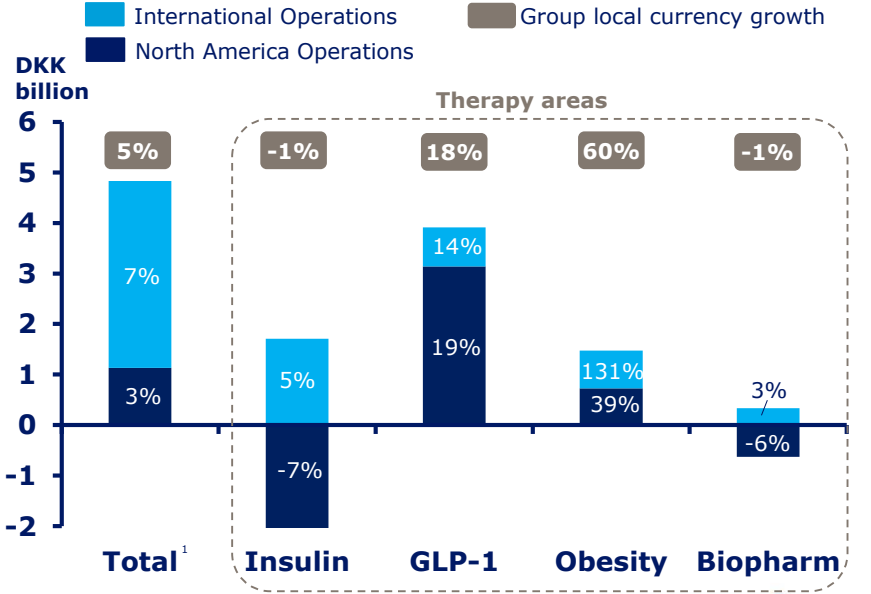
[1] Comprises Tresiba®, Xultophy® and Levemir®; [2] Comprises Ryzodeg® and NovoMix®
[3] Comprises Fiasp® and NovoRapid®; [4] Comprises Victoza® and Ozempic®
[5] Primarily NovoNorm® and needles; [6] Comprises NovoSeven®, NovoEight®, NovoThirteen® and Refixia®;
[7] Primarily Vagifem® and Activelle®
Note: Refixia® and NovoThirteen® are launched as Rebinyn® and TRETTEN®, respectively, in the USA

Sales growth is primarily driven by 18% growth in GLP-1 sales, while global insulin sales are broadly unchanged

2018 reported sales split and local currency growth for NAO and IO



2018 added sales and local currency growth for NAO and IO



NAO: North America Operations; IO: International Operations; LATAM: Latin America; AAMEO: Africa, Asia, Middle East & Oceania; J&K: Japan & Korea

[1] "Other diabetes care" is included in Total

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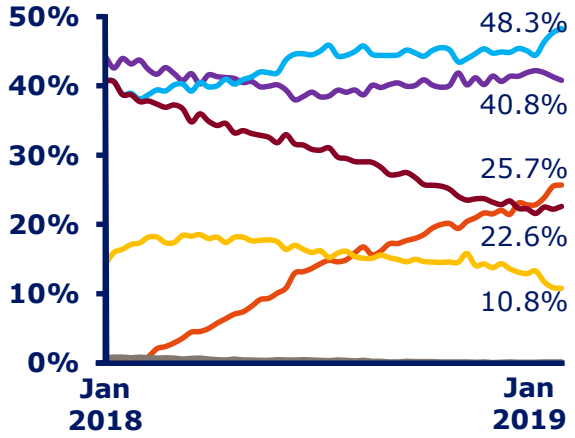
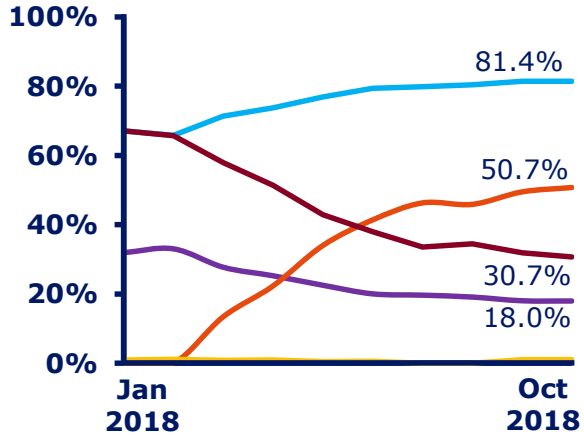
Ozempic® gains market share and is now launched in 11 countries

USA GLP-1 NBRx market share



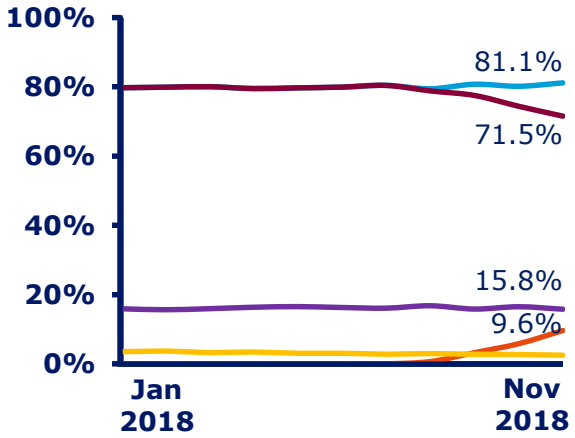
Source: NBRx-IQVIA LRx Weekly, week ending 13 Jan 2019
Ozempic® has been launched in: the USA, Canada, Denmark, Switzerland, Ireland, Sweden, the Netherlands, Iceland, the UK, Norway and Finland

Canada GLP-1 NBRx market share



Source: NBRx-IQVIA monthly, Oct 2018

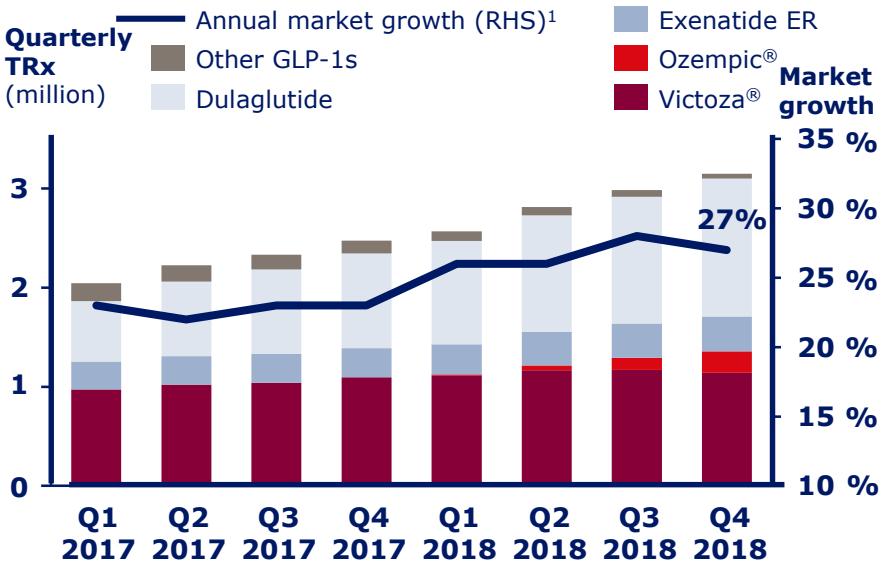
European[1] GLP-1 volume market share



Source: IQVIA monthly, Nov 2018
[1] Markets include: Denmark, Switzerland, Ireland, Sweden and the Netherlands

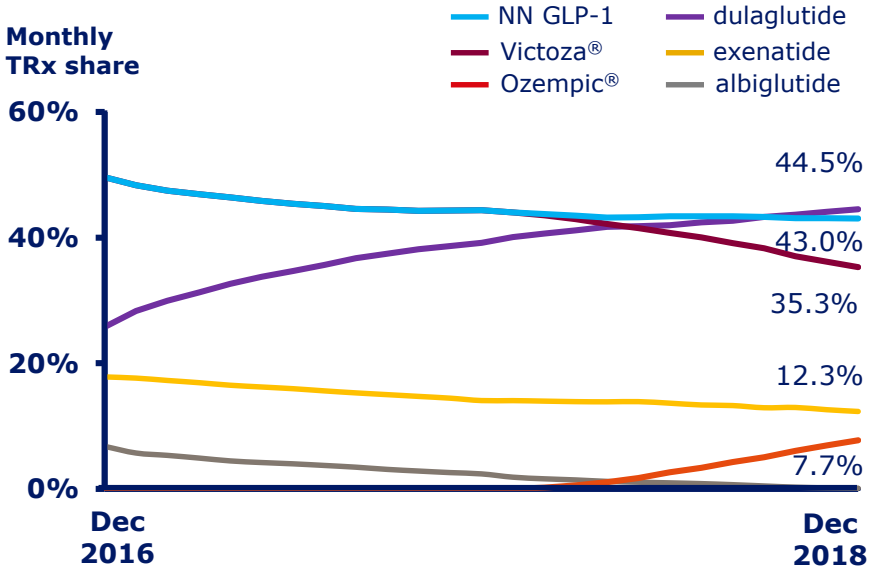
In the USA, Victoza® CV indication and Ozempic® launch contribute to the 27% GLP-1 market growth

USA GLP-1 TRx market development



Source: IQVIA weekly NPA, week ending 4 Jan 2019 for Q4 2018; monthly NPA dated Nov 2018 TRx Script Count for prior quarters
CV: Cardiovascular
[1] Growth rate three months year over year
RHS: Right hand side

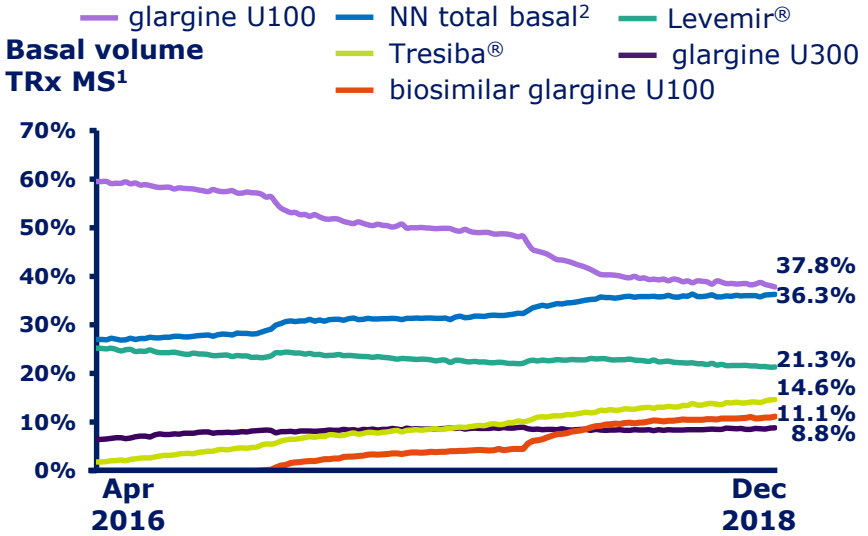
USA GLP-1 volume market share



Source: IQVIA monthly NPA, Nov 2018; weekly NPA for Dec, week ending 4 Jan 2019

Tresiba® has since launch gained around 15% market share in the USA

Weekly TRx volume market shares[1] in the USA



Tresiba® in the USA

- Novo Nordisk basal insulin volume market share is now 36.3%, which is a 9%-points increase since the launch of Tresiba® in 2016
- Tresiba® volume market share is at 14.6%
- Tresiba® formulary access is above 80% for Commercial and Medicare Part D combined
- In April 2018, promotional activities were initiated for the updated Tresiba® label[3]

Note: The graph does not show NPH, which accounts for the residual market share
Source: IQVIA weekly Xponent Plantrak (*excludes Medicaid), 28 Dec 2018
TRx volume: Insulin volume in mega units (MU) associated with total number of prescriptions; VANTAGE FingerTip Formulary bridge, Dec 2018
MS: Market share
[1] Excluding Medicaid, Medicaid represents ~12% of retail basal market volume, [2] Includes Xultophy®

[3] Tresiba® label was updated in March 2018 to include a 40% reduction of severe hypoglycaemic events compared to insulin glargine U100

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Saxenda® sales increased by 60% in 2018 and continues to gain market share in the global anti-obesity market

Solid Saxenda® sales growth since launch

Note: Numbers in the graph are reported quarterly sales

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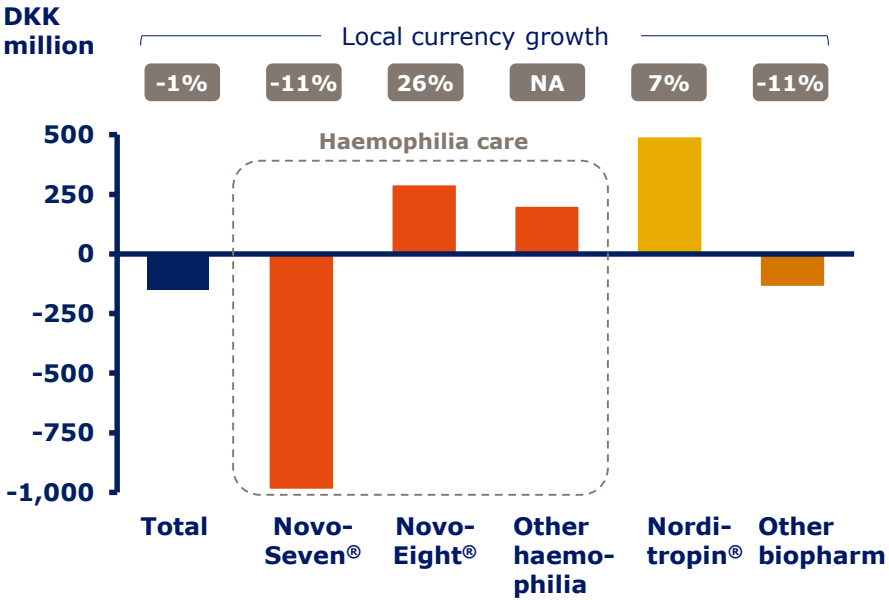
Continued global roll-out of Saxenda®

- Novo Nordisk is the value market leader in the global anti-obesity market with 45% market share. Value market share in North America Operations is 65.5% and in International Operations 32.5%
- Saxenda® sales grew by 60% in 2018 measured in local currencies driven by both North America Operations (sales growth of 39%) and International Operations (sales growth of 131%)
- Saxenda® is now launched in North America and in 39 countries in four regions in International Operations
- Continued efforts focusing on expanding the obesity segment. Novo Nordisk invests in progressing its innovative obesity pipeline and market development activities such as patient support and educator programmes

Source: IQVIA monthly from Nov 2018

Biopharm strategy focus on in-market execution as well as internal and external innovation

Broadly unchanged biopharm sales driven by Norditropin® and NovoEight®



Other haemophilia comprises NovoThirteen® and Refixia®, 'Other biopharm' comprises primarily Vagifem® and Activelle®

'Return to growth' strategy on track

Succeeded in-market despite competition in the inhibitor segment: Updated NovoSeven® label for surgical use and global focus on acquired haemophilia treatment as well as solid sales growth for Norditropin® and NovoEight®

Progressing pipeline with global launch of Refixia®; expected approval of N8-GP; expected filing of NovoEight® in China; and pipeline advancement with concizumab and with somapacitan in both GHD and AGHD

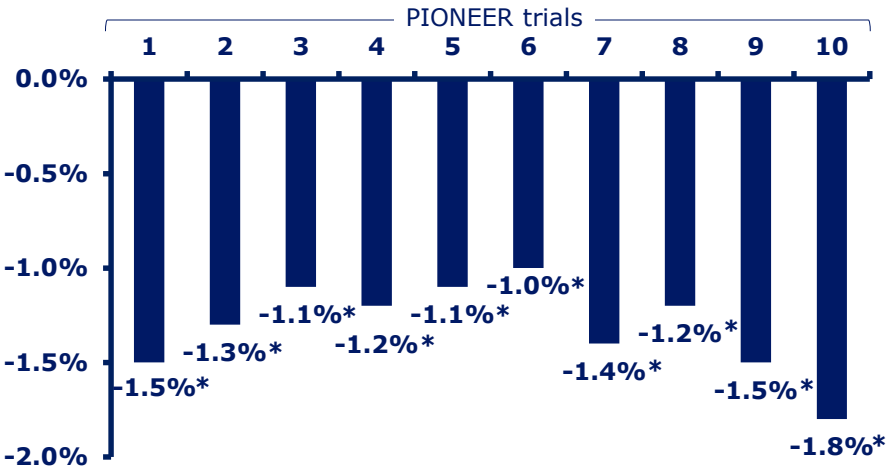
Adding complementary assets with the in-licensing of EpiDestiny's product for sickle cell disease and acquisition of the North American rights to Macrilen™, the first oral product for diagnosis of AGHD

GHD: Growth hormone deficiency; AGHD: Adult growth hormone deficiency
Note: Rexifia® is the global brand name and Rebinyn® is the brand name in North America

Completed PIONEER programme showed consistent statistically significant reductions in HbA_{1c} and body weight

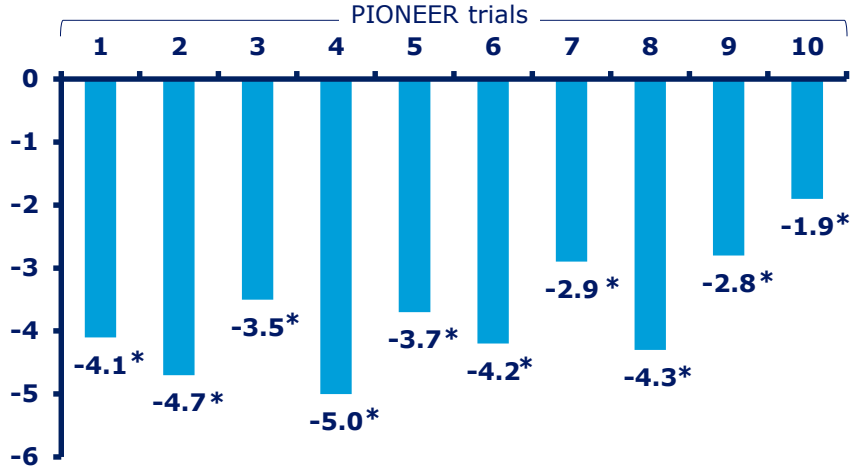
Oral semaglutide lowered HbA_{1c} by 1.0–1.8%-points by end of trial[1]

Mean change in HbA_{1c} (%-points)



Oral semaglutide lowered body weight by ~2–5 kg by end of trial[1]

Mean change in weight (kg)



[1] Hypothetical estimand, Mixed Model for Repeated Measurement (MMRM)
* Statistically significant vs comparator (vs placebo in PIONEER 1; vs empagliflozin 25 mg in PIONEER 2; vs sitagliptin 100 mg in PIONEER 3; vs Victoza® 1.8 mg in PIONEER 4; vs placebo in PIONEER 5; vs placebo in PIONEER 6; vs sitagliptin 100 mg in PIONEER 7; vs placebo in PIONEER 8; vs Victoza® 0.9 mg and placebo in PIONEER 9; vs 0.75 mg dulaglutide in PIONEER 10)
Note: Results shown are: PIONEER 1 and 5 for 26 weeks with 14 mg oral semaglutide, PIONEER 2, 4, 8, 9 and 10 for 52 weeks with 14 mg oral semaglutide; PIONEER 3 for 78 weeks with 14 mg oral semaglutide; PIONEER 7 for 52 weeks with a mixed dose; PIONEER 6 following occurrence of 137 MACE with a median follow-up time of 16 months.
MACE: major adverse cardiovascular events; FDA: The US Food and Drug Administration

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Oral semaglutide ready for regulatory filing following the successful completion of the CV safety trial, PIONEER 6

Headline results for PIONEER 6

- The trial met the primary endpoint[1] by demonstrating **non-inferiority** of MACE with oral semaglutide compared to placebo
- Efficacy and safety profile of oral semaglutide was consistent with the previous PIONEER trials

Headline results	HR
MACE	0.79
CV death	0.49*
All cause mortality	*0.51**
Myocardial infarction, non-fatal	1.18
Stroke, non-fatal	0.74

Regulatory update for oral semaglutide

- Oral semaglutide is expected to be filed around the end of the first quarter 2019 by notifying the FDA that Novo Nordisk will request priority review based on a priority review voucher
- Oral semaglutide is expected to be filed in the EU in first half of 2019 and subsequently filed in Japan
- Novo Nordisk is currently in a constructive dialogue with the FDA to potentially obtain a CV indication for Ozempic® based on the CVOTs SUSTAIN 6 and PIONEER 6 results

[1] The primary endpoint was defined as the MACE composite outcome of the first occurrence of CV death, non-fatal myocardial infarction or non-fatal stroke
Note: * indicates statistical significance
CV: Cardiovascular, MACE: major adverse cardiovascular events, HR: hazard ratio

FDA: the Food and Drug Administration; CV: cardiovascular; CVOT: cardiovascular outcomes trial

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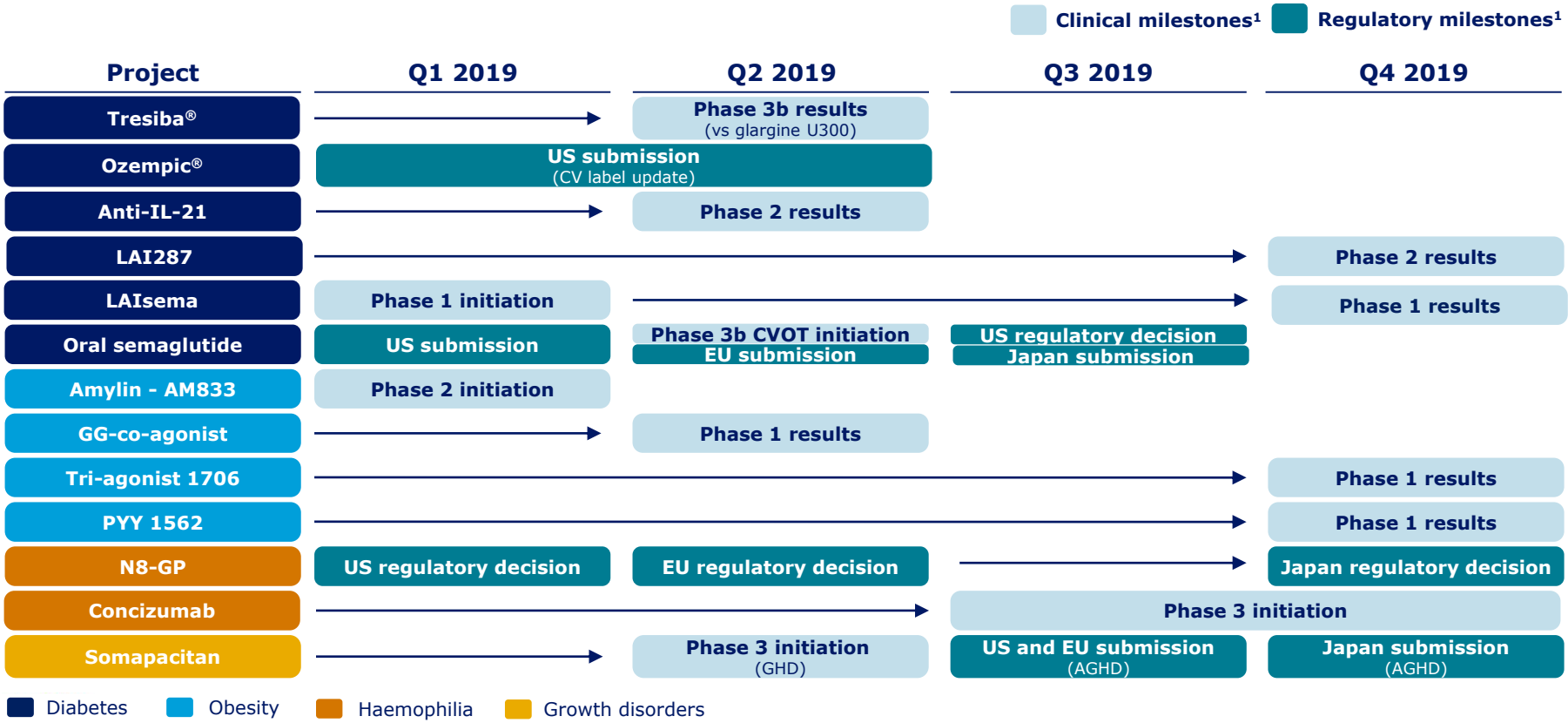
Key development milestones

Diabetes	• Completion of the phase 3a PIONEER programme for oral semaglutide, following successful completion of PIONEER 6 and 9 • Oral semaglutide ready for regulatory filing. Filing expected in the USA around end-Q1 2019 with use of priority review voucher • Phase 2 trial initiated for LAI287, a once-weekly insulin, to assess safety and efficacy • Phase 1 trial initiated for LAIsema, a fixed ratio combination of LAI287 and semaglutide
Obesity	• Embark Biotech and Novo Nordisk entered into a research collaboration on the discovery of novel treatments for obesity and metabolic diseases
Biopharm	• Successful completion of the phase 2 trial explorer4 with concizumab, which together with explorer5 data confirmed clinical proof of concept of concizumab and phase 3 preparation is initiated • Completion of the phase 2 trial REAL 3 (extension period) for long-acting growth hormone somapacitan in GHD • Development of sc N8-GP has been discontinued
Other serious chronic diseases	• Staten Biotechnology and Novo Nordisk to collaborate on developing novel treatment for dyslipidaemia

NASH: Non-alcoholic steatohepatitis; GHD: Growth hormone deficiency; sc: subcutaneous

R&D milestones in 2019



[1] Expected to be published in the given quarter or in the subsequent quarterly company announcement
GHD: Growth hormone deficiency; AGHD: Adult growth hormone deficiency; CVOT: cardiovascular outcomes trial

Financial results – Full year 2018

In DKK million	2018	2017	Change (reported)	Change (local currency)
Sales	111,831	111,696	0%	5%
Gross profit	94,214	94,064	0%	
Gross margin	*84.2%*	*84.2%*		
Sales and distribution costs	29,397	28,340	4%	7%
Percentage of sales	*26.3%*	*25.4%*		
Research and development costs	14,805	14,014	6%	8%
Percentage of sales	*13.2%*	*12.5%*		
Administration costs	3,916	3,784	4%	7%
Percentage of sales	*3.5%*	*3.4%*		
Other operating income, net	1,152	1,041	11%	
Operating profit	47,248	48,967	(4%)	3%
Operating margin	*42.2%*	*43.8%*		
Financial items (net)	367	(287)		
Profit before income tax	47,615	48,680	(2%)	
Income taxes	8,987	10,550	(15%)	
Effective tax rate	*18.9%*	*21.7%*		
Net profit	38,628	38,130	1%	
Diluted earnings per share (DKK)	15.93	15.39	4%	

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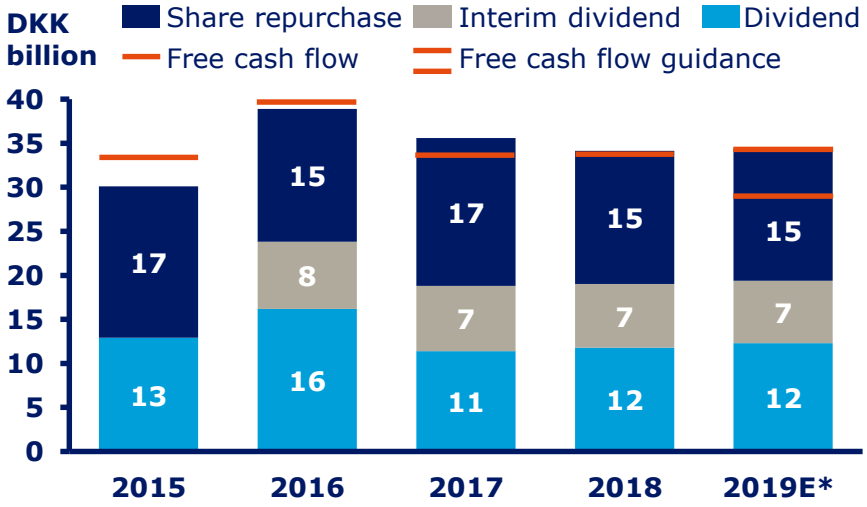
Financial outlook for 2019 including adjusted LTFTs

	Expectations 1 Feb 2019
Sales growth - local currencies	2% to 5%
Sales growth - reported	Around 2 percentage points higher
Operating profit growth - local currencies	2% to 6%
Operating profit growth - reported	Around 4 percentage points higher
Financial items (net)	Loss of around DKK 2.4 billion
Effective tax rate	20% to 22%
Capital expenditure	Around DKK 9.0 billion
Depreciation, amortisation and impairment losses	Around DKK 4.5 billion
Free cash flow	Around DKK 29 to 34 billion
OPAT/NOA target	**Adjusted to 80%** (previously 125%)
Cash to earnings target	**Adjusted to 85%** (previously 90%)
Operating profit growth target	5% (unchanged)

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 28 January 2019. LTFT: Long-term financial target; OPAT/NOA: Operating profit after taxes to net operating assets.

Cash return to shareholders in 2019

Annual cash return to shareholders



Cash return priorities

- New share repurchase programme of up to DKK 15 billion to be executed during the coming 12 months
- Total programme may be reduced in size if significant bolt-on acquisition opportunities arise during 2019
- For 2018, the proposed total dividend increased 4% to DKK 8.15 per share of DKK 0.20 (including interim dividend of DKK 3.00 per share paid in August 2018), resulting in a total pay-out ratio of 50.6%.

Note: For 2019 expected free cash flow is DKK 29-34 billion. Share repurchase programmes run for 12 months starting Feb until end-Jan of the following year.

Key take-aways – Full year 2018

Diabetes

Diabetes franchise grew 4% and Novo Nordisk retains world leader position with a market share of 27.9% (27.4% in 2017)

- **Insulin sales** were flat and Novo Nordisk has expanded its volume market leader position to 46.4% insulin market share (45.9% in 2017)
- **GLP-1 sales** grew 18% and Novo Nordisk holds the market leader position with 46% value market share
- **Oral semaglutide** submission is expected in the USA around the end of Q1 2019, priority review voucher to be used

Obesity

Obesity sales increased by 60% and accounted for 30% share of Novo Nordisk's sales growth. Saxenda® is now launched in 41 countries

Biopharm

Biopharm strategy execution on track: Biopharm sales broadly unchanged, progression of pipeline and complementary assets added to the product portfolio

Financials

Sales growth of 5% driven by both International Operations (7% sales growth) and North America Operations (3% sales growth). Sales growth driven by 18% GLP-1 sales growth and 60% obesity sales growth

Operating profit growth of 6% when adjusting for the severance costs and the priority review voucher

Outlook

Sales growth in 2019 expected to be 2-5% with a positive currency impact of 2 percentage points

Operating profit growth in 2019 expected to be 2-6% with a positive currency impact of 4 percentage points

Long-term financial targets adjusted for OPAT/NOA from 125% to 80% and Cash to earnings from 90% to 85%

Note: Sales growth numbers are measured in local currencies

Investor contact information

Share information

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

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

Upcoming events

21 Mar 2019	Annual General Meeting
03 May 2019	Financial statement for the first three months of 2019
09 Aug 2019	Financial statement for the first six months of 2019
01 Nov 2019	Financial statement for the first nine months of 2019

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