Shanghai – part of Cities Changing Diabetes

novo nordisk – a focused healthcare company

Investor presentation
First nine months of 2016

novo nordisk®

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.

Please also refer to the overview of risk factors in 'Managing risks' on p 42-43 of the Annual Report 2015.

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 – First nine months of 2016

Sales development
- Sales increased by 6% in local currencies and 4% in Danish kroner
  - USA grew by 6% in local currencies and accounted for 44% share of growth in local currencies
  - International Operations and Region China grew by 13% and 11% in local currencies, respectively
  - Tresiba® increased by 187% in local currencies and accounted for 33% share of growth in local currencies

Research and Development
- Semaglutide significantly reduced the risk of major cardiovascular events with 26% vs placebo in the SUSTAIN 6 trial
- Updated R&D strategy including a raised innovation threshold for R&D projects specifically within diabetes

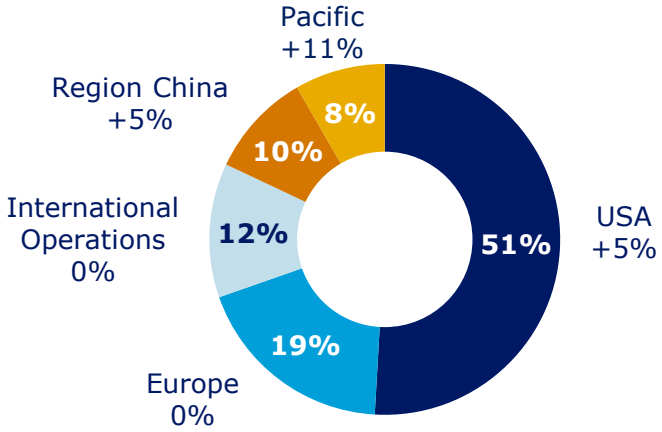
Financials
- Adjusted[1] operating profit increased by 7% in local currencies
- Diluted earnings per share adjusted for the partial divestment of NNIT increased by 22% to 11.50 DKK per share
- 2016 financial outlook:
  - Sales growth is now expected to be 5-6% measured in local currencies (around 2% lower in reported currencies)
  - Adjusted[1] operating profit growth is now expected to be 5-7% measured in local currencies (around 2% lower in reported currencies)
- 2017 preliminary financial outlook in local currencies:
  - Sales growth is expected to be low single digit
  - Operating profit growth is expected to be flat to low single digit
- Updated long-term financial targets
  - A new target for operating profit growth has been set at 5% on average while the two other targets remain unchanged

Organisational
- Lars Rebien Sørensen retires as CEO effective 1 January 2017; Lars Fruergaard Jørgensen appointed as successor
- Global reduction of workforce by approximately 1,000 employees

[1] Adjusted operating profit account for partial divestment of NNIT and out-licensing of assets for inflammatory disorders, both in 2015

All regions contribute to sales growth measured in local currencies for the first nine months of 2016

Sales as reported – first nine months of 2016



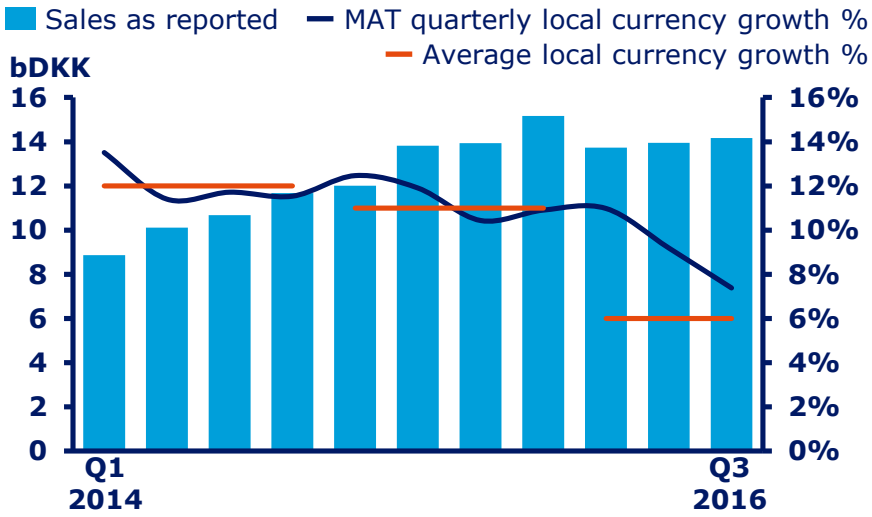
Sales of DKK 82,208 million (+4%)

Growth analysis – first nine months of 2016

Local currencies	Growth	Share of growth
USA	6%	44%
Europe	2%	6%
International Operations	13%	27%
Region China	11%	16%
Pacific	6%	7%
Total sales	**6%**	**100%**

Continued modest US sales growth in the third quarter of 2016

Quarterly sales in the US

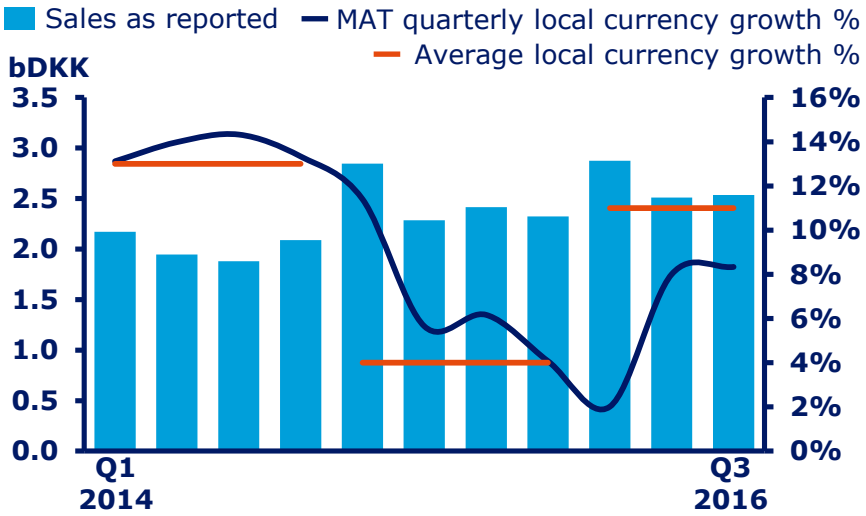


Key factors impacting sales growth

- Sales growth primarily driven by Tresiba®, Victoza® and Saxenda®
- Declining sales of modern insulin driven by impact from:
  - NovoLog®/NovoLog® Mix 70/30 contract loss
  - Declining Levemir® sales following the launch of Tresiba®
  - Lower modern insulin prices
- Decline in NovoSeven® sales due to increasing competitive pressure

Sales growth rebounds in China in the first nine months of 2016

Quarterly sales in China

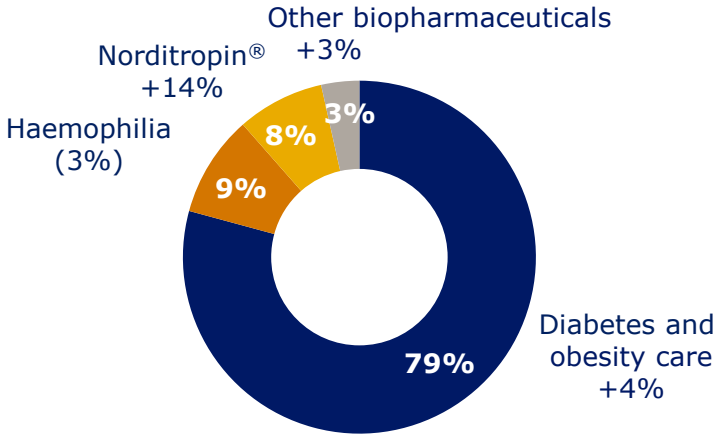


Key factors impacting sales growth

- Increasing modern insulin sales growth driven by:
  - Increased insulin market volume growth
  - Modern insulin volume market penetration
- The growth was partly offset by declining human insulin sales reflecting increased competitive pressure and negative price impact from provincial biddings

Sales growth is driven by new-generation insulin and Victoza®

Sales as reported – first nine months of 2016



Sales of DKK 82,208 million (+4%)

Note: Norditropin® sales growth in the first nine months of 2016 is derived primarily from the USA reflecting a positive non-recurring adjustment to rebates in the Medicaid patient segment

Growth analysis – first nine months of 2016

Local currencies	Growth	Share of growth
New-generation insulin[1]	185%	36%
Modern insulin	(1%)	(7%)
Human insulin	0%	0%
Victoza®	13%	33%
Other diabetes and obesity care[2]	26%	18%
- Hereof Saxenda®	331%	16%
Diabetes and obesity care	**6%**	**81%**
Haemophilia[3]	(1%)	(2%)
Norditropin®	16%	19%
Other biopharmaceuticals[4]	4%	2%
Biopharmaceuticals	**6%**	**19%**
Total	**6%**	**100%**

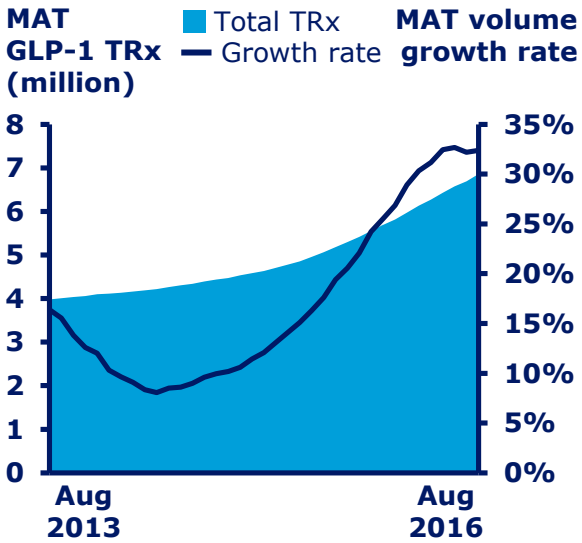
[1] Comprises Tresiba®, Xultophy® and Ryzodeg®
[2] Primarily NovoNorm®, needles and Saxenda®
[3] Comprises NovoSeven®, NovoEight® and NovoThirteen®
[4] Primarily Vagifem® and Activelle®

changing diabetes®

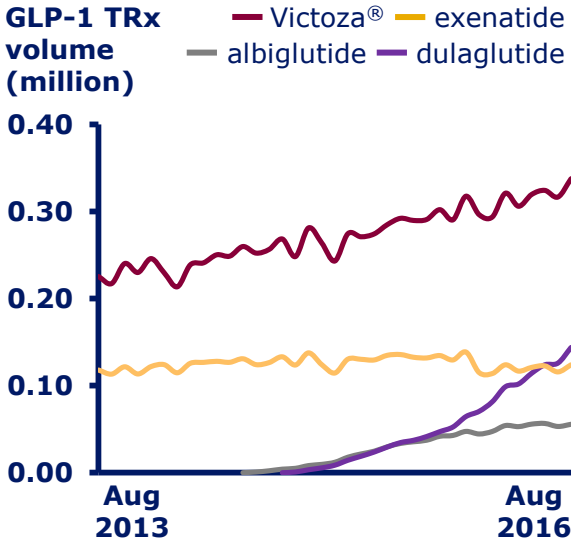
novo nordisk®

Victoza® maintains leadership in the faster growing US GLP-1 market

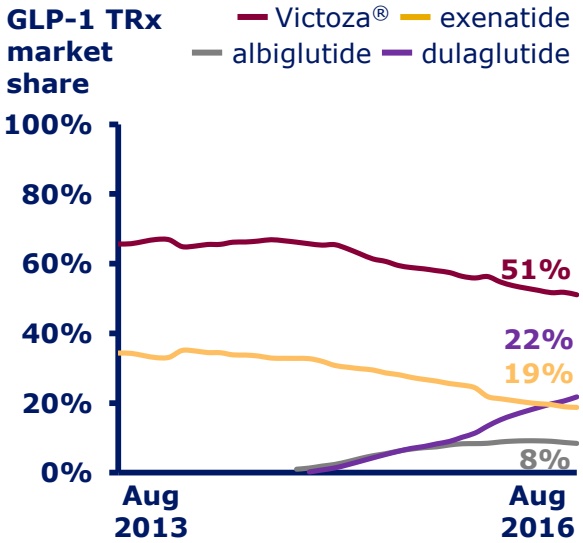
US GLP-1 market development



US GLP-1 market TRx volume



US GLP-1 market shares



Source: IMS NPA monthly, August 2016

changing diabetes®

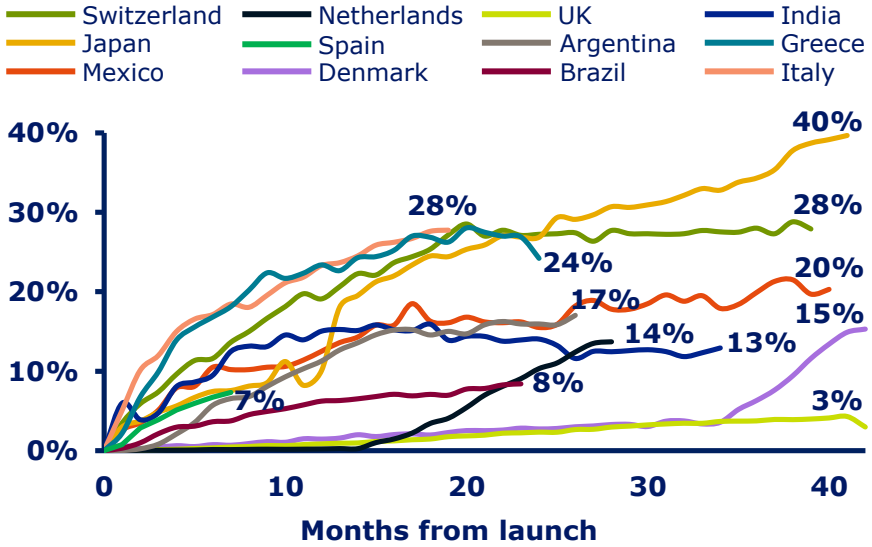
novo nordisk®

Roll-out of new-generation insulin portfolio is progressing

Key launch observations

- **Tresiba**® launched in 47 countries with solid penetration in markets with similar reimbursement as insulin glargine
- **Ryzodeg**® launched in Mexico, India, Bangladesh, Japan, Russia, Lebanon and now South Africa and Nepal
- **Xultophy**® launched in Switzerland, the United Kingdom, Sweden, Hungary, Greece and now Cyprus

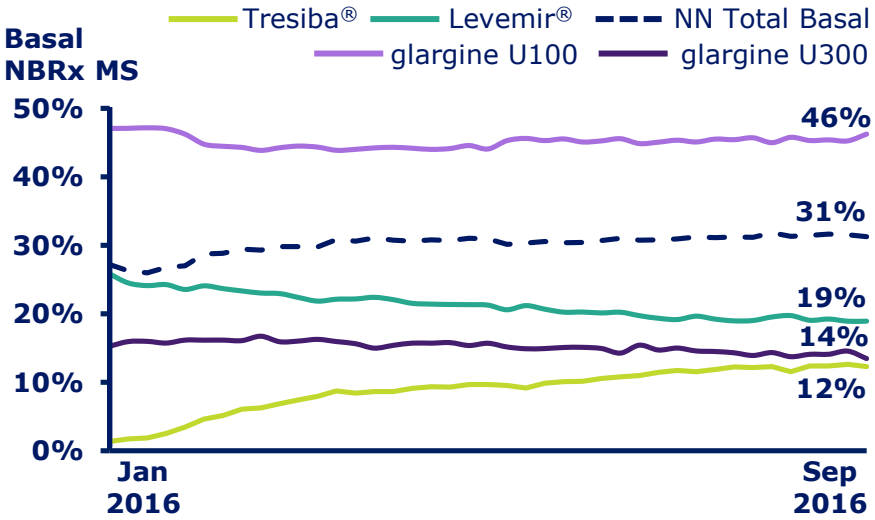
Tresiba® value share of basal insulin segment in selected countries, excluding the USA



Note: Limited IMS coverage in India
Source: IMS Monthly value figures, August 2016

Steady uptake of Tresiba® in the USA

Weekly US NBRx volume market shares



Note: The graph does not show NPH, which accounts for the residual market share
Source: IMS weekly data, 7 October 2016, excludes Medicaid
NBRx: New-to-brand prescriptions; MS: Market share

Tresiba® launched in the USA

- Full commercial launch in January 2016 following specialist engagement in Q4 2015
- Tresiba® volume market share has reached 4.0%
- Tresiba® U200 accounts for nearly 80% of total Tresiba® volume
- Wide formulary access has been obtained with around 75% access for patients in commercial channels and Medicare part D combined

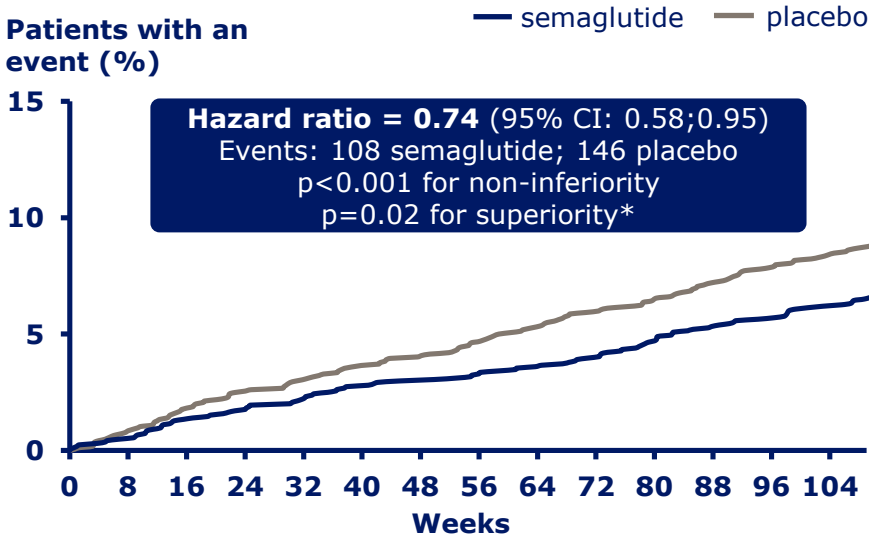
Source: IMS weekly data, 7 October 2016, excludes Medicaid

changing diabetes®

novo nordisk®

Semaglutide significantly reduced the risk of major cardiovascular events with 26% vs placebo in SUSTAIN 6

Semaglutide demonstrated 26% reduction in composite CV outcome compared with placebo



Note: p-value is two-sided, pooled data reported for both semaglutide and placebo
MACE: Major adverse cardiovascular event; 3-point MACE comprises cardiovascular death, non-fatal myocardial infarction and non-fatal stroke; CI: Confidence interval
* No adjustment for multiple tests

Key results and next step

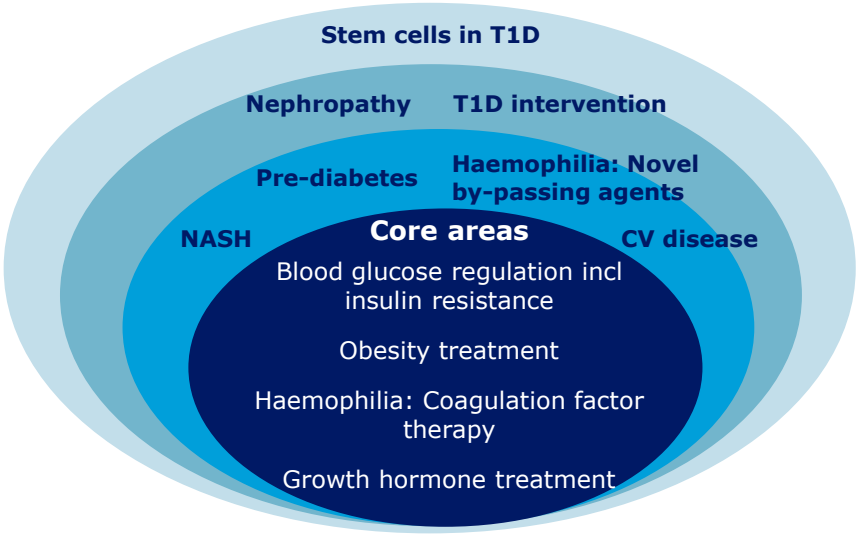
- Non-inferiority of semaglutide compared to placebo was confirmed for time to first MACE in people with type 2 diabetes
- **Semaglutide reduced the risk of MACE by 26%** driven by reductions of non-fatal stroke by 39%* and non-fatal MI by 26%
- Semaglutide significantly reduced the risk of nephropathy while increasing the risk of retinopathy complications
- **Next step**: Novo Nordisk expect to submit an NDA for semaglutide to regulatory authorities in Q4 2016

* P-value <0.001
NDA: New drug application

novo nordisk®

Updated R&D strategy including a raised innovation threshold for R&D projects specifically within diabetes

Utilisation of core protein capabilities to enter adjacent areas



T1D: Type 1 diabetes; NASH: Non-alcoholic steatohepatitis; CV: Cardiovascular

changing diabetes®

Updated R&D strategy

- R&D strategy and priorities have been updated to reflect the increasingly challenging payer environment, particularly in the US market, by applying an even higher innovation threshold for starting and progressing R&D projects within diabetes
- Intensified focus on exploring current projects into adjacent disease areas of high unmet need including NASH, CVD and CKD
- Build research portfolios via strengthened activities related to in-licensing of early stage projects and enhanced external academic collaborations
- Discontinuation of oral insulin and combinations involving oral insulin, as well as a number of changes to the portfolio of early-stage projects will also be implemented, reflecting the required higher innovation threshold

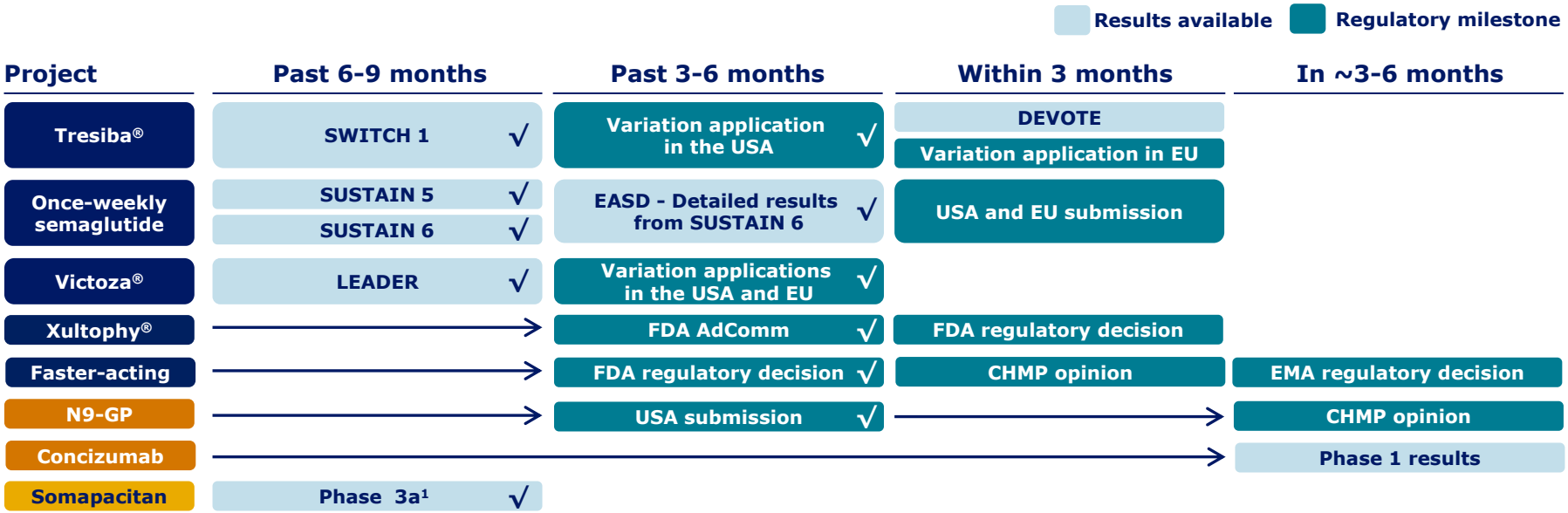
NASH: Non-alcoholic steatohepatitis; CVD: Cardiovascular disease; CKD: Chronic kidney disease

novo nordisk®

Key development milestones

- Supplemental application for the SWITCH hypoglycaemia trials submitted for Tresiba® (NN1250) in the US
- Supplemental applications for the LEADER CV trial submitted for Victoza® (NN2211) in the US and EU
- FDA extended regulatory review period for IDegLira (NN9068) by three months
- Complete Response Letter received in the US for faster-acting insulin aspart (NN1218)
- Oral semaglutide (NN9924) phase 3a trial initiations progress as planned

R&D news flow with several regulatory decisions in the past six months



Note: Indicated timeline as of financial release of first nine months of 2016 on 28 October 2016; [1] Study conducted in adult growth hormone disorder
CRL: Complete Response Letter

changing diabetes®

novo nordisk®

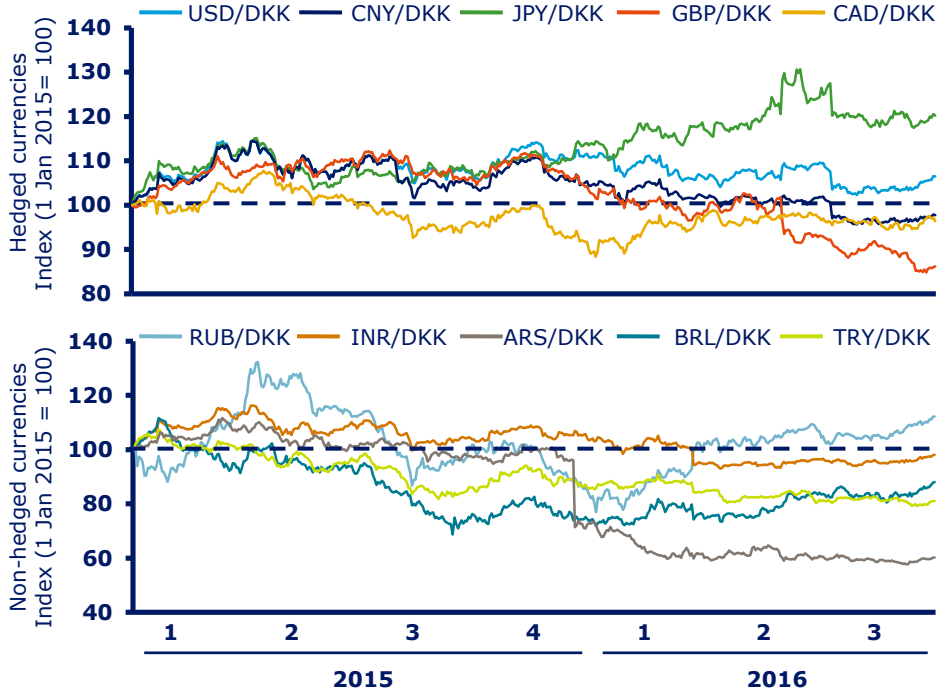
Financial results – first nine months of 2016

DKK million	9M 2016	9M 2015	Change
Sales	82,208	79,051	4%
Gross profit	69,943	67,471	4%
Gross margin	*85.1%*	*85.4%*	
Sales and distribution costs	(20,468)	(20,273)	1%
Percentage of sales	*24.9%*	*25.6%*	
Research and development costs	(10,093)	(9,574)	5%
Percentage of sales	*12.3%*	*12.1%*	
Administration costs	(2,796)	(2,693)	4%
Percentage of sales	*3.4%*	*3.4%*	
Other operating income, net	640	3,388	N/A
Non-recurring income[1]	-	*2,825*	
Operating profit	37,226	38,319	(3%)
Operating profit adjusted for non-recurring income[1]	*37,226*	*35,494*	*7%*
Financial items (net)	(370)	(5,150)	(93%)
Profit before income tax	36,856	33,169	11%
Tax	(7,630)	(6,567)	16%
Effective tax rate	*20.7%*	*19.8%*	
Net profit	29,226	26,602	10%
Diluted earnings per share (DKK)	11.50	10.28	12%
Diluted earnings per share (DKK) adjusted for partial divestment of NNIT	*11.50*	*9.40*	*22%*

changing diabetes®

[1] Non-recurring income comprises the partial divestment of NNIT (DKK 2,376 million) and out-licensing of assets for inflammatory disorders (DKK 449 million), both in 2015

Negative currency impact in 2016 driven by unfavourable development in both hedged and unhedged currencies



Hedged Currencies	2015 average	2016 average[2]	Spot rate[2]	Impact of a 5% move[3]	Hedging (months)
USD[1]	673	668	683	2,000	12
CNY[1]	107.0	101.3	100.9	300	11[4]
JPY[1]	5.56	6.20	6.57	190	12
GBP[1]	1,028	921	836	70	12
CAD[1]	526	506	512	75	11

Non-hedged Currencies	2015 average	2016 average[2]	Spot rate[2]
RUB[1]	11.06	9.89	10.97
INR[1]	10.49	9.95	10.22
ARS[1]	0.73	0.46	0.45
BRL[1]	205	191	217
TRY[1]	248	227	222

[1] DKK per 100; [2] As of 24 October 2016; [3] Operating profit in DKK million per annum; [4] Chinese Yuan traded offshore (CNH)
Note: Operating profit impact of one of the non-hedged currencies appreciating 5% is in the range of DKK -15 to +30 million

changing diabetes®

novo nordisk®

Financial outlook for 2016

	Expectations 28 Oct 2016	Previous expectations 5 Aug 2016
Sales growth - local currencies	**5-6%**	5-7%
Sales growth - reported	Around 2 percentage points lower	Around 2 percentage point lower
Operating profit growth - local currencies	**5-7%**	5-8%
Operating profit growth - reported	**Around 2 percentage points lower**	Around 3 percentage point lower
Financial items (net)	Loss of around DKK 600 million	Loss of around DKK 600 million
Effective tax rate	20-22%	20-22%
Capital expenditure	Around DKK 7.0 billion	Around DKK 7.0 billion
Depreciation, amortisation and impairment losses	Around DKK 3.0 billion	Around DKK 3.0 billion
Free cash flow	Around DKK 38-41 billion	Around DKK 38-41 billion

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 24 October 2016

Updated long-term financial targets

Updated operating profit growth target of 5%

	Previous Target[1]	Updated Target
Operating profit growth	10%	5%
Operating profit after tax to net operating assets	125%	125%
Cash to earnings (three year average)	90%	90%

Challenging environment in the US leads to the update of operating profit target

- Updated operating profit growth target of 5% on average primarily reflecting:
  - More challenging pricing environment in the US especially within insulin and human growth hormone products
  - Intensified competitive situation within diabetes care and haemophilia
- Targets for operating profit after tax to net operating assets as well as cash to earnings remain unchanged

Note: The targets have been revised based on an assumption of a continuation of the current business environment
[1] The long-term financial targets were last updated in connection with the 2015 annual results

changing diabetes®

novo nordisk®

Closing remarks

Solid market performance

- 27% value market share in diabetes care and solid leadership position
- ~4% annual insulin volume growth
- 46% insulin volume market share with leadership position across all regions
- >20% annual GLP-1 volume growth
- 53% GLP-1 volume market share with strong global leadership position

Promising pipeline

- The only company with a full portfolio of novel insulin and GLP-1 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 August 2016 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

Upcoming events

02 Feb 2017	Financial statement for 2016
23 Mar 2017	Annual General Meeting 2017
03 May 2017	Financial statement for the first three months of 2017
09 Aug 2017	Financial statement for the first half of 2017
01 Nov 2017	Financial statement for the first nine months of 2017

Investor Relations contacts

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

Peter Hugreffe Ankersen	+45 3075 9085	phak@novonordisk.com
Melanie Raouzeos	+45 3075 3479	mrz@novonordisk.com
Hanna Ögren	+45 3079 8519	haoe@novonordisk.com
Anders Mikkelsen	+45 3079 4461	armk@novonordisk.com
In North America:		
Kasper Veje	+1 609 235 8567	kpvj@novonordisk.com

Appendix

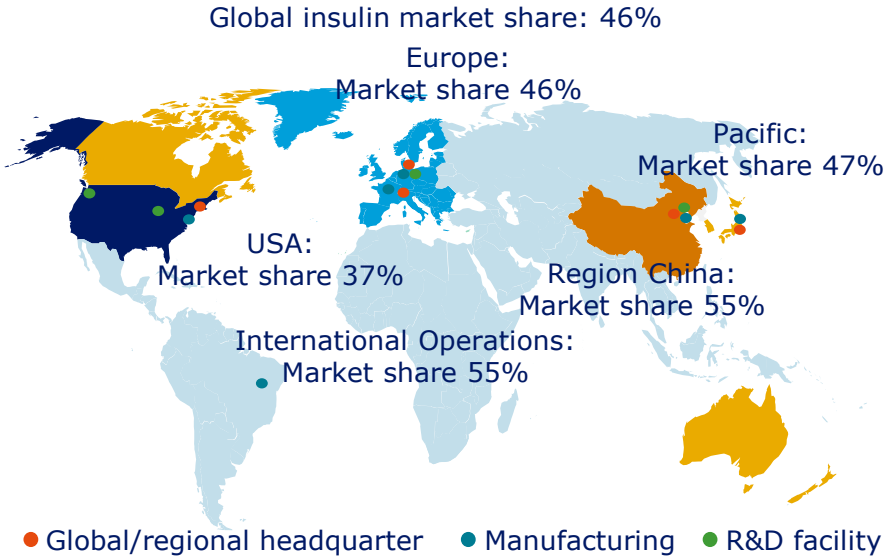
1. Novo Nordisk at a glance
2. Diabetes
3. Biopharmaceuticals
4. Financials
5. Sustainability

Novo Nordisk at a glance

Global leader in diabetes care

- A **focused** pharmaceutical company with **leading positions** in diabetes, haemophilia and growth hormone
- Significant **growth opportunities** driven by the diabetes pandemic and fuelled by global presence and strong R&D pipeline
- **High barriers to entry** in biologics
- **Operating profit growth** targeting **5% on average**
- Earnings **conversion to cash** targeting **90%**
- **Cash generated returned to shareholders**

Global insulin market leadership

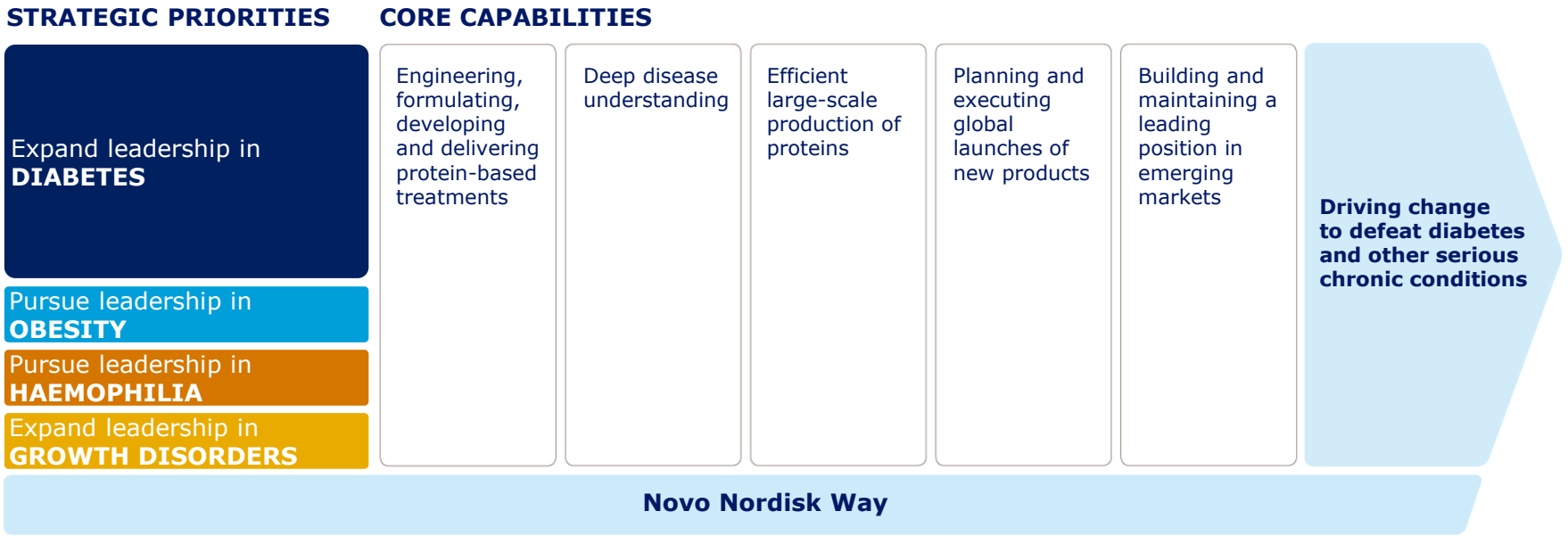


Source: IMS MAT August 2016 volume figures

changing diabetes®

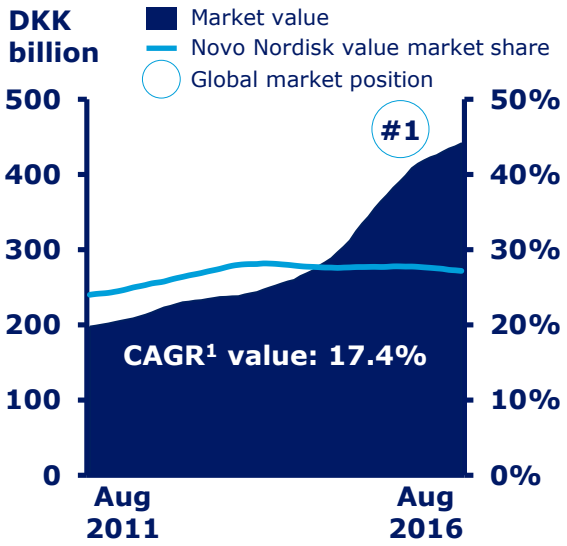
novo nordisk®

Novo Nordisk works with four strategic focus areas based on five core capabilities



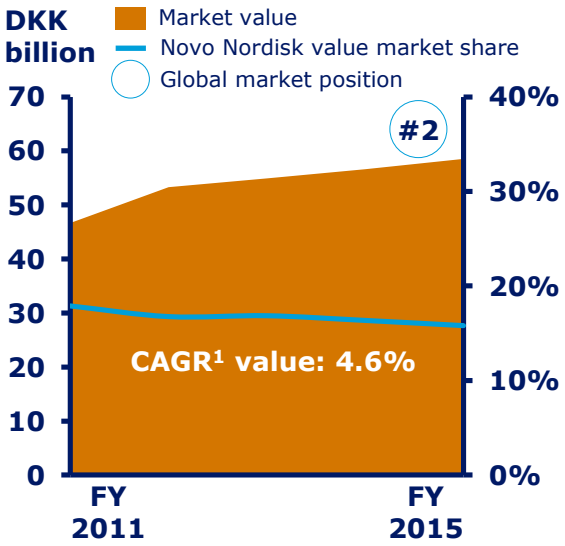
Novo Nordisk has leading positions in diabetes, haemophilia and growth disorders

Diabetes



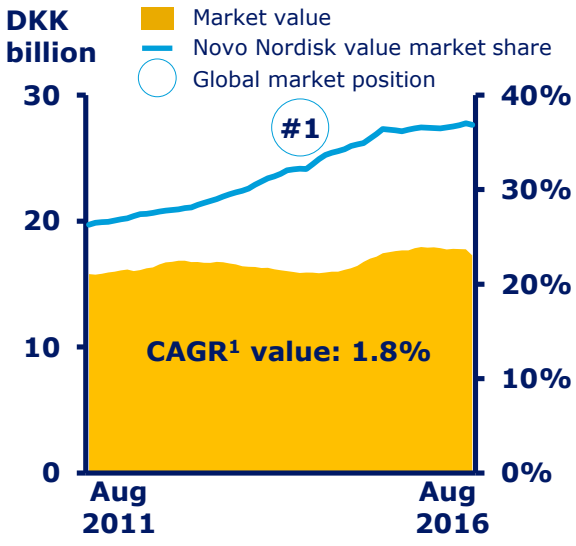
¹ CAGR for 5-year period
Source: IMS MAT August, 2016 value figures

Haemophilia



Note: Annual sales figures for Haemophilia A, B and inhibitor segment
¹ CAGR for 5-year period
Source: Company reports

Growth disorders



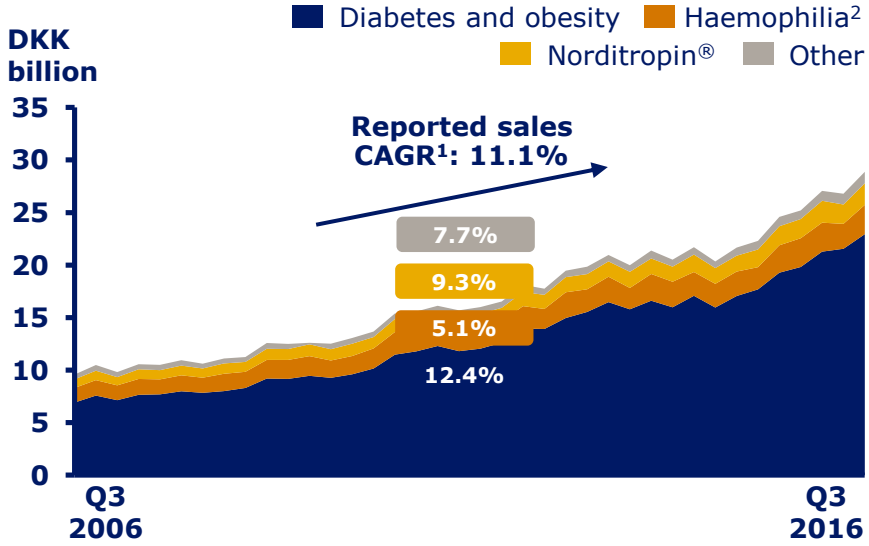
¹ CAGR for 5-year period
Source: IMS MAT August, 2016 value figures

changing diabetes®

novo nordisk®

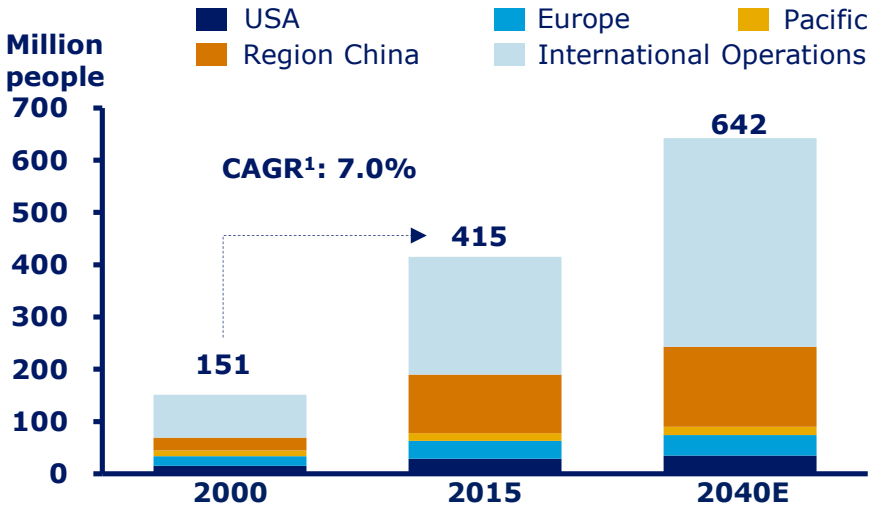
Top line growth driven by the diabetes pandemic

Novo Nordisk reported quarterly sales by therapy



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

International Diabetes Federation projects that 642 million people will have diabetes by 2040



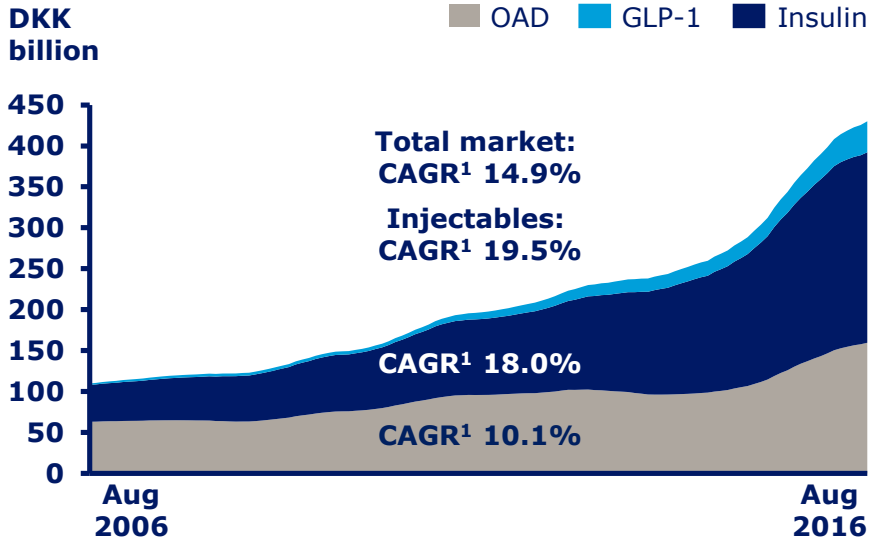
Note: 20-79 age group
[1] CAGR for 15-year period
Source: International Diabetes Federation: Diabetes Atlas 1st and 7th Edition, 2000 and 2015

changing diabetes®

novo nordisk®

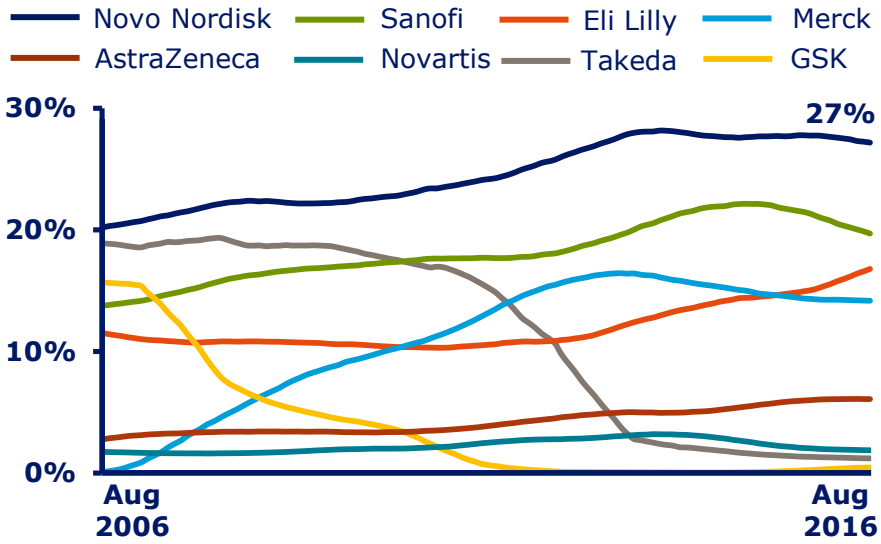
Novo Nordisk has a strong leadership position within the growing diabetes care market

Global diabetes care market by treatment class



¹ CAGR for 10-year period
OAD: Oral Anti-diabetic
Source: IMS Monthly MAT August, 2016 value figures

Global diabetes care value market share



Source: IMS Monthly MAT August, 2016 value figures

changing diabetes®

novo nordisk®

Significant growth opportunities fuelled by strong R&D pipeline across all four strategic focus areas

PHASE 1	PHASE 2	PHASE 3	SUBMITTED	APPROVED[1]
LAI287 – QW basal insulin	Semaglutide – QD GLP-1	Semaglutide – QW GLP-1	Xultophy® (US)	Levemir®
NN1406 – Mealtime insulin	Anti-IL-21 and liraglutide	OG217SC – Oral GLP-1	Faster-acting insulin aspart	NovoRapid®
G530S – Glucagon analogue	Semaglutide – QD GLP-1	N8-GP – Long-acting rFVIII	N9-GP - Long-acting rFIX	NovoMix®
NN9838 – Amylin analogue		Somapacitan – QW GH		Tresiba®
NN9747 – PYY analogue				Ryzodeg®
NN9277 – GG-co-agonist				Xultophy® (EU)
NN7415 – Concizumab				Victoza®
				Saxenda®
				NovoSeven®
				NovoEight®
				NovoThirteen®
				Norditropin®

Diabetes
Obesity
Haemophilia
Growth disorders

[1] Approved in all triad markets (US, EU and Japan), unless noted
GG: Glucagon GLP-1

changing diabetes®

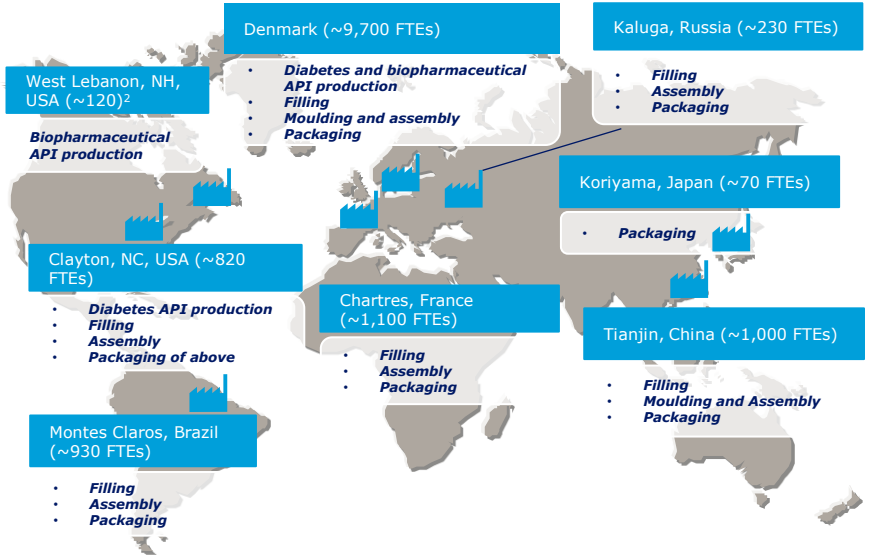
novo nordisk®

Growth opportunities supported by strong global presence in both sales and manufacturing

FTEs in sales regions[1]

USA:	**~5,100**
Europe:	**~2,800**
International Operations:	**~5,400**
Pacific:	**~1,500**
Region China:	**~2,900**
Total non-HQ/manufacturing FTEs:	**17,700[1]**

Global manufacturing setup



[1] FTEs represent full-time equivalents in Novo Nordisk's sales regions (excludes all other employees in headquarter, research sites and manufacturing sites) as of October 2016
[2] New Hampshire facility is currently under establishment

changing diabetes®

novo nordisk®

High barriers to entry in biologics

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

Patent protection[1]

	EU/US
Xultophy (insulin degludec/liraglutide [rDNA origin] injection)	2029[2]
TRESIBA (insulin degludec [rDNA origin] injection)	2028/29
RYZODEG (70% insulin degludec and 30% insulin aspart [rDNA origin] injection)	2028/29
Levemir (insulin detemir)	2018/19
NovoMix (biphasic insulin aspart)	exp 2015/17[3]
NovoRapid (insulin aspart)	2017[3]/17[3]
VICTOZA	2023[4]/23[5]
norditropin	2017/17[3]
NovoSeven (recombinant Factor VIIa)	exp/exp

Unique value chain position

- Research & Development
- Manufacturing
- Commercialisation

- History of protein engineering
- Highly efficient, flexible and capital intensive manufacturing
- Global commercial footprint

[1] List does not include all marketed Novo Nordisk products. [2] Protected by patents on the individual compounds insulin degludec and liraglutide as listed. [3] Formulation patent expiration year
[4] Assuming paediatric extension [5] 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 the 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

changing diabetes®

novo nordisk®

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

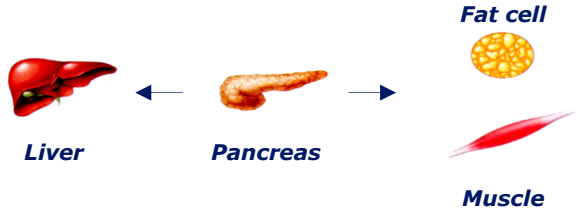
Primary classifications:

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

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

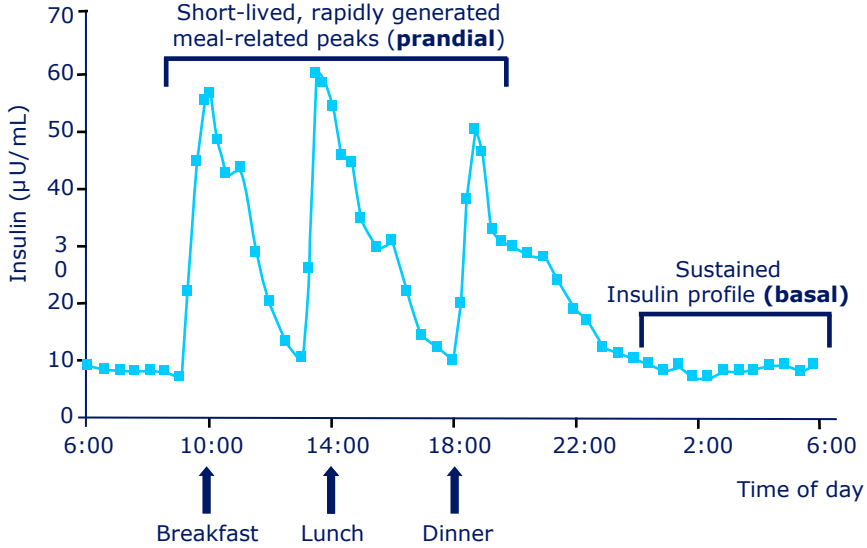
Insulin:

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



changing diabetes®

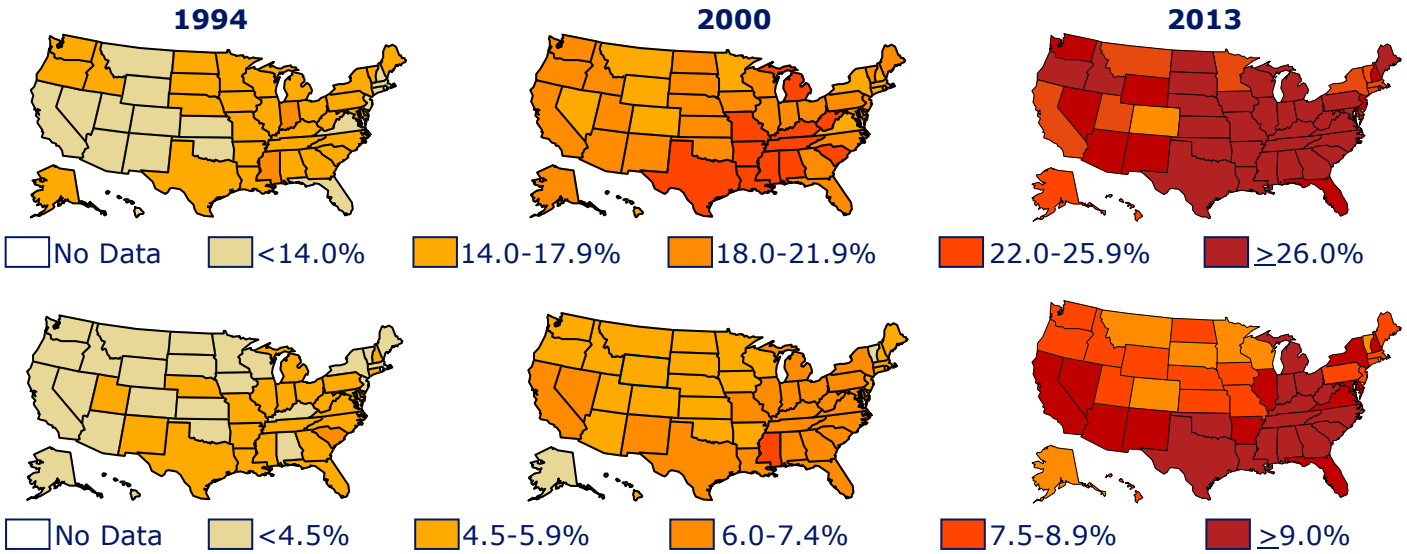
The aim of insulin therapy is to recreate normal blood insulin profile



novo nordisk®

Diabetes pandemic is fuelled by growing rates of obesity

US CDC data on obesity and diabetes prevalence among adults



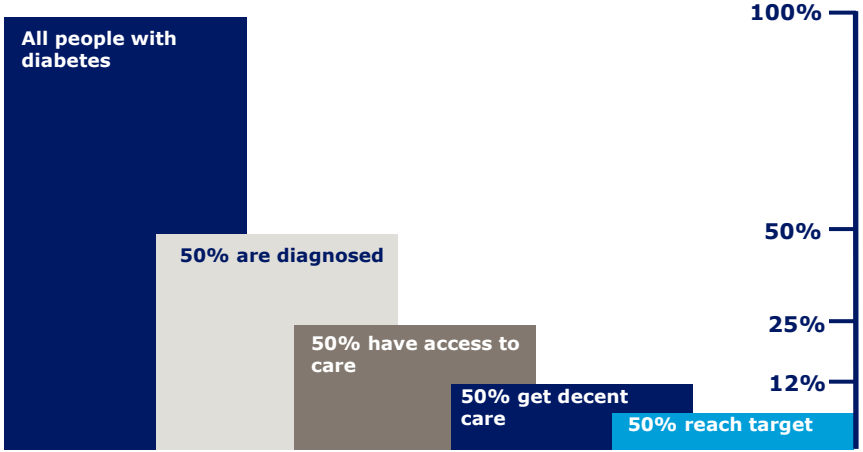
CDC: Centers for Disease Control and Prevention
Source: CDC's Division of Diabetes Translation. National Diabetes Surveillance System available at http://www.cdc.gov/diabetes

changing diabetes®

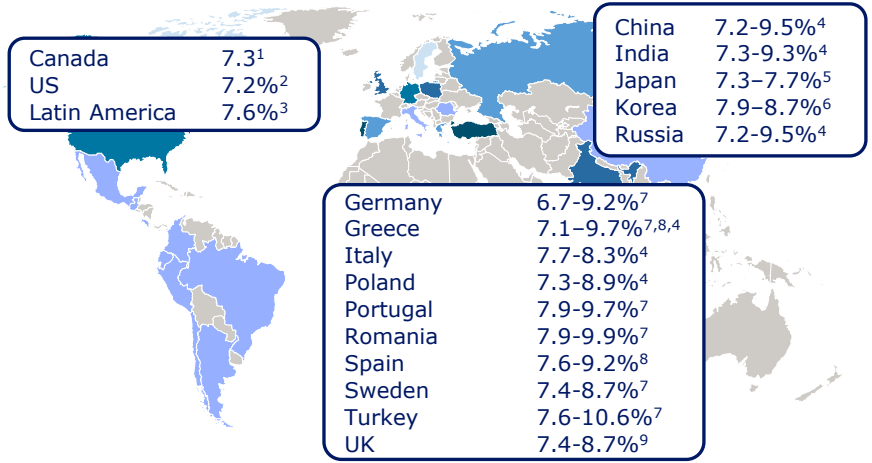
novo nordisk®

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 HbA_{1C} in type 2 diabetes



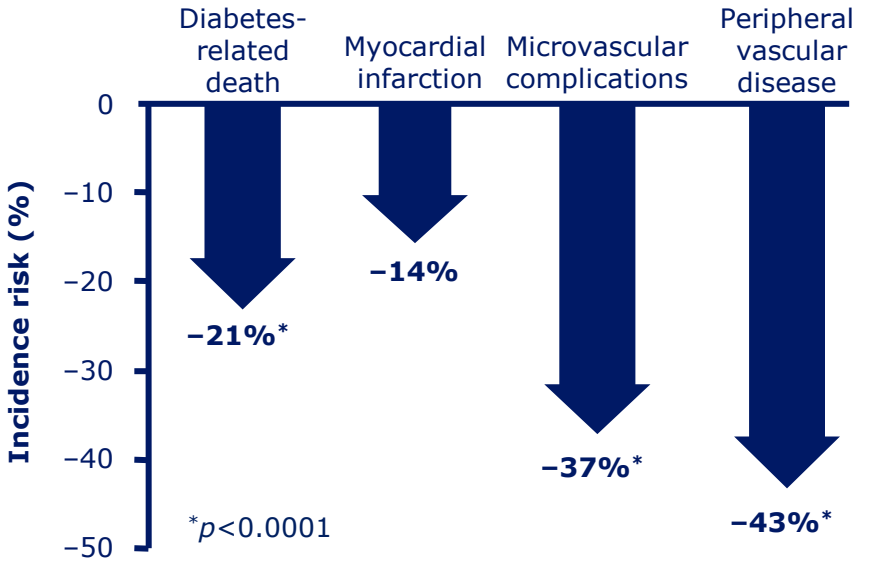
[1] Harris et al. Diabetes Res Clin Pract 2005;70:90–7; [2] Hoerger et.al. Diabetes Care 2008;31:81–6; [3] Lopez Stewart et al. Rev Panam Salud Publica 2007;22:12–20; [4] Valensi et al. Int J Clin Pract 2009;63(3):522-31; [5] Arai et al. J Diabetes Investig. 2012 Aug 20;3(4):396-401; [6] Ko et al. Diab Med 2007;24:55–62; [7] Oguz et al. Curr Med Res Opin 2013;29:911–20; [8] Liebl et al. Diab Ther 2012;3:e1–10; [9] Blak et al. Diab Med 2012;29:e13-20

changing diabetes®

novo nordisk®

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

Risk reduction by lowering HbA_{1c} by 1%-point



Source: UKPDS, Stratton et al. BMJ 2000; vol. 321:405–12

UKPDS 10 year follow-up: Legacy effect of tight glycaemic control

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

SU/Insulin treated patients	1997	2007
Microvascular disease	25	24
Diabetes-related death	10	17
Myocardial infarction	16	15
All-cause mortality	6	13

Statistically significant improvement

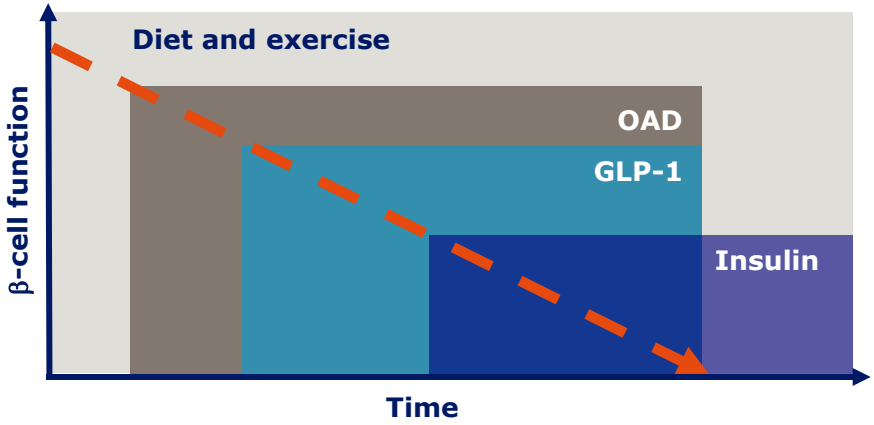
Source: NEJM, vol. 359, Oct 2008

changing diabetes®

novo nordisk®

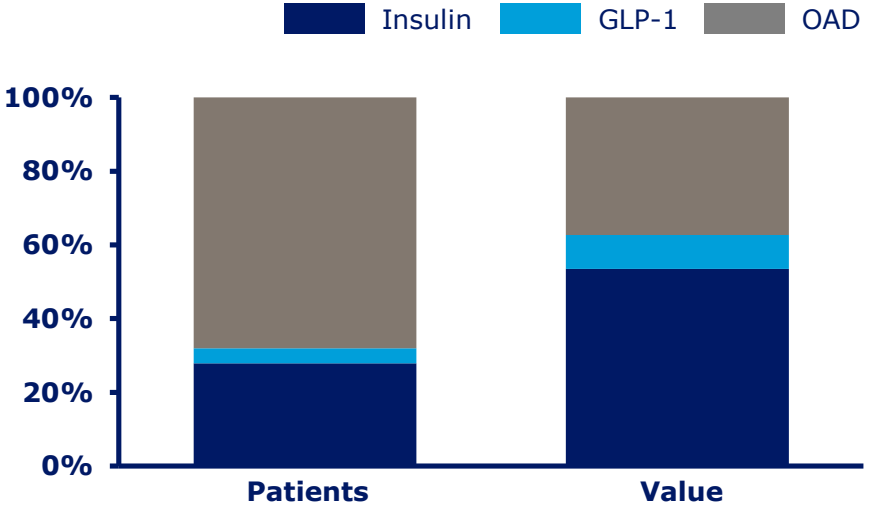
Insulin is the ultimate care for people with diabetes

Progression of type 2 diabetes and treatment intensification



OAD: Oral anti-diabetic

Distribution of patients and value across treatment classes



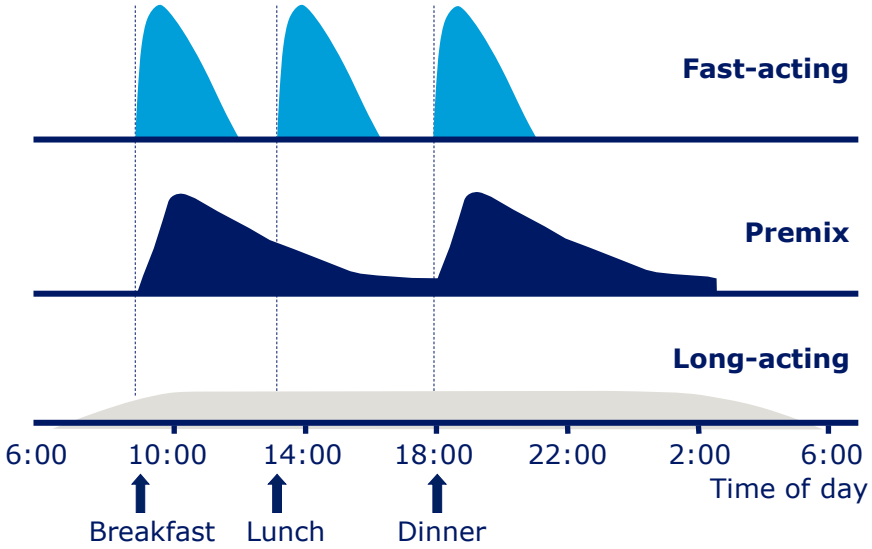
Note: Patient distribution across treatment classes is indicative and based on data for US, UK, Germany and France. Value figures based on IMS MAT August 2016
Source: IMS PharMetrix claims data, IMS disease analyser, IMS Midas

changing diabetes®

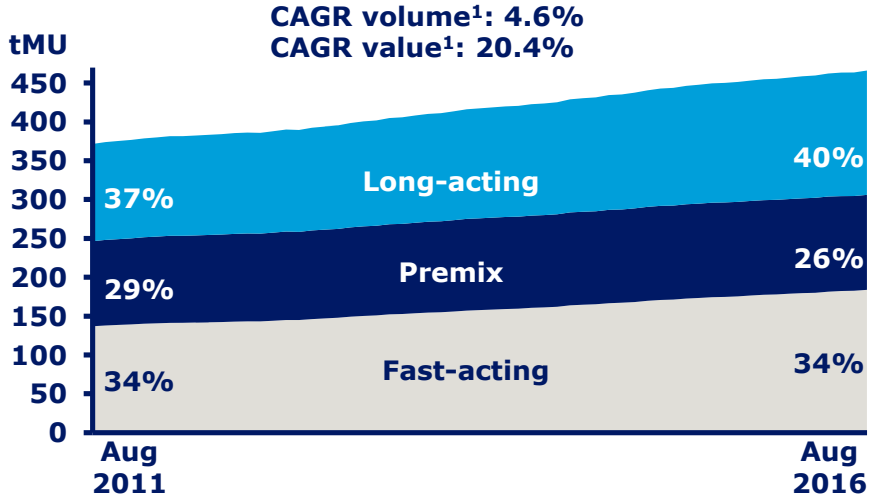
novo nordisk®

The insulin market is comprised of three segments

Insulin action profiles



Global insulin volume market by segment



[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 August (DKK) figures

changing diabetes®

novo nordisk®

Medications used for the treatment of type 2 diabetes

Commonly prescribed products for the treatment of type 2 diabetes

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

Note: TG and HDL: Beneficial effect on triglycerides and HDL cholesterol; CHF: Congestive heart failure; GI: Gastro intestinal; MTC: Medullary thyroid cancer; TZD: thiazolidinediones; OAD: Oral anti-diabetic; TBD: to be defined.
Sources: Adapted from: Nathan DM, et al. Diabetes Care. 2006; 29:1963-1972; Nathan DM, et al. Diabetes Care. 2007;30:753-759; Nathan DM, et al. Diabetes Care. 2008;31:173-175. ADA. Diabetes Care. 2008;31:S12-S54. WelChol PI. 1/2008.

Solid position in the diabetes care market across all regions with leading insulin market share

Regions	Diabetes care value market composition	Diabetes care value market share	Insulin market volume composition	Insulin volume market share
USA	29% / 11% / 60%	71% / 29%	51% / 38% / 11%	63% / 37%
Europe	43% / 48% / 9%	72% / 28%	40% / 41% / 19%	54% / 46%
International Operations[1]	61% / 36% / 3%	79% / 21%	30% / 24% / 46%	45% / 55%
Region China[1]	47% / 52% / 1%	68% / 32%	16% / 21% / 63%	45% / 55%
Pacific	72% / 24% / 4%	79% / 21%	44% / 36% / 20%	53% / 47%

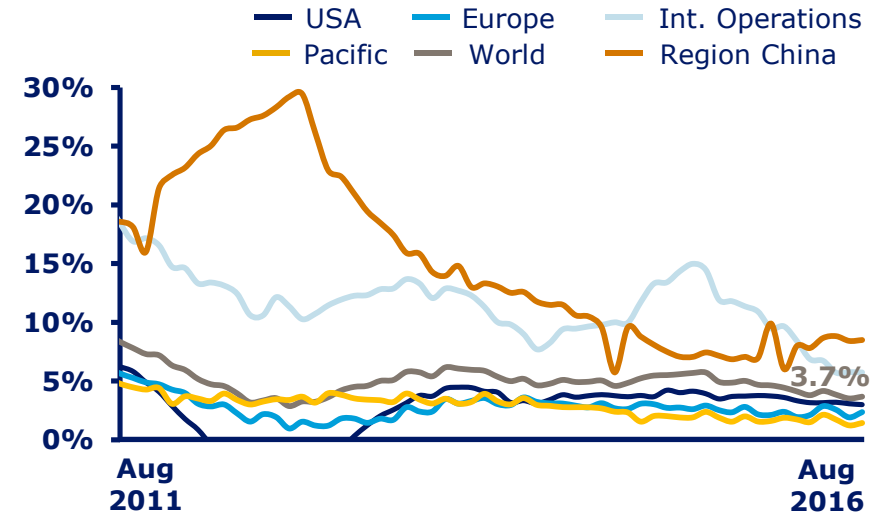
[1] IMS only covers part of the channels in International Operations and Region China
Source: IMS August 2015 & 2016 Monthly MAT volume and value (DKK) figures

changing diabetes®

novo nordisk®

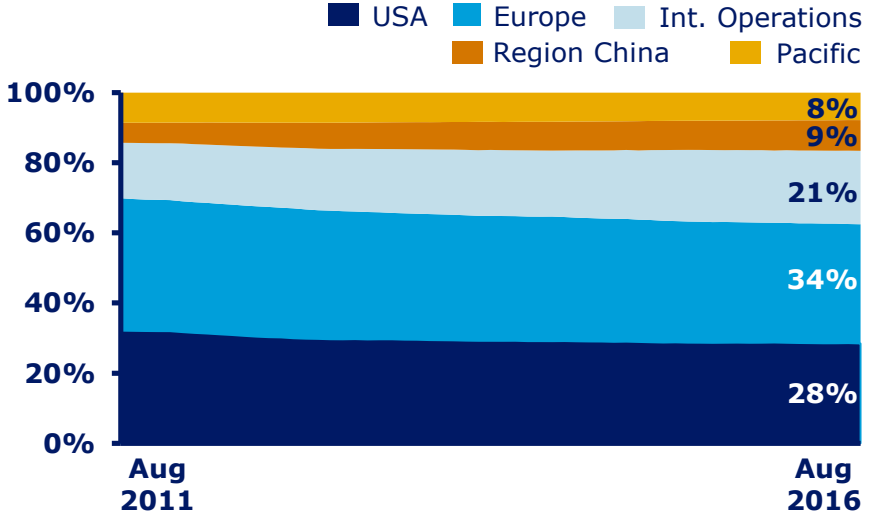
Stable global insulin volume growth

Regional insulin volume growth



Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS Monthly MAT August, 2016 volume figures

Regional insulin volume market split



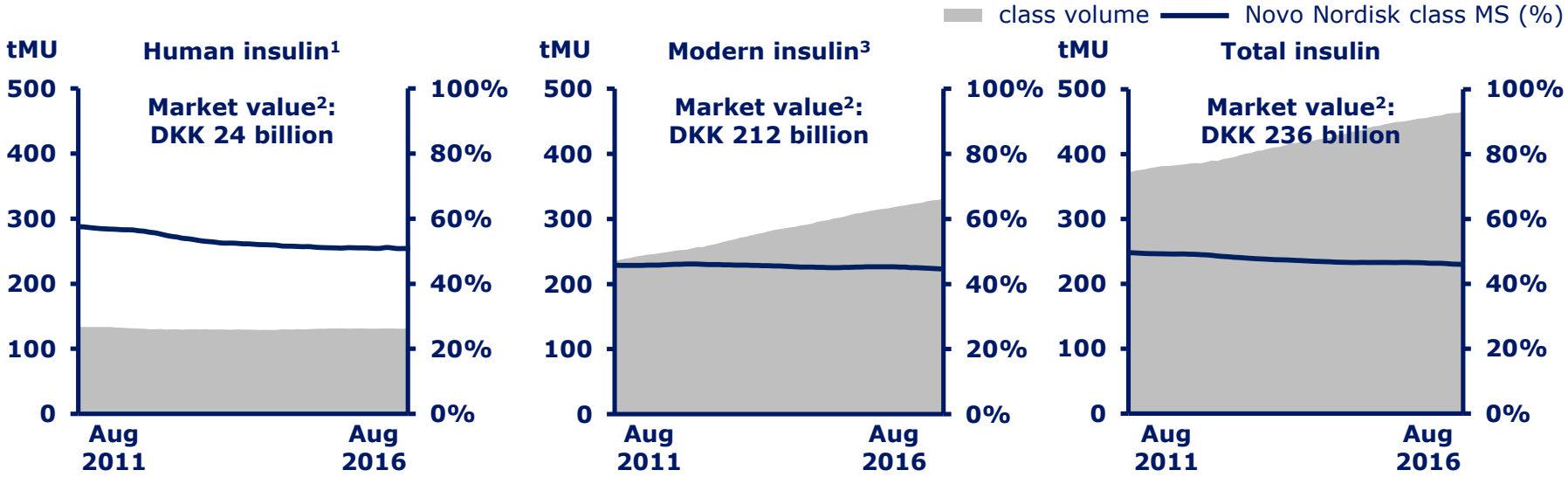
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS Monthly MAT August, 2016 volume figures

changing diabetes®

novo nordisk®

Maintaining global insulin leadership by sustaining modern insulin market share

Novo Nordisk global volume market share across insulin classes



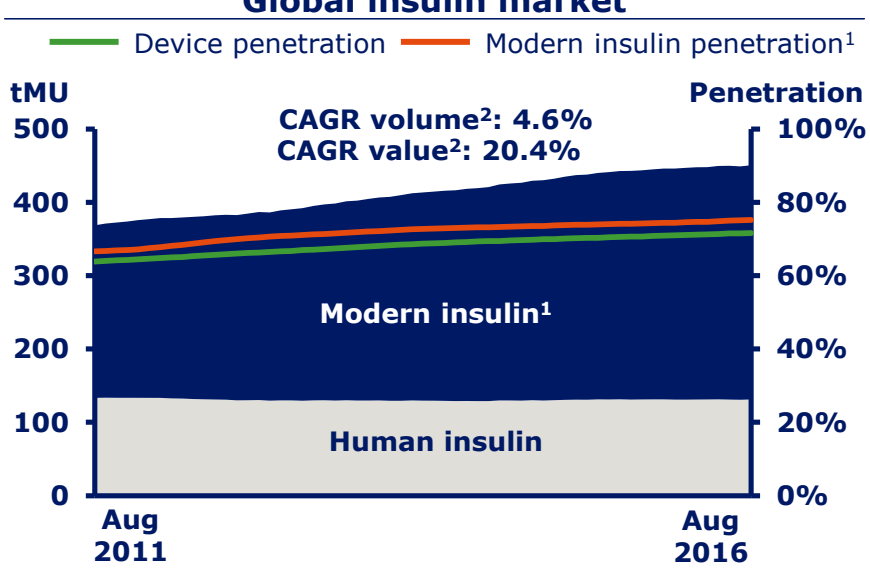
[1] Includes animal insulin. [2] Annual value of total insulin class. [3] Includes new generation insulin
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS, Monthly MAT August, 2016 value and volume figures

changing diabetes®

novo nordisk®

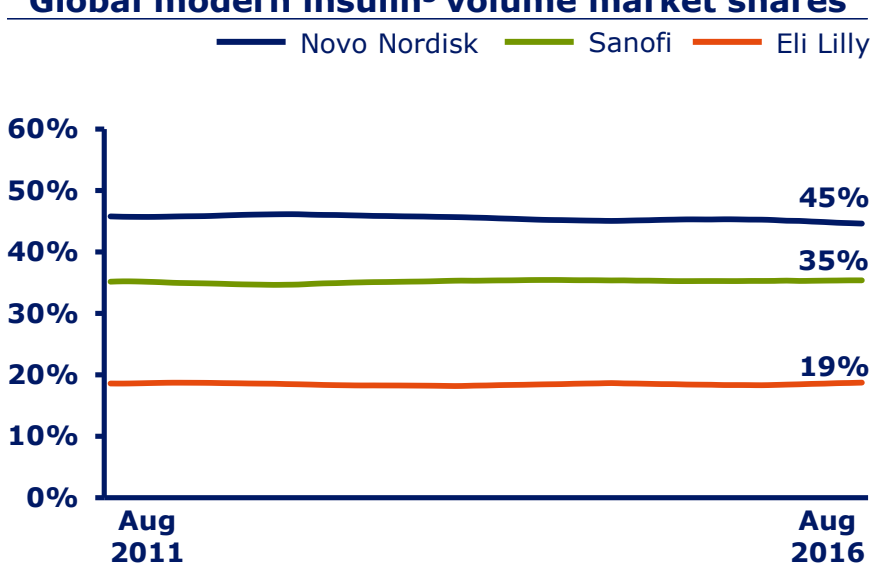
Strong underlying insulin market growth and sustained global volume market share

Global insulin market



[1] Includes new-generation insulin [2] CAGR for 5-year period
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS Monthly MAT August, 2016 volume and value (DKK) figures

Global modern insulin[3] volume market shares



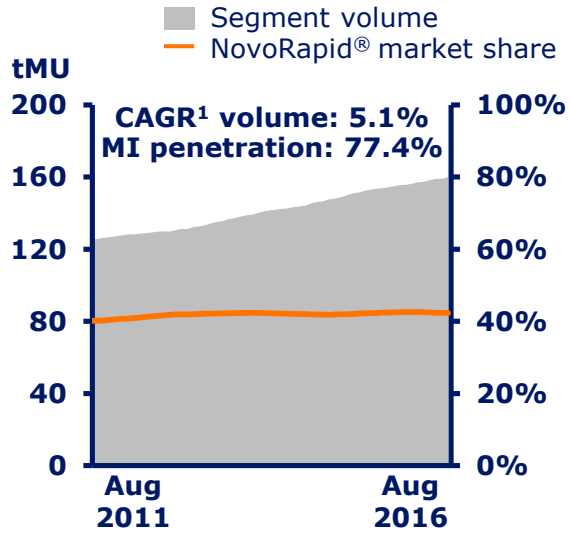
[3] Includes new-generation insulin
Note: Data is sensitive to changes in IMS data collection and reporting methodology, does not add up to 100% due to other players
Source: IMS Monthly MAT August, 2016 volume figures

changing diabetes®

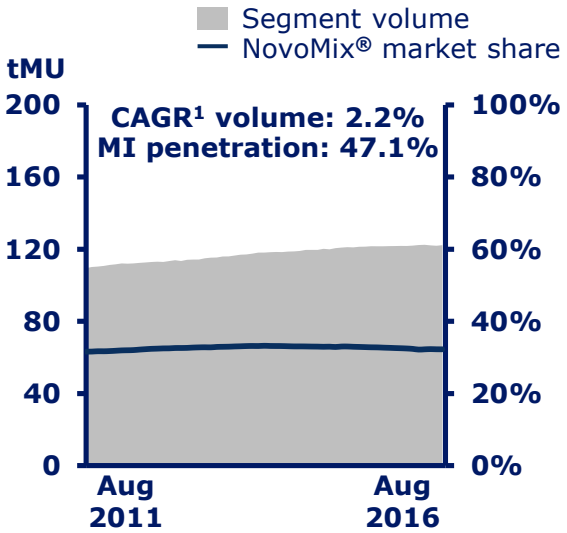
novo nordisk®

Novo Nordisk's modern insulins continue solid performance within their respective segments

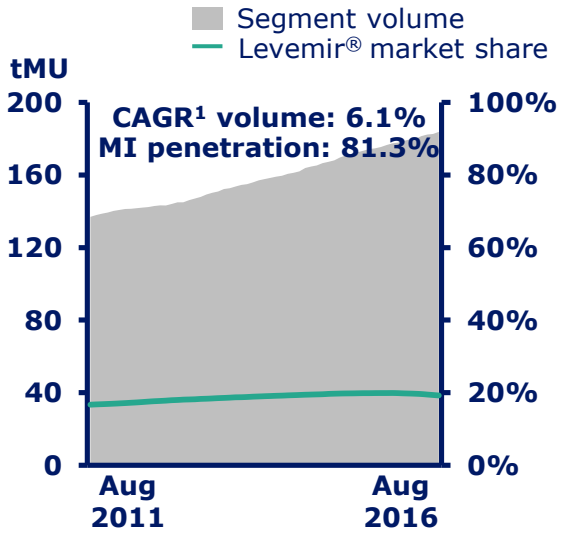
Fast-acting insulin



Premix insulin



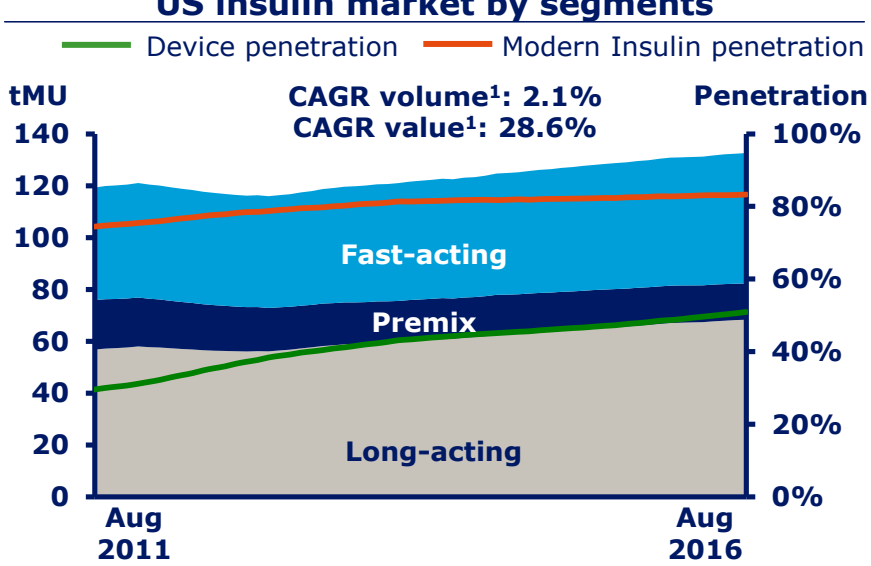
Long-acting insulin



¹ CAGR for 5-year period
Note: Modern insulin (MI) penetration is of total segment, ie including animal and human insulin; NG: new-generation; Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS Monthly MAT August, 2016 volume figures

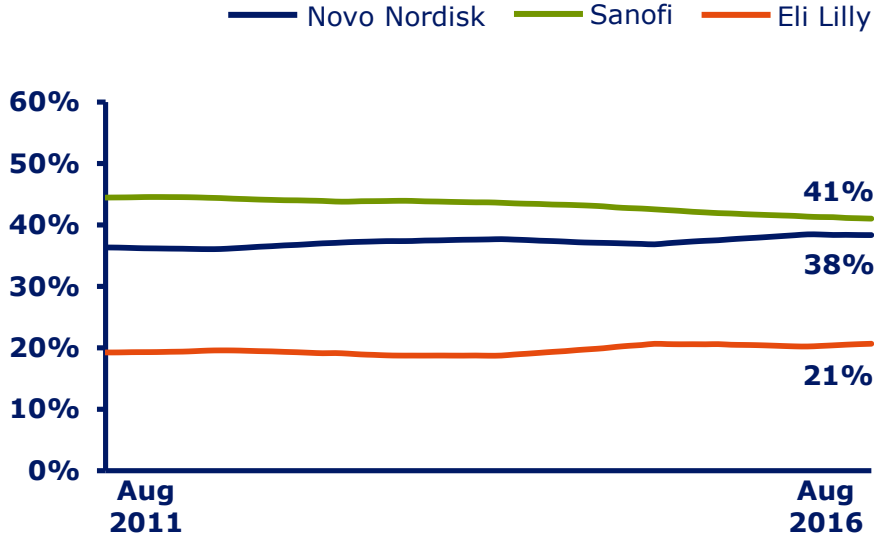
Solid US modern insulin market share

US insulin market by segments



[1] CAGR for 5-year period
Source: IMS Monthly MAT August, 2016 volume and value (DKK) figures

US modern insulin volume market shares



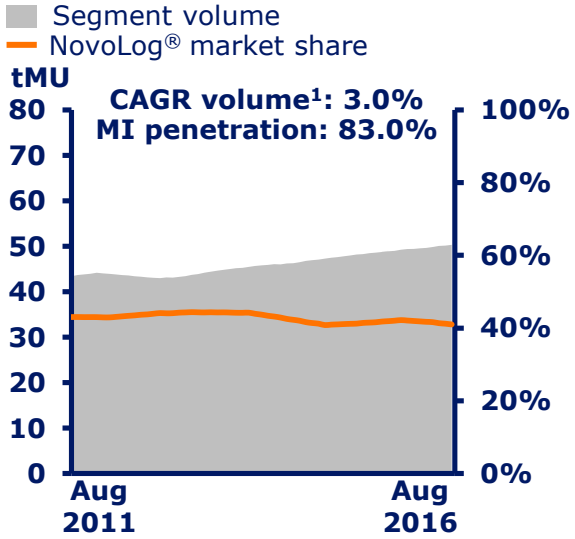
Source: IMS Monthly MAT August, 2016 volume figures

changing diabetes®

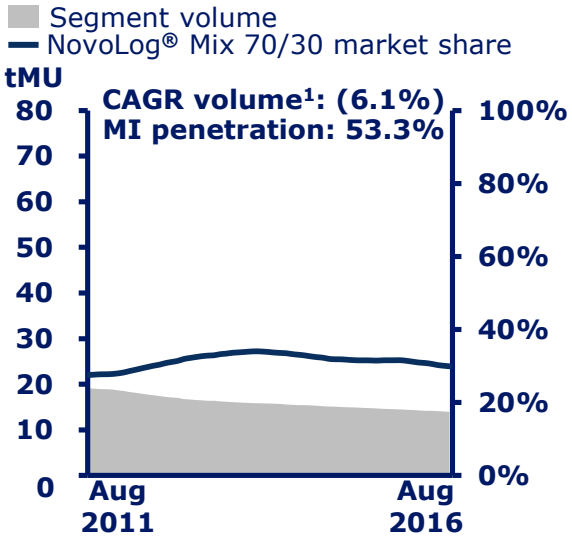
novo nordisk®

Novo Nordisk's modern insulins maintain market share in expanding US insulin market

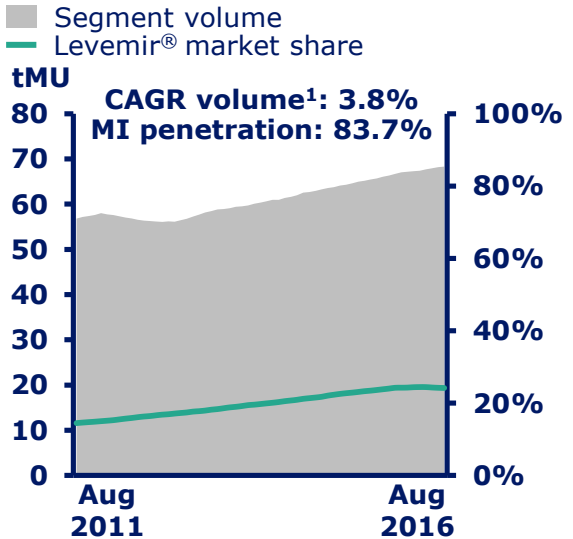
US fast-acting insulin



US premix insulin



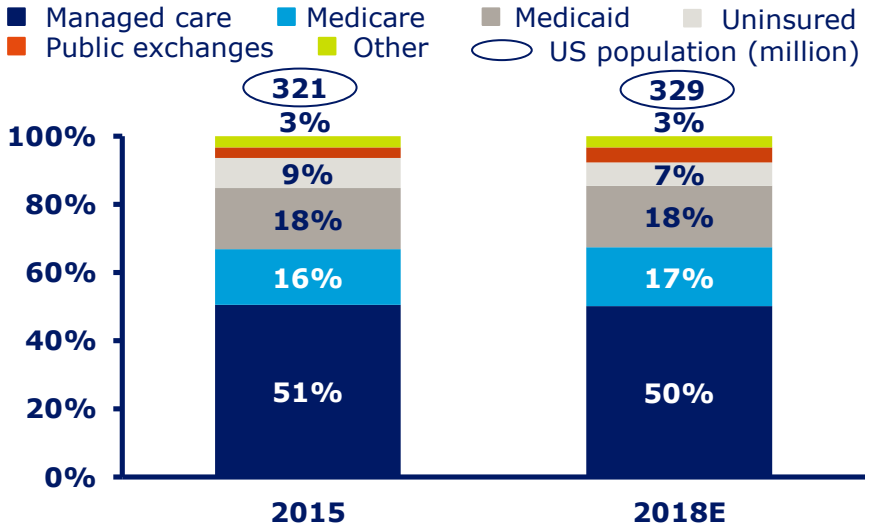
US long-acting insulin



[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, ie including human insulin
Source: IMS Monthly MAT August, 2016 volume figures

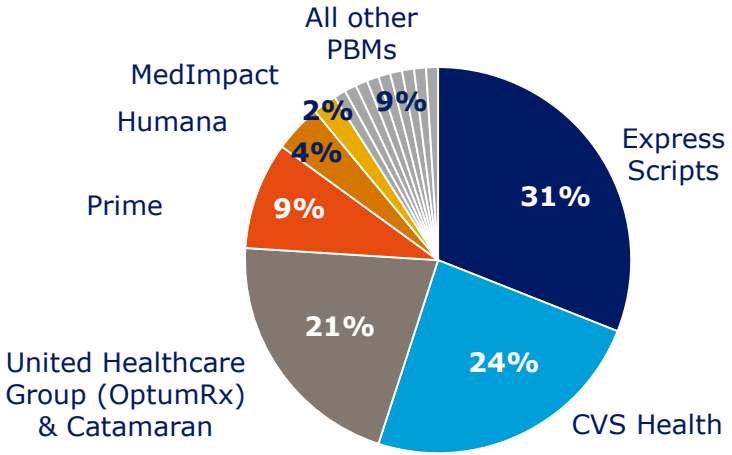
US health insurance is dominated by few large commercial payers with slow expansion of public insurance coverage

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



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 and health plans covered 245 million lives and the market has consolidated[1]



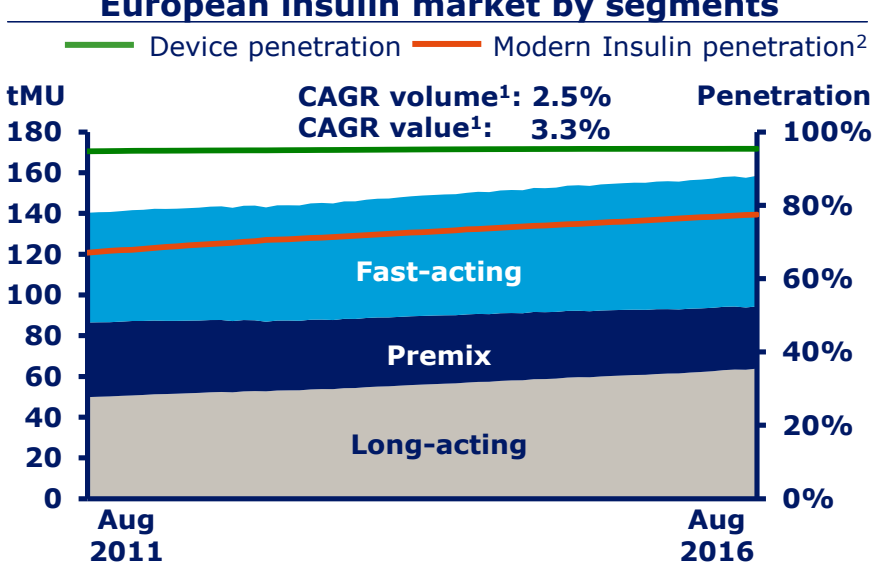
[1] 2015 chart reflects current year contractual status as of November 2015; estimates based on press releases and public information. PBM: Pharmacy Benefit Manager
Note: Covers all main channels (Managed Care, Medicare Part D and Medicaid); market share based on claim adjudication coverage, i.e. not on formulary/rebate decision power
Source: Health Strategies Group

changing diabetes®

novo nordisk®

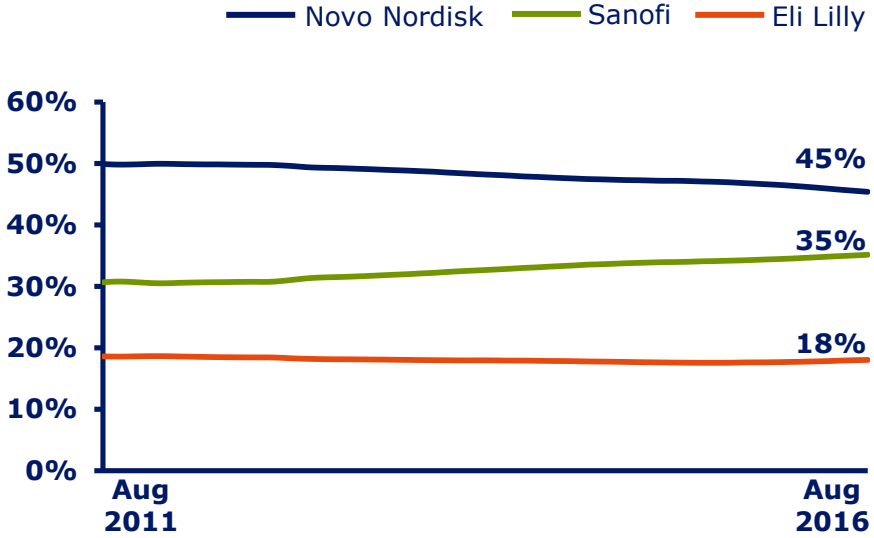
Sustained leadership position in the European modern insulin market

European insulin market by segments



[1] CAGR for 5-year period
[2] Includes new-generation insulin
Source: IMS Monthly MAT August, 2016 volume and value (DKK) figures

European modern insulin[3] volume market shares



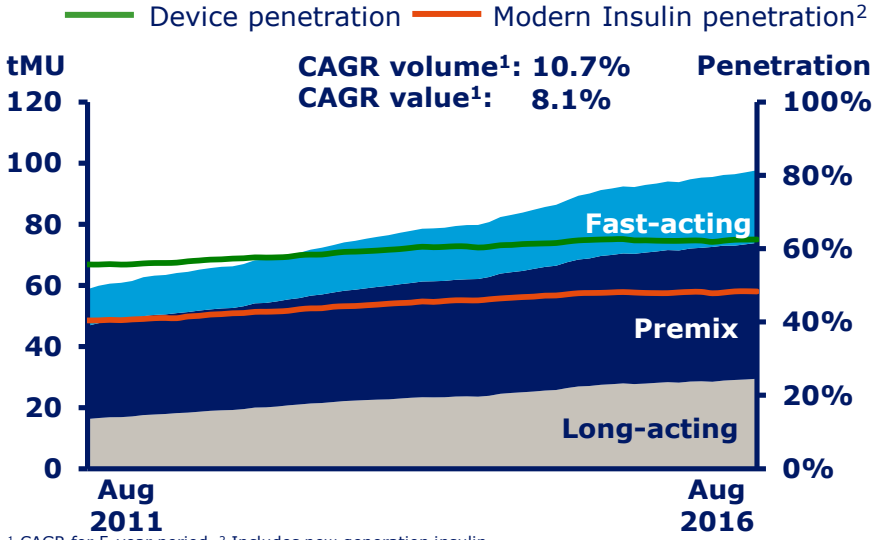
[3] Includes new-generation insulin
Source: IMS Monthly MAT August, 2016 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers

changing diabetes®

novo nordisk®

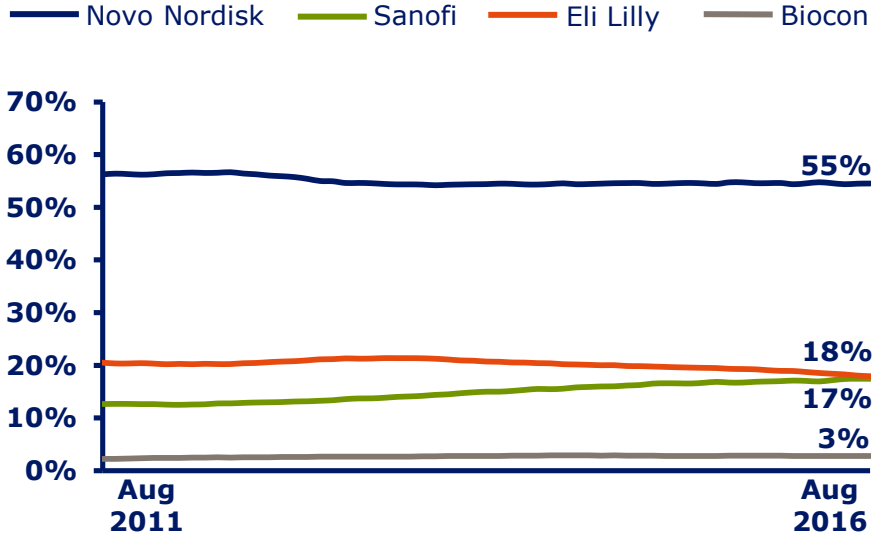
Stable leadership position in International Operations

International Operations insulin market by segments



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, Brazil, Colombia, Egypt, India, Mexico, NZ, Russia, Saudi Arabia, South Africa & Turkey
Source: IMS Monthly MAT August, 2016 volume and value (DKK) figures

International Operations insulin volume market shares



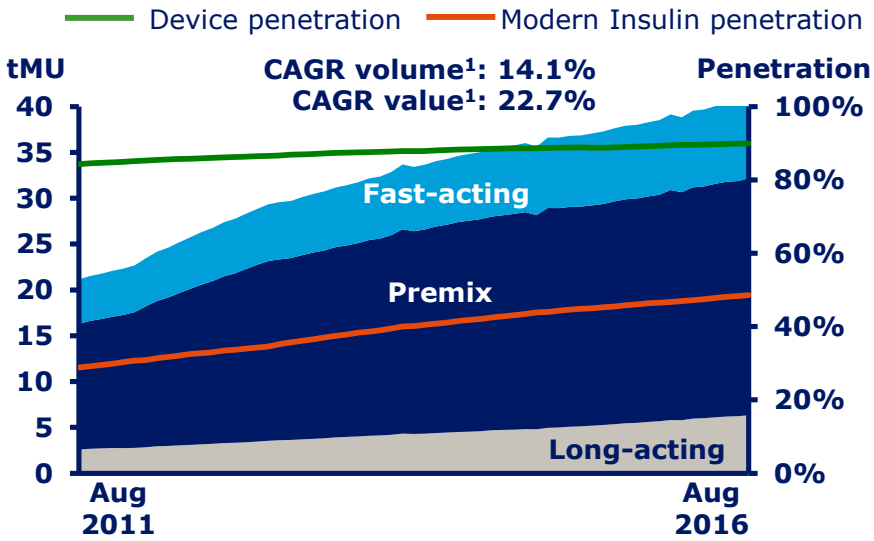
Note: Only top-4 shown
Source: IMS Monthly MAT August, 2016 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers

changing diabetes®

novo nordisk®

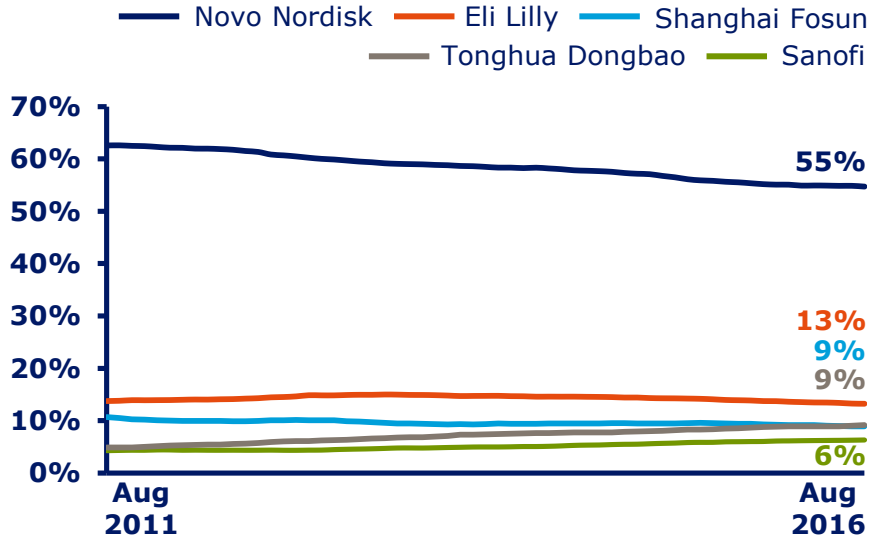
Continued solid growth in the Chinese insulin market

Chinese insulin market by segments



¹ CAGR for 5-year period
Note: IMS covers around 50% of the total Chinese market (hospital data)
Source: IMS Monthly MAT August, 2016 volume and value (DKK) figures

Chinese insulin volume market shares



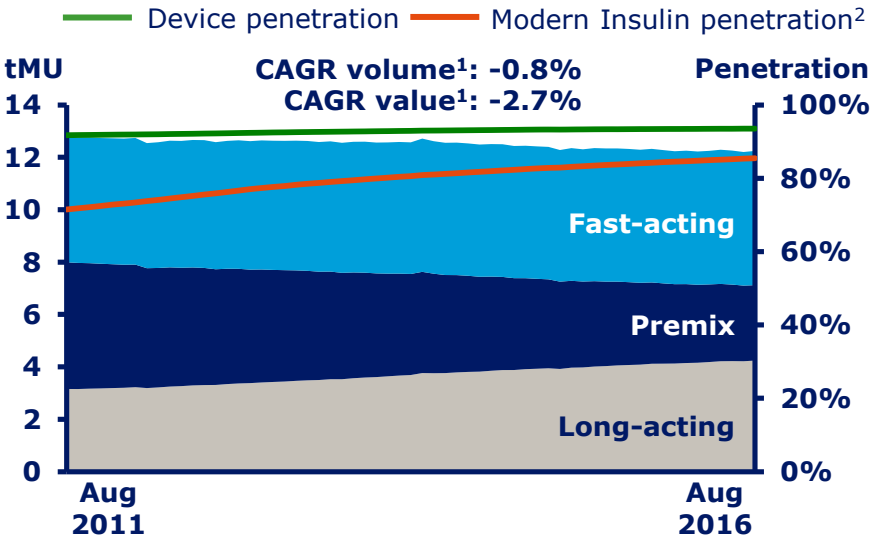
Note: Only top-5 shown
Source: IMS Monthly MAT August, 2016 volume figures, numbers do not add up to 100% due to smaller insulin manufacturers not included

changing diabetes®

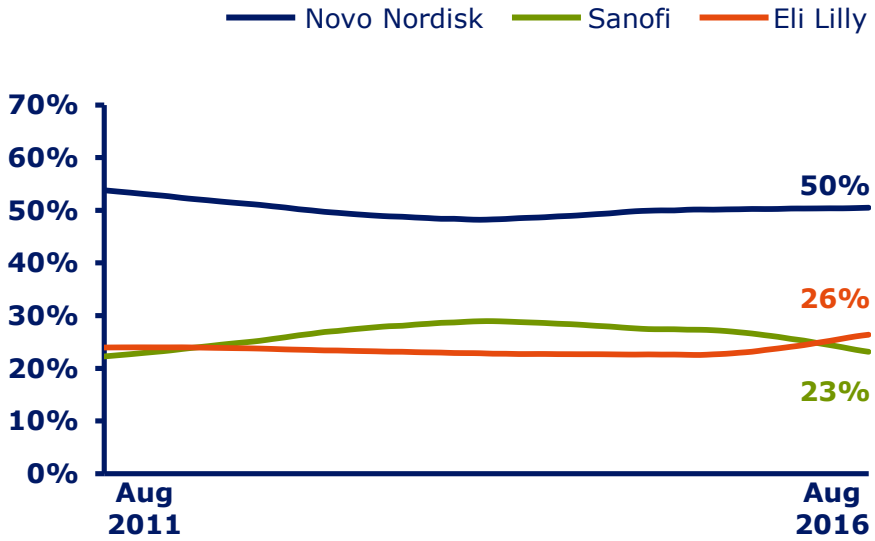
novo nordisk®

Solid market leadership position in Japan

Japanese insulin market by segments



Japanese modern insulin volume market shares



[1] CAGR for 5-year period
[2] Includes new-generation insulin
Source: IMS Monthly MAT August, 2016 volume and value (DKK) figures

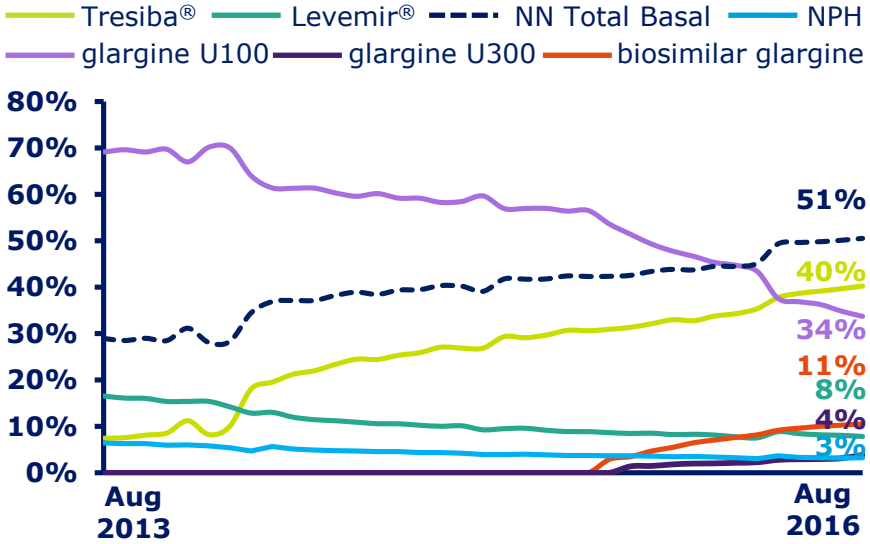
Source: IMS Monthly MAT August, 2016 volume figures

changing diabetes®

novo nordisk®

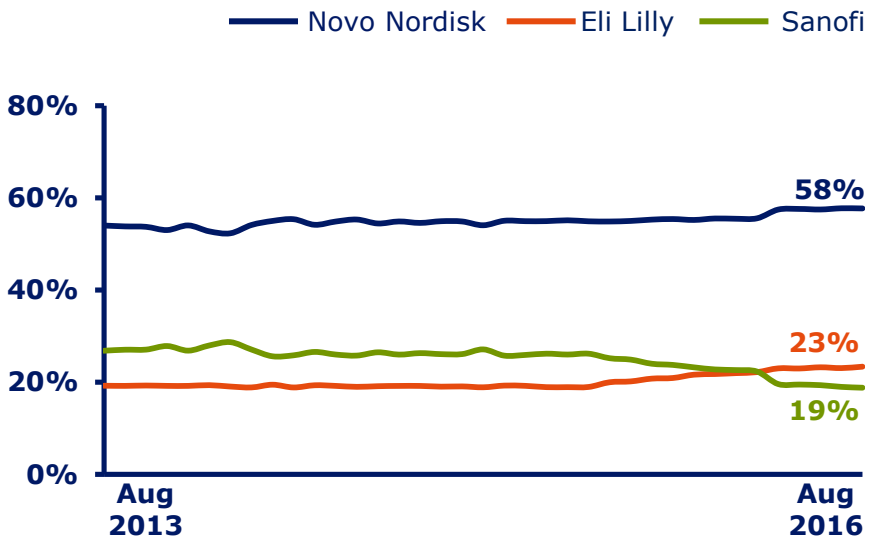
Solid Tresiba® performance strengthens total insulin market share in Japan

Japanese basal value market shares



Source: IMS Monthly August, 2016 value figures

Japanese total insulin value market shares



Source: IMS Monthly August, 2016 value figures

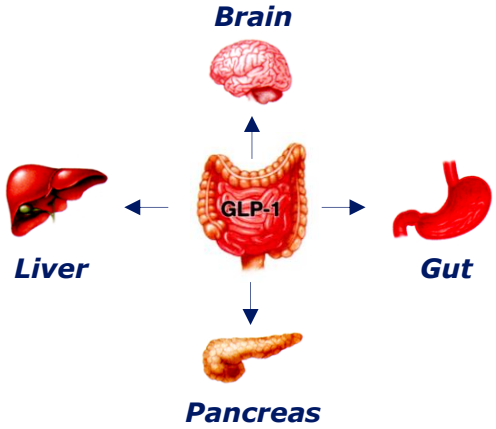
changing diabetes®

novo nordisk®

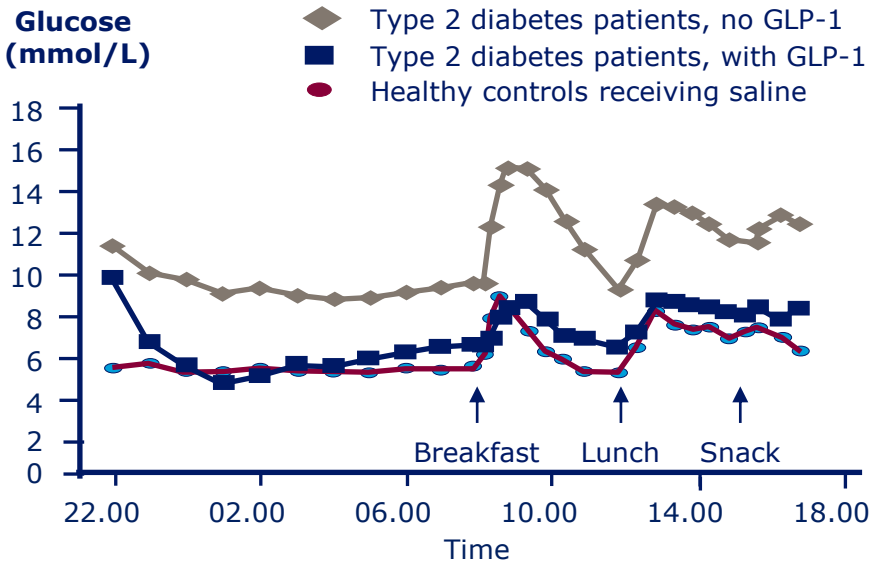
GLP-1 effect dependent on level of blood glucose – which reduces risk of hypoglycaemia

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



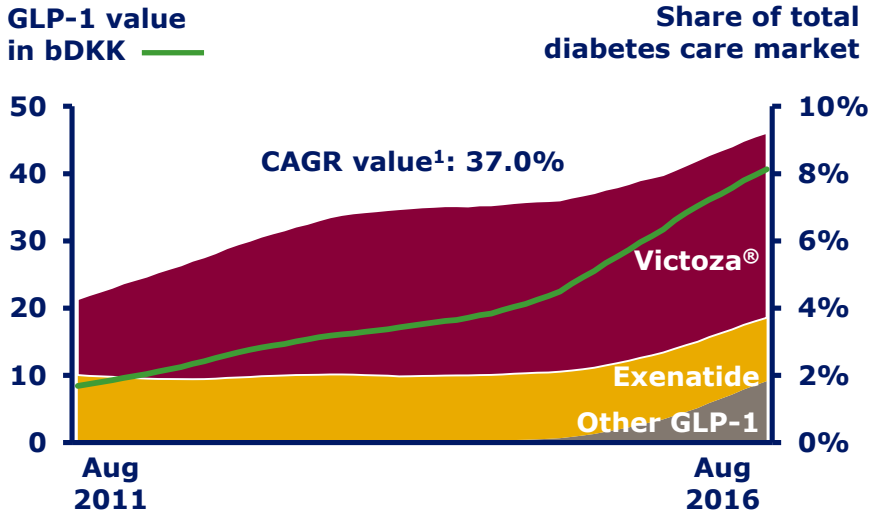
Source: Rachman et al. Diabetologia 1997;40:205–11

changing diabetes®

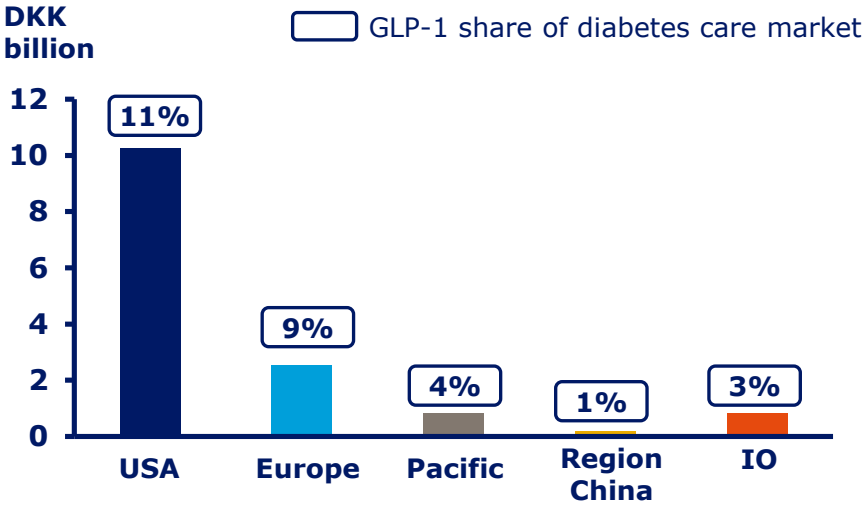
novo nordisk®

The 9% GLP-1 share of the global diabetes care market is increasing, opportunities for further penetration remain

Global GLP-1 market



Victoza® sales and GLP-1 value market share of total diabetes care market



¹ CAGR for 5-year period
Source: IMS Monthly MAT August, 2016 value figures (DKK)

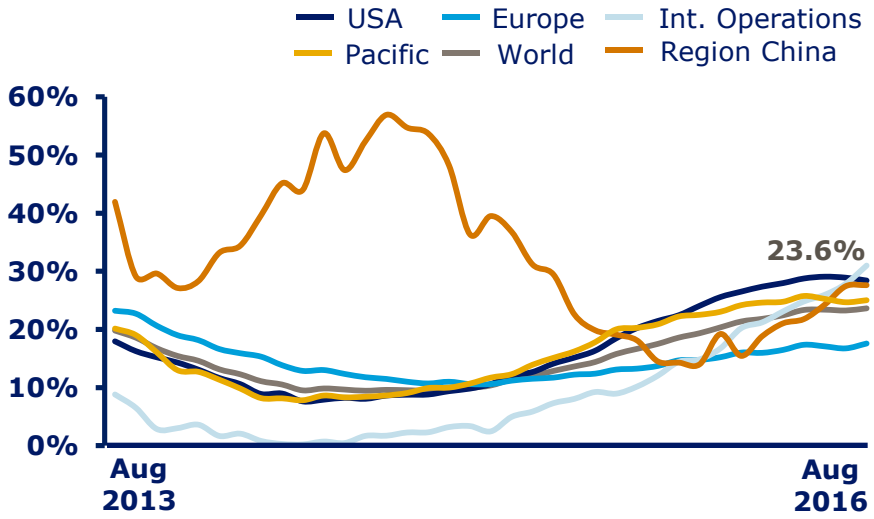
Source: Novo Nordisk reported sales for first nine months of 2016 and IMS August, 2016 data

changing diabetes®

novo nordisk®

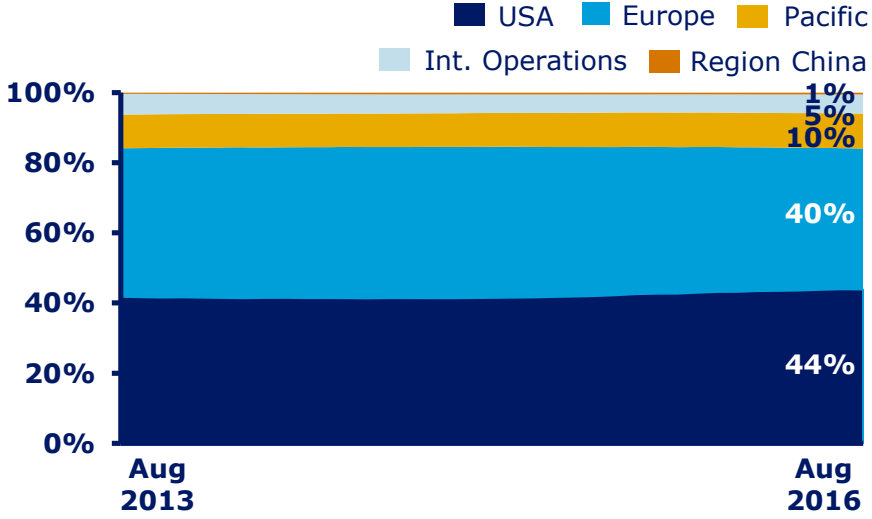
Increasing global GLP-1 volume growth across all regions

Regional GLP-1 volume growth



Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS Monthly MAT August, 2016 volume figures

Regional GLP-1 volume market split



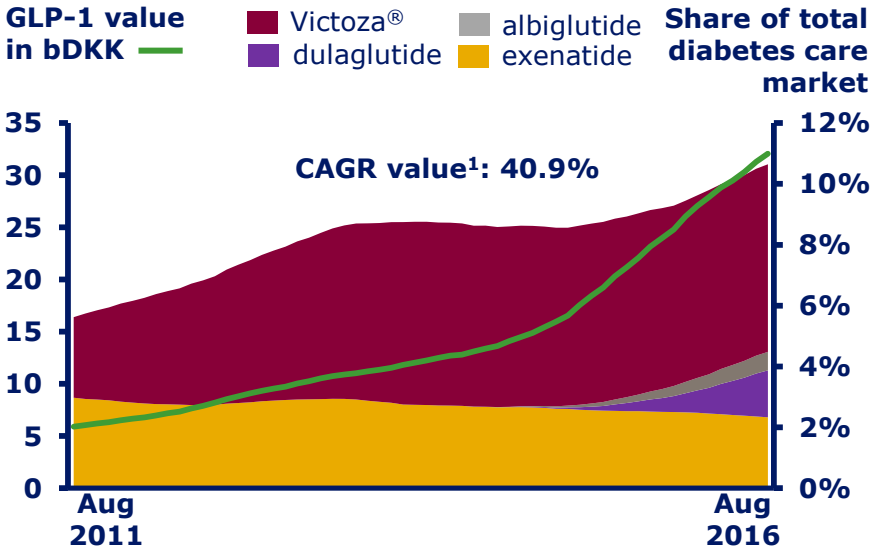
Note: Data is sensitive to changes in IMS data collection and reporting methodology
Source: IMS Monthly MAT August, 2016 volume figures

changing diabetes®

novo nordisk®

The GLP-1 segment accounts for 11% of the total diabetes care market in the US

US GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT August, 2016 value figures (DKK)

Key observations for Victoza® in the US market

- Victoza® volume market share within the GLP-1 segment is 51%[1]
- Around 85% of commercial and around 90% of Medicare Part D lives are covered without restrictions[2]
- Around 65% 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]

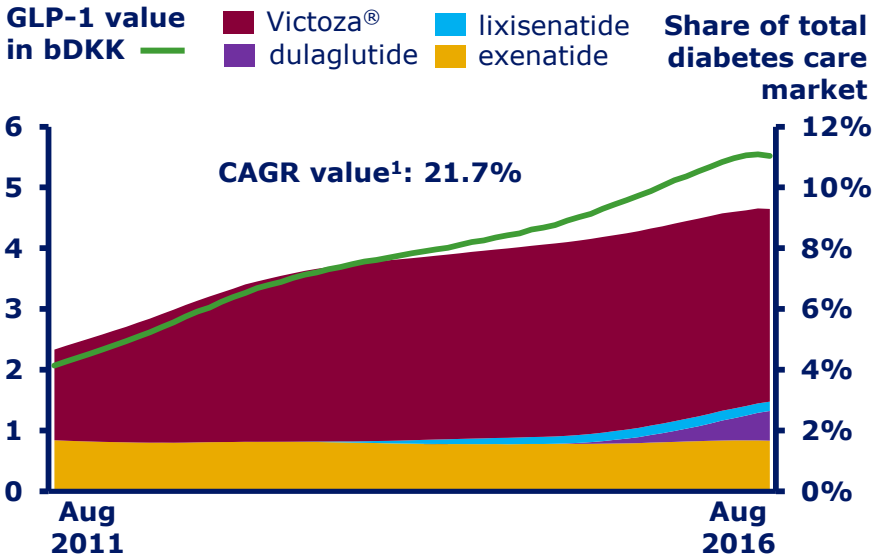
[1] IMS monthly NPA data, August 2016
[2] Fingertip Formulary, July 2016; unrestricted includes covered or better access
[3] IMS LRx Weekly, WE 09/09/2016

changing diabetes®

novo nordisk®

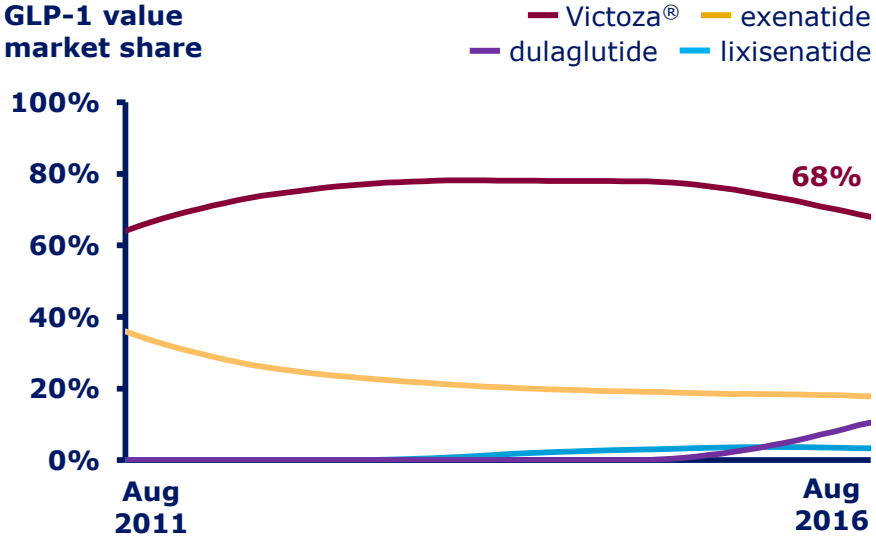
The GLP-1 segment accounts for 9% of the total diabetes care market in Europe

European GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT August, 2016 value figures (DKK)

Victoza® value market share in Europe



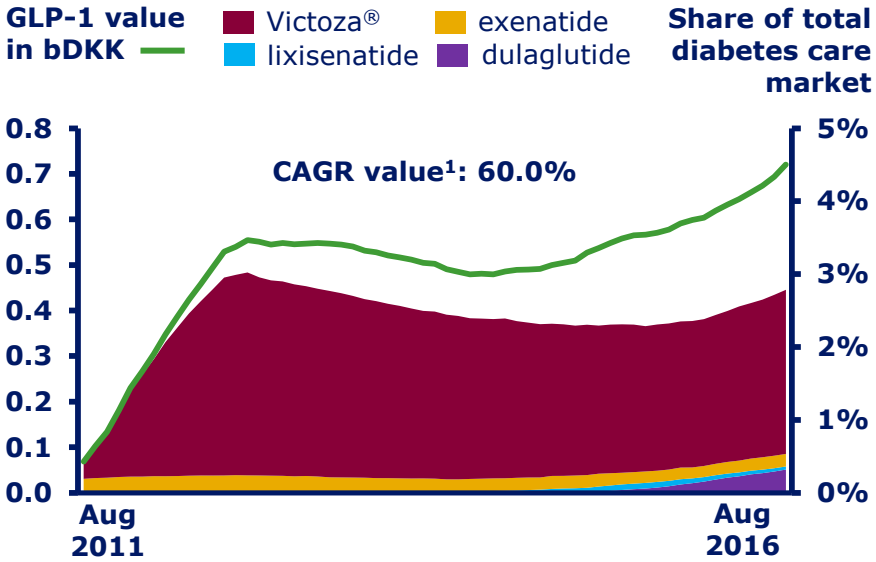
Source: IMS Monthly MAT August, 2016 value figures (DKK)

changing diabetes®

novo nordisk®

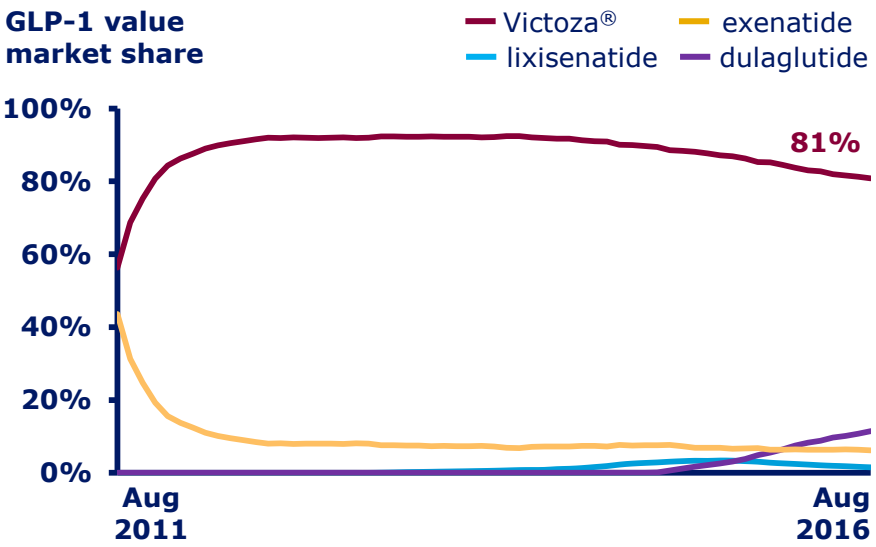
The GLP-1 segment accounts for around 3% of the total diabetes care market in International Operations

International Operations GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT August, 2016 value figures (DKK)

Victoza® value market share in International Operations



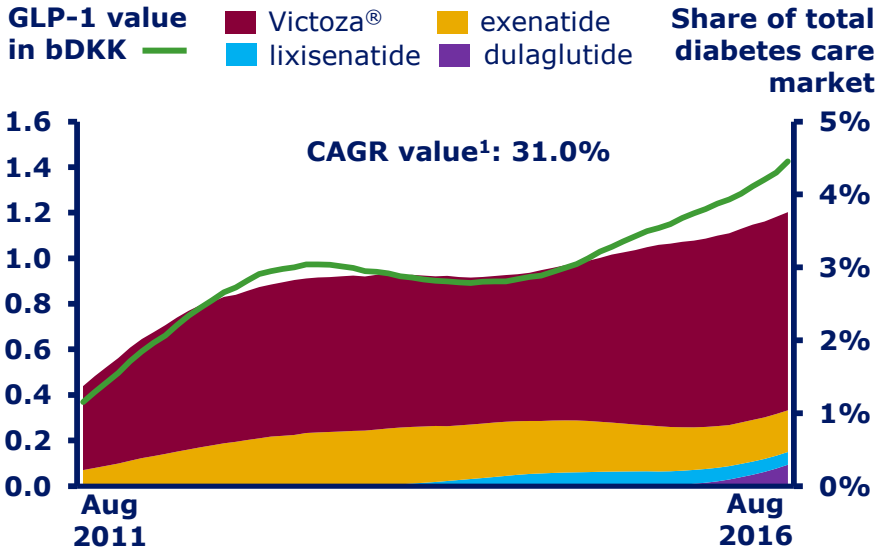
Source: IMS Monthly MAT August, 2016 value figures (DKK)

changing diabetes®

novo nordisk®

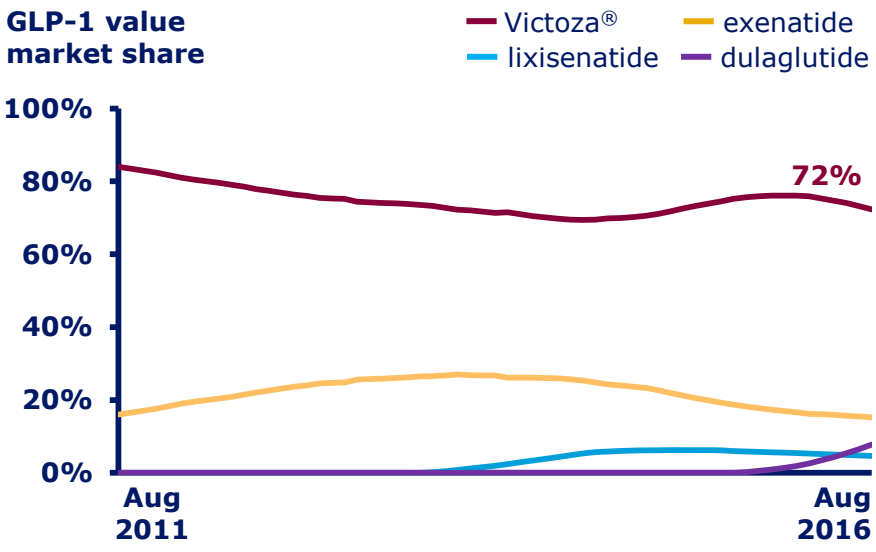
The GLP-1 segment accounts for around 4% of the total diabetes care market in Pacific

Pacific GLP-1 market



[1] CAGR for 5-year period
Source: IMS Monthly MAT August, 2016 value figures (DKK)

Victoza® value market share in Pacific



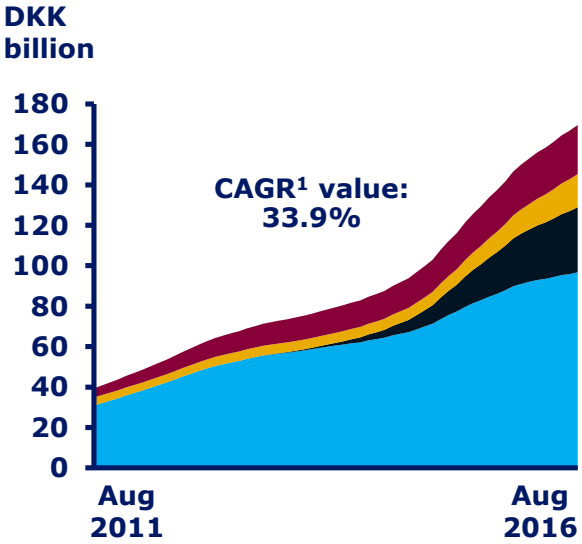
Source: IMS Monthly MAT August, 2016 value figures (DKK)

changing diabetes®

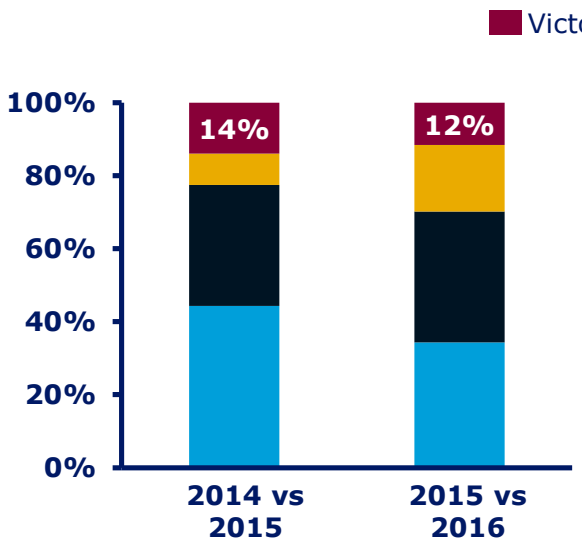
novo nordisk®

Victoza® maintains a strong position in the global DPP-IV, GLP-1 and SGLT-2 segment

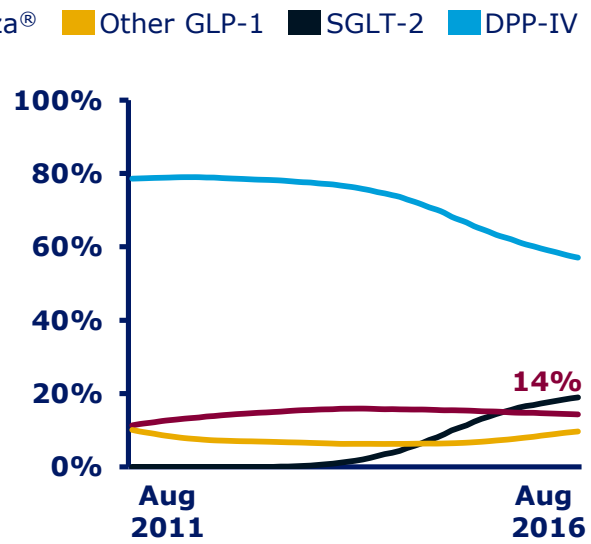
Segment value



Share of segment value growth



Segment value market shares



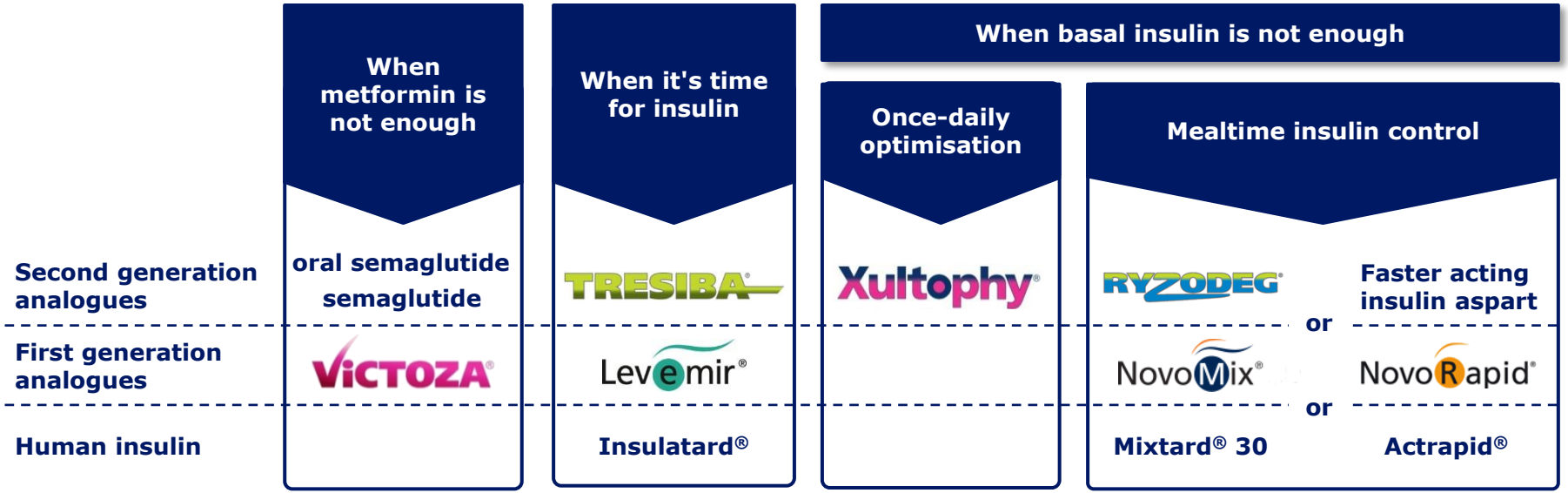
[1] CAGR for 5-year period
Note: Segment only includes DPP-IV, GLP-1 & SGLT-2. Other oral anti-diabetic agents and insulin excluded
Source: IMS MAT August 2016 value figures

changing diabetes®

novo nordisk®

Novo Nordisk current and future product portfolio covers the type 2 diabetes treatment flow[1]

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



[1] Pending clinical development programmes and regulatory processes for semaglutide and faster-acting insulin aspart

changing diabetes®

novo nordisk®

R&D pipeline: Diabetes and obesity

Product/project	Type	Indication	Status (phase)				
			1	2	3	Filed	Appr.
Xultophy® (NN9068)[1]	Combination of insulin degludec and liraglutide	Type 2	■	■	■	■	■
Faster-acting insulin aspart (NN1218)	New formulation of insulin aspart	Type 1+2	■	■	■	■	
Semaglutide (NN9535)	Once-weekly GLP-1 analogue	Type 2	■	■	■		
OG217SC (NN9924)	Long-acting once-daily oral GLP-1 analogue	Type 2	■	■	■		
Semaglutide QD (NN9535)	Once-daily GLP-1 analogue	Type 2	■	■			
Anti-IL-21 and liraglutide (NN9828)	Immuno-metabolic combination of Anti-IL-21 and liraglutide	Type 1	■	■			
LAI287 (NN1436)	Long-acting once-weekly basal insulin analogue	Type 1+2	■				
Mealtime insulin (NN1406)	Liver-preferential mealtime insulin	Type 1+2	■				
PYY diabetes (NN9748)	Peptide YY analogue	Type 1+2	■				
Semaglutide QD (NN9536)	Once-daily GLP-1 analogue	Obesity	■	■			
G530S (NN9030)	Glucagon analogue	Obesity	■				
AM833 (NN9838)	Long-acting amylin analogue	Obesity	■				
GG-co-agonist (NN9277)	Glucagon GLP-1 co-agonist	Obesity	■				
PYY obesity (NN9747)	Peptide YY analogue	Obesity	■				

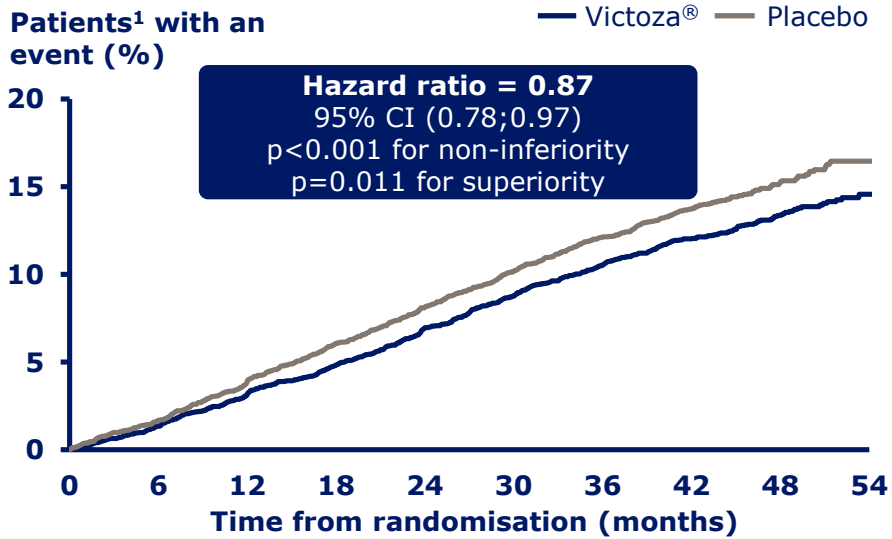
[1] Approved in EU on 18 Sep 2014

changing diabetes®

novo nordisk®

Victoza® statistically significantly reduced the risk of major adverse cardiovascular events in the LEADER trial

13% reduction in 3-point MACE with Victoza® compared with placebo



[1]Inclusion criteria: Adults above 50 years with type 2 diabetes and established CV disease, above 60 years with multiple CV factors, $HbA_{1c} \geq 7.0\%$
MACE: major adverse cardiovascular events; 3-point MACE comprises cardiovascular death, non-fatal myocardial infarction and non-fatal stroke; CI: two-sided confidence interval

changing diabetes®

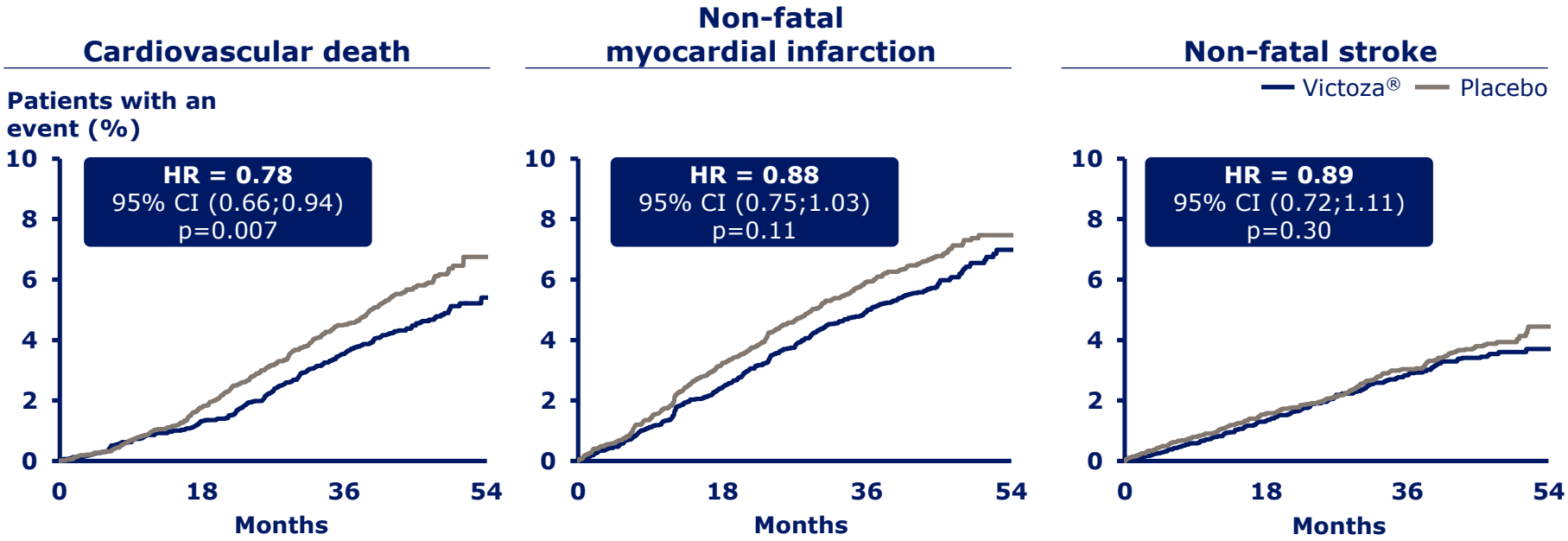
Key results

- Superiority of Victoza® vs placebo was confirmed for time to first MACE in people with type 2 diabetes at high CV risk
- **Victoza® reduced the MACE risk by 13%** as well as CV and all-cause mortality by 22% and 15% respectively, compared with placebo when added to standard of care
- The result was consistent across sensitivity analyses
- Victoza® appeared to have a safe and well tolerated profile, generally consistent with previous studies for Victoza®

CV: Cardiovascular

novo nordisk®

All components of 3-point MACE contributed to the reduction in cardiovascular risk in the LEADER trial



HR: hazard ratio; CI: confidence interval

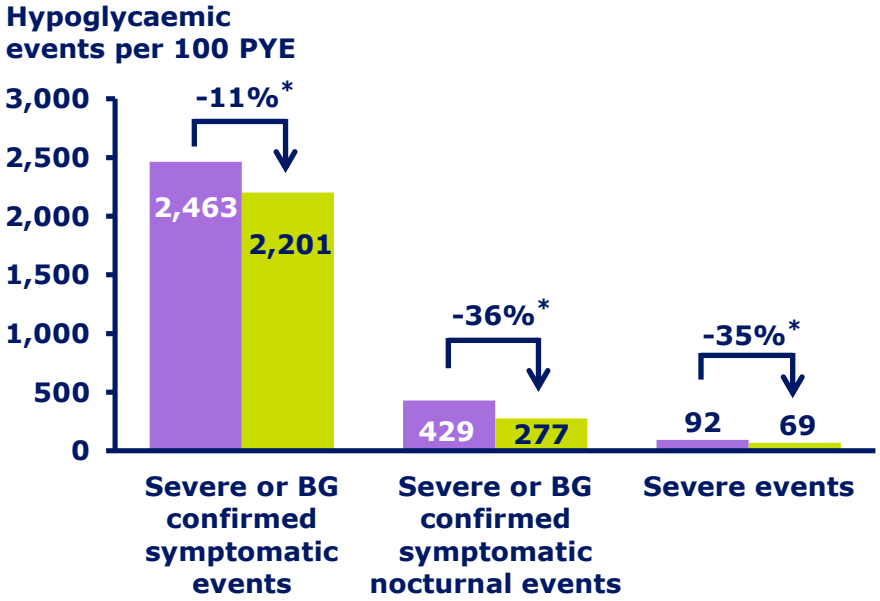
Source: Marso SP, Daniels GH, Brown-Frandsen K, *et al.* Liraglutide and cardiovascular outcomes in type 2 diabetes. *The New England journal of medicine*. 2016; In Press

changing diabetes®

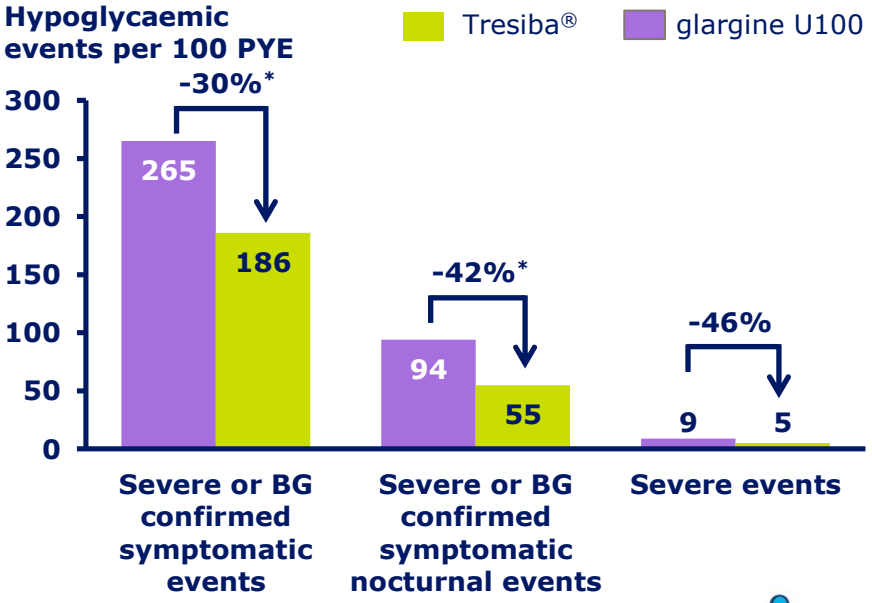
novo nordisk®

Tresiba® shows lower rate of hypoglycaemia than insulin glargine U100 in SWITCH trials – filed in Q3 2016

SWITCH 1 – type 1 diabetes



SWITCH 2 – type 2 diabetes



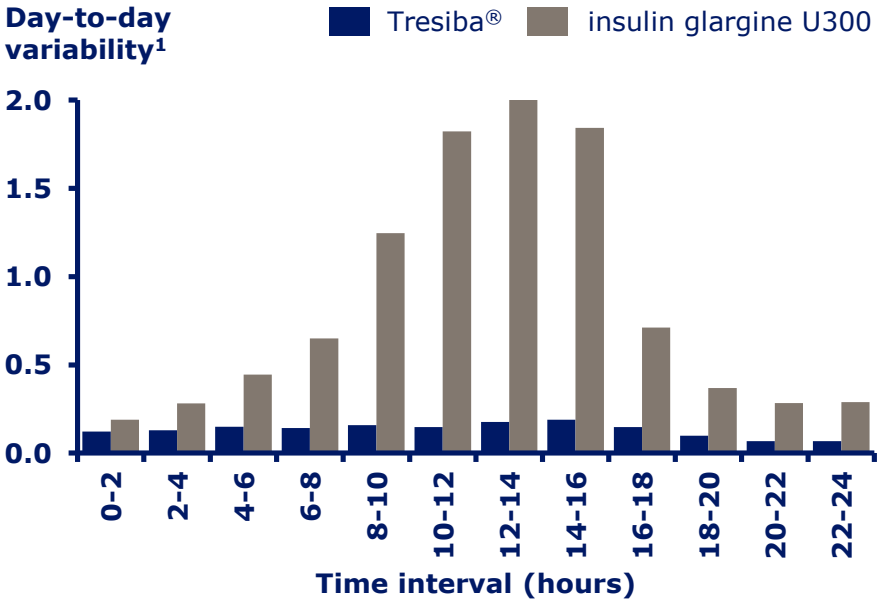
changing diabetes®

Note: The prevalence of hypoglycaemia is measured during the maintenance period; Blood glucose confirmed hypoglycaemia is defined as <56 mg/dL (<3.1 mmol/L); The confirmatory secondary endpoint of proportions of subjects experiencing severe hypoglycaemia during the maintenance period did not reach statistical significance in the SWITCH 2 trial. * Statistically significant; BG: Blood glucose; PYE: Patient years exposed

novo nordisk®

Tresiba® showed lower day-to-day variability in the glucose-lowering effect compared to insulin glargine U300

Within-subject variability in steady state



[1] Day-to-day variability in 2-hours interval of AUC_{GIR} (variance)
Note: 60 type 1 diabetic patients were enrolled and 57 completed the trial; Inclusion criteria: Age 18-65 years, diagnosis of type 1 diabetes, Fasting C-peptide <0.3 nmol/L, BMI: 18.5-29 kg/m², HbA_{1c}: <9%
AUC_{GIR}: area under glucose infusion curve

Key results and next step

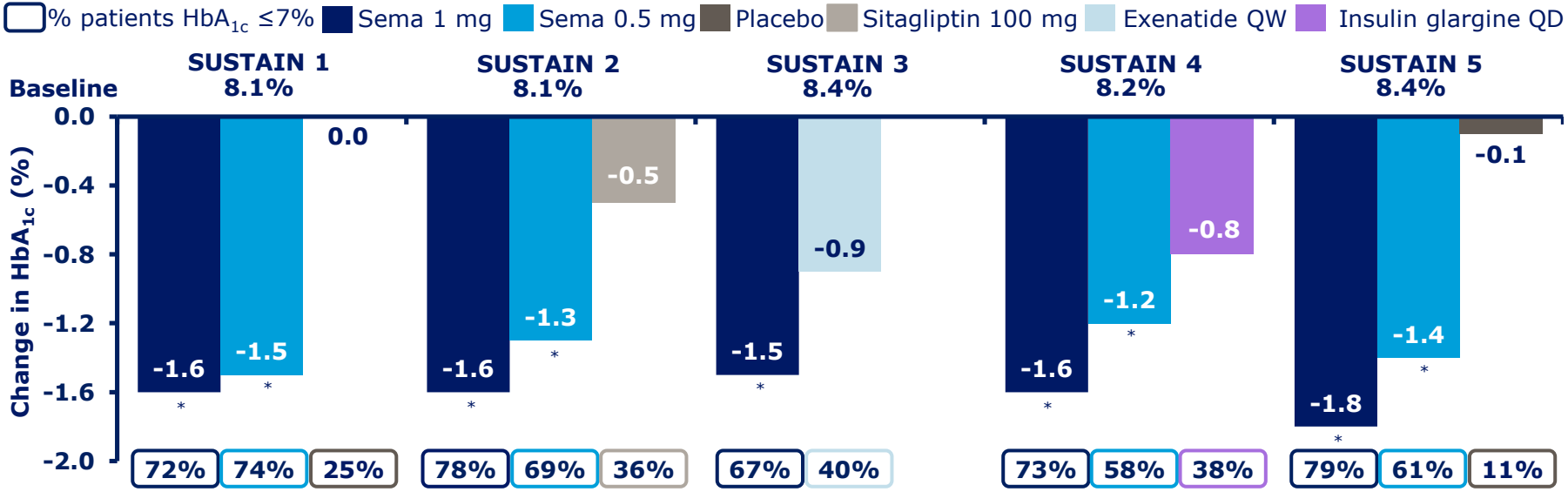
- The day-to-day **variability** in the glucose-lowering effect was approximately **four-times lower with Tresiba®** compared to insulin glargine U300 when evaluated by within-subject variance for people with type 1 diabetes in PK/PD trial
- Day-to-day variability was consistently lower for Tresiba® than insulin glargine U300 over the entire 24-hour period
- Insulin glargine U300 showed a statistically significantly* lower potency compared to Tresiba® of approximately 30%
- **Next step:** Initiation of large 3b head-to-head trial study in type 2 diabetes to document clinical benefits including hypoglycaemia, with expected start in 2017

* p<0.001

novo nordisk®

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, 4 and 5 trials

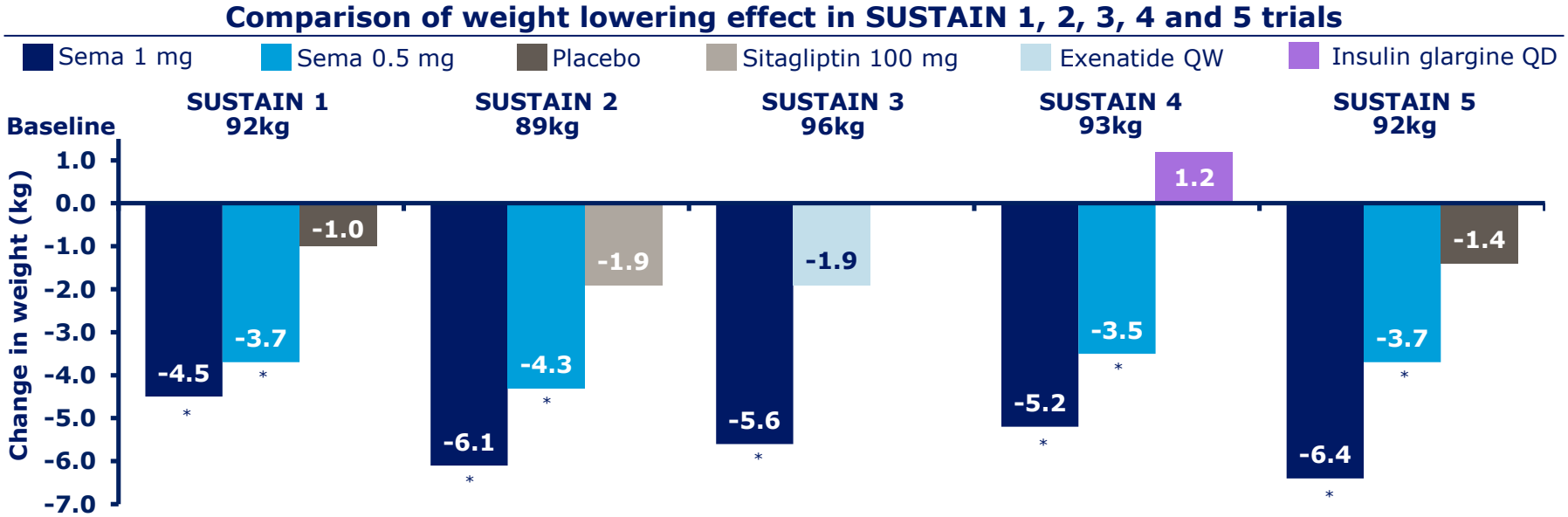


* $p < 0.001$; QD: once daily; QW: once weekly; sema: semaglutide
Source: Novo Nordisk on file (NN9535-3623, NN9535-3624, NN9535-3625, NN9535-3626, NN9535-3627)

changing diabetes®

novo nordisk®

In phase 3a trials semaglutide shows best in-class weight lowering potential across treatment cascade



* $p < 0.001$; QD: once daily; QW: once weekly; sema: semaglutide
Source: Novo Nordisk on file (NN9535-3623, NN9535-3624, NN9535-3625, NN9535-3626, NN9535-3627)

changing diabetes®

novo nordisk®

Competitive Tresiba® label across all three triad markets

Tresiba® label characteristics in triad markets

	US	Europe	Japan
Profile	• Half-life of 25 hours and duration of action of at least 42 hours • Day to day variability of 20%	• Duration of action beyond 42 hours • Four times lower day-to-day variability vs insulin glargine	• Duration of action up to 26 hours in Japanese patients • Four times lower day-to-day variability vs insulin glargine
Efficacy	• Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction • Numerically lower insulin dose[1]	• Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction	• Non-inferior HbA_{1c} reduction • Numerically greater FPG reduction
Safety	• Overall safety consistent with insulin • Hypoglycaemia rates for Tresiba®, but not comparator	• Overall safety consistent with insulin • Lower rate of overall and nocturnal hypoglycaemia	• Overall safety consistent with insulin • Lower rate of nocturnal hypoglycaemia in Asian subjects
Convenience	• Injection any time of day • Up to 80 and 160 units per injection	• Adjusting injection time when needed • Up to 80 and 160 units per injection	• In case of missed dose take as soon as possible

[1] Observed in majority of the trials

US Tresiba® label reflects the distinctly different product features compared to competitor basal insulins

	TRESIBA® insulin degludec injection	glargine U100	glargine U300
Duration of action[1]	• At least 42 hours[2]	• Up to 24 hours[3]	• Up to 36 hours[4]
Administration and dosing	• Once daily at any time of day[5] • Numerically lower dose needed vs glargine U100[8]	• Once daily at any time of day, at the same time every day[6]	• Once daily at any time during the day, at the same time every day[7] • Higher dose needed vs glargine U100[9]
Pen device	• 600 units/pen[10] • 160 units max per injection[10] • No push button extension	• 300 units/pen • 80 units max per injection • Push button extension	• 450 units/pen • 80 units max per injection • Push button extension
In-use time	• 56 days at room temperature	• 28 days at room temperature	• 42 days at room temperature

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] glargine U300 PI section 14.1; [10] Tresiba U200 PI

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 **HbA_{1c} 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

changing diabetes®

novo nordisk®

Xultophy® has documented strong efficacy across the treatment cascade

Xultophy® key clinical results

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

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

changing diabetes®

novo nordisk®

Faster-acting insulin aspart provides superior glucose control vs NovoRapid® in onset 1 trial

Creating a new formulation that satisfies an unmet medical need

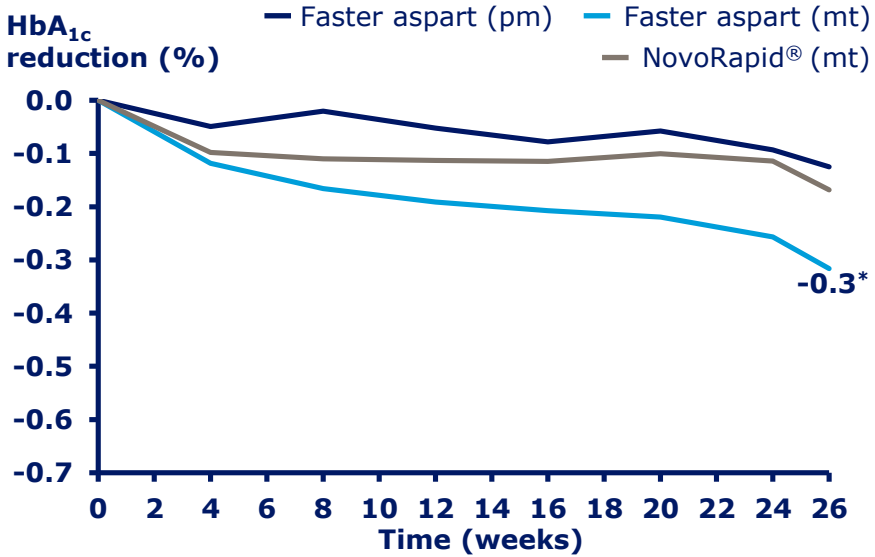
Faster-acting insulin aspart is an innovative formulation of insulin aspart:

- 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

HbA_{1c} reduction in onset 1 trial after 26 weeks



* $p<0.05$; pm: post-meal; mt: meal time
Source: Novo Nordisk on file (NN1218-3852)

[1] Concentration often below recommended dietary daily intake

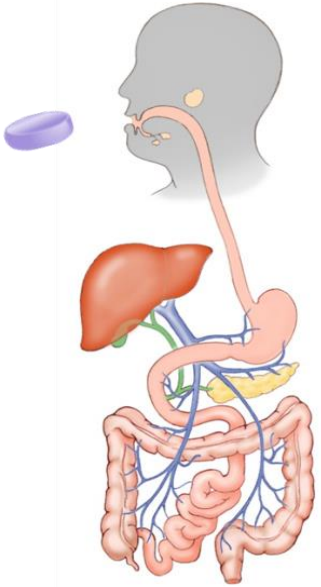
changing diabetes®

novo nordisk®

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

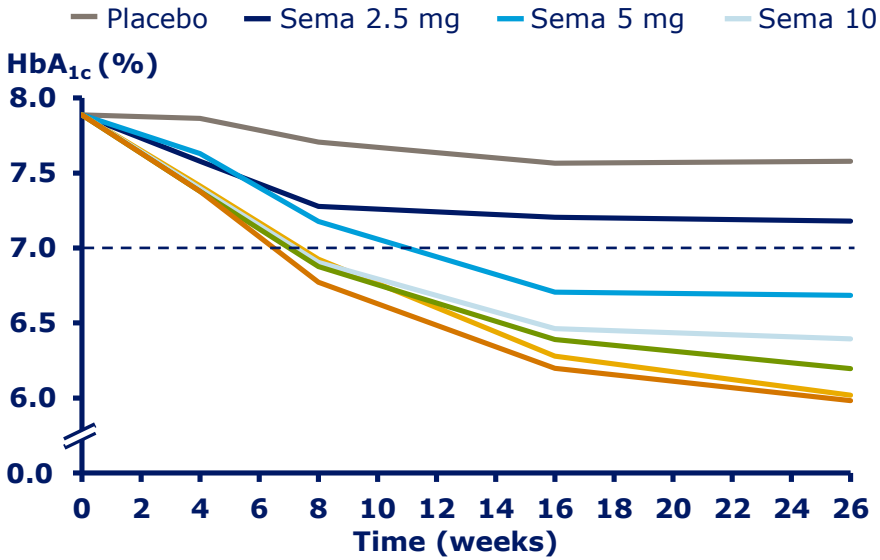


Solutions

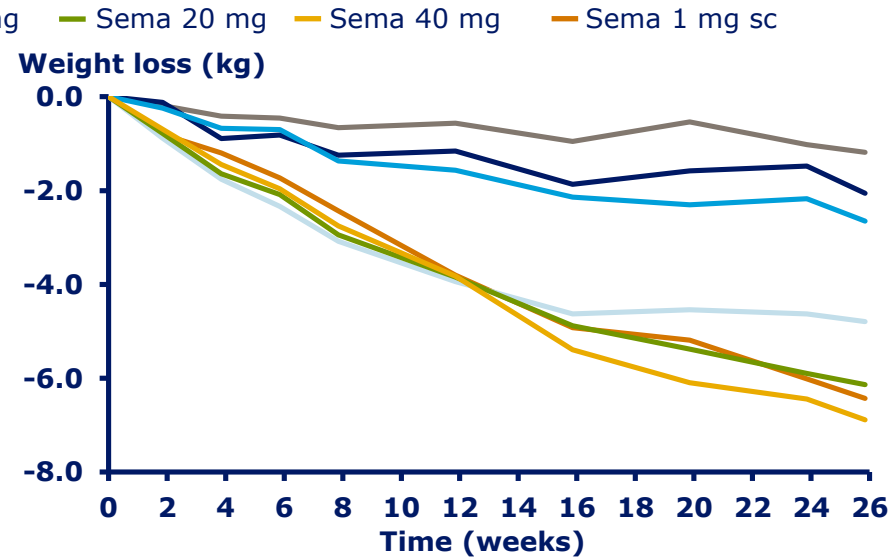
1. Stabilisation of peptide backbone and side chain
2. Tablet formulation including carrier and/or coating
3. Engineered systemic protraction mechanism

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%



Weight loss from a mean base line of 92 kg

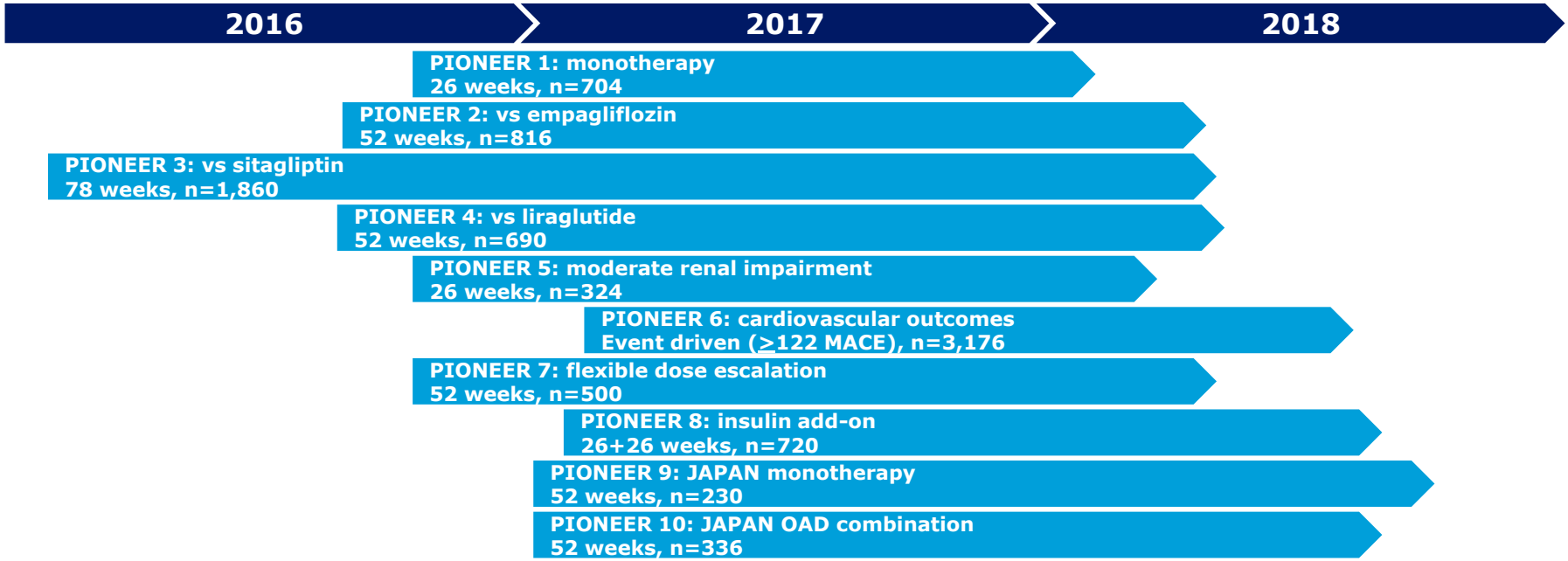


Inclusion criteria: Type 2 diabetes; 7.0% ≤ HbA_{1c} ≤ 9.5%; treatment with diet and exercise with or without metformin; sc: subcutaneous; sema: semaglutide

changing diabetes®

novo nordisk®

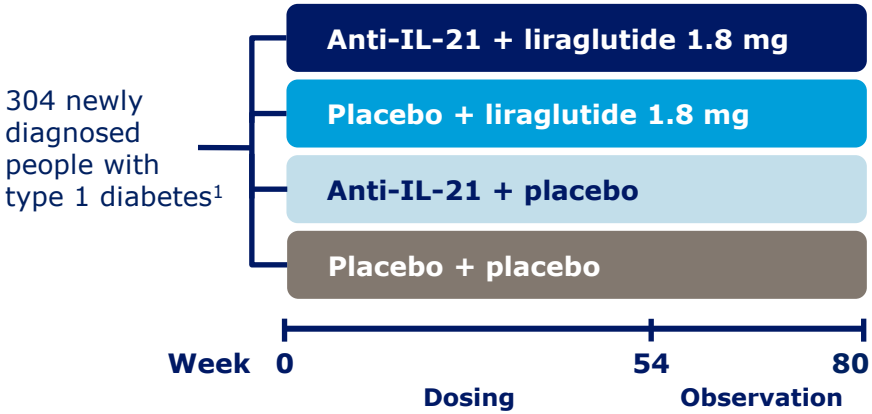
Initiation of PIONEER trials for oral semaglutide



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



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

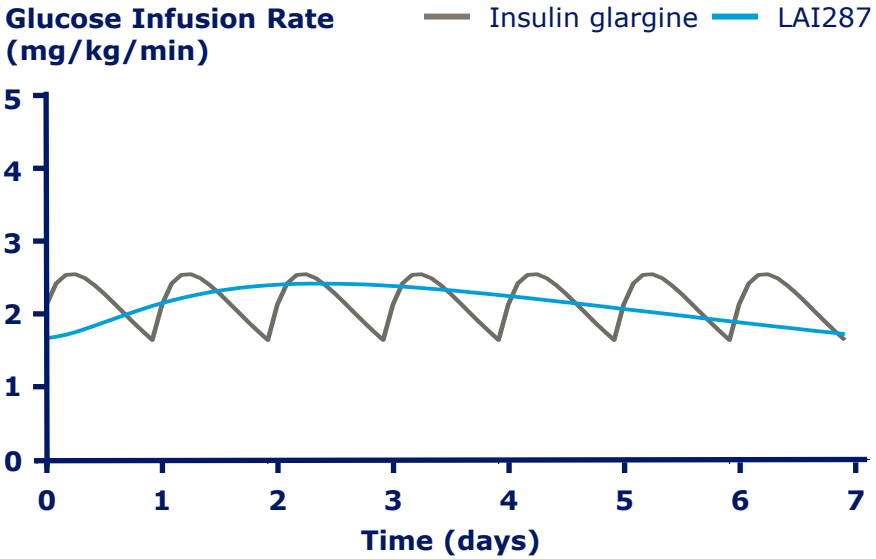
T1D: Type 1 diabetes; MOA: Mode of action

changing diabetes®

novo nordisk®

Insulin LAI287 offers potential for once-weekly dosing

LAI287 pharmacodynamic profile is compatible with once-weekly dosing



Note: Pharmacokinetic simulation

Key results of phase 1 trial

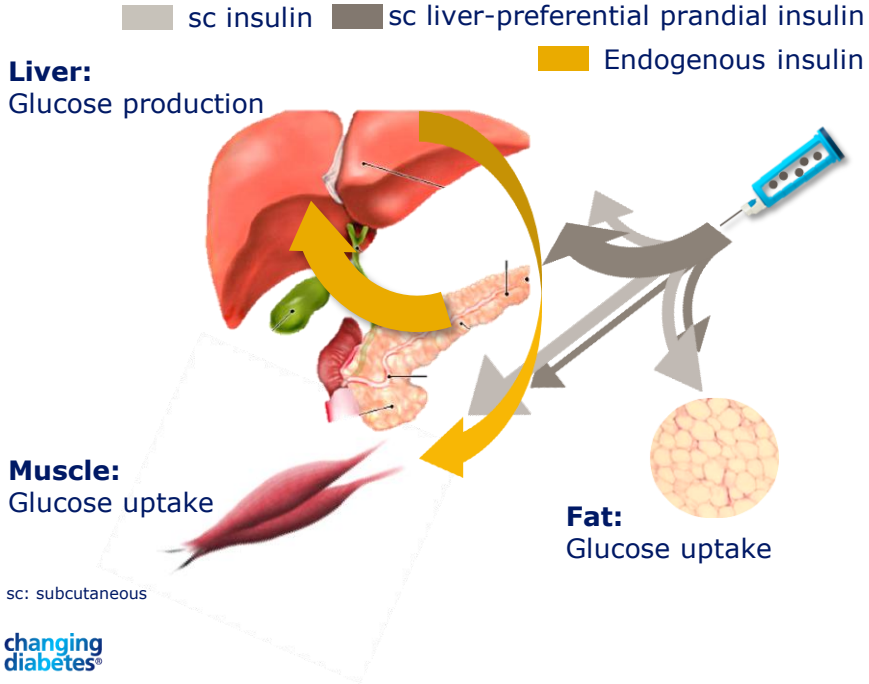
- The trial evaluated short term efficacy and safety during five weeks of treatment
- LAI287 showed dose-dependent exposure and a variability comparable to that of insulin degludec
- Terminal half-life of 185 hours supporting a once-weekly dosing regimen
- LAI287 generally appeared safe and well tolerated,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

changing diabetes®

novo nordisk®

Liver-preferential meal time insulin analogue has potential to reduce hypoglycaemia and weight gain

The liver is important for insulin action



sc: subcutaneous

changing diabetes®

Rationale and expected benefits of physiologically distributed insulin

Rationale

- 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

Potential benefits

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

Next steps

- Phase 1 trial with liver-preferential mealtime insulin (NN1406) initiated

PPG: post prandial glucose

[1] Woerle HJ et al. *Am J Physiol Endocrinol Metab* 2006;290:E67–E77

novo nordisk®

More than 20 million people in the US have a BMI above 35 with either pre-diabetes or CV related comorbidities

Incidence of obesity in the US (million people)

Comorbidity status	BMI 27-29.9	Obesity			Total
		Class I BMI 30-34.9	Class II BMI 35-39.9	Class III BMI 40+	
No CV comorbidities[1]	15.5	11.0	4.2	3.0	**33.7**
CV comorbidities[2]	15.1	16.0	6.4	4.1	**41.6**
Pre-diabetes[3]	12.0	14.1	7.2	6.1	**39.4**
Type 2 diabetes[4]	2.0	5.0	3.6	2.3	**12.9**
Total	**44.6**	**46.1**	**21.4**	**15.5**	**127.6**

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

The US obesity burden

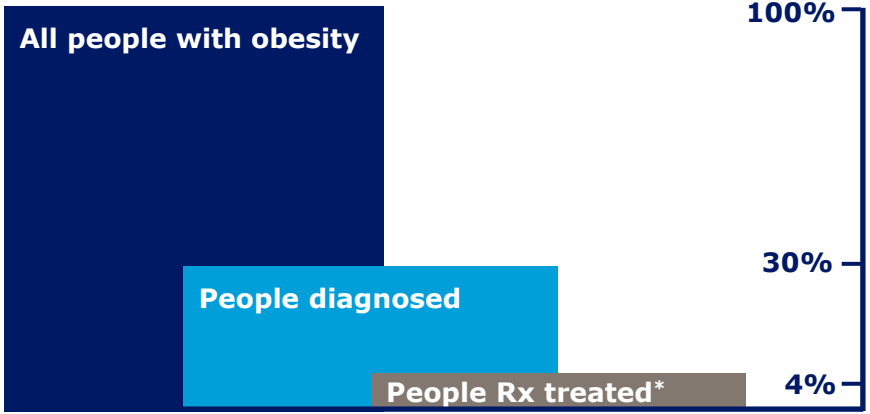
- Cost of obesity to health care systems of USD 147 billion annually with continued growth[5]
- Around 35% of the US adult population (over 20 years) have obesity (BMI>30)[6]
- Only around 30% of all obesity cases in the US were diagnosed in 2009[7]
- In 2010, only 3 million people in the US or around 3% of the adult population with obesity were treated with anti-obesity medication[8]

[5] Finkelstein et al. Health Affairs 28, no. 5 (2009): w822-831
[6] Flegal, KM. JAMA. 2012;307(5): Doi:10.1001/jama.2012.39
[7] Ma et al. Obesity (Silver Spring) 2009;17:1077–85
[8] Obesity. Decision resources, Inc. December 2010:38

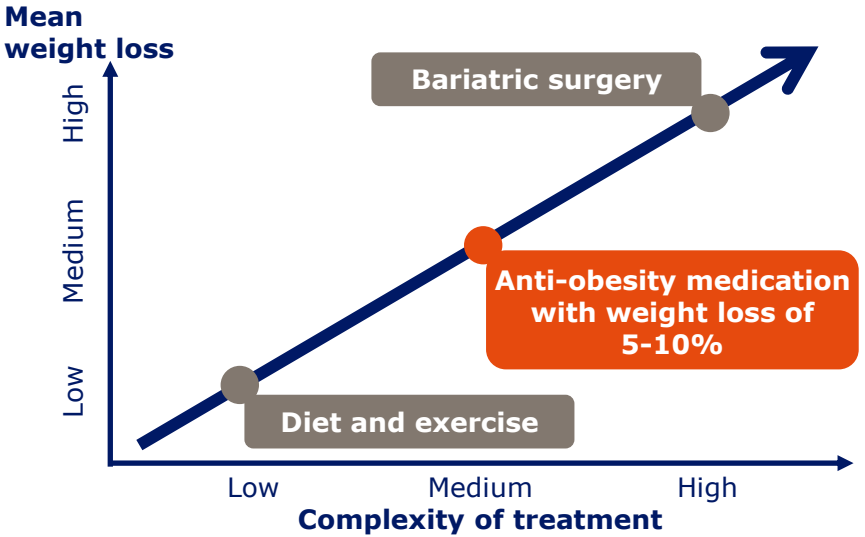
novo nordisk®

Significant unmet need in obesity management

Insufficient treatment options



Significant gaps in obesity treatment



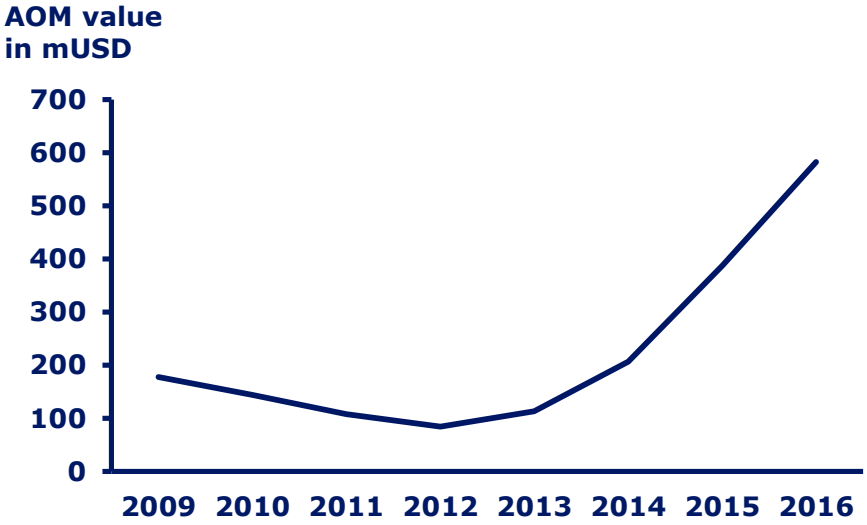
Source: Diagnosis rate, Practice Fusion March 2014 & Treatment rate, *Understanding the Treatment Dynamics of the Obesity Market*, IMS Database (NPA), August 2014
*Rx=prescription, ie treated with anti-obesity medication (AOM)

changing diabetes®

novo nordisk®

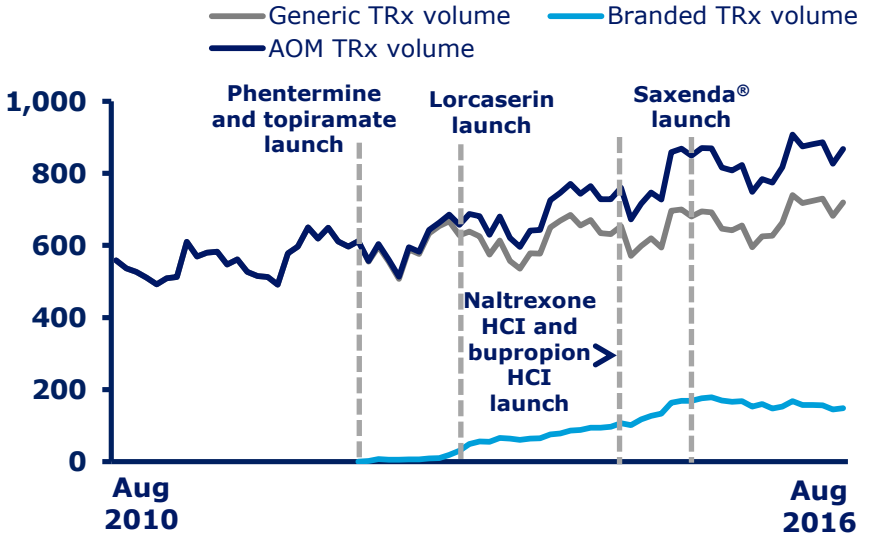
Small but growing market for anti-obesity medication in the US

AOM Market Value has grown quickly in recent years, fuelled by branded treatment uptake



Note: Values are shown in terms of Moving-Annual-Total ending August
Source: IMS NSP Monthly, August 2016

Few people treated with AOM, but in recent years launches have fuelled market growth



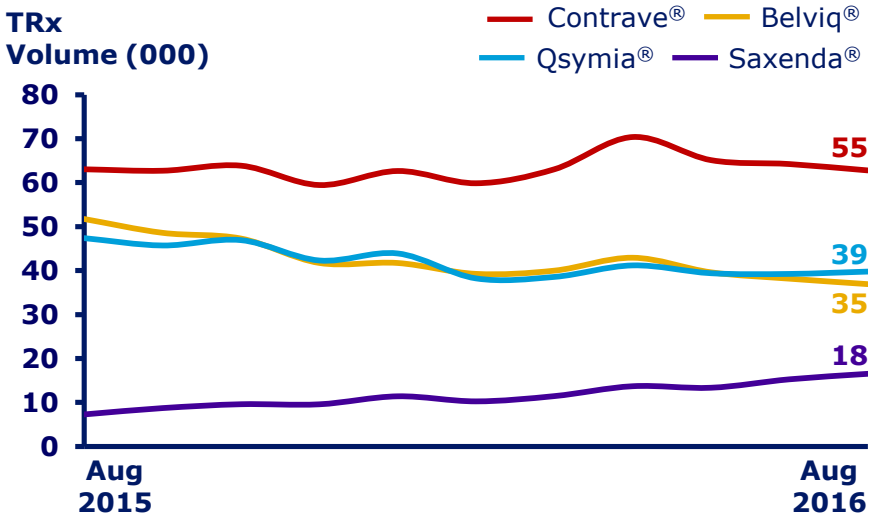
Note: Phentermine and topiramate is the fixed combination; naltrexone HCI and bupropion HCI is the second fixed dosed combination to market. AOM: anti-obesity medication
Source: IMS NPA Monthly, August 2016

changing diabetes®

novo nordisk®

Steady prescription uptake for Saxenda® in the US

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



Source: IMS NPA TRx, monthly, August 2016

Key observations

- Saxenda® has been launched in 15 markets, including the US, Canada, Denmark, Italy, Australia, Mexico, Germany, Belgium, Brazil, Israel and now Sweden, the Netherlands, Spain, UAE, and Russia
- Saxenda® is the leader in value market share at ~49% among branded AOM in the US
- While competitors have recently reduced their promotional efforts, Novo Nordisk remains confident in the long-term obesity market growth and the evolving Novo Nordisk obesity portfolio

Source: IMS NSP, Monthly data, August 2016

changing diabetes®

novo nordisk®

Saxenda® targeted at patients with BMI ≥35 and weight-related comorbidities

Saxenda® market approach	Saxenda® launch execution
Clear patient **segmentation**	Focus on patients with **BMI ≥35** with weight-related **comorbidities**
Focused prescriber **targeting**	Focus on current prescribers of **anti-obesity medication** and **GLP-1**
Clear product **value proposition**	Strengthened by **3-year clinical data**
Focus on engaging **prioritised** payers and employers	Formulary coverage emerging with more than **50 million lives**[1] covered

Aspiration

Build the market

BMI: body mass index

[1] Potential lives covered, based on employer opt-ins

changing diabetes®

novo nordisk®

Competitive US label for Saxenda®

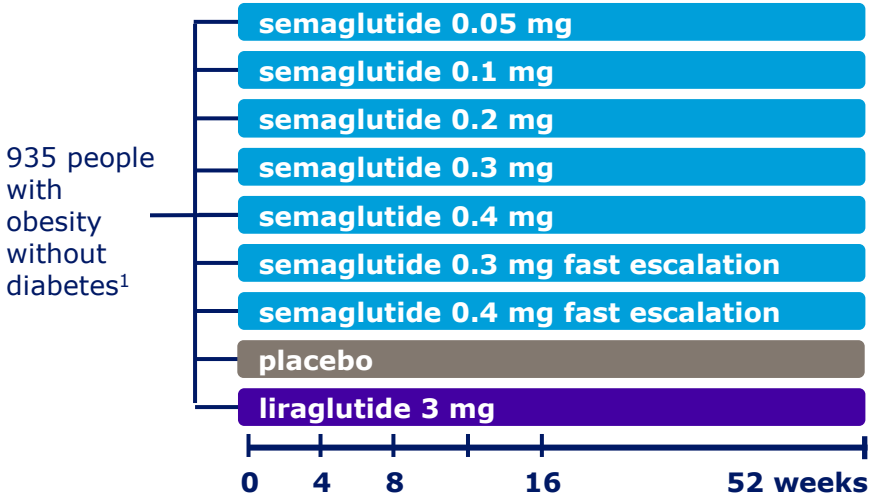
Saxenda® approved in the US for chronic weight management in individuals with a BMI ≥30, or ≥27 in the presence of at least one weight-related comorbidity[1]

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 weight[2] • **Average weight loss of 9.2%** in completers at one year[2]
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 hypoglycaemia[3], 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

Semaglutide once daily phase 2 dose-finding trial in obesity is designed to optimise treatment outcomes

Once-daily semaglutide phase 2 trial design



[1] Key inclusion criteria: Male or female ≥18 years, BMI: ≥30 kg/m^2, 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

Phase 2 trial purpose and endpoints

Purpose

- To assess and compare the dose response of five doses of once-daily 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

changing diabetes®

novo nordisk®

Long-acting obesity compounds in phase 1 development may have complimentary modes of action

Key features of compounds in phase 1 development for obesity

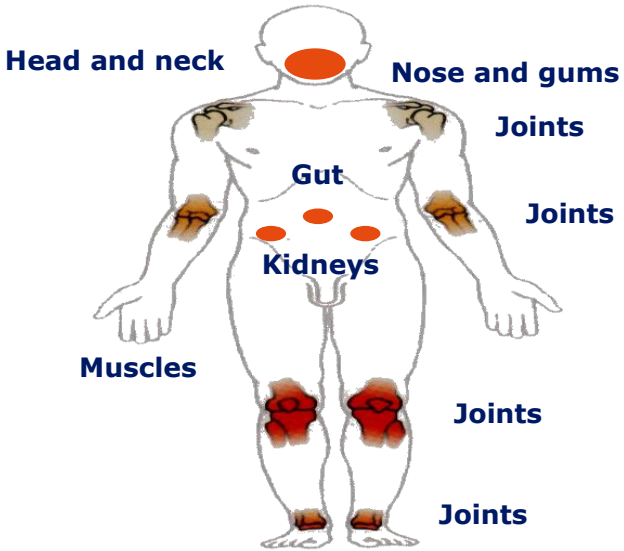
Compound	G530S – Glucagon analogue	NN9838 – Amylin analogue	NN9747 – PYY analogue
Administration	• Once-daily subcutaneous injection in combination with liraglutide	• Once-daily subcutaneous injection	• Once-daily subcutaneous injection
Mode of action	• Stimulation of energy expenditure and satiety promoting a negative energy balance	• Reduced food intake, thought primarily to be mediated by amylin receptors located in the area postrema	• Reduced food intake via selective stimulation of the Y2 receptor
Clinical development status	• Phase 1 initiated Sep 2014 • Safety/PK of single ascending doses • 160 overweight /obese people • Expected completion 2017	• Phase 1 initiated Dec 2014 • Safety/PK of single and multiple ascending doses • 140 overweight/obese people • Expected completion 2018	• Phase 1 initiated Oct 2015 • Safety/PK of single and multiple doses • 120 overweight/obese people • Expected completion 2019

PK: pharmacokinetic

Biopharmaceuticals

Haemophilia: Location of bleedings and the consequences

Locations

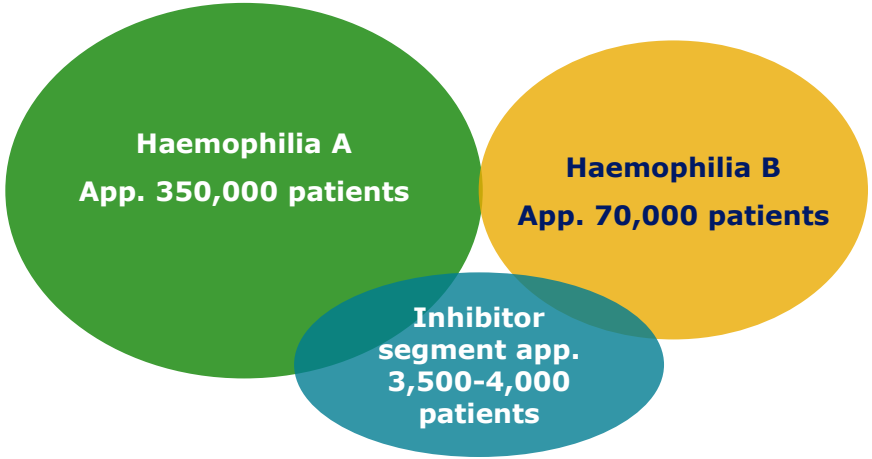


Consequences of bleedings

- 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

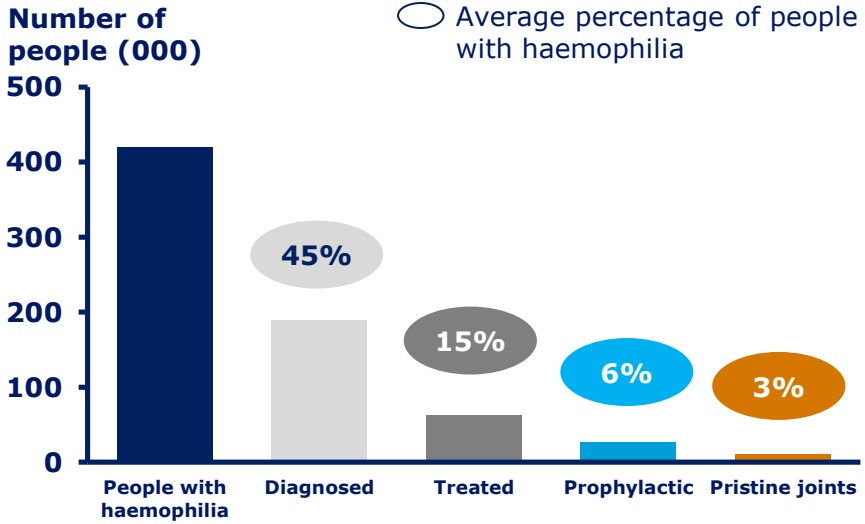
Haemophilia is a rare disease with severe unmet medical needs

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



Note: The inhibitor segment represents people with haemophilia and high titre inhibitors to their normal replacement treatment
Source: Estimates based on prevalence data in literature (Stonebraker JS et al. Haemophilia. 2010; 16: 20-32), World Federation of Haemophilia – Annual Global Survey 2012, UDC database in the US

Low diagnosis and treatment rates within haemophilia



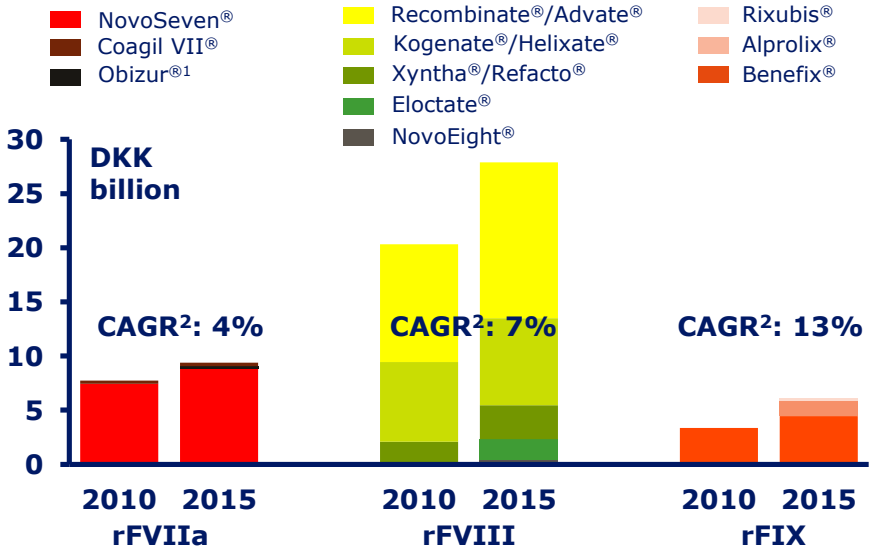
Source: World Federation of Haemophilia – Annual Global Survey 2012

changing diabetes®

novo nordisk®

Global haemophilia market is growing by mid-single digit

Sales of recombinant coagulation factors



[1] Obizur® only indicated for acquired haemophilia
[2] CAGR for 5-year period

Strategic positioning of Novo Nordisk's haemophilia portfolio

Novo Nordisk compound	Status	Strategic position
NovoSeven®	Launched	Maintain market leadership
NovoEight®	Launched	Establish presence in a competitive market place
N8-GP	Phase 3[3]	Contribute to market conversion
N9-GP	Filed[4]	Establish new treatment paradigm
NovoThirteen®	Launched	Launch first recombinant product

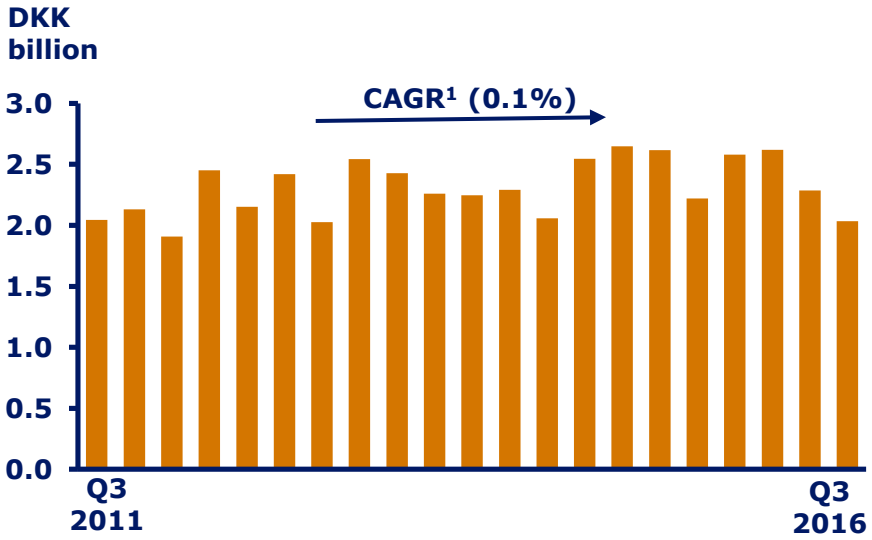
[3] Submission of N8-GP expected 2018 pending expansion of production capacity
[4] Submitted to the to the European Medicines Agency in January 2016; Submitted to the US Food and Drug Administration in May 2016

changing diabetes®

novo nordisk®

NovoSeven® – a unique biologic for the treatment of rare bleeding disorders

NovoSeven® reported sales



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 thrombasthenia[2]

[1] CAGR for 5-year period

[2] Only indicated in Europe and the US

changing diabetes®

novo nordisk®

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

Example from NovoEight® promotional campaign[1]

[1] Picture is not intended for promotional purposes

changing diabetes®

NovoEight® properties and launch performance

Indications:

- Treatment and prophylaxis of bleeding in patients with congenital factor VIII deficiency for all age groups[2]

Key product characteristics:

- Reliability: No inhibitor development in PTPs in one of the largest pivotal trial programmes of any approved rFVIII (n=213)[2,3]
- Purity and safety: First rFVIII to use a 20nm filter in its purification process[4]
- Portability: Room temperature stability with storage at 30 degrees celsius[2]

Launch status:

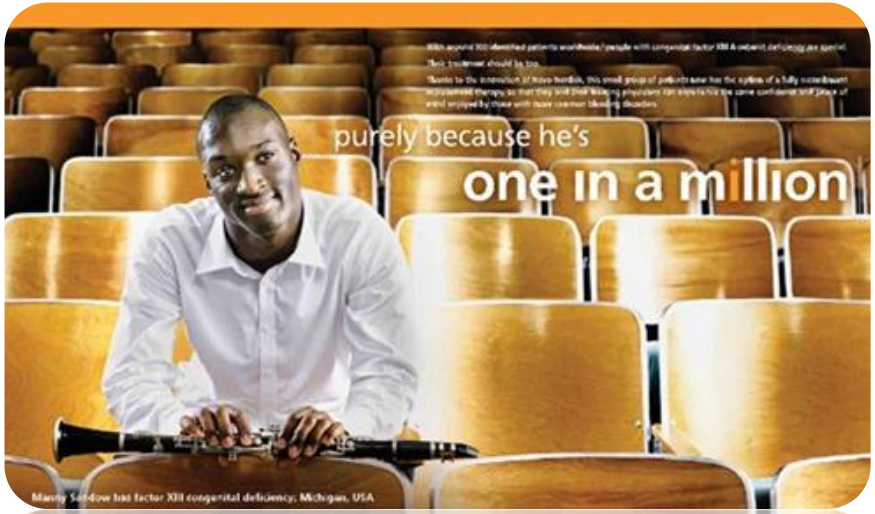
- NovoEight® is available in the US, EU, Japan and 17 additional countries

[2] NovoEight® Summary of Product Characteristics. [3] Iorio A et al., Blood 2012; 120(4): 720 – 727. [4] NovoEight® Prescribing Information
PTP: Previously treated patient

novo nordisk®

NovoThirteen®, a recombinant FXIII, provides efficacious and safe haemostatic coverage

Example from NovoThirteen® promotional campaign[1]



[1] Picture is not intended for promotional purposes

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 approved in Australia, Bahrain, Brazil, Canada, Colombia, EU, Iceland, Israel, Japan, Kuwait, Oman, Qatar, Saudi Arabia, Switzerland, and the US

Source: European Medicines Agency, summary of opinion (post-authorisation) 23 January 2014. NovoThirteen® Summary of product characteristics.

changing diabetes®

novo nordisk®

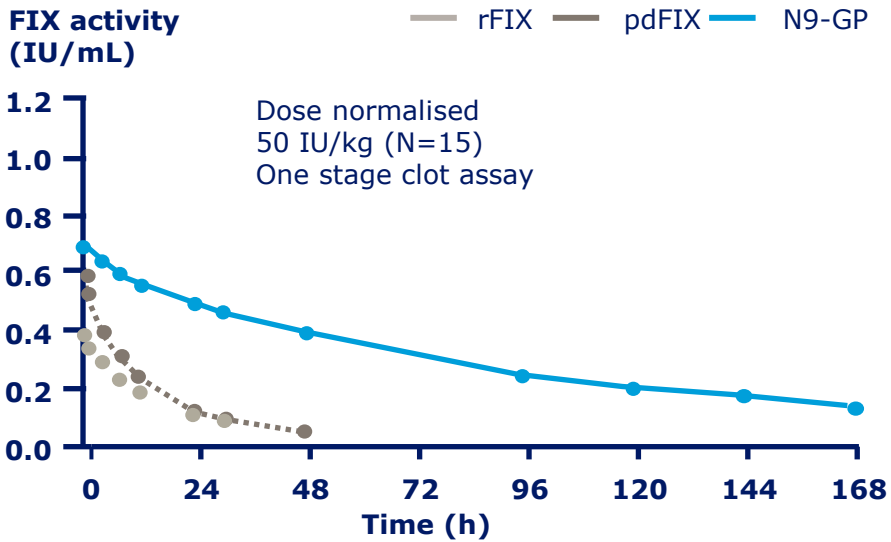
R&D pipeline: Haemophilia and growth disorders

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

[1] Submitted to the to the European Medicines Agency in January 2016 and the US Food and Drug Administration in May 2016; [2] Phase 3 completed in Adult Growth Hormone Deficiency (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



rFIX: Recombinant factor IX; pdFIX: plasma-derived factor IX
Source: Negrier et al. Blood. 2011;115:2693-2701

Paradigm 2 headline results (phase 3)

- 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

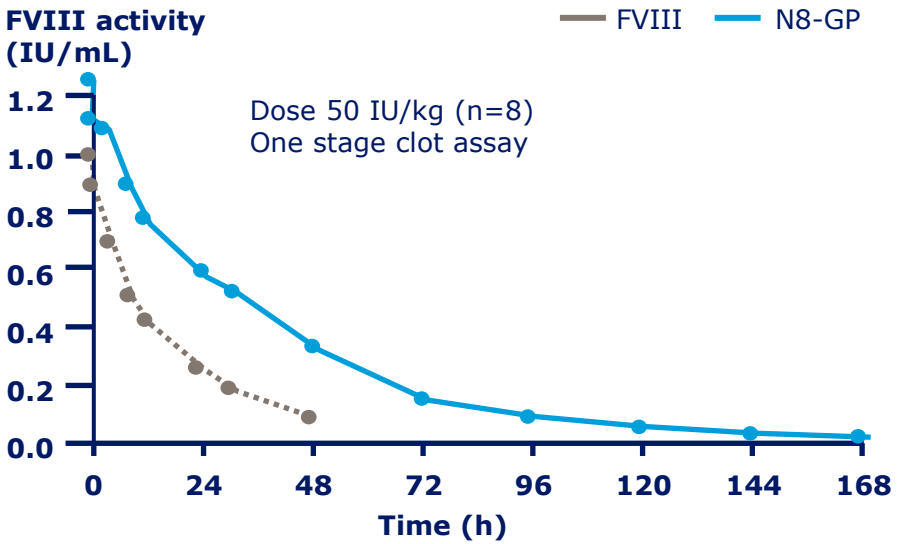
- N9-GP Submitted to the European Medicines Agency in January 2016 and to the US Food and Drug Administration in May 2016

changing diabetes®

novo nordisk®

N8-GP administered every fourth day reduces median bleeding rate to 1.3 episode per year in phase 3 trial

N8-GP phase 1 pharmacokinetics



Source: Tiede et al. J Thromb Haemot. 2013;11:670-675

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[1]
- Patients in both treatment arms had a median ABR of 0

Next steps

- Expansion of production capacity; US/EU submission 2018

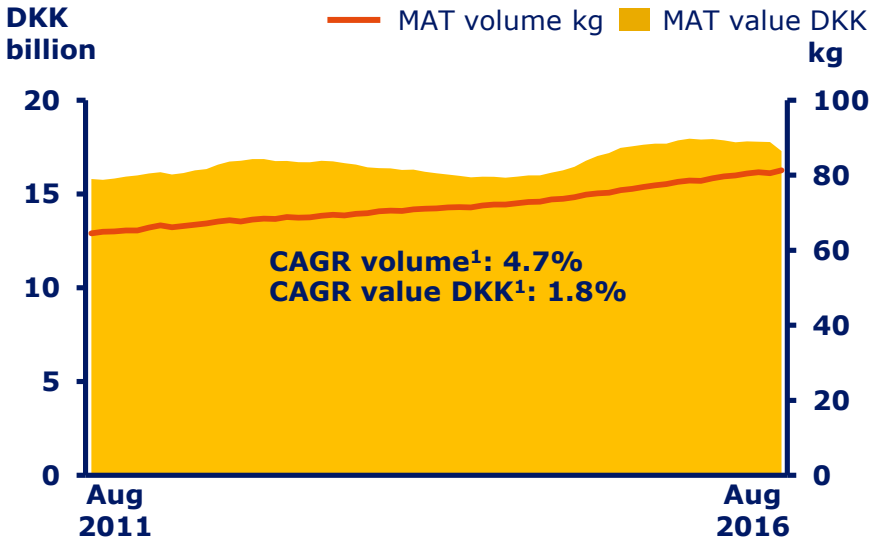
PK: Pharmacokinetic; ABR: Annualised bleeding rate; IU: International unit
[1] Prophylaxis 75 IU/kg every 7 days (n=38) or prophylaxis 50 IU/kg every 4 days (n=17)

changing diabetes®

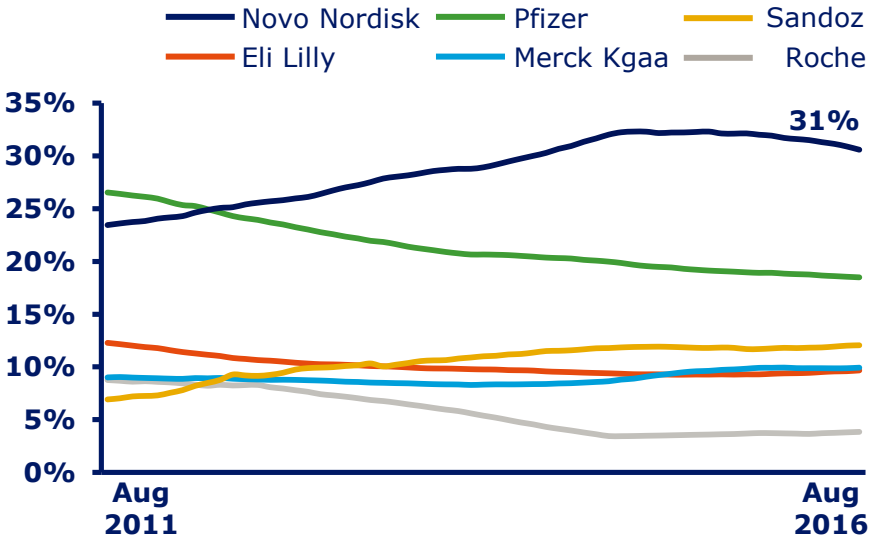
novo nordisk®

Novo Nordisk maintains leadership within human growth hormone (hGH) market

Development in global hGH market



Growth hormone volume market share



[1] CAGR for 5-year period

Source: IMS Monthly MAT August, 2016 volume figures and value (DKK) figures

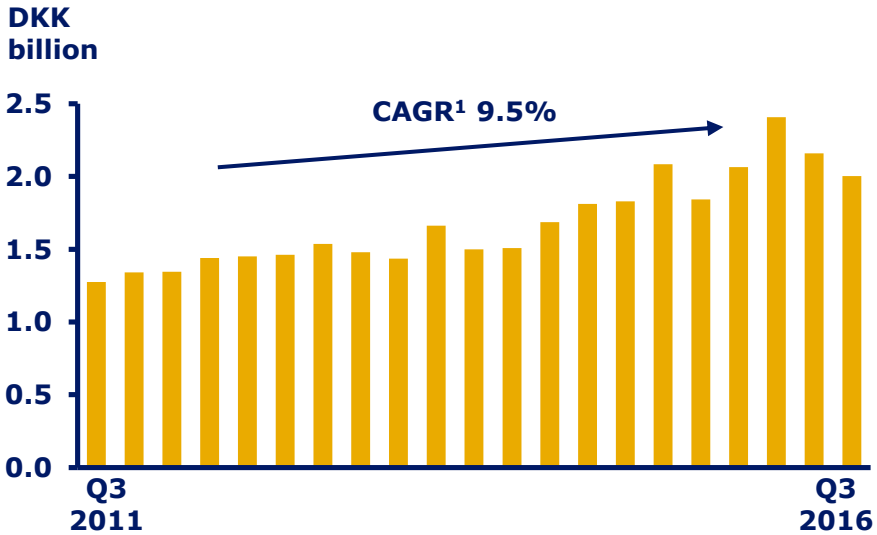
Source: IMS Monthly MAT August, 2016 volume figures

changing diabetes®

novo nordisk®

Solid Norditropin® sales growth

Norditropin® reported sales



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**

[1] CAGR for 5-year period

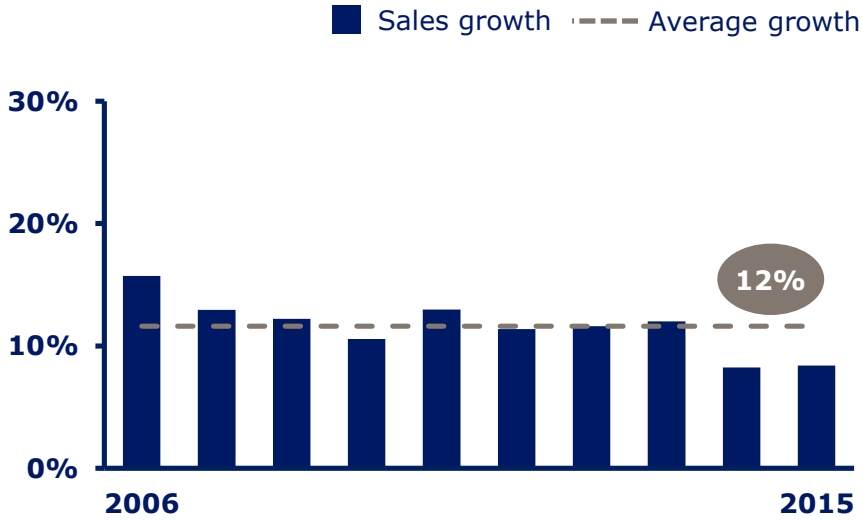
changing diabetes®

novo nordisk®

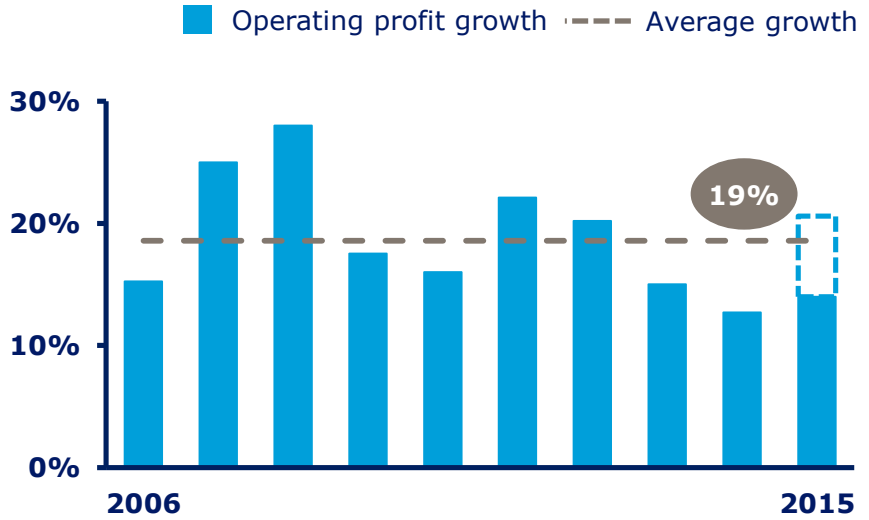
Financials

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



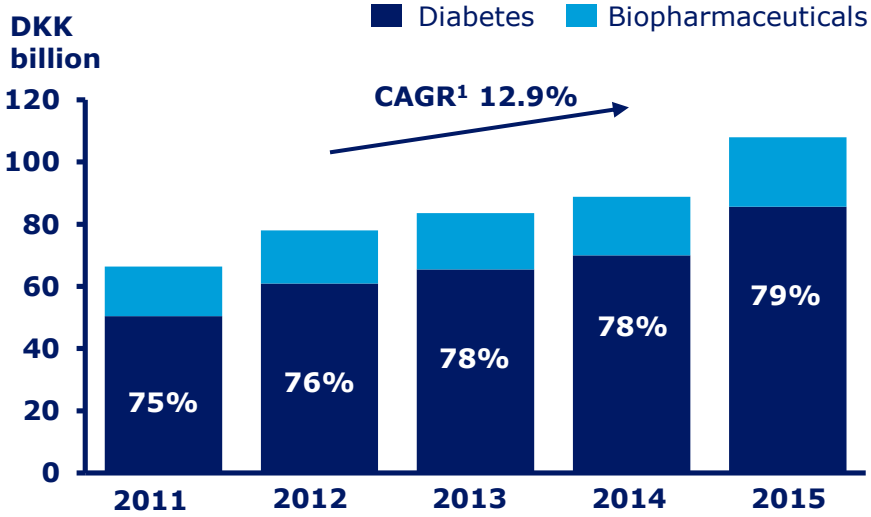
Note: Numbers for 2007 and 2008 are adjusted for the impact of the discontinuation of pulmonary insulin projects; Number for 2015 is adjusted for the non-recurring income related to the partial divestment of NNIT with the dotted component representing this income; average is calculated excluding the effect of the 2015 non-recurring income.

changing diabetes®

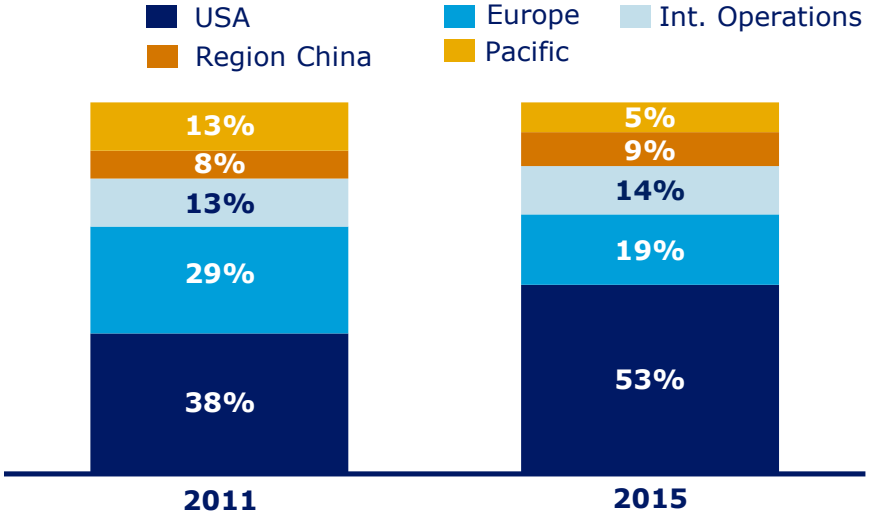
novo nordisk®

Solid sales growth driven by the US, International Operations and Region China

Reported annual sales



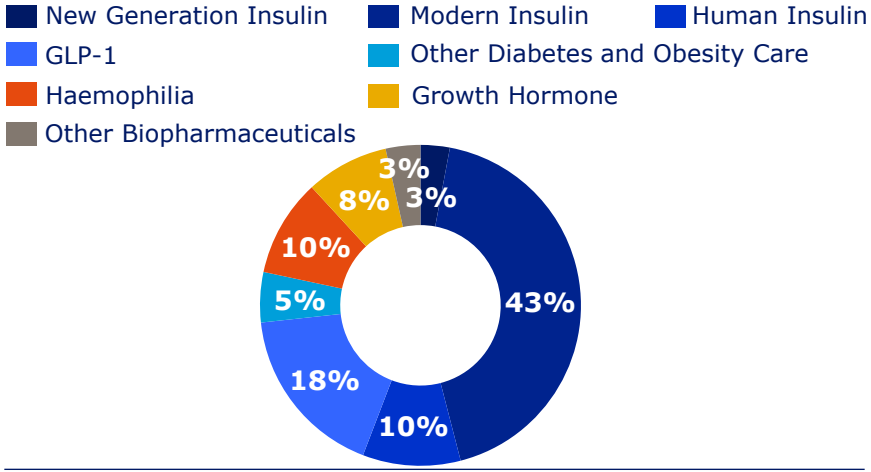
Reported annual sales split by region



¹ CAGR for 4-year period

Modern insulin and Victoza® comprise around 60% of total sales in the first nine months of 2016

Reported sales split by product segments the first nine months of 2016



Sales of DKK 82,208 million (+4%)

Reported sales split by selected key products the first nine months of 2016

Reported currencies	Sales (mDKK)	Sales split
Tresiba	2,506	3%
Levemir®	12,999	16%
NovoRapid®	14,406	18%
NovoMix®	7,886	10%
Victoza®	14,649	18%
Saxenda®	1,037	1%
Diabetes and obesity care[1]	**65,122**	**79%**
NovoSeven®	6,940	8%
Norditropin®	6,568	8%
Biopharmaceuticals[1]	**17,086**	**21%**
Total[1]	**82,208**	**100%**

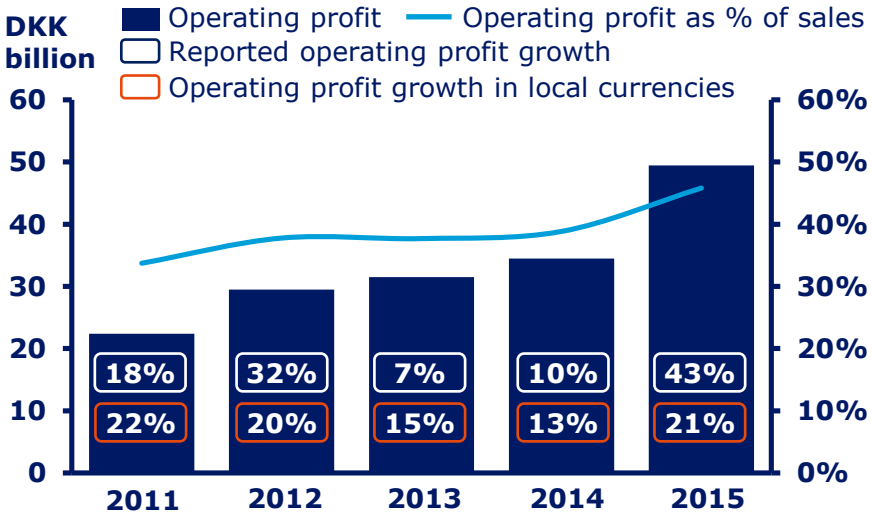
[1] Values are higher than the sum of the total elements listed due to residual values from products not listed

changing diabetes®

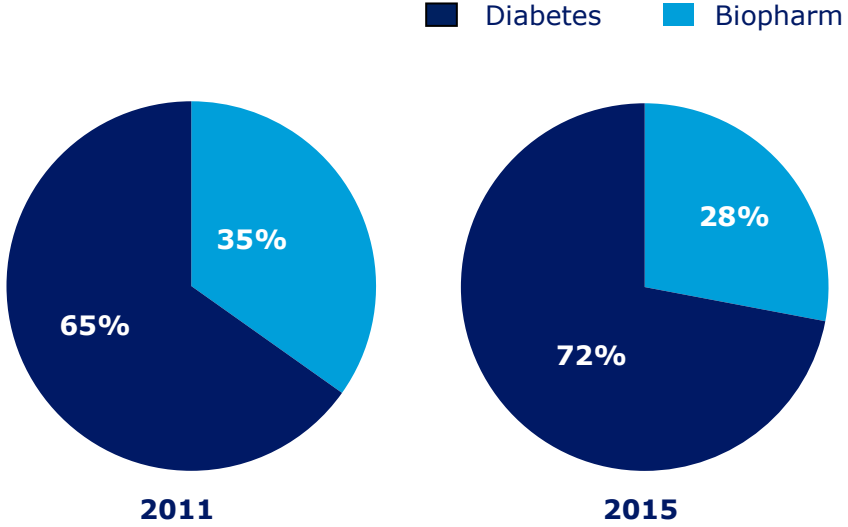
novo nordisk®

Solid operating profit growth driven by diabetes

Operating profit



Operating profit therapy split[1]



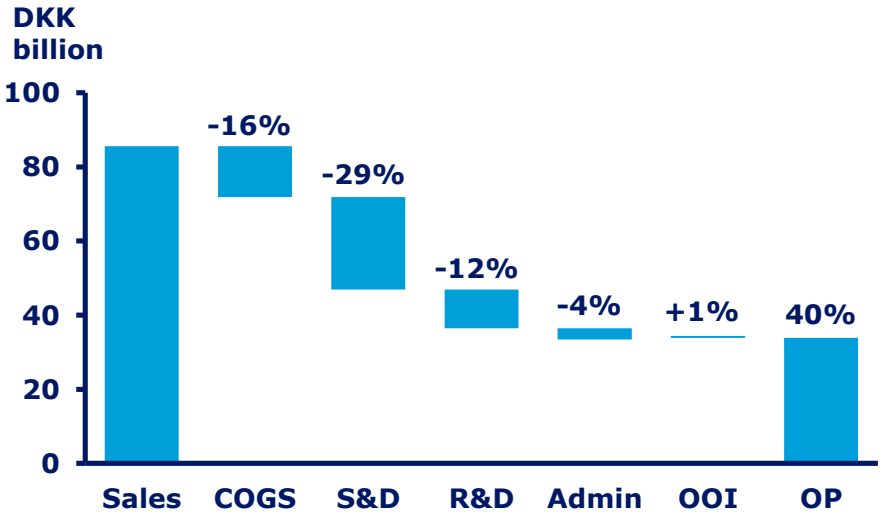
[1] 2015 numbers exclude the impact on operating profit resulting from the non-recurring income related to the partial divestment of NNIT

changing diabetes®

novo nordisk®

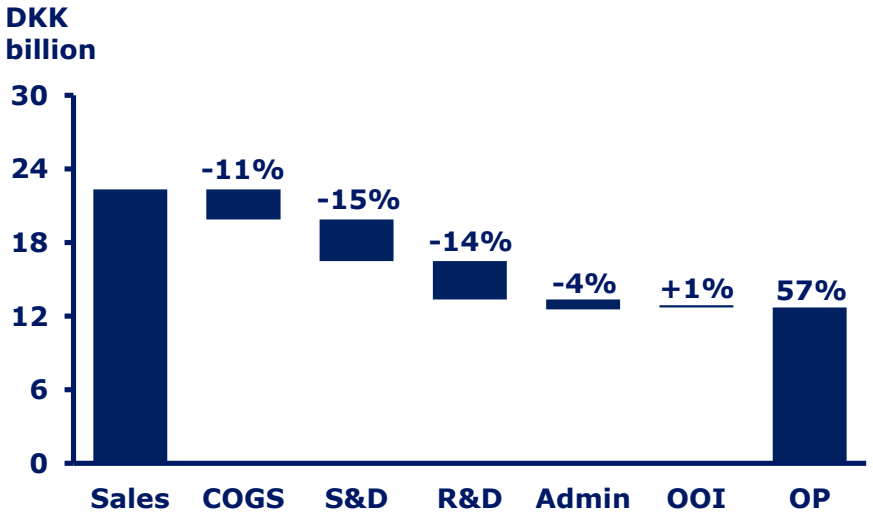
Profitability per segment

Diabetes P&L – full year 2015



P&L: Profit and Loss; COGS: Cost of goods sold; OOI: Other operating income; OP: Operating profit

Biopharmaceuticals[1] P&L – full year 2015



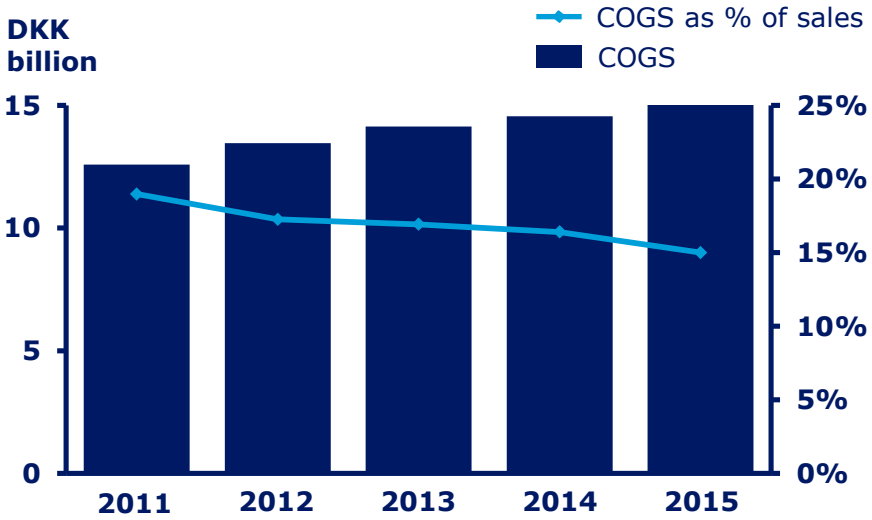
[1] Excluding inflammation

changing diabetes®

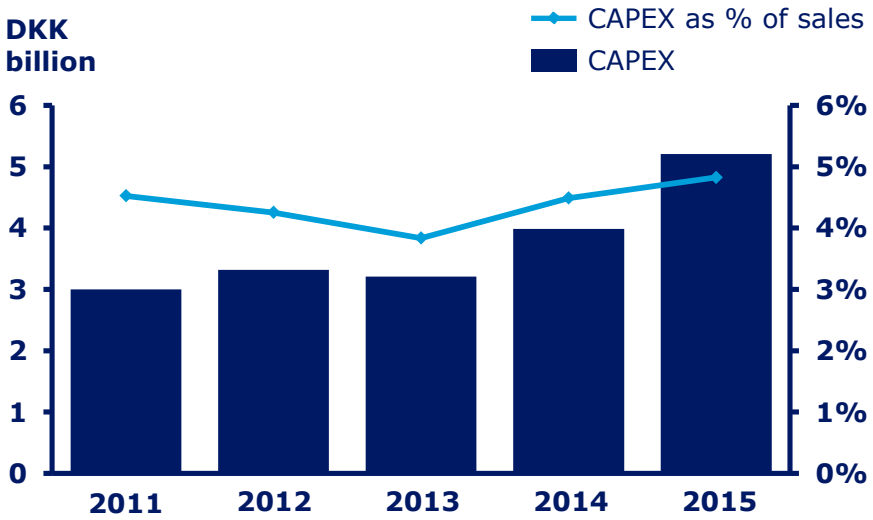
novo nordisk®

Decline in relative COGS level combined with stable investment level

Cost of Goods Sold (COGS)



Capital Expenditure (CAPEX)

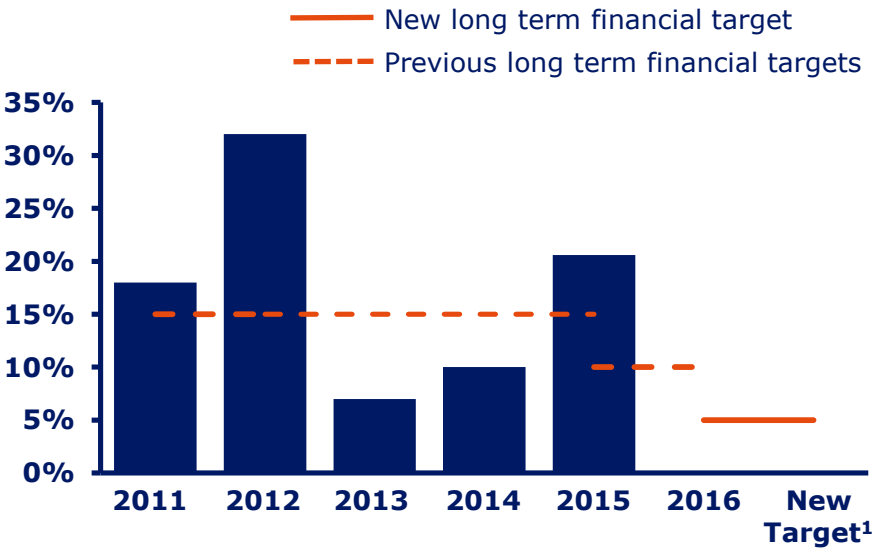


changing diabetes®

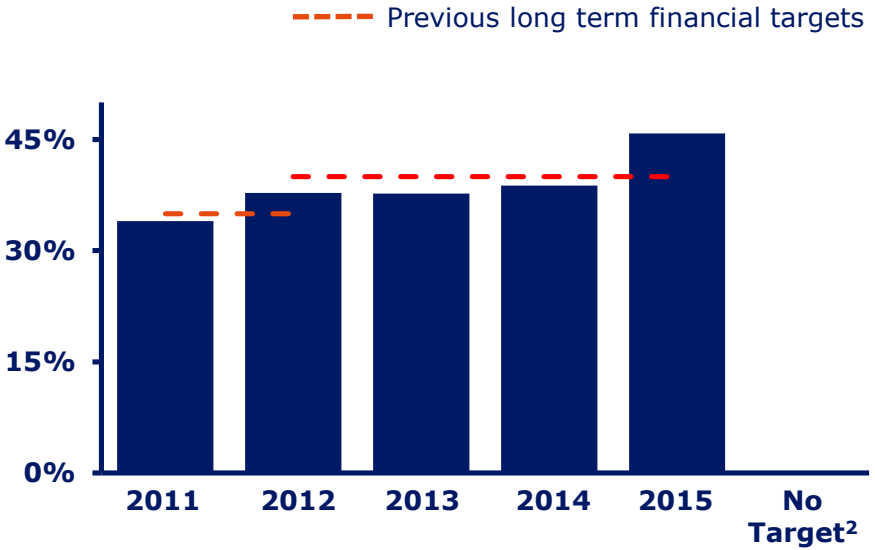
novo nordisk®

Long term financial targets:
Operating profit growth and operating margin

Operating profit growth



Operating margin



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

[1] New long-term target established in connection with the Q3 2016 report

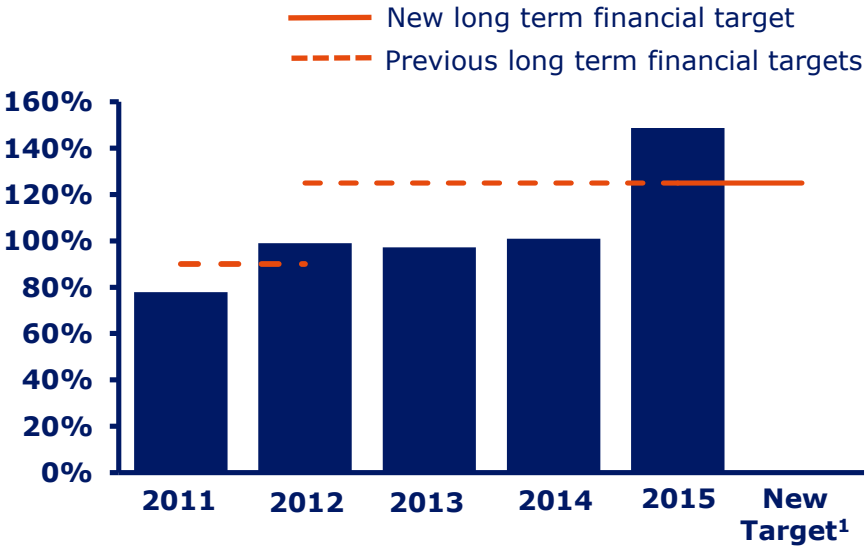
[2] A new target for operating margin has not been established

changing diabetes®

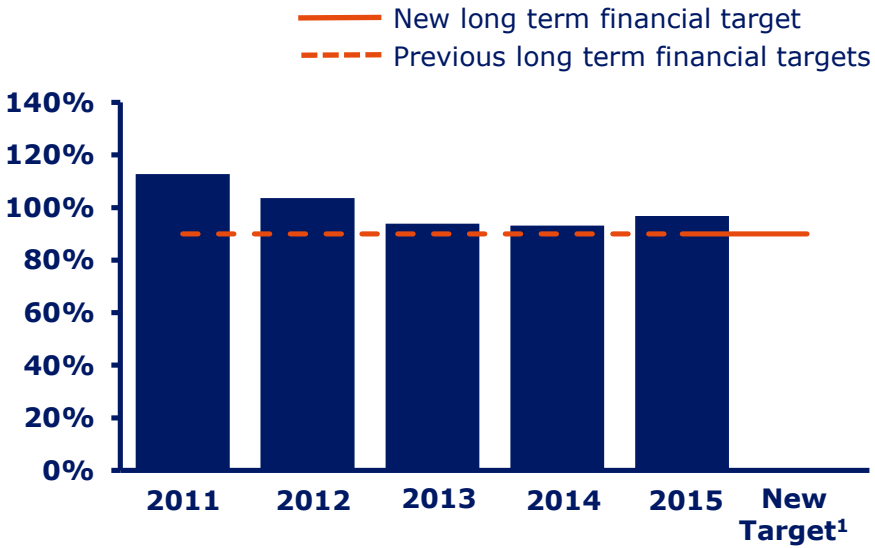
novo nordisk®

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

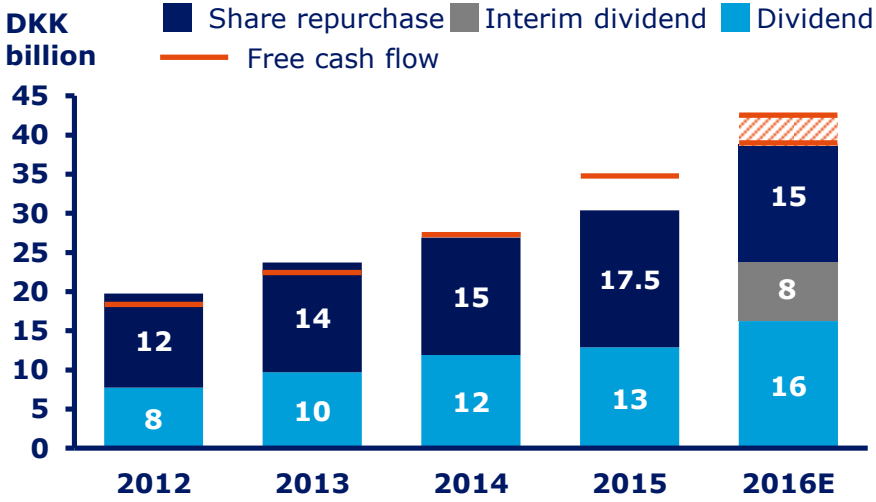
[1] New long-term target established in connection with the full year 2015 report

changing diabetes®

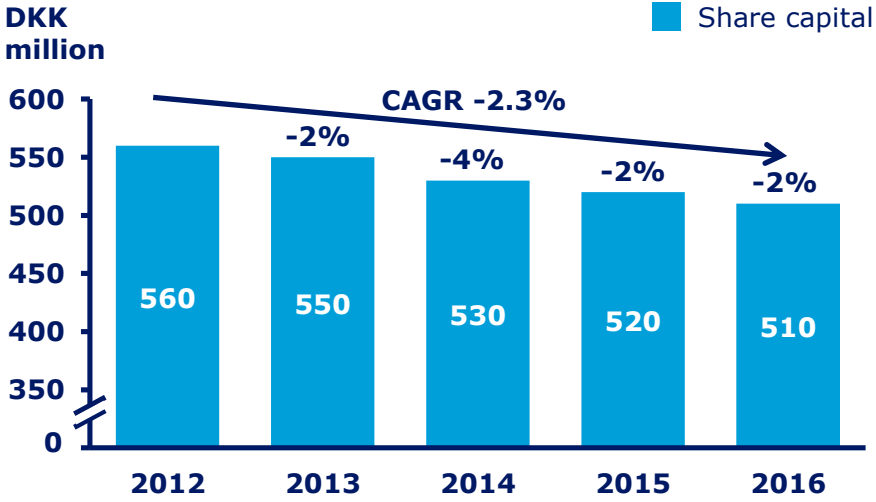
novo nordisk®

Organic growth enables steady cash return to shareholders via dividends and share repurchase programmes

Annual cash return to shareholders



Share repurchase programmes have enabled continued reduction in share capital



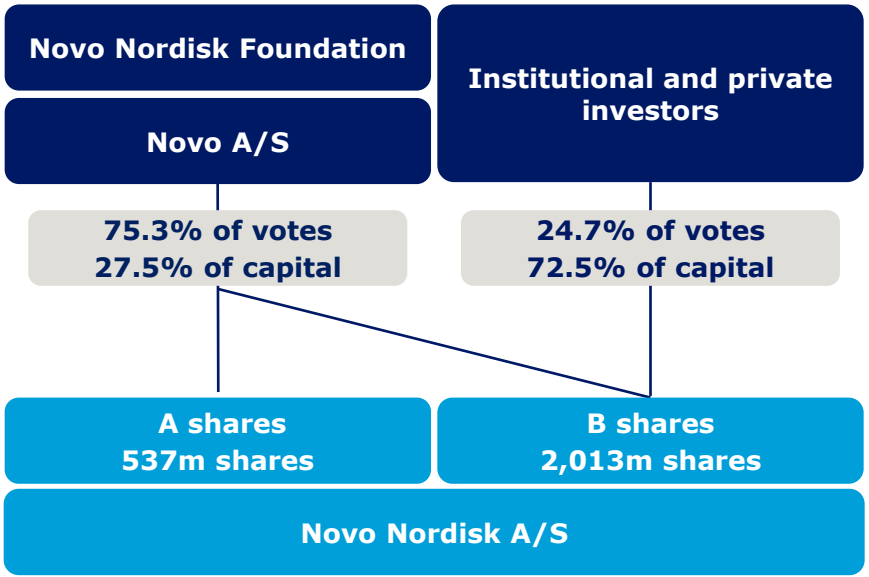
Note: Dividends are allocated to the year of dividend pay. For 2016 expected free cash flow is DKK 38-41 billion. Share repurchase programmes run for 12 months starting February until end January of the following year.

changing diabetes®

novo nordisk®

Stable ownership structure
- secured through A and B-share structure

Share structure



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

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

changing diabetes®

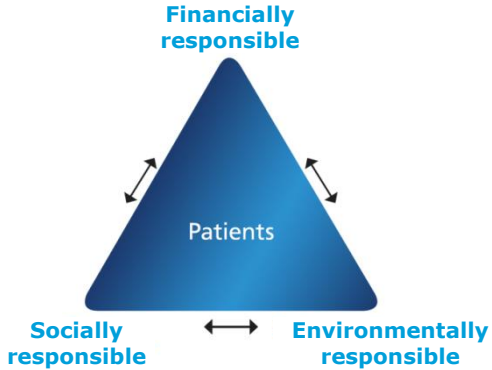
novo nordisk®

Sustainability

The Novo Nordisk Way

We build on the purpose set by our founders and live by their values: The **Novo Nordisk Way** sets the direction and unites us around a common purpose in the pursuit of our aspirations

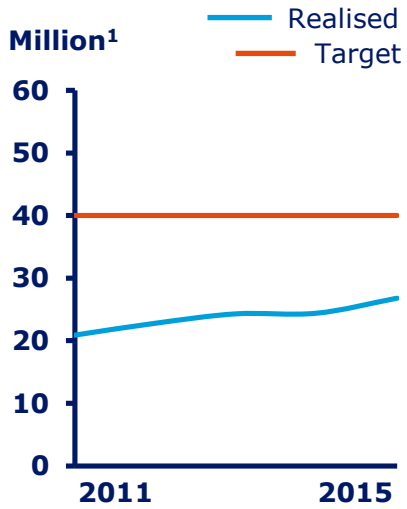
The Triple Bottom Line Business Principle



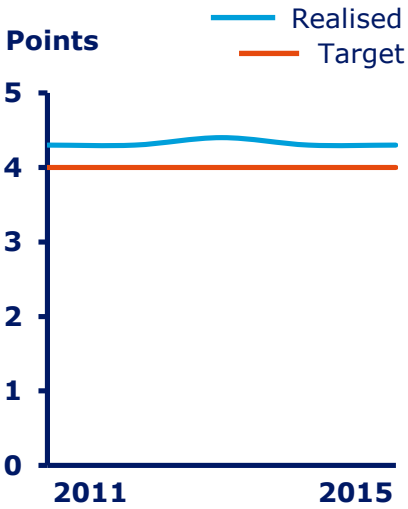
The **Triple Bottom Line Principle** guides how we do business responsibly and how we make decisions that consider the interests of stakeholders and the long-term interests of our shareholders

In 2015, good progress was made towards achieving the long-term sustainability goals

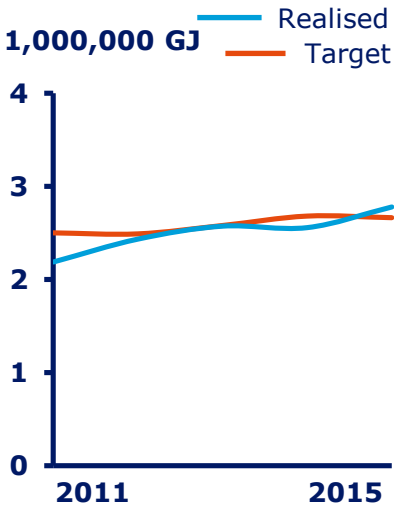
Patients reached with diabetes care products



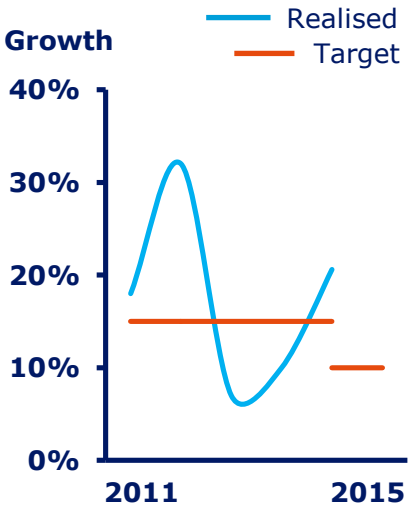
Working the Novo Nordisk Way[2]



Energy consumption[3]



Operating profit growth



[1] Novo Nordisk estimate; [2] Average score in annual employee survey (1-5); [3] Target not to exceed

changing diabetes®

novo nordisk®

Cities Changing Diabetes aims to break the 'Rule of Halves' and stop urban diabetes from ruining millions of lives

Global partnerships to develop an approach to fight urban diabetes

City Leaders

- 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

Seven partner cities are addressing the threat of urban diabetes

Urban diabetes: Type 2 diabetes in cities

Novo Nordisk is committed to the continued development of its employees

Employee health and safety and engagement are key focus areas for management

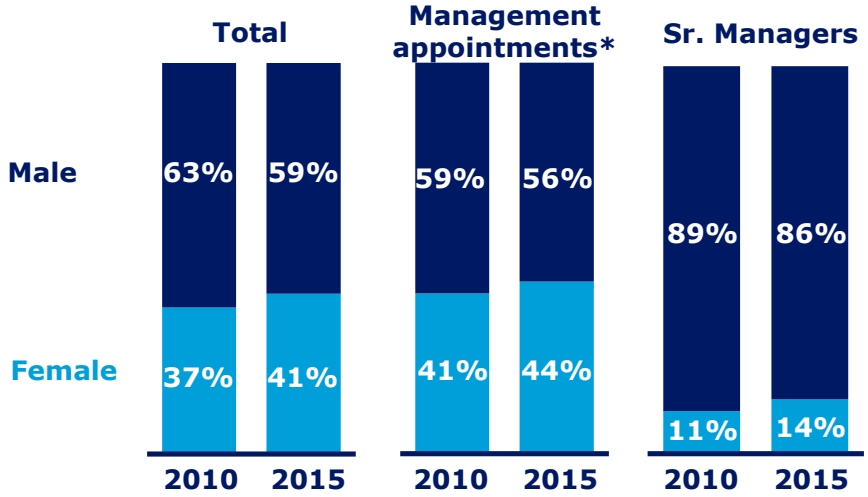
42,605 FTE employees and 6% growth vs LY[1]

4.3 engagement with the Novo Nordisk Way

90.9% retention rate

3.0 accidents per million working hours

Novo Nordisk is committed to building a diverse and inclusive organisation



FTE: full-time employees
[1] Numbers account for the first nine months of 2016 vs 9M 2015

* All appointments to management positions, incl. internal promotions and external hires, ex. NNIT

changing diabetes®

novo nordisk®