

# Satisfactory first half with 4% organic sales growth

Organic sales growth of +4% in the first half (Q2: +5%): Household Care -1%, Food & Beverages +4%, Bioenergy +14%, Agriculture & Feed +3%, Technical & Pharma -6%. EBIT margin at 28.1%. FCF before acq. DKK 890 million. Net profit growth +5%. Full-year 2018 outlook maintained.

**Peder Holk Nielsen, President & CEO of Novozymes:** "Overall, I'm satisfied with our performance in the first half year. Bioenergy performed very well, whereas Household Care was softer than expected. Our innovation pipeline is solid, and a stronger commercial and emerging market focus is paying off. We're launching a new, exciting product for animal health, and both our freshness & hygiene platform for laundry and the new corn inoculant are making good progress. And while uncertainty around global trade and agricultural markets persists, we remain committed to our 2018 guidance."

#### Highlights 1H 2018:

- Organic sales growth of +4% (Q2: +5%) and -4% in DKK. USD/DKK decline of 10% in 1H y/y
- Growth in Food & Beverages and Agriculture & Feed; Bioenergy particularly strong
- Household Care softer than expected, as Q2 was impacted by customers' region-specific challenges in Brazil and North America
- +7% organic sales growth in emerging markets; developed markets +2%
- Good ramp-up of recent product launches. Freshness & hygiene platform in Household Care
  developing according to plan with first commercial product available in stores in the
  Philippines. Preparation of BioAg's B-360 corn inoculant in Q2 after regulatory approval in Q1
- EBIT margin of 28.1% (1H 2017: 27.1%; 28.5% excluding reorganization costs) impacted by currency headwind, increasing input costs and lower deferred income
- Net profit growth of +5% from lower financial costs and lower effective tax rate
- Free cash flow before acquisitions at DKK 890 million; CAPEX at DKK 635 million

**Full-year 2018 outlook maintained on all parameters:** Organic sales growth of 4-6% with continuing high uncertainty around global trade and agricultural markets. Household Care still expected to grow organically for the full year, supported by the freshness & hygiene platform.

		Realized			
	2018 outlook*	1H 2018	1H 2017		
Sales growth, organic	4-6%	4%	3%		
EBIT margin	~28%	28.1%	27.1%		
Net profit growth	~0%	5%	1%		
Net investments excl. acquisitions (DKKm)	1,300-1,500	635	614		
Free cash flow before acquisitions (DKKm)	2,300-2,600	890	1,325		
ROIC (including goodwill)	24-25%	24.0%	24.5%		

<sup>\*</sup> Assumes that the exchange rates for the company's key currencies remain at the rates on August 9 for the rest of 2018.

# August 10, 2018 Interim report for the first

half of 2018. Company announcement No. 47

#### Novozymes A/S

Krogshoejvej 36 2880 Bagsvaerd Denmark

Phone: +45 4446 0000

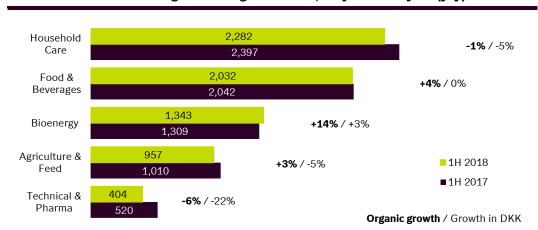


# Selected key data

	1H 2018	1H 2017	Q2 2018	Q2 2017
Sales growth, organic	4%	3%	5%	2%
- Household Care	-1%	1%	-2%	1%
- Food & Beverages	4%	8%	4%	10%
- Bioenergy	14%	7%	20%	8%
- Agriculture & Feed	3%	-6%	13%	-16%
- Technical & Pharma	-6%	-4%	0%	-7%
Sales, DKKm	7,018	7,278	3,498	3,538
Sales growth, DKK	-4%	3%	-1%	3%
Gross margin	57.3%	58.0%	56.8%	58.2%
EBITDA, DKKm	2,464	2,471	1,194	1,206
EBIT, DKKm	1,973	1,973	957	963
EBIT margin	28.1%	27.1%	27.4%	27.2%
Net profit, DKKm	1,583	1,507	776	735
Net profit growth	5%	1%	6%	-2%
Net investments excl. acquisitions, DKKm	635	614	354	343
Free cash flow before acquisitions, DKKm	890	1,325	487	587
Net debt/EBITDA (x)	0.6	0.4		
ROIC (including goodwill)	24.0%	24.5%	23.7%	
EPS, DKK	5.42	5,07	2.66	2.49
EPS (diluted), DKK	5.38	5,05	2.65	2.47
Avg. USD/DKK	616	687	625	676

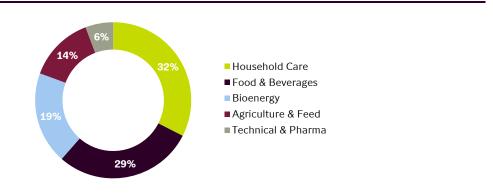
# Sales and markets

#### Sales in DKK million and organic/DKK growth rates, 1H year-over-year (y/y)



Total sales 1H y/y: Organic: +4% DKK: -4%

#### Distribution of sales, 1H 2018



#### **Household Care**

In the first half of 2018, sales to the Household Care industry were down 1% organically and 5% in DKK compared with the same period last year. In the second quarter, sales declined by 2% organically y/y and by 5% in DKK. Sales in the first half were softer than we had anticipated, despite a good start in the first quarter.

Household Care 1H y/y: Organic: -1% DKK: -5%

Sales to local customers continued to see good momentum six months into the year, and sales of enzymes for dishwash solutions continued to deliver strong performance, supported by recent innovation for dried-in cereals and an increased demand for phosphate-free, formulations.

The emerging markets delivered good performance driven by local customers in the first half of 2018. In China, penetration continues, as the demand for liquid detergent formulations grows. Some of our global customers remain focused on cost optimization, particularly in the developed markets. This development was as expected. In the second quarter, sales were impacted by challenges in the Brazilian market related to a truck strike, and in the North American market, where one of our large customers experienced distribution issues.

The rollout of the first commercial detergent product using the freshness & hygiene technology has taken place in the Philippines, and the development is tracking according to plan. Sales are expected to ramp up in the second half of 2018 and in the years to come.



#### Food & Beverages

Food & Beverages sales grew by 4% organically and were flat in DKK compared with the same period last year. In the second quarter, organic growth was 4% and flat in DKK y/y.

Food & Beverages 1H y/y: Organic: +4% DKK: 0%

All main categories grew in the first half of 2018 compared with the same period in 2017, with nutrition and starch being the main drivers. Our solution for low-lactose dairy products continues its good momentum in the market.

Performance in the second quarter was mixed, with good uptake in nutrition, beverages and enzymes for oils and fats, whereas baking continued to see the impact from our pricing strategy in North America. Finally, sales growth for starch-processing enzymes slowed due to recent moves in commodity prices in Asia.

Overall, emerging markets performed well in the first half, while developed markets were roughly flat compared with the first half of 2017.

#### **Bioenergy**

Sales to Bioenergy grew by 14% organically and by 3% in DKK compared with the first half of 2017. In the second quarter, sales grew at 20% organically and 11% in DKK y/y.

Bioenergy 1H y/y: Organic: +14% DKK: +3%

The strong growth momentum we saw within enzymes for conventional biofuels in the first quarter accelerated further during the second quarter, driven by our technology offerings and closeness to our customers in the market. Also, we saw good uptake in Latin America. Our newly launched yeast product, Innova® Drive, also posted good growth in the second quarter, albeit from a low base.

US and global ethanol production are estimated to be up ~2-3% in the second quarter of 2018 compared with the same period last year (~1% in the first half of 2018 compared with the same period of 2017). Inventory levels remain elevated and producer margins tight.

Sales of enzymes for biomass conversion declined in the first half compared with the same period last year.

#### Agriculture & Feed

In Agriculture & Feed, sales increased by 3% organically and were down by 5% in DKK compared with the first half of last year. Organic growth in the second quarter was 13%, while growth in DKK came in at 3% y/y.

Agriculture & Feed 1H y/y: Organic: +3% DKK: -5%

Sales to BioAg picked up and posted strong growth in the second quarter, where we also initialized sales of the Acceleron® B-300/B-360 inoculant for corn to our Alliance partner. The Alliance has started a bit earlier to prepare for the 2019 planting season.

Sales to the animal feed industry continued to decline in the second quarter. This was mainly due to a challenging feed market environment, particularly in Latin America. Within animal probiotics, sales developed well across geographies.

In the first half of 2018, Novozymes recognized DKK 56 million (Q2: DKK 21 million) of deferred income as revenue, compared with DKK 63 million in the first half of 2017 (Q2: DKK 33 million).

#### **Technical & Pharma**

Sales to Technical & Pharma declined by 6% organically and by 22% in DKK in the first half of 2018 compared with the same period last year. Second-quarter sales were flat organically and declined by 23% in DKK compared with the same period last year. The divestment of Albumedix late 2017

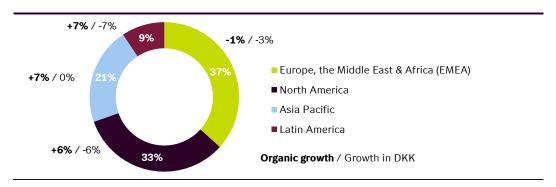
Technical & Pharma 1H y/y: Organic: -6% DKK: -22%



impacted revenue negatively by DKK ~70 million in the first half and negatively by DKK ~50 million in the second quarter. The divestment has no impact on the organic sales growth.

The performance was solid in textiles while pulp & paper was soft. Sales of enzymes for pharmaceutical applications continued to be the main factor in the decline in the second quarter, but this is explained by timing.

#### Sales by geography, 1H 2018



Overall, organic sales grew by 4% in the first half of 2018 compared with the same period last year. Sales to the emerging markets grew organically by 7%, and developed markets were up 2% in the same period. Growth in the emerging markets was primarily driven by Asia Pacific, where in particular Food & Beverages and Household Care posted good performance. Latin America also posted good growth, mainly driven by Bioenergy and Food & Beverages. In the developed markets, sales to Household Care were the main negative in the first half of the year.

In the second quarter of 2018, organic sales grew by 5% overall compared with the same period last year. Sales to the emerging markets grew by 7% organically and by 4% in developed markets in the second quarter of 2018 compared with the same period last year. The drivers of this development in the second quarter were roughly the same as those for the first half as a whole.

#### **Europe, the Middle East & Africa**

Organic sales growth in the first half of 2018 compared with the same period last year was soft in most industries, particularly in Household Care, which was the main reason for the 1% decline. In the second quarter, organic sales growth was flat compared with the same period last year.

Europe, the Middle East & Africa 1H y/y: Organic: -1% DKK: -3%

#### **North America**

North America was solid overall with 6% organic sales growth in the first half and 11% in the second quarter compared with the equivalent periods last year. Bioenergy and BioAg were the main drivers during the first half of 2018, whereas Household Care was soft.

North America 1H y/y: Organic: +6% DKK: -6%

#### **Asia Pacific**

Food & Beverages, Household Care and Agriculture & Feed were the main drivers of the 7% organic sales growth in the first half of 2018 compared with the same period last year. For the second quarter of 2018, Asia Pacific grew by 2% organically, driven mainly by Household Care and Food & Beverages, whereas Agriculture & Feed was soft.

Asia Pacific 1H y/y: Organic: +7% DKK: 0%

#### **Latin America**

Organic sales growth in Latin America was 7% in the first half of 2018 compared with the same period last year, driven by Bioenergy and Food & Beverages. Comparing the second quarter of 2018 with the same period last year, Latin America grew by 15% organically, driven by Bioenergy and Food & Beverages, whereas Agriculture & Feed and Household Care were soft.

Latin America 1H y/y: Organic: +7% DKK: -7%



#### Income statement

Total costs excluding net financials, share of losses in associates and taxes were DKK 5,049 million, a decrease of 5% or DKK 280 million compared with the first half of 2017.

Total costs: -5%

The gross margin was 57.3% for the first half of 2018, which is 0.7 percentage point lower than for the same period last year. Productivity gains and mix impacted the gross margin positively, whereas currencies, higher input costs and lower deferred income had a negative effect.

Gross margin: 57.3%

Operating costs were DKK 2,050 million, a decrease of 10% or DKK 220 million, mainly driven by currencies, costs associated with the reorganization in Q1 2017, the divestment of Albumedix and the change to the leadership team in Q2 2017. Operating costs as a percentage of sales were 29%, slightly lower than for the first half of 2017.

Operating costs: -10%

- Sales and distribution costs declined by 11%, representing 10.7% of sales
- R&D costs declined by 7%, representing 13.1% of sales
- Administrative costs declined by 14%, representing 5.4% of sales

Other operating income was DKK 4 million in the first half of 2018, compared with DKK 24 million in the same period last year.

Depreciation and amortization were DKK 491 million, compared with DKK 498 million in 1H 2017.

Depreciation and amortization: DKK 491 million

The EBIT margin was 28.1%, 1.0 percentage point higher than for the first half of 2017. Excluding the one-time costs relating to organizational changes in Q1 2017 and the change to the Executive Leadership Team in Q2 2017, the EBIT margin was 0.4 percentage point lower. The underlying decline in EBIT margin is mainly explained by the lower gross margin and a negative currency impact as well as lower deferred income.

EBIT: DKK 1,973 million EBIT margin: 28.1%

Novozymes posted a DKK 2 million currency hedging/revaluation loss for the first half of 2018 compared with a loss of DKK 27 million for the same period last year. In addition, Novozymes posted a DKK 5 million gain associated with employee stock appreciation rights, compared with a DKK 6 million loss in the first half of 2017. Interest expenses were DKK 3 million, compared with DKK 11 million in 2017. The share of losses in associates was DKK 5 million, compared with a loss of DKK 6 million in the first half of last year. In total, net financial costs were DKK 14 million.

Net financial costs and share of losses in associates: DKK -19 million

Profit before tax was DKK 1,954 million, an increase of 2% compared with DKK 1,908 million in 1H 2017.

The effective tax rate was 19.0% in 1H 2018, compared with 21.0% in 1H 2017, mainly explained by the transfer of intellectual property assets from Switzerland to Denmark.

Effective tax rate: 19.0%

Net profit was DKK 1,583 million, an increase of 5% from DKK 1,507 million in 1H 2017. This was driven by a lower tax rate and lower net financial costs.

Net profit: DKK 1,583 million



# Cash flow and balance sheet

Cash flow from operating activities was DKK 1,525 million in the first half of 2018, compared with DKK 1,939 million for the same period last year. Higher net profit impacted cash flow positively, while higher net working capital had a negative impact. The development in working capital was caused by higher receivables, lower payables and increasing inventories.

Operating cash flow: DKK 1,525 million

Net investments excluding acquisitions totaled DKK 635 million, roughly on par with the DKK 617 million invested in the first half of 2017. Novozymes continued to invest in its new greenfield facility in Mumbai, India, the capacity expansion in Nebraska, US, and the innovation campus in Lyngby, Denmark. The capacity expansion in Nebraska, US, was completed during the second quarter, the Mumbai plant is expected to be up and running later this year, and the investments in our new innovation campus in Lyngby are expected to continue into 2019.

Net investments: DKK 635 million

Free cash flow before net acquisitions decreased by DKK 432 million to DKK 890 million due to higher net working capital, offset to some extent by higher net profit.

Free cash flow before acquisitions: DKK 890 million

Total shareholders' equity at June 30, 2018, was DKK 10,720 million, compared with DKK 10,676 million at the end of 1H 2017. Shareholders' equity was 56.8% of the balance sheet total, compared with 59.0% at the end of 1H 2017 and 61.3% at year-end 2017. This was due to dividend payments and the continued share buybacks.

Equity ratio: 56.8%

On June 30, 2018, Novozymes had net interest-bearing debt of DKK 2,922 million, compared with DKK 1,842 million at the end of 1H 2017. Net interest-bearing debt-to-EBITDA was 0.6, compared with 0.4 at the end of 1H 2017.

Net interest-bearing debt-to-EBITDA: 0.6

Return on invested capital (ROIC) including goodwill was 24.0%, compared with 24.5% in 1H 2017. This was mainly the result of higher net profit, offset by higher net invested capital.

**ROIC: 24.0%** 

At June 30, 2018, the holding of treasury stock was 6,576,300 B shares, equivalent to 2.2% of the common stock. During the first six months of the year, Novozymes repurchased 2,912,120 B shares with a transaction value of DKK 913 million under the stock buyback program initiated on February 14, 2018. The announced full-year 2018 share buyback program has a total value of DKK 2 billion.

Treasury stock: 2.2%

# Sustainability

Novozymes has introduced annual sustainability targets until new longer-term targets have been established. The goal for 2018 is to grow the absolute consumption of water and energy and absolute  $CO_2$  emissions at a lower rate than the organic sales growth expectation of 4-6%. Novozymes is currently on track to reach most of the sustainability targets set for 2018, although the  $CO_2$  emissions target is relatively more dependent on where in the world production takes place (different energy mix) and, as such, more challenging to reach.

	1H 2018	2018 target
Growth in absolute water consumption	7%	< 4-6%
Growth in absolute energy consumption	6%	< 4-6%
Growth in absolute CO <sub>2</sub> emissions	12%	≤ 4-6%
Energy from renewable sources	23%	23%
Occupational accidents with absence per million working hours	2.5	≤ 1.5
Employee absence	2.2%	≤ 2.0%
Women in Senior Management	28%	≥ 27%



# 2018 outlook

	2018 outlook	2018 outlook	2018 outlook
	August 10*	April 25	February 7
Sales growth, organic	4-6%	4-6%	4-6%
EBIT margin	~28%	~28%	~28%
Net profit growth	~0%	~0%	~0%
Net investments excl. acquisitions (DKKm)	1,300-1,500	1,300-1,500	1,300-1,500
Free cash flow before acquisitions (DKKm)	2,300-2,600	2,300-2,600	2,300-2,600
ROIC (including goodwill)	24-25%	24-25%	24-25%
Avg. USD/DKK*	6.30	6.09	6.00

<sup>\*</sup> Assumes that the exchange rates for the company's key currencies remain at the rates on August 9 for the rest of 2018.

# Sales outlook

Novozymes maintains its outlook of 4-6% organic sales growth for 2018, but is also mindful of the ongoing geopolitical uncertainty and the impact this might have, especially on global agriculture-related markets. Sales in the second half of the year should still benefit from seasonality in BioAg and the contribution from the freshness & hygiene platform in Household Care.

Organic sales growth: 4-6%

Using current spot rates as full-year estimates for the major currencies, Novozymes expects to see a negative impact of ~3 percentage points. At previous guidance in April, we expected a negative impact of ~5 percentage points on sales growth in DKK in 2018. Additionally, the Albumedix divestment late 2017 is expected to impact DKK sales growth negatively by ~1 percentage point. Lower recognition of deferred income (BioAg) in 2018 than in 2017 (DKK 202 million) by some DKK 30 million also reduces reported sales.

**Household Care** (organic: -1% 1H 2018 y/y) organic sales growth is expected to be supported by increased penetration in emerging markets, where we tap into consumer trends with our innovative enzymes for both liquid and powder detergents. The first sales from the freshness & hygiene platform are expected to contribute increasingly to growth from the second half of 2018, and the first commercial product containing this technology is available in stores in the Philippines. The development of this platform is tracking according to plan. The optimization focus of some of our large customers is continuing, as is expected for the remainder of the year, which puts a dampener on growth. Household Care is still expected to grow organically for the full year, but the second-quarter impact from customers experiencing issues in Brazil (truck strike) and North America (global customer with distribution issues) is not expected to be recovered. While the developed markets remain dynamic, innovation, performance and differentiation are driving growth with both existing and new customers.

**Food & Beverages** (organic: +4% 1H 2018 y/y) organic sales growth is expected to be driven by continued step-up in commercial presence, especially in the emerging markets, as well as by new products. Baking is still expected to be impacted by price reductions in the North American freshkeeping market, while sales are expected to perform well in other markets. Enzymes for low-lactose dairy products are expected to maintain their positive growth rate. In general, we expect continued solid growth across industries.

**Bioenergy** (organic: +14% 1H 2018 y/y) organic sales growth is expected to be driven mainly by new product launches and increased penetration from innovation. We expect US ethanol production for 2018 to be roughly on par with 2017, although ethanol inventory levels remain high. We note that



comparisons will become more challenging in the second half of the year. Yeast was added to the product portfolio early in 2018 and will contribute to growth, albeit from a low base.

**Agriculture & Feed** (organic: +3% 1H 2018 y/y) organic sales growth is expected to be driven primarily by good growth in BioAg. New product launches will benefit sales, especially toward the end of the year. We continue to monitor the acquisition of Monsanto by Bayer, but currently do not expect this to have implications for our BioAg business in 2018. Sales to the agriculture-related markets are subject to some uncertainty, due primarily to global farm economics and also global trade issues.

Novozymes expects to recognize around DKK 170 million of the deferred income in BioAg as revenue in 2018. Deferred income does not impact the calculation of organic sales growth rates; it impacts realized sales growth in DKK but has no cash flow impact.

**Technical & Pharma** (organic: -6% 1H 2018 y/y) reported sales growth for the full year will be impacted by the divestment of Albumedix late 2017. (2017 Albumedix revenue was roughly DKK 150 million: 10% in Q1, and the rest roughly evenly split between the remaining quarters.) The divestment will not impact organic growth.

# Profit outlook

The reported EBIT margin in 1H 2018 was 28.1% despite significant headwind from currencies. For full-year 2018, we expect a negative impact from currencies, as well as a higher activity level on the commercial side to support growth opportunities, particularly in emerging markets. As currencies are experiencing high volatility, in particular the US dollar, a weakening relative to what has been assumed in the guidance for the full year (USD/DKK at 6.30) could impact the EBIT margin negatively. The DKK ~30 million lower deferred income expected in 2018 relative to 2017 also reduces the reported EBIT by an identical amount. Sales growth and productivity improvements are expected to be supportive of margins.

EBIT margin: ~28%

Given the current visibility and interpretation of various country-specific tax rules and levels, including in the US, Novozymes expects an effective tax rate of 19-21% for 2018.

Effective tax rate: 19-21%

Net profit growth is expected to be ~0%. The USD currency exposure has been hedged through forward contracts at an average exchange rate of 6.18 USD/DKK for 2018. At this level, the US dollar is roughly 7% lower than the average USD/DKK in 2017.

Net profit growth: ~0%

Net investments are expected to be DKK 1,300-1,500 million (2017: DKK 1,665 million). The relatively high investment level for 2018 reflects continued construction of the innovation campus in Lyngby, Denmark, as well as completion of the enzyme production facility in Mumbai, India, and capacity expansion in Nebraska, US.

Net investments: DKK 1,300-1,500 million

Free cash flow before acquisitions is expected to be DKK 2,300-2,600 million (2017: DKK 2,398 million).

Free cash flow before acq.: DKK 2,300-2,600 million

Return on invested capital including goodwill is expected at 24-25% (2017: 25.6%). The average calculation of invested capital now includes a higher end balance following the major investment programs that we announced early in 2017.

ROIC: 24-25%

# Sustainability outlook

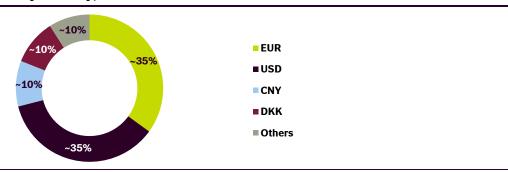
While exploring better long-term sustainability measurements, we will use annual targets for water, energy and  $CO_2$  emissions relative to organic sales growth. In general, we aim to keep growth in resource consumption lower than organic sales growth. We remain committed to continuing our



tradition of taking a lead on sustainability disclosure and providing detailed information on resource consumption data and types of resources in our annual reports.

# Currency exposure

# Sales by currency, 1H 2018



From a currency perspective, we expect 2018 EBIT to be most exposed to fluctuations in the USD.

Other things being equal, a 5% movement in USD/DKK is expected to have an annual positive/negative impact on EBIT of DKK 110-130 million, and a 5% movement in EUR/DKK is expected to have an annual positive/negative impact on EBIT of DKK ~200 million.

Hedging of net currency exposure

- Toug	2018		2019	2019			
	Q1 Q2 Q3 Q4		Q1	Q2	Q3	Q4	
USD		100% hedged via forward contracts at 6.18		100% he forward of 6.11 USE	contracts at		

The outlook is based on exchange rates for the company's key currencies remaining at the closing rates on August 9 for the full year.

DKK	EUR	USD	BRL	CNY
Average exchange rate 2017	744	660	207	98
Average exchange rate 1H'17	744	687	216	100
Average exchange rate 1H'18	745	616	180	97
Average exchange rate 1H'18 compared with 1H'17	0%	-10%	-17%	-3%
Rate at August 9, 2018	745	643	176	94
Estimated average exchange rate 2018*	745	630	171	96
Estimated average exchange rate 2018 compared with 2017	0%	-5%	-15%	-3%

<sup>\*</sup> Estimated average exchange rate on August 9, 2018.



# Incentive programs for selected employees in 2018 with a value of up to DKK 3 million

As in previous years, the Board of Directors has renewed the non-executive annual incentive program, now established for 2018. The aim of the program is for the registered executives of Novozymes A/S to be able to award stock or stock options to employees as a personal bonus for outstanding efforts or for retention purposes. Given the nature of the program, the recipients of the incentives are not known at this point. The registered executives of Novozymes A/S cannot be awarded incentives under this program. The awarded stock options have a vesting period of three years, after which there is an exercise period of five years. The awarded stock has a vesting period of three years. The total cost of the program cannot exceed DKK 3 million, which at current valuation corresponds to about 60,000 stock options.

# Accounting policies

The interim report for the first six months of 2018 has been prepared in accordance with IAS 34 and the additional Danish regulations for the presentation of quarterly interim reports by listed companies. The interim report for the first six months of 2018 follows the same accounting policies as the annual report for 2017, except for all new, amended or revised accounting standards and interpretations (IFRSs) endorsed by the EU effective for the accounting period beginning on January 1, 2018. Of these, IFRS 9 Financial Instruments: Classification and Measurement of Financial Assets and Financial Liabilities and IFRS 15 Revenue from Contracts with Customers are considered most relevant to present.

#### **Impact of IFRS 9**

IFRS 9 contains requirements for the classification and measurement of financial assets and financial liabilities, impairment methodology and general hedge accounting.

The implementation of IFRS 9 has not changed the existing accounting policies nor had an impact on the consolidated financial statements, but has changed the basis for calculating the allowance for doubtful receivables from incurred losses to expected losses. However, this has not had a significant impact on the allowances and thereby the consolidated financial statements.

The standard has been implemented using January 1, 2018 as the date of initial application.

#### **Impact of IFRS 15**

IFRS 15 establishes a single comprehensive framework for revenue recognition. The standard has been implemented using the modified retrospective method.

The implementation of IFRS 15 has not had a significant impact on the income statement or the related key ratios in the consolidated financial statements. However, items previously recognized in the balance sheet are now presented separately as Contract assets and Contract liabilities. All conditional receivables have been recognized as Contract assets, and all obligations to transfer goods or services to customers have been recognized as Contract liabilities.

As of June 30, 2018, DKK 199 million from Trade receivables and DKK 4 million from Other receivables have been recognized as Contract assets. DKK 448 million from Deferred income and DKK 20 million from Other payables have been recognized as Contract liabilities.

# Updated accounting policy for revenue

Novozymes produces a wide range of industrial enzymes and microorganisms. Revenue includes sales of goods and related services and royalties, less goods returned and volume rebates and cash discounts. Revenue is recognized when the performance obligations have been satisfied. This happens when the products have been transferred to the customer and the customer obtains control, which depends on the agreed Incoterms. The average payment terms are approximately 60 days.



The performance obligations in the contracts are to deliver enzymes and microorganisms to the customers, and each batch delivered is considered a separate performance obligation, as each batch is distinct.

Enzymes and microorganisms are sometimes sold with a rebate. A rebate agreement can be set up in various ways, but common to all agreements is that revenue is recognized based on the price specified in the contract, net of the estimated rebate. The rebates are estimated based on experience, as well as information related to expected orders 3-12 months in advance. The estimated rebates are reassessed at the end of each reporting period.

A few of the Group's partnerships and collaborations are by default granted a right of return. An estimate of the expected level of returns is based on an analysis of historical returns and knowledge of those particular markets. The estimate is updated at the end of each reporting period. A refund liability is recognized for the goods expected to be returned. As the goods returned are usually scrapped, no inventory asset is recognized.

#### Measurement and fair value hierarchy

All financial assets and liabilities, except for derivatives, are measured at cost and amortized cost. The carrying amounts for these approximate fair value. Derivatives are measured at fair value based on observable data (level 2 input) according to the fair value hierarchy, as described in the annual report for 2017. There are no financial instruments measured at fair value on the basis of quoted prices (level 1 input) or non-observable data (level 3 input). There have been no significant new items and no transfers between levels compared with 2017.

# Forward-looking statements

This company announcement and its related comments contain forward-looking statements, including statements about future events, future financial performance, plans, strategies and expectations. Forward-looking statements are associated with words such as, but not limited to, "believe," "anticipate," "expect," "estimate," "intend," "plan," "project," "could," "may," "might" and other words of similar meaning. Forward-looking statements are by their very nature associated with risks and uncertainties that may cause actual results to differ materially from expectations, both positively and negatively. The risks and uncertainties may, among other things, include unexpected developments in i) the ability to develop and market new products; ii) the demand for Novozymes' products, market-driven price decreases, industry consolidation, and launches of competing products or disruptive technologies in Novozymes' core areas; iii) the ability to protect and enforce the company's intellectual property rights; iv) significant litigation or breaches of contract; v) the materialization of the company's market-expanding growth platforms, notably the development of microbial solutions for broad-acre crops; vi) political conditions, such as acceptance of enzymes produced by genetically modified organisms; vii) global economic and capital market conditions, including, but not limited to, currency exchange rates (USD/DKK and EUR/DKK in particular, but not exclusively), interest rates and inflation; viii) significant price decreases for inputs and materials that compete with Novozymes' biological solutions. The company undertakes no obligation to update any forward-looking statements as a result of future developments or new information.



# Contact information

Investor Relations:		
Tobias Bjorklund	+45 3077 8682	tobb@novozymes.com
Carl Ahlgren	+45 3077 2783	cxal@novozymes.com
Klaus Sindahl	+45 5363 0134	ksdh@novozymes.com
Media Relations:		
Rene Tronborg (DK)	+45 3077 2274	retr@novozymes.com
Frederik Bjoerndal (US)	+1 646 671 3897	tfbh@novozymes.com

# Statement of the Board of Directors and Executive Leadership Team

The Board of Directors and the Executive Leadership Team have considered and approved the interim report of Novozymes A/S for the first half of 2018. The interim report has not been audited or reviewed by the company's independent auditor.

The interim report for the first half of 2018 has been prepared in accordance with International Financial Reporting Standards and IAS 34 as adopted by the EU, and further requirements in the Danish Financial Statements Act for the presentation of quarterly interim reports by listed companies.

In our opinion, the accounting policies used are appropriate, the Group's internal controls relevant to preparation and presentation of this Group financial statement are adequate, and the Group financial statement gives a true and fair view of the development in the Group's activities and business, and of the Group's assets, liabilities, net profit and financial position at June 30, 2018, as well as the results of the Group's operations and cash flows for the first half of 2018. Besides what has been disclosed in the interim report for the first half of 2018, no changes in the Group's most significant risks and uncertainties have occurred relative to what was disclosed in the annual report for 2017.

Bagsvaerd, August 10, 2018

#### **EXECUTIVE LEADERSHIP TEAM**

Peder Holk Nielsen Thomas Videbæk Prisca Havranek-Kosicek

President & CEO COO CFO

#### **BOARD OF DIRECTORS**

Jørgen Buhl Rasmussen Agnete Raaschou-Nielsen Lars Green

Chairman Vice Chairman

Lena Bech Holskov Anders Hentze Knudsen Kasim Kutay

Lars Bo Køppler Patricia Malarkey Kim Stratton

Mathias Uhlén



# **Appendices**

Appendix 1	Main items and key figures	16
	1.1 Key figures	16
	1.2 Income statement	17
	1.3 Statement of comprehensive income	18
Appendix 2	Distribution of revenue	19
Appendix 3	Statement of cash flows	21
	3.1 Statement of cash flows	21
Appendix 4	Balance sheet and Statement of shareholders' equity	22
	4.1 Balance sheet, Assets	22
	4.2 Balance sheet, Liabilities	23
	4.3 Statement of shareholders' equity	24
Appendix 5	Miscellaneous	25
	5.1 Product launches in 2018	25

# Appendix 1 Main items and key figures

# 1.1 Key figures

(DKK million)	1H 2018	1H 2017	% change	Q2 2018	Q2 2017	% change
Revenue	7,018	7,278	(4)%	3,498	3,538	(1)%
Gross profit	4,019	4,219	(5)%	1,986	2,058	(3)%
Gross margin	57.3%	58.0%		56.8%	58.2%	
EBITDA	2,464	2,471	(0)%	1,194	1,206	(1)%
EBITDA margin	35.1%	34.0%		34.1%	34.1%	
Operating profit / EBIT	1,973	1,973	0%	957	963	(1)%
EBIT margin	28.1%	27.1%		27.4%	27.2%	
Share of result in associates	(5)	(6)		(3)	(3)	
Net financials	(14)	(59)		(9)	(29)	
Profit before tax	1,954	1,908	2%	945	931	2%
Tax	(371)	(401)	(7)%	(169)	(196)	(14)%
Net profit	1,583	1,507	5%	776	735	6%
5 1 2 2 2 2	5.40	5.07	701	0.00	0.40	704
Earnings per DKK 2 share	5.42	5.07	7%	2.66	2.49	7%
Earnings per DKK 2 share (diluted)	5.38	5.05	7%	2.65	2.47	7%
Net investments excl. acq.	635	614				
Free cash flow before net acq. and purchase of financial assets	890	1,325				
Return on invested capital (ROIC) incl. goodwill	24.0%	24.5%				
Net interest-bearing debt	2,922	1,842				
Equity ratio	56.8%	59.1%				
Return on equity	28.8%	26.9%				
Debt-to-equity	27.3%	17.3%				
NIBD / EBITDA	0.6	0.4				
Number of employees	6,323	6,284				

Novozymes' stock	Jun. 30, 2018	Jun. 30, 2017
Common stock (million)	297.0	305.0
Net worth per share (DKK)	36.05	34.96
Denomination of share (DKK)	2.00	2.00
Nominal value of common stock (DKK million)	594.0	610.0
Treasury stock (million)	6.6	9.8



# 1.2 Income statement

(DKK million)	1H 2018	1H 2017	Q2 2018	Q2 2017
Revenue	7,018	7,278	3,498	3,538
Cost of goods sold	(2,999)	(3,059)	(1,512)	(1,480)
Gross profit	4,019	4,219	1,986	2,058
Sales and distribution costs	(754)	(846)	(369)	(405)
Research and development costs	(916)	(980)	(465)	(477)
Administrative costs	(380)	(444)	(192)	(224)
Other operating income, net	4	24	(3)	11
Operating profit / EBIT	1,973	1,973	957	963
Share of result in associates	(5)	(6)	(3)	(3)
Net financials	(14)	(59)	(9)	(29)
Profit before tax	1,954	1,908	945	931
Tax	(371)	(401)	(169)	(196)
Net profit	1,583	1,507	776	735
Attributable to				
Shareholders in Novozymes A/S	1,582	1,507	776	736
Non-controlling interests	1	-	-	(1)
Specification of net financials				
Foreign exchange gain/(loss), net	(2)	(27)	1	(15)
Interest income/(costs)	(3)	(11)	(1)	(5)
Other financial items	(9)	(21)	(9)	(9)
Net financials	(14)	(59)	(9)	(29)
Earnings per DKK 2 share	5.42	5.07	2.66	2.49
Average no. of A/B shares outstanding (million)	292.0	297.0	291.2	296.2
Earnings per DKK 2 share (diluted)	5.38	5.05	2.65	2.47
Average no. of A/B shares, diluted (million)	293.9	298.5	293.0	298.0



# 1.3 Statement of comprehensive income

(DKK million)	1H 2018	1H 2017	Q2 2018	Q2 2017
Net profit	1,583	1,507	776	735
Currency translation of subsidiaries and non-controlling interests	103	(620)	314	(583)
Tax on currency translation of subsidiaries	-	19	-	15
Currency translation adjustments	103	(601)	314	(568)
Fair value adjustments	(60)	92	(115)	70
Tax on fair value adjustments	13	(20)	26	(15)
Cash flow hedges reclassified to financial costs	(3)	32	4	8
Tax on reclassified fair value adjustments	1	(7)	(1)	(2)
Cash flow hedges	(49)	97	(86)	61
Other comprehensive income	54	(504)	228	(507)
Comprehensive income	1,637	1,003	1,004	228
Attributable to				
Shareholders in Novozymes A/S	1,636	1,003	1,004	229
Non-controlling interests	1	-	-	(1)

# Appendix 2 Distribution of revenue

# 2.1 By industry

	2018	2017	% change	% currency	% M&A	% organic
(DKK million)	1H	1H		impact	impact	growth
Household Care	2,282	2,397	(5)	(4)	0	(1)
Food & Beverages	2,032	2,042	0	(4)	0	4
Bioenergy	1,343	1,309	3	(11)	0	14
Agriculture & Feed	957	1,010	(5)	(8)	0	3
Technical & Pharma	404	520	(22)	(3)	(13)	(6)
Sales	7,018	7,278	(4)	(7) *	(1)	4

<sup>\*</sup> The effect from changes in deferred income in BioAg is included in the currency impact. Realized currency impact was -6.1%.

	2018	2017	% change	% currency	% M&A	% organic
(DKK million)	Q2	Q2		impact	impact	growth
Household Care	1,118	1,181	(5)	(3)	0	(2)
Food & Beverages	1,043	1,041	0	(4)	0	4
Bioenergy	695	628	11	(9)	0	20
Agriculture & Feed	441	428	3	(10)	0	13
Technical & Pharma	201	260	(23)	(4)	(19)	0
Sales	3,498	3,538	(1)	(5) *	(1)	5

 $<sup>{}^{\</sup>star}\, \text{The effect from changes in deferred income in BioAg is included in the currency impact.} \, \text{Realized currency impact was -4.7\%}.$ 

	201	8		20:	17		% change
(DKK million)	Q2	Q1	Q4	Q3	Q2	Q1	Q2/Q2
Household Care	1,118	1,164	1,143	1,177	1,181	1,216	(5)
Food & Beverages	1,043	989	977	1,022	1,041	1,001	0
Bioenergy	695	648	698	637	628	681	11
Agriculture & Feed	441	516	599	499	428	582	3
Technical & Pharma	201	203	256	245	260	260	(23)
Sales	3,498	3,520	3,673	3,580	3,538	3,740	(1)



#### 2.2 By geography

	2018	2017	% change	% currency	% M&A	% organic
(DKK million)	1H	1H		impact	impact	growth
Europe, Middle East & Africa	2,574	2,651	(3)	(1)	(1)	(1)
North America	2,310	2,452	(6)	(10)	(2)	6
Asia Pacific	1,481	1,475	0	(7)	0	7
Latin America	653	700	(7)	(14)	0	7
Sales	7,018	7,278	(4)	(7) *	(1)	4
Developed markets	4,548	4,791	(5)	(6)	(1)	2
Emerging markets	2,470	2,487	(1)	(8)	0	7
Sales	7,018	7,278	(4)	(7)	(1)	4

 $<sup>{}^{\</sup>star}\, \text{The effect from changes in deferred income in BioAg is included in the currency impact.} \, \text{Realized currency impact was -6.1\%}.$ 

	2018	2017	% change	% currency	% M&A	% organic
(DKK million)	Q2	Q2		impact	impact	growth
Europe, Middle East & Africa	1,289	1,303	(1)	0	(1)	0
North America	1,162	1,161	0	(8)	(3)	11
Asia Pacific	717	739	(3)	(4)	(1)	2
Latin America	330	335	(1)	(16)	0	15
Sales	3,498	3,538	(1)	(5) *	(1)	5
Developed markets	2,270	2,315	(2)	(4)	(2)	4
Emerging markets	1,228	1,223	0	(7)	0	7
Sales	3,498	3,538	(1)	(5)	(1)	5

 $<sup>{}^{\</sup>star}\, \text{The effect from changes in deferred income in BioAg is included in the currency impact.} \, \text{Realized currency impact was -4.7\%}.$ 

	2018			2017		•	% change
(DKK million)	Q2	Q1	Q4	Q3	Q2	Q1	Q2/Q2
Europe, Middle East & Africa	1,289	1,285	1,278	1,322	1,303	1,348	(1)
North America	1,162	1,148	1,340	1,160	1,161	1,291	0
Asia Pacific	717	764	707	683	739	736	(3)
Latin America	330	323	348	415	335	365	(1)
Sales	3,498	3,520	3,673	3,580	3,538	3,740	(1)
Developed markets	2,270	2,278	2,440	2,277	2,315	2,476	(2)
Emerging markets	1,228	1,242	1,233	1,303	1,223	1,264	0
Sales	3,498	3,520	3,673	3,580	3,538	3,740	(1)



# Appendix 3 Statement of cash flows

# 3.1 Statement of cash flows

(DKK million)	1H 2018	1H 2017
Net profit	1,583	1,507
Reversals of non-cash items	982	862
「ax paid	(316)	(284)
nterest received	5	3
nterest paid	(7)	(16)
Cash flow before change in working capital	2,247	2,072
Change in working capital		
Increase)/decrease in receivables and contract assets	(226)	22
Increase)/decrease in inventories	(168)	(122)
ncrease/(decrease) in payables, deferred income and contract liabilities	(328)	(39)
Currency translation adjustments	-	6
Cash flow from operating activities	1,525	1,939
nvestments		
Purchase of intangible assets	(20)	(44)
Sale of property, plant and equipment	3	21
Purchase of property, plant and equipment	(618)	(591)
Cash flow from investing activities before acquisitions, divestments and purchase of financial assets	(635)	(614)
Free cash flow before acquisitions, divestments and purchase of financial assets	890	1,325
Business acquisitions, divestments and purchase of financial assets	-	(3)
ree cash flow	890	1,322
Financing		
Borrowings	1,326	650
Repayments of borrowings	(215)	(137)
Purchase of treasury stock	(913)	(1,062)
Sale of treasury stock	76	94
Dividend paid	(1,317)	(1,192)
Cash flow from financing activities	(1,043)	(1,647)
Net cash flow	(153)	(325)
Inrealized gain/(loss) on currencies and financial assets,		
ncluded in cash and cash equivalents	(15)	(15)
Change in cash and cash equivalents, net	(168)	(340)
Cash and cash equivalents, net, at January 1	363	805
Cash and cash equivalents, net, at June 30	195	465



# Appendix 4 Balance sheet and Statement of shareholders' equity

# 4.1 Balance sheet, Assets

(DKK million)	Jun. 30, 2018	Jun. 30, 2017	Dec. 31, 2017
Completed IT development projects	115	121	133
Acquired patents, licenses and know-how	1,023	1,280	1,130
Goodwill	1,090	1,132	1,108
IT development projects in progress	60	64	61
Intangible assets	2,288	2,597	2,432
Land and buildings	2,678	2,775	2,697
Plant and machinery	4,177	3,976	4,019
Other equipment	577	527	562
Assets under construction and prepayments	1,826	1,229	1,648
Property, plant and equipment	9,258	8,507	8,926
Deferred tax assets	756	578	755
Other financial assets (non-interest-bearing)	30	138	29
Investment in associate	54	66	59
Other receivables	30	28	35
Non-current assets	12,416	11,914	12,236
Raw materials and consumables	343	344	308
Goods in progress	721	666	727
Finished goods	1,688	1,550	1,551
Inventories	2,752	2,560	2,586
Trade receivables	2,534	2,536	2,554
Contract assets	203		
Tax receivables	150	90	135
Other receivables	257	278	214
Receivables	3,144	2,904	2,903
Other financial assets (non-interest-bearing)	45	35	16
Other financial assets	45	35	16
Cash and cash equivalents	501	647	632
Current assets	6,442	6,146	6,137
Assets	18,858	18,060	18,373

# 4.2 Balance sheet, Liabilities

(DKK million)	Jun. 30, 2018	Jun. 30, 2017	Dec. 31, 2017
Common stock	594	610	610
Currency translation adjustments	(159)	69	(262)
Cash flow hedges	(4)	56	45
Retained earnings	10,276	9,928	10,861
Equity attributable to shareholders in Novozymes A/S	10,707	10,663	11,254
Non-controlling interests	13	13	13
Shareholders' equity	10,720	10,676	11,267
Deferred tax liabilities	723	867	721
Provisions	112	198	159
Contract liabilities	298		
Deferred income	1	484	337
Other financial liabilities (interest-bearing)	2,000	1,688	1,303
Other financial liabilities (non-interest-bearing)	9	9	9
Non-current liabilities	3,143	3,246	2,529
Other financial liabilities (interest-bearing)	1,423	801	971
Other financial liabilities (non-interest-bearing)	63	5	8
Provisions	153	86	86
Trade payables	1,190	1,134	1,341
Contract liabilities	170		
Deferred income	34	245	205
Tax payables	613	421	483
Other payables	1,349	1,446	1,483
Current liabilities	4,995	4,138	4,577
Liabilities	8,138	7,384	7,106
Liabilities and shareholders' equity	18,858	18,060	18,373

# 4.3 Statement of shareholders' equity

	At	Attributable to shareholders in Novozymes A/S					
(DKK million)	Common stock	Currency translation adjustments	Cash flow hedges	Retained earnings	Total	Non- controlling interests	Total
Shareholders' equity at January 1, 2018	610	(262)	45	10,861	11,254	13	11,267
Net profit for the period				1,582	1,582	1	1,583
Other comprehensive income for the period		103	(49)		54	-	54
Total comprehensive income for the period		103	(49)	1,582	1,636	1	1,637
Purchase of treasury stock				(913)	(913)		(913)
Sale of treasury stock				76	76		76
Write-down of common stock	(16)			16	-		-
Dividend				(1,316)	(1,316)	(1)	(1,317)
Stock-based payment				50	50		50
Tax related to equity items				(80)	(80)		(80)
Changes in shareholders' equity	(16)	103	(49)	(585)	(547)	-	(547)
Shareholders' equity at June 30, 2018	594	(159)	(4)	10,276	10,707	13	10,720
Shareholders' equity at January 1, 2017	620	670	(41)	10,483	11,732	13	11,745
Net profit for the period				1,507	1,507	-	1,507
Other comprehensive income for the period		(601)	97		(504)	-	(504)
Total comprehensive income for the period		(601)	97	1,507	1,003	-	1,003
Purchase of treasury stock				(1,062)	(1,062)		(1,062)
Sale of treasury stock				94	94		94
Write-down of common stock	(10)			10	-		-
Dividend				(1,192)	(1,192)	-	(1,192)
Stock-based payment				46	46		46
Tax related to equity items				42	42		42
Changes in shareholders' equity	(10)	(601)	97	(555)	(1,069)	-	(1,069)
Shareholders' equity at June 30, 2017	610	69	56	9,928	10,663	13	10,676



#### Appendix 5 Miscellaneous

#### 5.1 Product launches in 2018

Q1 2018	Innova® Drive – Our first launch within yeast for conventional biofuels.
Q1 2018	Licheninase – New enzyme class launched for automatic dishwash targeting oat fibers such as dried-in cereals (exclusive launch).

#### About Novozymes

Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping build better lives. As the world's largest provider of enzyme and microbial technologies, our bioinnovation enables higher agricultural yields, low-temperature washing, energy-efficient production, renewable fuel and many other benefits that we rely on today and in the future. We call it Rethink Tomorrow. www.novozymes.com

Novozymes A/S CVR number: 10 00 71 27, LEI: 529900T6WNZXD2R3JW38

Novozymes A/S

Krogshoejvej 36 2880 Bagsvaerd Denmark

Phone: +45 4446 0000

