



2019 outlook confirmed; second-half acceleration supported by innovation

2019 outlook confirmed on all fronts following the adjustments communicated on June 6. First-half year-on-year (y/y) organic sales growth of -3%: Household Care -2%, Food & Beverages -2%, Bioenergy -4%, Agriculture & Feed -6%, Technical & Pharma +2%. EBIT margin 30.0%. Net profit up 1 percentage point (y/y). Free cash flow before acquisitions DKK 1.2 billion.

Peder Holk Nielsen, President & CEO: *“Our half-year sales performance is not satisfactory, but as expected, following the revised full-year outlook on June 6. Softness in US agriculture and some emerging markets, including the Middle East, has created headwinds. We’re confident sales growth will accelerate in the second half of the year as the Freshness platform, BioAg and Bioenergy all step up, and the Middle East comparison eases. We’re now in the process of executing on the updated strategy and reallocation program that we announced on June 16.”*

August 8, 2019

Interim report for 1H 2019.
Company announcement
no. 27

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Highlights 1H 2019:

- On track to deliver on the 2019 outlook following the June 6 adjustments
- Three new product launches in Q2 for the global ethanol industry: Innova[®] Force, Innova[®] Fit and Fortiva[®]
- Negative impact from US agriculture, the Middle East, weakness in starch in Asia Pacific and price adjustments in US baking enzymes
- Developed markets flat; 8% organic sales decline in emerging markets, mainly due to the Middle East but also softness in some emerging markets, such as China
- Reported EBIT margin at 30.0%, supported by one-offs from accumulated deferred income relating to BioAg and the divestment of the remaining pharma-related royalty in Q2
- Net profit up 1% y/y, positively impacted by one-offs, but reduced by US dollar hedging
- Free cash flow before acquisitions DKK 1.2 billion; net investments DKK 0.4 billion
- Shares totaling DKK 731 million bought back within the 2019 stock buyback program of up to DKK 2 billion

The Board of Directors proposes the election of Mr. Cees de Jong as a new board member, subject to approval at the annual shareholders’ meeting on February 26, 2020.

2019 outlook: Organic sales growth 1-3%, with an expected 0.5-1 percentage point addition to growth in DKK. The 1-3% range reflects acceleration in the second half. EBIT margin at 28-29% including ~2 percentage points from one-offs. Net profit growth of 3-8%. CAPEX at DKK 1.0-1.2 billion. FCF bef. acq. at DKK 1.9-2.3 billion. ROIC at ~23% (~24% excl. IFRS 16 – Leases).

	Realized		2019 outlook	2019 outlook*
	1H 2018	1H 2019	June 6	Aug. 8
Sales growth, organic	4%	-3%	1-3%	1-3%
EBIT margin	28.1%	30.0%	28-29%	28-29%
Net profit growth	5%	1%	3-8%	3-8%
Net investments excl. acquisitions (DKKbn)	0.6	0.4	1.0-1.2	1.0-1.2
Free cash flow before acquisitions (DKKbn)	0.9	1.2	1.9-2.3	1.9-2.3
ROIC (including goodwill)	24.0%	21.9%	~23**	~23%**

* Assumes that the exchange rates for the company’s key currencies remain at the rates prevailing on August 7 for the rest of 2019.

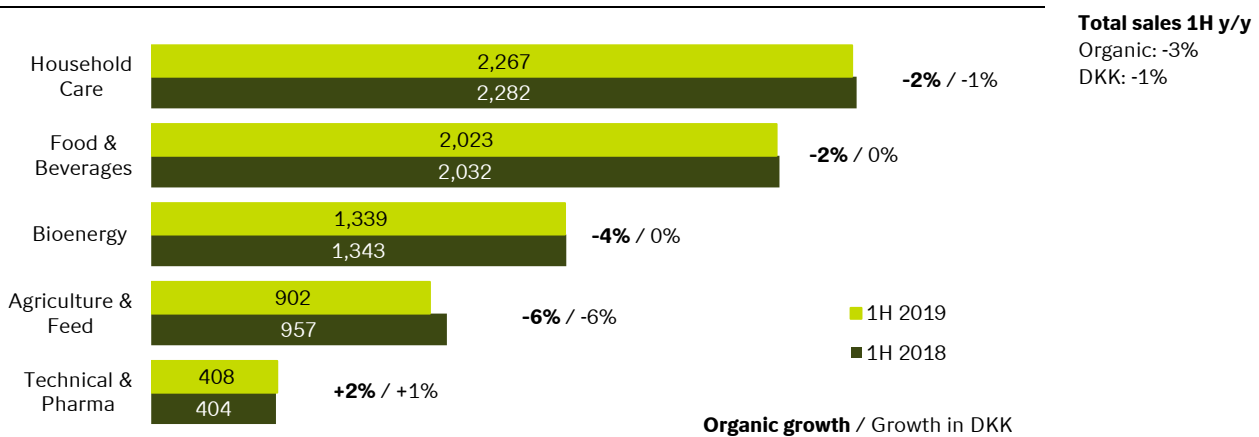
** The implementation of IFRS 16 – Leases has a negative impact on ROIC of approximately 1 percentage point.

Selected key data

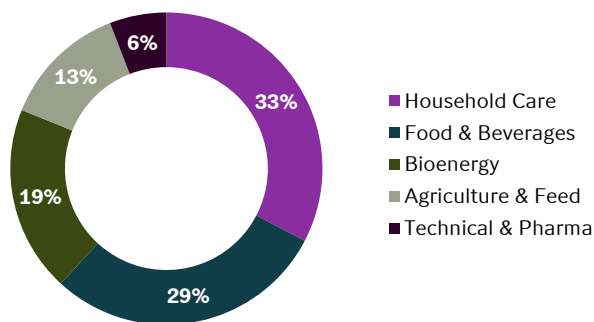
	1H 2019	1H 2018	Q2 2019	Q2 2018
Sales growth, organic	-3%	4%	-2%	5%
Household Care	-2%	-1%	-1%	-2%
Food & Beverages	-2%	4%	-3%	4%
Bioenergy	-4%	14%	-1%	20%
Agriculture & Feed	-6%	3%	-7%	13%
Technical & Pharma	2%	-6%	-2%	-7%
Sales, DKKm	6,939	7,018	3,458	3,498
Sales growth, DKK	-1%	-4%	-1%	-1%
Gross margin	55.1%	57.3%	54.6%	56.8%
EBITDA, DKKm	2,716	2,464	1,551	1,194
EBIT, DKKm	2,084	1,973	1,189	957
EBIT margin	30.0%	28.1%	34.4%	27.4%
Net profit, DKKm	1,595	1,583	898	776
Net profit growth	1%	5%	16%	6%
Net investments excl. acquisitions, DKKm	396	635	253	354
Free cash flow before acquisitions, DKKm	1,218	890	798	487
Net debt/EBITDA (x)	0.7	0.6	0.7	0.6
ROIC (incl. goodwill)	21.9%	24.0%	24.7%	23.7%
EPS, DKK	5.55	5.42	3.14	2.66
EPS (diluted), DKK	5.53	5.38	3.12	2.65
Avg. USD/DKK	661	616	664	625

Sales by business area

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



Distribution of sales by business area, 1H 2019



Household Care

Household Care sales declined by 2% organically and by 1% in DKK in the first half of 2019 compared with the first half of 2018. This development was expected, as challenges in the Middle East due to economic distress in some markets continue to impact negatively. In the second quarter, sales declined by 1% organically and were flat in DKK.

Household Care 1H y/y
Organic: -2%
DKK: -1%

Local customers continued their good momentum in the first half of 2019, while sales to the large global detergent manufacturers were still weak, albeit improving.

Sales in the developed markets grew slightly, driven by further penetration with local customers. Sales to emerging markets declined overall due to the situation in the Middle East and softer demand in some emerging markets. The good momentum in India continued.

The commercial rollout of our Freshness platform is progressing as planned, and innovation for the next-generation solution is showing very encouraging results. We expect sales of our Freshness solutions to contribute materially to growth in the second half of the year.

Food & Beverages

Food & Beverages declined by 2% organically and was flat in DKK in 1H 2019 compared with the same period last year. In the second quarter of 2019, sales declined by 3% organically and by 1% in DKK.

Food & Beverages 1H y/y

Organic: -2%
DKK: 0%

Sales developments in the Food & Beverages industries were mixed in the first half of 2019, with beverages and food & nutrition contributing positively, while baking and starch were challenged.

Sales in baking were negatively impacted by economic distress in the Middle East and by price adjustments for freshkeeping solutions, in particular in the North American market. Sales in starch stabilized in the second quarter after a weak start to the year, with challenges due to wet weather in the US Midwest and high corn prices, particularly in China. The recently launched grain-milling solution, Frontia® Jade, has been well received in the market.

Food & nutrition was the biggest growth contributor in the first half year of 2019, driven by strong demand for our protein ingredients and plant extraction products. Beverage sales performed well.

Bioenergy

Sales to Bioenergy declined by 4% organically and were flat in DKK for the first half of 2019 compared with the same period last year. In the second quarter, sales were flat organically and grew by 3% in DKK y/y.

Bioenergy 1H y/y

Organic: -4%
DKK: 0%

US ethanol production in the first half of 2019 was negatively impacted by wet weather in the Midwest. The situation for our customers was challenged in the first quarter, with production normalizing in the second quarter. We estimate our customers' volumes in the first half of the year to be down slightly more than the general 1-2% decline in US ethanol production. At the same time, ethanol producer margins remain under pressure across the industry with increasing corn prices and continued high inventories resulting in a challenging market for customers to operate in.

On May 31, the US Environmental Protection Agency approved year-round sale in the US of gasoline containing 15% ethanol (E15). While this is a big win for the industry, the impact on Novozymes is expected to be minor in 2019. In China, the E10 mandate is being executed as provinces announce implementation of the mandate.

Agriculture & Feed

In Agriculture & Feed, sales declined by 6% both organically and in DKK compared with the first half of 2018. In the second quarter, sales declined by 7% organically and by 8% in DKK y/y.

Agriculture & Feed 1H y/y

Organic: -6%
DKK: -6%

The decline in sales was mainly due to the situation in the US Midwest, where wet weather has affected the planting and expected yields of both corn and soybeans. Sales of feed enzymes posted growth in the second quarter, supported by the new animal health enzyme Balancius™.

The new BioAg setup was announced on April 4 with Bayer continuing as the main partner but with increased flexibility beyond that. The Bayer partnership is progressing well with the key product launch for upstream corn (BioRise) on track as well as new biological solutions for European wheat, translating learnings from the corn innovation. In addition, a new product for Latin American soy is being launched together with Bayer. The new partnerships are on track too: the new Canadian partnership with Univar comprising a dedicated, experienced sales team under the brand Univar NexusBioAg, along with exploration of other partnerships, including UPL.

During the first half of 2019, Novozymes recognized DKK 24 million of deferred income (Q2: DKK 0 million), compared with DKK 56 million in the first half of 2018 (Q2: DKK 21 million). The remaining

balance of DKK 287 million was recognized as other operating income in Q2, and there is no longer any deferred income related to The BioAg Alliance on the balance sheet.

Technical & Pharma

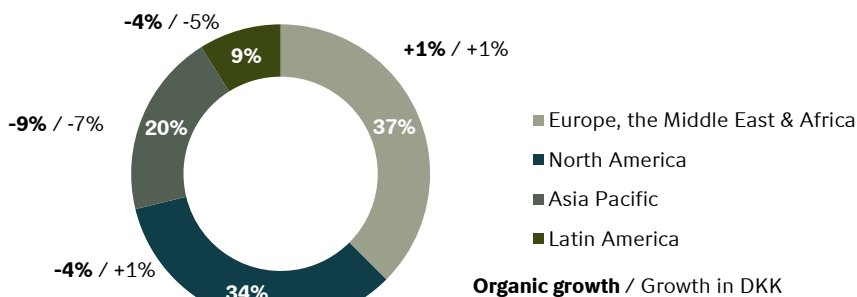
Technical & Pharma grew by 2% organically and by 1% in DKK in the first half of 2019 compared with the same period last year. In the second quarter, the business declined by 2% organically and by 7% in DKK y/y. This was roughly in line with expectations. Enzyme sales for pulp & paper performed well, while sales of enzymes for textiles were weak. Further, the divestment of the remaining pharma-related royalty has been completed. This does not impact organic growth.

Technical & Pharma 1H y/y

Organic: +2%
DKK: +1%

Sales by geography

Distribution of sales by geography, 1H 2019



Overall, organic sales declined by 3% in the first half of 2019 compared with the same period last year. Sales to the developed markets were flat organically, and emerging markets declined by 8% during the same period. This was mainly due to economic constraints in the Middle East as well as lower starch enzyme sales in Asia Pacific.

In the second quarter of 2019, organic sales declined by 2% overall compared with the same period last year. Sales to developed markets declined by 1% and to emerging markets by 6%, mainly due to weakness in Food & Beverages.

Europe, the Middle East & Africa

Organic sales growth in the first half of 2019 compared with the same period last year was 1%. Most business areas grew, with Agriculture & Feed the exception. In the second quarter, Agriculture & Feed and Household Care posted growth, while Food & Beverages declined, mainly due to lower sales of baking enzymes and the impact of the Middle Eastern markets.

Europe, the Middle East & Africa 1H y/y

Organic: +1%
DKK: +1%

North America

Sales to Household Care and Technical & Pharma grew in the first half of 2019, while Bioenergy and Agriculture & Feed were the main reasons for the 4% organic decline relative to the same period last year.

North America 1H y/y

Organic: -4%
DKK: +1%

Asia Pacific

Sales to Asia Pacific declined across most areas in the first half of 2019 compared with the first half of 2018. A large part of the organic sales decline relates to Iran, which is reported under Asia Pacific. Feed enzyme sales also declined due to a challenging year-on-year comparison, and Food & Beverages posted negative growth due to weakness in the starch business, particularly in China. The second-quarter organic sales decline of 5% was mainly due to weakness in Household Care, with Iran again the major factor.

Asia Pacific 1H y/y

Organic: -9%
DKK: -7%

Latin America

Sales to the Latin America region declined by 3% organically in the first half of the year, mainly due to lower sales in Household Care and Agriculture & Feed. Bioenergy experienced good growth, driven by the expansion of ethanol production capacity in Brazil. In Q2, Household Care, Agriculture & Feed and Food & Beverages declined, while Bioenergy posted strong growth.

Latin America 1H y/y

Organic: -3%
DKK: -5%

Income statement

Total costs excluding net financials, share of losses in associates and taxes were DKK 4,855 million, a decrease of 4% or DKK 190 million compared with the first half of 2018.

Total costs

-4%

The gross margin was 55.1% for the first half of 2019, which is 2.2 percentage points lower than for the same period of 2018. Productivity gains and price/mix had a neutral impact on the gross margin, whereas higher raw material costs and the lack of leverage on the fixed cost base were the main explanations for the lower gross margin. Also, in the second quarter, there was no recognition of deferred income or sale of pharma royalty benefiting sales and gross margin, which accounts for roughly 1 percentage point of the 2.2 percentage point gross margin decline in the first half.

Gross margin

55.1%

Operating costs were DKK 2,201 million, up 7% or DKK 151 million. The increase was mainly due to a provision in Q2 relating to a patent case in the US affecting the R&D cost line, costs relating to the strategy update as well as increased staffing in emerging markets. Operating costs as a percentage of sales were 32%, roughly 3 percentage points higher than for the first half of 2018.

Operating costs

+7%

- Sales and distribution costs increased by 6%, representing 11.5% of sales
- R&D costs increased by 9%, representing 14.5% of sales
- Administrative costs increased by 5%, representing 5.8% of sales

Other operating income was DKK 465 million in the first half of 2019, compared with DKK 4 million in the first half of 2018. The difference was mainly due to recognition of DKK 287 million of deferred income and the divestment of the remaining pharma-related royalty, both occurring in the second quarter of 2019.

Depreciation and amortization charges amounted to DKK 632 million, compared with DKK 491 million in the same period of 2018. Depreciation increased, mainly due to IFRS 16 implementation and the effect of terminating the alliance with Bayer.

Depreciation and amortization

DKK 632 million

The EBIT margin was 30.0% in the first half of 2019, 1.9 percentage points higher than in the first half of 2018. This was much as expected and mainly explained by second-quarter one-offs. Overall, currency developments supported the EBIT margin.

EBIT

DKK 2,084 million

EBIT margin

30.0%

In total, net financial costs were DKK 113 million, compared with DKK 14 million in the first half of 2018. The share of losses in associates was DKK 2 million, an improvement of DKK 3 million on the same period last year. Novozymes realized a DKK 102 million currency hedging/revaluation loss in the first half of 2019, compared with a loss of DKK 2 million in the first half of 2018. Other financial costs were DKK 16 million, compared with DKK 9 million in the first half of 2018. Net interest income was DKK 5 million, compared with a loss of DKK 3 million in the first six months of 2018.

Net financial costs and share of losses in associates

DKK -115 million

Profit before tax was DKK 1,969 million, a 1% increase from DKK 1,954 million in 1H 2018.

The effective tax rate was 19.0% in the first half of 2019, on par with the same period last year.

Effective tax rate

19.0%

Net profit was DKK 1,595 million, an increase of 1% from DKK 1,583 million in the first half of 2018, impacted by higher EBIT and partly offset by higher financial costs.

Net profit

DKK 1,595 million

Cash flows and balance sheet

Cash flow from operating activities was DKK 1,614 million in the first half of 2019, compared with DKK 1,525 million in the same period last year. Cash flows were positively impacted by the divestment of the remaining pharma-related royalty, net profit growth and a slight negative change in net working capital, although by a lower amount than in the first half of 2018. Working capital was impacted by an improvement in receivables and inventories, while payables were down slightly following the relatively higher investment level in the preceding period.

Operating cash flow
DKK 1.614 million

Net investments excluding acquisitions totaled DKK 396 million, roughly DKK 250 million less than the amount invested in the first half of 2018. The main investment project, relating to the new innovation campus in Lyngby, Denmark, has now been finalized.

Net investments excl. acq.
DKK 396 million

Free cash flow before net acquisitions was DKK 1,218 million in the first six months of 2019, compared with DKK 890 million in the same period last year.

Free cash flow before acquisitions
DKK 1.218 million

Shareholders' equity at June 30, 2019 was DKK 11,022 million, compared with DKK 10,720 million at June 30, 2018. The equity ratio was 54.9% at June 30, 2019, compared with 56.8% at June 30, 2018. The decline was mainly due to dividend payments and stock buybacks.

Equity ratio
54.9%

On June 30, 2019, Novozymes had net interest-bearing debt of DKK 3,740 million, compared with DKK 2,922 million at June 30, 2018. Net interest-bearing debt-to-EBITDA was 0.7x, compared with 0.6x at June 30, 2018.

Net interest-bearing debt-to-EBITDA
0.7x

Return on invested capital (ROIC) including goodwill was 21.9%, compared with 24.0% at the end of the first half of 2018. The lower ROIC was mainly due to higher net invested capital.

ROIC
21.9%

At June 30, 2019, the holding of treasury stock was 5,643,242 B shares, equivalent to 1.9% of the common stock.

Treasury stock
1.9%

Sustainability

The goal for 2019 is to grow the absolute consumption of water and energy and absolute CO₂ emissions at a lower rate than organic sales growth. After the first half, Novozymes expects to be able to deliver on all the 2019 targets announced on January 24.

	1H 2019	2019 target
Growth in absolute water consumption	-9%	< org. sales growth
Growth in absolute energy consumption	-10%	< org. sales growth
Growth in absolute CO ₂ emissions	-26%	< org. sales growth
Energy from renewable sources	27%	28%
Occupational accidents with absence per million working hours	1.6	≤ 1.5
Employee absence	2.0%	≤ 2.0%
Women in senior management	30%	≥ 29%

2019 outlook

	2019 outlook January 24	2019 outlook April 4	2019 outlook April 24	2019 outlook June 6	2019 outlook* August 8
Sales growth, organic	3-6%	3-6%	3-5%	1-3%	1-3%
EBIT margin	28-29%	29-30%	29-30%	28-29%	28-29%
Net profit growth	0-5%	5-10%	5-10%	3-8%	3-8%
Net investments excl. acquisitions (DKKbn)	1.0-1.3	1.0-1.3	1.0-1.3	1.0-1,2	1.0-1.2
Free cash flow before acquisitions (DKKbn)	2.2-2.6	2.0-2.4	2.0-2.4	1.9-2.3	1.9-2.3
ROIC (including goodwill)	~23%**	~24%**	~24%**	~23%**	~23%**

* Assumes that the exchange rates for the company's key currencies remain at the rates prevailing on August 7 for the rest of 2019.

** The implementation of IFRS 16 – Leases has a negative impact on ROIC of approximately 1 percentage point.

Sales outlook

Novozymes expects organic sales growth to accelerate in the second half of 2019. Growth is supported by strong commercialization of innovation, step-up of the Freshness platform, BioAg and Bioenergy, as well as easing of the Middle East comparison. With current visibility, the 1-3% range reflects geopolitical uncertainty, for example in the Middle East (affecting Household Care, Food & Beverages and Technical & Pharma), as well as volatile agricultural markets, including the impact from the US Midwest flooding.

Organic sales growth
1-3%

Using current spot rates as full-year estimates for the major currencies and including both lower recognition of deferred income in sales (BioAg) and completion of the divestment of the remaining pharma-related royalty, Novozymes expects to see an additional positive impact of approximately 0.5-1 percentage point on the full-year growth in DKK.

During the first half of 2019, Novozymes recognized deferred income of DKK 24 million (Q2: DKK 0 million), compared with DKK 56 million in the first half of 2018 (Q2: DKK 21 million). The remaining balance of DKK 287 million was recognized as other operating income in Q2, and there is no longer any deferred income related to The BioAg Alliance on the balance sheet.

Household Care (organic: -2% H1 2019 y/y) organic sales growth is expected to be driven by continued penetration with local customers and the increasing contribution from the rollout of our Freshness platform. The solid development in sales to our regional customers in the first half of 2019 was more than offset by the negative impact of economic distress in some countries in the Middle East, as well as cost optimization by some of the large global detergent manufacturers. As the Middle East headwinds subside in the second half of 2019, we expect the growth from local customers together with the ramp-up of the Freshness platform to lead to low-single-digit growth for Household Care for 2019.

Food & Beverages (organic: -2% H1 2019 y/y) organic sales growth for the rest of 2019 is expected to be driven by broad-based commercial penetration and the increased impact of our recent product launches. Baking is not expected to recover fully from the difficult start to the year, although sentiment is anticipated to improve in the coming quarters. The good momentum in food & nutrition as well as beverages is expected to continue in the second half of 2019, which together with a flat full-year outlook for starch results in an overall expectation of low-single-digit sales growth for Food & Beverages for the full year.

Bioenergy (organic: -4% 1H 2019 y/y) organic sales growth is expected to be driven by increased penetration from innovation as well as volume growth outside the US market. We expect to deliver low-single-digit organic sales growth in Bioenergy for the full year.

Agriculture & Feed (organic: -6% 1H 2019 y/y) sales are subject to uncertainty, due primarily to global farm economics, impact from the floods in the US and trade-related concerns. Feed sales are expected to grow modestly for the year and, consequently, we guide for a low-single-digit decrease to flat organic sales growth for Agriculture & Feed.

Novozymes did not recognize any deferred income in BioAg as revenue in Q2 2019. In the first half of 2019, DKK 24 million of deferred income was recognized as revenue. 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: +2% 1H 2019 y/y). The business was impacted by the challenging markets in the Middle East during the second half of 2018, a situation that continued through the first half of 2019. We maintain the outlook of low-single-digit organic sales growth for the year, including annualization of the Middle East impact.

Profit outlook

For 2019, the EBIT margin is expected to be 28-29%, including a minor positive impact from currencies. The deferred income is included in the outlook and adds around 2 percentage points, and the divestment of the remaining pharma-related royalty is included at around 1 percentage point, which, with expected costs associated with the updated strategy and restructuring of around 1 percentage point, corresponds to an underlying 2019 EBIT margin of 26-27%.

Novozymes expects an effective tax rate of 18-20% for 2019.

Net profit growth is expected to be 3-8%. Novozymes has hedged its USD currency exposure through forward contracts at an average exchange rate of 6.21 USD/DKK for 2019.

Net investments are expected to be DKK 1.0-1.2 billion (2018: DKK 1.4 billion). The investment level for 2019 reflects general maintenance CAPEX and expansion CAPEX.

Free cash flow before acquisitions is expected to be in the range of DKK 1.9-2.3 billion (2018: DKK 2.291 billion). The reclassification of lease payments (IFRS 16) is expected to impact free cash flow positively by around DKK 0.1 billion, whereas higher net working capital and accumulated taxes relating to The BioAg Alliance will have a negative impact on cash flows.

Return on invested capital (ROIC) including goodwill is expected at around 23% (2018: 24.2%). This includes full recognition of the remaining deferred income, as The BioAg Alliance has now been dissolved. The calculation of average invested capital now includes a higher closing balance following the major investment programs announced early in 2017. The implementation of IFRS 16 – Leases has a negative impact on ROIC of approximately 1 percentage point.

EBIT margin
28-29%

Effective tax rate
18-20%

Net profit growth
3-8%

Net investments
DKK 1.0-1.2 billion

Free cash flow before acq.
DKK 1.9-2.3 billion

ROIC
~23%
(~24% excl. IFRS 16)

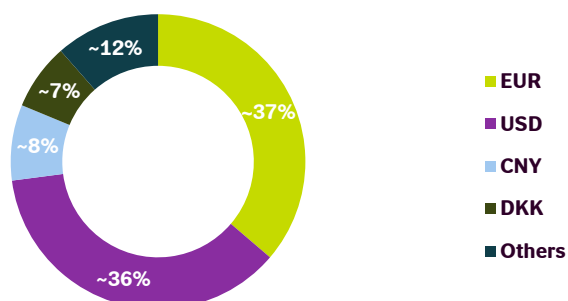
Sustainability outlook

Novozymes remains committed to continuously improving the sustainability performance of its own operations and supply chain. Improving sustainability performance is a long-term undertaking, and opportunities to make operations more cost-effective, environmentally friendly and socially responsible will be pursued and prioritized on an ongoing basis. For 2019, the annual targets are to keep resource consumption and CO₂ emissions lower than organic sales growth. Novozymes will work to increase the share of renewable energy in the energy mix to support the aim of decoupling business growth from the impact it has on the environment. Novozymes will also sharpen its focus on safety culture and continue the global initiatives to improve safety behavior to reduce the number of accidents in 2019.

	2019 target
Growth in absolute water consumption	< organic sales growth
Growth in absolute energy consumption	< organic sales growth
Growth in absolute CO ₂ emissions	≤ organic sales growth
Energy from renewable sources	28%
Occupational accidents with absence per million working hours	≤ 1.5
Employee absence	≤ 2.0%
Women in senior management	≥ 29%

Currency exposure

Sales by currency, 1H 2019



From a currency perspective, Novozymes expects 2019 EBIT to be most exposed to fluctuations in the USD.

Other things being equal, a 5% change in USD/DKK is expected to have an annual positive/negative impact on EBIT of DKK 130-160 million, and a 5% change in EUR/DKK is expected to have an annual positive/negative impact on EBIT of DKK ~200 million.

Hedging of net currency exposure

	2018				2019				2020	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
USD	100% hedged via forward contracts at 6.18 USD/DKK				100% hedged via forward contracts at 6.21 USD/DKK				50% hedged via forward contracts at 6.39 USD/DKK	

2018 was fully hedged at an average of 6.18 USD/DKK. 2019 is fully hedged at an average of 6.21 USD/DKK, and 2020 is 50% hedged at an average rate of 6.39 USD/DKK.

The outlook is based on exchange rates for the company's key currencies remaining at the closing rates on August 7 for the rest of the year.

DKK	EUR	USD	BRL	CNY
Average exchange rate 1H 2018	745	616	180	97
Average exchange rate 1H 2019	746	661	172	97
Average exchange rate 1H 2019 compared with 1H 2018	0%	7%	-4%	0%
Rate on August 7, 2019	746	666	168	95
Estimated average exchange rate 2019*	746	663	171	96
Estimated average exchange rate 2019 compared with 2018	0%	5%	-2%	1%

* Estimated average exchange rate on August 7, 2019.

Stock buyback program

Stock buybacks under the overall 2019 program of up to DKK 2 billion were initiated on April 25. During the first six months of the year, Novozymes has bought back 2,365,915 shares within the program at a total value of approximately DKK 731 million, or 1.9% of the total number of outstanding shares.

Impact of IFRS 16

IFRS 16 – Leases introduces a single lessee accounting model, requiring lessees to recognize leases in the balance sheet as a right-of-use asset and a lease liability. In the income statement, the lease cost is replaced by depreciation of the leased asset and an interest expense for the financial liability.

The standard was implemented on January 1, 2019 using the modified retrospective approach, and comparative figures have not been restated. On initial recognition, right-of-use assets are measured at an amount equal to the lease liability, which is measured at the present value of future lease payments. Novozymes will not apply IFRS 16 to short-term or low-value leases. Novozymes has applied a single discount rate to portfolios of leases with similar characteristics.

The implementation of IFRS 16 has resulted in an increase in Property, plant and equipment and Lease liabilities of DKK 616 million as of January 1, 2019. At the same date, right-of-use assets amounted to DKK 764 million, of which DKK 148 million was transferred from previously capitalized finance leases. The right-of-use assets related to Land and buildings, Plant and machinery and Other equipment amounted to DKK 468 million, DKK 104 million and DKK 192 million respectively.

The lease liability is measured using the implicit borrowing rate in the contracts or, where a contract's implicit borrowing rate is not available, the marginal borrowing rate in the countries in which Novozymes operates. The weighted average incremental borrowing rate for lease liabilities initially recognized as of January 1, 2019 was 5.2%.

Lease costs are not split into service components and rental costs but accounted for as a single lease component. Variable service components invoiced separately are expensed as operating costs.

As of June 30, 2019, the implementation of IFRS 16 had had an insignificant impact on the income statement. Right-of-use assets amounted to DKK 709 million and were included in Land and buildings, Plant and machinery and Other equipment at DKK 438 million, DKK 101 million and DKK 170 million respectively. The lease liability amounted to DKK 663 million. Consequently, ROIC has been impacted negatively by 0.9 percentage point, and free cash flows have been impacted positively by DKK 50 million, as repayments of lease liabilities are now included under Financing activities. Depreciation of right-of-use assets amounted to DKK 60 million in the first half of 2019.

Accounting policies

The interim report for the first six months of 2019 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 2019 follows the same accounting policies as the annual report for 2018, 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, 2019.

Updated accounting policies for leases

If, at inception, it is assessed that a contract contains a lease, a right-of-use (ROU) asset and a lease liability are recognized at commencement of the lease. The ROU asset is initially measured at the present value of future lease payments, plus the cost of obligations to refurbish the asset. ROU assets are depreciated on a straight-line basis over the shorter of the expected lease term and the useful life of the underlying asset. ROU assets are tested for impairment whenever there is an indication that the assets may be impaired.

Lease payments include fixed payments and variable payments that depend on an index such as an inflation index as well as performance-based payments. When the lease contains an extension or purchase option that Novozymes believes with reasonable certainty will be exercised, these are included in the lease payments.

ROU assets are included in the categories under Property, plant and equipment, and the lease liability is presented separately in the balance sheet.

Novozymes' portfolio of leases covers leases of land, buildings and other equipment such as cars and transportation containers. For building leases, lease terms are estimated taking the size of the building and its strategic importance into consideration. Novozymes has entered into several open-ended building leases and building leases with extension options. The estimated lease terms for such contracts do not exceed 12 years.

Proposal of candidate for the Board of Directors

Election of board members will take place at the Annual Shareholders' Meeting on February 26, 2020. The Board of Directors proposes the election of Mr. Cees de Jong as a new board member. Cees de Jong (58) is a Dutch citizen and a highly regarded business leader with significant experience in the global food ingredients and pharmaceutical industries, most recently at Chr. Hansen A/S, where he held the position as CEO from 2013 to 2018. The Board of Directors is convinced that Cees de Jong's industry insights and global business experience will make a significant contribution to the further development of Novozymes' performance and strategy.

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 business 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.

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Statement of the Board of Directors and the 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 six months of 2019. This interim report has not been audited or reviewed by the company's independent auditor.

The interim report for the first six months of 2019 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 these Group financial statements are adequate, and these Group financial statements give 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, 2019, and of the results of the Group's operations and cash flows for the first six months of 2019. Other than as disclosed in the interim report for the first six months of 2019, no changes in the Group's most significant risks and uncertainties have occurred relative to what was disclosed in the annual report for 2018.

Bagsvaerd, August 8, 2019

EXECUTIVE MANAGEMENT

Peder Holk Nielsen
President & CEO

Thomas Videbæk
COO

Prisca Havranek-Kosicek
CFO

BOARD OF DIRECTORS

Jørgen Buhl Rasmussen
Chairman

Agnete Raaschou-Nielsen
Vice Chairman

Lars Green

Lena Bech Holskov

Anders Hentze Knudsen

Kasim Kutay

Lars Bo Køppler

Kim Stratton

Mathias Uhlén

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Appendix 1 Main items and key figures**1.1 Key figures**

DKK million	1H 2019	1H 2018	% change	Q2 2019	Q2 2018	% change
Revenue	6,939	7,018	(1)%	3,458	3,498	(1)%
Gross profit	3,820	4,019	(5)%	1,887	1,986	(5)%
Gross margin	55.1%	57.3%		54.6%	56.8%	
EBITDA	2,716	2,464	10%	1,551	1,194	30%
EBITDA margin	39.1%	35.1%		44.9%	34.1%	
Operating profit / EBIT	2,084	1,973	6%	1,189	957	24%
EBIT margin	30.0%	28.1%		34.4%	27.4%	
Share of result in associates	(2)	(5)		-	(3)	
Net financials	(113)	(14)		(80)	(9)	
Profit before tax	1,969	1,954	1%	1,109	945	17%
Tax	(374)	(371)	1%	(211)	(169)	25%
Net profit	1,595	1,583	1%	898	776	16%
Earnings per DKK 2 share	5.55	5.42	3%	3.14	2.66	18%
Earnings per DKK 2 share (diluted)	5.53	5.38	3%	3.12	2.65	18%
Net investments excl. acq.	396	635				
Free cash flow before net acq. and purchase of financial assets	1,218	890				
Return on invested capital (ROIC) incl. goodwill	21.9%	24.0%				
Net interest-bearing debt	3,740	2,922				
Equity ratio	54.9%	56.8%				
Return on equity	28.4%	28.8%				
Debt-to-equity	33.9%	27.3%				
NIBD / EBITDA	0.7	0.6				
Number of employees	6,442	6,323				
Novozymes' stock				Jun. 30, 2019	Jun. 30, 2018	
Common stock (million)				291.0	297.0	
Net worth per share (DKK)				37.84	36.05	
Denomination of share (DKK)				2.00	2.00	
Nominal value of common stock (DKK million)				582.0	594.0	
Treasury stock (million)				5.6	6.6	

1.2 Income statement

DKK million	1H 2019	1H 2018	Q2 2019	Q2 2018
Revenue	6,939	7,018	3,458	3,498
Cost of goods sold	(3,119)	(2,999)	(1,571)	(1,512)
Gross profit	3,820	4,019	1,887	1,986
Sales and distribution costs	(798)	(754)	(399)	(369)
Research and development costs	(1,003)	(916)	(545)	(465)
Administrative costs	(400)	(380)	(209)	(192)
Other operating income, net	465	4	455	(3)
Operating profit / EBIT	2,084	1,973	1,189	957
Share of result in associates	(2)	(5)	-	(3)
Net financials	(113)	(14)	(80)	(9)
Profit before tax	1,969	1,954	1,109	945
Tax	(374)	(371)	(211)	(169)
Net profit	1,595	1,583	898	776
Attributable to				
Shareholders in Novozymes A/S	1,594	1,582	898	776
Non-controlling interests	1	1	-	-
Specification of net financials				
Foreign exchange gain/(loss), net	(102)	(2)	(50)	1
Interest income/(costs)	5	(3)	(24)	(1)
Other financial items	(16)	(9)	(6)	(9)
Net financials	(113)	(14)	(80)	(9)
Earnings per DKK 2 share	5.55	5.42	3.14	2.66
Average no. of A/B shares outstanding (million)	287.0	292.0	286.4	291.2
Earnings per DKK 2 share (diluted)	5.53	5.38	3.12	2.65
Average no. of A/B shares, diluted (million)	288.5	293.9	288.1	293.0

1.3 Statement of comprehensive income

DKK million	1H 2019	1H 2018	Q2 2019	Q2 2018
Net profit	1,595	1,583	898	776
Currency translation of subsidiaries and non-controlling interests	46	103	(146)	314
Tax on currency translation of subsidiaries	-	-	-	-
Currency translation adjustments	46	103	(146)	314
Fair value adjustments	(58)	(60)	5	(115)
Tax on fair value adjustments	13	13	(1)	26
Cash flow hedges reclassified to financial costs	89	(3)	42	4
Tax on reclassified fair value adjustments	(20)	1	(9)	(1)
Cash flow hedges	24	(49)	37	(86)
Other comprehensive income	70	54	(109)	228
Comprehensive income	1,665	1,637	789	1,004
Attributable to				
Shareholders in Novozymes A/S	1,665	1,636	790	1,004
Non-controlling interests	-	1	(1)	-

Appendix 2 Distribution of revenue

2.1 Business areas

DKK million	2019 1H	2018 1H	% change	% currency impact	% M&A impact	% organic growth
Household Care	2,267	2,282	(1)	1	0	(2)
Food & Beverages	2,023	2,032	0	2	0	(2)
Bioenergy	1,339	1,343	0	4	0	(4)
Agriculture & Feed	902	957	(6)	0	0	(6)
Technical & Pharma	408	404	1	2	(3)	2
Sales	6,939	7,018	(1)	2 *	0	(3)

* The effect from changes in deferred income in BioAg is included in the currency impact. Realized currency impact was 2.5%.

DKK million	2019 Q2	2018 Q2	% change	% currency impact	% M&A impact	% organic growth
Household Care	1,122	1,118	0	1	0	(1)
Food & Beverages	1,028	1,043	(1)	2	0	(3)
Bioenergy	716	695	3	3	0	0
Agriculture & Feed	404	441	(8)	(1)	0	(7)
Technical & Pharma	188	201	(6)	3	(7)	(2)
Sales	3,458	3,498	(1)	1 *	0	(2)

* The effect from changes in deferred income in BioAg is included in the currency impact. Realized currency impact was 2.2%.

DKK million	2019		2018				% change Q2/Q2
	Q2	Q1	Q4	Q3	Q2	Q1	
Household Care	1,122	1,145	1,157	1,186	1,118	1,164	0
Food & Beverages	1,028	995	1,045	1,045	1,043	989	(1)
Bioenergy	716	623	740	723	695	648	3
Agriculture & Feed	404	498	571	517	441	516	(8)
Technical & Pharma	188	220	201	187	201	203	(6)
Sales	3,458	3,481	3,714	3,658	3,498	3,520	(1)

2.2 Geography

DKK million	2019 1H	2018 1H	% change	% currency impact	% M&A impact	% organic growth
Europe, Middle East & Africa	2,602	2,574	1	1	(1)	1
North America	2,339	2,310	1	5	0	(4)
Asia Pacific	1,380	1,481	(7)	2	0	(9)
Latin America	618	653	(5)	(2)	0	(3)
Sales	6,939	7,018	(1)	2 *	0	(3)
Developed markets	4,656	4,548	2	2	0	0
Emerging markets	2,283	2,470	(8)	0	0	(8)
Sales	6,939	7,018	(1)	2	0	(3)

* The effect from changes in deferred income in BioAg is included in the currency impact. Realized currency impact was 2.5%.

DKK million	2019 Q2	2018 Q2	% change	% currency impact	% M&A impact	% organic growth
Europe, Middle East & Africa	1,274	1,289	(1)	0	(1)	0
North America	1,177	1,162	1	4	0	(3)
Asia Pacific	696	717	(3)	2	0	(5)
Latin America	311	330	(6)	(3)	0	(3)
Sales	3,458	3,498	(1)	1 *	0	(2)
Developed markets	2,299	2,270	1	3	(1)	(1)
Emerging markets	1,159	1,228	(6)	0	0	(6)
Sales	3,458	3,498	(1)	1	0	(2)

* The effect from changes in deferred income in BioAg is included in the currency impact. Realized currency impact was 2.2%.

DKK million	2019		2018				% change Q2/Q2
	Q2	Q1	Q4	Q3	Q2	Q1	
Europe, Middle East & Africa	1,274	1,328	1,280	1,360	1,289	1,285	(1)
North America	1,177	1,162	1,366	1,217	1,162	1,148	1
Asia Pacific	696	684	736	685	717	764	(3)
Latin America	311	307	332	396	330	323	(6)
Sales	3,458	3,481	3,714	3,658	3,498	3,520	(1)
Developed markets	2,299	2,357	2,458	2,404	2,270	2,278	1
Emerging markets	1,159	1,124	1,256	1,254	1,228	1,242	(6)
Sales	3,458	3,481	3,714	3,658	3,498	3,520	(1)

Appendix 3 Statement of cash flows**3.1 Statement of cash flows**

DKK million	1H 2019	1H 2018
Net profit	1,595	1,583
Reversals of non-cash items	425	982
Tax paid	(399)	(316)
Interest received	59	5
Interest paid	(53)	(7)
Cash flow before change in working capital	1,627	2,247
Change in working capital		
(Increase)/decrease in receivables and contract assets	170	(226)
(Increase)/decrease in inventories	47	(168)
Increase/(decrease) in payables, deferred income and contract liabilities	(233)	(328)
Currency translation adjustments	3	-
Cash flow from operating activities	1,614	1,525
Investments		
Purchase of intangible assets	(75)	(20)
Sale of property, plant and equipment	2	3
Purchase of property, plant and equipment	(323)	(618)
Cash flow from investing activities before acquisitions, divestments and purchase of financial assets	(396)	(635)
Free cash flow before acquisitions, divestments and purchase of financial assets	1,218	890
Business acquisitions, divestments and purchase of financial assets	430	-
Free cash flow	1,648	890
Financing		
Borrowings	1,046	1,470
Repayments of borrowings	(315)	(322)
Repayments of lease liabilities	(50)	
Purchase of treasury stock	(731)	(913)
Sale of treasury stock	30	76
Dividend paid	(1,439)	(1,317)
Cash flow from financing activities	(1,459)	(1,006)
Net cash flow	189	(116)
Unrealized gain/(loss) on currencies and financial assets, included in cash and cash equivalents	(2)	(15)
Change in cash and cash equivalents, net	187	(131)
Cash and cash equivalents at January 1	723	632
Cash and cash equivalents at June 30	910	501

Undrawn committed credit facilities at June 30, 2019 were DKK 3,767 million.

Appendix 4 Balance sheet and Statement of shareholders' equity**4.1 Balance sheet, Assets**

DKK million	Jun. 30, 2019	Jun. 30, 2018	Dec. 31, 2018
Completed IT development projects	147	115	105
Acquired patents, licenses and know-how	821	1,023	880
Goodwill	967	1,090	1,086
IT development projects in progress	37	60	59
Intangible assets	1,972	2,288	2,130
Land and buildings	3,141	2,678	2,779
Plant and machinery	4,472	4,177	4,452
Other equipment	822	577	619
Assets under construction and prepayments	1,797	1,826	1,848
Property, plant and equipment	10,232	9,258	9,698
Deferred tax assets	955	756	938
Other financial assets (non-interest-bearing)	20	30	20
Investment in associate	39	54	42
Other receivables	32	30	34
Non-current assets	13,250	12,416	12,862
Raw materials and consumables	395	343	372
Goods in progress	782	721	828
Finished goods	1,603	1,688	1,620
Inventories	2,780	2,752	2,820
Trade receivables	2,492	2,534	2,606
Contract assets	223	203	279
Tax receivables	125	150	174
Other receivables	260	257	219
Receivables	3,100	3,144	3,278
Other financial assets (non-interest-bearing)	19	45	14
Other financial assets	19	45	14
Cash and cash equivalents	910	501	723
Current assets	6,809	6,442	6,835
Assets	20,059	18,858	19,697

4.2 Balance sheet, Liabilities

DKK million	Jun. 30, 2019	Jun. 30, 2018	Dec. 31, 2018
Common stock	582	594	594
Currency translation adjustments	(39)	(159)	(86)
Cash flow hedges	(2)	(4)	(26)
Retained earnings	10,469	10,276	10,943
Equity attributable to shareholders in Novozymes A/S	11,010	10,707	11,425
Non-controlling interests	12	13	13
Shareholders' equity	11,022	10,720	11,438
Deferred tax liabilities	803	723	892
Provisions	198	112	132
Contract liabilities	-	298	199
Deferred income	-	1	37
Other financial liabilities (interest-bearing)	2,136	2,000	1,469
Other financial liabilities (non-interest-bearing)	13	9	5
Lease liabilities	534		
Non-current liabilities	3,684	3,143	2,734
Other financial liabilities (interest-bearing)	1,851	1,423	1,789
Other financial liabilities (non-interest-bearing)	54	63	110
Lease liabilities	129		
Provisions	132	153	97
Trade payables	1,097	1,190	1,418
Contract liabilities	102	170	175
Deferred income	34	34	13
Tax payables	589	613	575
Other payables	1,365	1,349	1,348
Current liabilities	5,353	4,995	5,525
Liabilities	9,037	8,138	8,259
Liabilities and shareholders' equity	20,059	18,858	19,697

4.3 Statement of shareholders' equity

DKK million	Attributable to shareholders in Novozymes A/S						Non-controlling interests	Total
	Common stock	Currency translation adjustments	Cash flow hedges	Retained earnings	Total			
Shareholders' equity at January 1, 2019	594	(86)	(26)	10,943	11,425	13	11,438	
Net profit for the period				1,594	1,594	1	1,595	
Other comprehensive income for the period		47	24		71	(1)	70	
Total comprehensive income for the period		47	24	1,594	1,665	-	1,665	
Purchase of treasury stock				(731)	(731)		(731)	
Sale of treasury stock				30	30		30	
Write-down of common stock	(12)			12	-		-	
Dividend				(1,438)	(1,438)	(1)	(1,439)	
Stock-based payment				43	43		43	
Tax related to equity items				16	16		16	
Changes in shareholders' equity	(12)	47	24	(474)	(415)	(1)	(416)	
Shareholders' equity at June 30, 2019	582	(39)	(2)	10,469	11,010	12	11,022	
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	

Appendix 5 Miscellaneous

5.1 Product launches in 2019

Q1 2019	Frontia® Jade – a new addition to our grain-milling platform for the Chinese market, untapping extra value from corn by releasing more starch, fibers and protein
Q1 2019	CTS500 – a new industrial biological soybean inoculant developed in collaboration with Bayer for the Brazilian market, bringing together biological inoculants of selected bacteria with high efficiency and nitrogen fixation
Q2 2019	Innova® Force – a new yeast for the ethanol industry that, in combination with our enzymes, delivers the most reliable and flexible solution available in the market
Q2 2019	Innova® Fit – a dry version for the ethanol industry of our non-GM yeast that enables penetration of the markets in LATAM and EMA, as well as expands our non-GM market in US
Q2 2019	Fortiva® – a unique new offering in ethanol liquefaction to meet demand for increased yield even in high-temperature conditions

5.2 Company announcements for the fiscal year 2019

(Excluding Management's trading in the Novozymes stock, major shareholder announcements and stock buyback status)

January 24, 2019	Group financial statement for 2018
January 31, 2019	Change to the Board of Directors
February 27, 2019	Novozymes A/S Annual Shareholders' Meeting 2019
March 29, 2019	Reduction of common stock
March 29, 2019	Summary of capital reduction
April 4, 2019	Novozymes and BioAg: Continuation with Bayer as core partner; new, broader setup allows Novozymes to bring biological solutions to the market together with more partners
April 24	Interim report for the first three months of 2019
April 29	Agreement between Novozymes and Novo Holdings A/S on trading of shares as part of Novozymes' stock buyback program
June 6	Revised full-year outlook
June 16	Strategy update 2020-2022

5.3 Financial calendar

October 23, 2019	Interim report for the first nine months of 2019
January 23, 2020	Group financial statement for 2019
February 26, 2020	Annual Shareholders' Meeting 2020

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

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