

Outlook for 2018

Sales outlook

Novozymes expects 4-6% organic growth for 2018. Using current spot levels as full-year estimates for the major currencies, Novozymes expects to see a negative 2018 impact of ~5 percentage points on sales growth in DKK. The Albumedix divestment late 2017 is also expected to impact DKK sales growth negatively in 2018 by around 1 percentage point. Lower recognition of deferred income (BioAg) in 2018 relative to 2017 by some DKK 30 million also reduces reported sales.

We expect a pick-up in organic sales growth throughout the year, mainly due to Agriculture & Feed seasonality and the Household Care contribution from the freshness & hygiene platform expected to impact the second half of the year.

Agriculture-related markets remain uncertain. However, based on current 2018 insight, we believe the uncertainty is covered within the guided range. As we move through 2018, we keep an eye especially on high US ethanol inventories and low prices, as well as selected crop prices, in particular corn and soybean.



Household Care organic sales growth is expected to be driven by increased penetration in emerging markets, where we intend to tap into consumer trends with our innovative enzymes for liquid detergents. The first sales from the freshness & hygiene platform are expected to increasingly contribute to growth from the second half of 2018. We

expect the reformulation focus from some of our large customers to continue, especially at the beginning of the year, which puts a dampener on growth. While the developed markets continue to be dynamic, innovation, performance and differentiation remain in focus for both existing and new customers.



Food & Beverages organic sales growth is expected to be driven by a 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 continue their positive growth trend. In general, we expect continued good growth across industries.



Bioenergy 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, but note that US ethanol inventory levels remain high. Good sales development is expected to continue, as technology introduced over the last 18 months is adopted in the marketplace. Yeast is added to the product portfolio early 2018 and will contribute to growth. Sales of enzymes

for biomass-based ethanol are expected to increase, but make up a small proportion of overall Bioenergy sales.



Agriculture & Feed organic sales growth is expected to be driven primarily by good growth in BioAg, but animal health and nutrition is also expected to deliver growth. New product launches will benefit sales, especially in the second half of the year. The changed sales pattern and shift of sales from the first to the second half of the year that has been ongoing in recent years should now largely be completed. We will continue to monitor the potential 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.

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 and has no cash flow impact.

Financial outlook

	2017 realized	2018 outlook
Sales growth, organic	4%	4-6%
EBIT margin	27.9%	~28%
Net profit growth	2%	~0%
Net investments excl. acquisitions, DKKm	1,665	1,300-1,500
Free cash flow before acquisitions, DKKm	2,397	2,300-2,600
ROIC (including goodwill)	25.6%	24-25%
Avg. USD/DKK	660	600



Technical & Pharma is impacted by the divestment of Albumedix late 2017. The divestment will not impact organic growth. Looking ahead, the divestment will reduce some of the quarterly lumpiness in sales.

Profit outlook

Reported EBIT margin in 2017 was 27.9%. Excluding one-time costs, the EBIT margin in 2017 was closer to 29%. Guidance for 2018 is ~28%. For 2018, we expect a strong 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 further weakening relative to what has been assumed in the guidance (6.00 USD/DKK) could impact the EBIT margin negatively. The DKK ~30 million lower deferred income expected in 2018 relative to 2017 also reduces reported EBIT by an identical amount. Sales growth and productivity improvements are expected to be supportive to margins.

In 2017, Novozymes transferred intellectual property (IP) assets from Switzerland to Denmark. This had a positive impact on the 2017 effective tax rate (ETR) of roughly 2 percentage points. Additional IP transfer will take place in 2018, and we expect to carry out further transfers over the next three years. Following these transfers, Novozymes is likely to see a higher ETR. Given the current visibility and interpretation of different country-specific tax legislation and levels, including in the US, Novozymes expects an ETR of 19-21% over the next 3-4 years. We are still evaluating the real net effect not only of the lowered US corporate tax rate, but also of other US tax changes.

Net profit growth is expected to be ~0% in 2018. The USD has been hedged through forward contracts at an average exchange rate of 6.18 USD/DKK. At this level, the US dollar is ~9% lower than the average USD/DKK in 2017.

Net investments are expected to be DKK 1,300-1,500 million. The relatively high investment level for 2018 concerns a continuation of the building of the innovation campus in Lyngby, Denmark, as well as the completion of the enzyme production facility in Mumbai, India, and the final parts of the capacity expansion in Nebraska, US.

Free cash flow before acquisitions is expected to be DKK 2,300-2,600 million.

Return on invested capital including goodwill is expected at 24-25%. The average calculation for invested capital now includes a higher end balance following the big investment programs that we announced early 2017.

Currency exposure

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

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.

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

Sustainability outlook

Novozymes has an ambition to continuously improve business operations across our value chain – making our operations more cost-effective, environmentally friendly and socially responsible. The triple bottom line is fundamental in terms of how our business is run.

Sustainability reporting is long term by nature, and determining metrics and type of reporting is under constant review and development. We aim for our targets to reflect our commitment to transparent sustainability reporting, and at the same time, for the targets to be relevant to Novozymes from a materiality perspective and auditable.

In January 2015, Novozymes introduced three long-term environmental targets for 2020, with the aim of measuring our resource efficiency relative to gross profit, in other words: the resource intensiveness of our gross profit. However, this way of measuring progress has not proven to be optimal, as short-term changes in gross profit, caused by e.g. currency movements, revised sales growth expectations and product mix, distort the picture of the actual sustainability performance.

We have decided to explore a better way of measuring our sustainability performance, as we want to stay at the forefront on this matter. Consequently, we have decided to cancel the three 2020 environmental targets. While exploring better long-term sustainability measurements, we introduce annual targets for water, energy and CO₂ 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 legacy of taking a lead on sustainability disclosure, and providing detailed information on resource consumption data and types of resources in our annual reports.

Key sustainability targets

Environment	2018 target	2020 target
Estimated reduction in CO ₂ emissions through our customers' application of our products, million tons	≥ 80	100
Growth in absolute water usage*	< organic sales growth	
Growth in absolute energy usage*	< organic sales growth	
Growth in absolute CO ₂ emissions*	≤ organic sales growth	
Renewable energy*	23%	30%
People		
Occupational accidents per million working hours*	≤ 1.5	≤ 1.0
Employee absence*	≤ 2.0%	≤ 2.0%
Women in senior management*	≥ 27%	≥ 30%
Satisfaction and motivation*	≥ 75	≥ 75
Enable employee development*	≥ 75	≥ 75
Talent utilization*	≥ 38%	
Stakeholders		
Customer satisfaction	≥ 40	
Medal-class rating from RobecoSAM	Medal	Gold

* Included as management remuneration target.