

# Financial highlights



## 4%

### Organic sales growth

Sales grew by 4% organically and by 3% in DKK. Sales to Food & Beverages and Bioenergy were the most significant contributors to organic sales growth in 2017.



## 27.9%

### EBIT margin

EBIT margin at 27.9% was on par with last year. Excluding the one-time costs relating to layoffs in 2017, the cost associated with the change to the Executive Leadership Team, and the loss relating to the Alumedix divestment, the EBIT margin was ~29%



## 2%

### Net profit growth

Net profit was DKK 3,120 million, an increase of 2% from DKK 3,050 million in 2016. This was driven by higher EBIT and a lower tax rate, but partly offset by the write-down of a financial asset.



## 25.6%

### ROIC

Return on invested capital (ROIC) including goodwill was 25.6%, compared with 25.1% in 2016. The increase was mainly a result of a higher EBIT and a lower tax rate partly offset by higher net investments.

Key figures	2017 realized	2017 outlook*
Sales growth, organic	4%	2-5%
Sales growth, DKK	3%	3-6%
EBIT growth	3%	3-6%
EBIT margin	27.9%	~28%
Net profit growth	2%	2-5%
Net investments excl. acquisitions, DKKm	1,665	1,700-1,900
Free cash flow before acquisitions, DKKm	2,398	2,000-2,200
ROIC (including goodwill)	25.6%	24-25%

\* Outlook guided as of January 18, 2017.

[See more details on performance in Accounts & performance](#)

[Outlook 2018](#)

# Sustainability highlights



## 76,000,000

tons of CO<sub>2</sub> emissions saved

In 2017, our customers saved an estimated 76 million tons of CO<sub>2</sub> emissions by applying Novozymes' products. The savings achieved are equivalent to taking approximately 32 million cars off the road.



## 24%

renewable energy

Energy from renewable sources accounted for 24% of the total energy consumed in 2017. In Denmark, we purchase all our electricity from renewable sources. In March 2017, we also began purchasing all our electricity in Brazil from renewable sources.



## 1.6

frequency of occupational accidents

In 2017, we experienced a decrease in the frequency of occupational accidents to 1.6 per million working hours, which met our target of 2.0 or below. This was driven by a continuous organizational focus on creating a safer and healthier working environment.



## 26%

women in senior management

Novozymes is committed to ensuring equal opportunities and avoiding discrimination in the workplace. In 2017, 26% of senior management (directors and higher) were women. We are on track to meet our target to ensure that 30% of senior management positions are held by women in 2020.

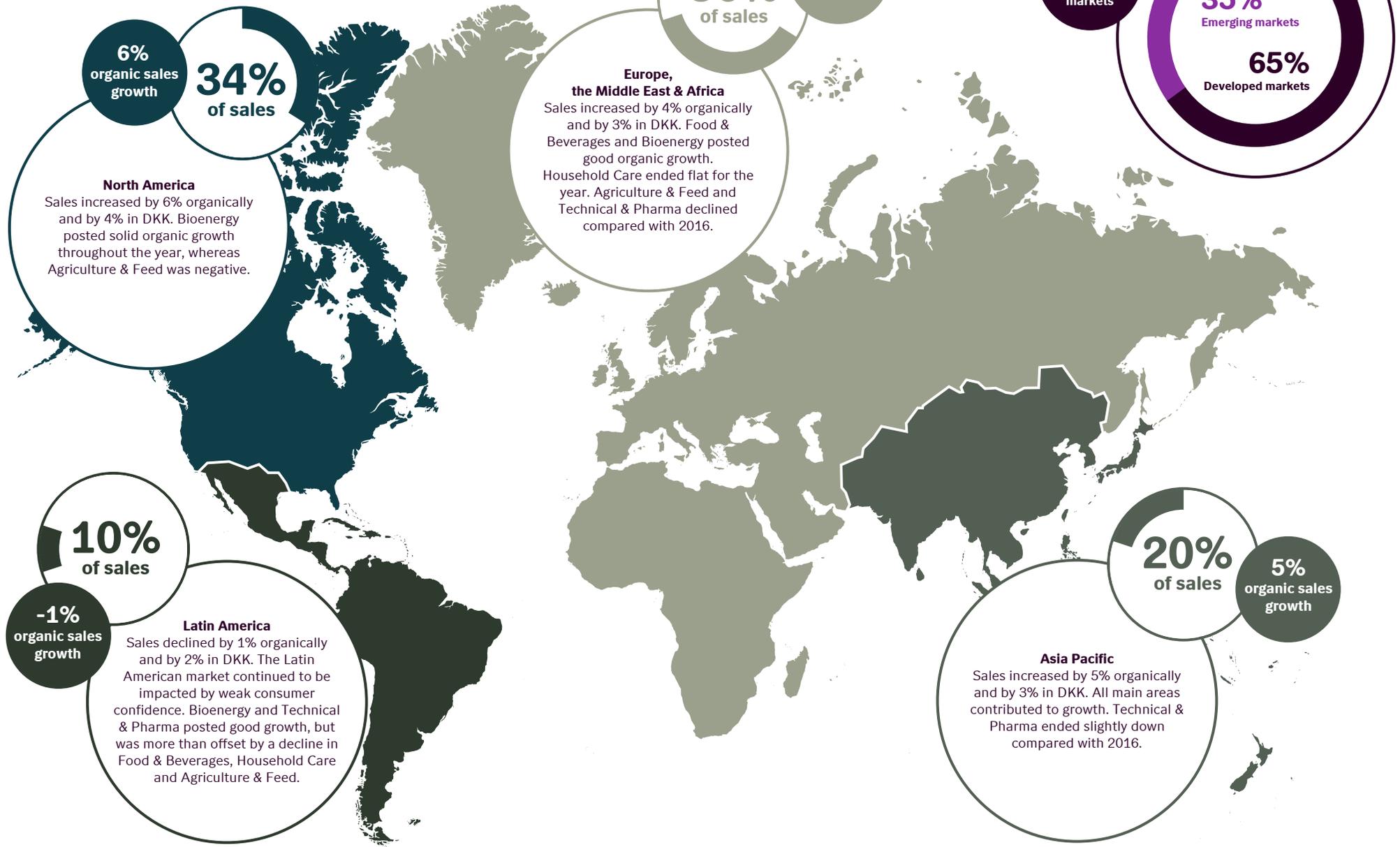
Key figures	2017 realized	2017 target
Estimated reduction in CO <sub>2</sub> emissions through our customers' application of our products, in million tons	76	≥ 72
Water efficiency*	-2%	4%
Energy efficiency*	4%	7%
CO <sub>2</sub> intensity*	11%	9%
Renewable energy	24%	24%
Occupational accidents**	1.6	≤ 2.0
Employee absence	2.1%	≤ 2.0%
Women in senior management	26%	≥ 25%
Customer satisfaction	39	≥ 35
RobecoSAM class rating	Yearbook Member***	Medal

\* Efficiency/intensity is measured by dividing net consumption by gross profit. The improvement is calculated as the relative improvement in efficiency/intensity compared with the base year 2014.

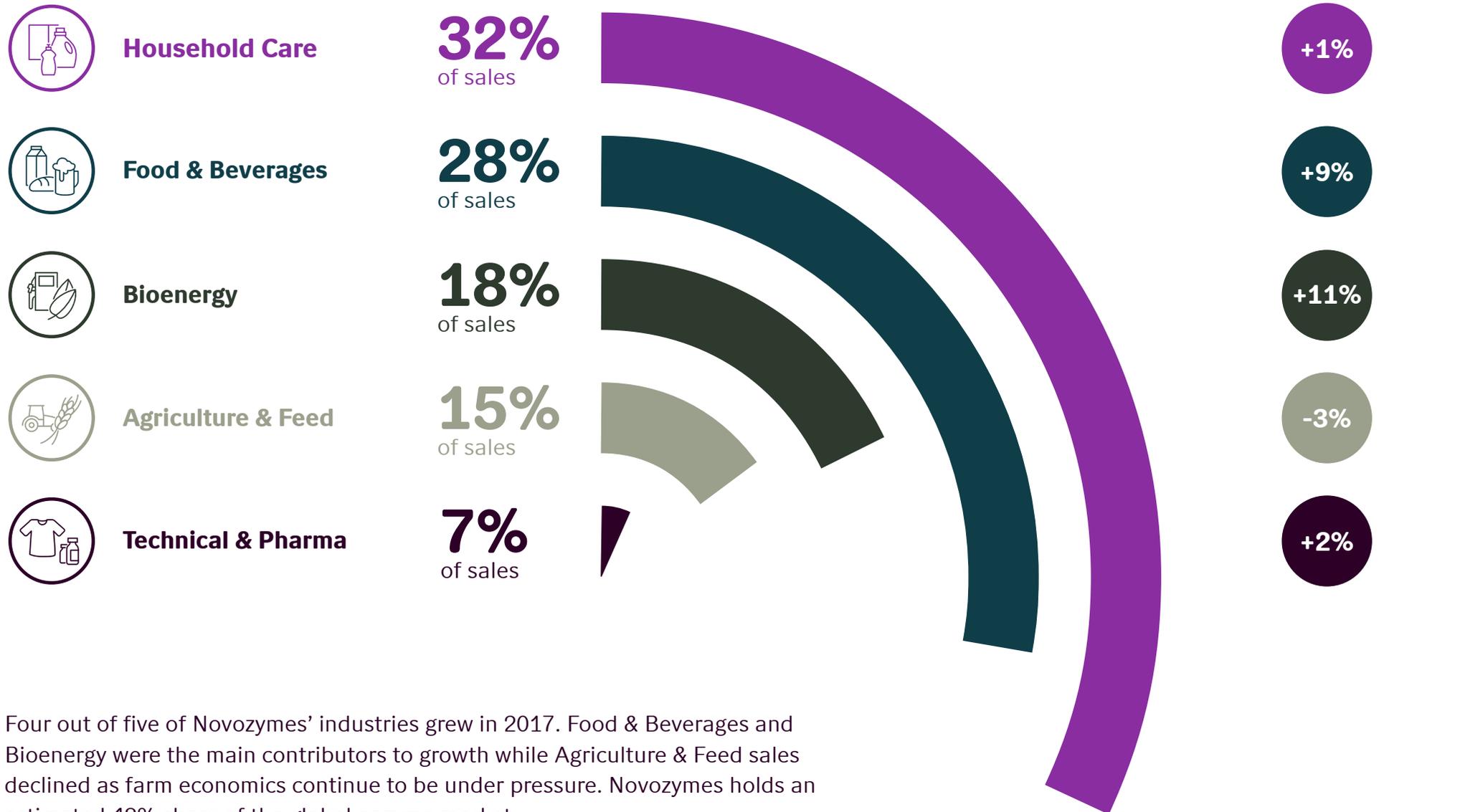
\*\* Per million working hours.

\*\*\* Companies with good sustainability performance that have not received a medal distinction.

# Sales by geography



# Sales by industry



Four out of five of Novozymes' industries grew in 2017. Food & Beverages and Bioenergy were the main contributors to growth while Agriculture & Feed sales declined as farm economics continue to be under pressure. Novozymes holds an estimated 48% share of the global enzyme market.

# Household Care



## 2017 results

Sales to the Household Care industry increased by 1% organically and were flat in DKK for 2017.

In Europe, the Middle East & Africa, sales were flat for the year. Throughout 2017, we have seen that some large global customers reformulated, while others increasingly focused on performance and boosted their enzyme inclusion. Sales in North America grew over last year after a good pick-up in the fourth quarter.

Sales in Asia Pacific were solid. Throughout the year, growth in Asia Pacific and especially China has enjoyed support from increased enzyme inclusion in the growing liquid segment. This positive development has been enabled by new innovation that has improved the stability of enzymes in liquid detergents.

In Latin America, sales ended down, mainly due to continued weak market conditions.

Sales for automatic and hand dishwash continued to deliver good growth, driven by innovation and sustainability, partly from increased demand for phosphate-free solutions.

The first shipments of enzymes from the freshness & hygiene platform occurred in the fourth quarter. Sales from the platform are expected to pick up over 2018 and impact sales growth in the second half of 2018.

## Key industry trends

1. Growth in the liquid and unit dose market, driven by consumer convenience and stronger investments in these categories
2. Rising demand for Household Care solutions tailored to emerging-market needs such as hot and humid conditions and demand for mild hand-washing alternatives
3. Continued pressure on certain global customers leading to formulation changes

## 2018 outlook

In Household Care, sales growth will 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.

## Product launches in 2017

**Medley® 2.0** – The second generation of our multienzyme solution for laundry detergents. This plug-and-play solution ensures strong, stable wash performance and stain removal, as well as cost savings due to easier handling for detergent producers.

**Progress® excel** – A new premium liquid detergent enzyme that enables superior wash performance at all temperatures.



**Progress® In** – A new enzymatic solution to help detergent producers in emerging markets develop better detergents. Progress® In is Novozymes' first product designed specifically for the broad market of unpenetrated detergents.

**Freshness & hygiene** – We have launched the first groundbreaking solution from the freshness & hygiene platform in Household Care. It deep cleans laundry by removing complex body soils that build up over time and are an underlying cause of malodor and textile graying.



Read more about our Household Care solutions on [Novozymes.com](https://www.novozymes.com)

# Food & Beverages



## 2017 results

Food & Beverages sales grew by 9% organically and by 8% in DKK for 2017.

Throughout 2017, Food & Beverages delivered solid, broad-based growth. Nutrition and starch were the most significant growth contributors. Sales in baking performed well despite headwinds in the US market for freshkeeping enzymes. Throughout 2017, we have implemented price reductions to position the US baking business ahead of a patent expiration in late Q1 2018. Baking enzyme sales in Europe, the Middle East and Africa performed well and more than offset the impact from the North American price reductions.

Sales of enzymes for nutrition were strong in 2017, supported by robust uptake of recent years' innovation. This was coupled with increased demand for lactose reduction in dairy products and gains in enzyme market share within infant nutrition.

Sales for starch conversion were solid across geographies. This was driven by good traction from innovation as well as a positive impact from favorable corn prices relative to sugar in the Chinese starch market.

## Key industry trends

1. Consumer focus on health, wellness and natural products
2. Volatile raw material costs and focus on production process optimization
3. Customers consolidating operations in order to increase overall efficiency

## 2018 outlook

In Food & Beverages, 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 continue their positive growth trend. In general, we expect continued good growth across industries.



Read more about our Food & Beverages solutions on [Novozymes.com](http://Novozymes.com)

## Product launches in 2017



**Frontia®** – A new technology for grain-milling customers that delivers better yields and reduces energy consumption in wheat- and corn-milling operations.



**Palmora®** – Our first solution for the palm oil industry, which improves yield and plant performance for palm oil producers.

**“We need to produce 70% more food in 2050 than today to feed a growing world population. Our enzymes are used to reduce food waste, replace food additives and improve the quality of food,” says Andy Fordyce, Executive Vice President, Food & Beverages.**

# Bioenergy



## 2017 results

Bioenergy sales grew by 11% organically and by 8% in DKK compared with 2016.

The good performance in 2017 was driven by Novozymes' broader product portfolio and strong focus on tailoring process-specific solutions to individual customer needs. Sales of enzymes for conventional biofuels in North America were supported by increased production of ethanol, estimated to be 2-3% higher compared with 2016. While production grew in 2017, the US ethanol inventory level remains high, and producer margins are weak. Other geographies posted good growth but represent a smaller proportion of total Bioenergy sales.

Sales of enzymes for biomass conversion contributed marginally to Bioenergy sales growth in 2017.

## Key industry trends

1. Growing calls for CO<sub>2</sub> reduction in the transportation sector driving demand for ethanol
2. Political push in favor of biofuels in several regions
3. Volatility in commodity prices, affecting customer margins

## 2018 outlook

In 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.

## Product launches in 2017



**Spirizyme® T** – An advanced suite of glucoamylases that free up residual sugar in corn so that it can be fermented into ethanol, thereby increasing ethanol yield.

**“Novozymes’ products for Bioenergy convert plant materials and waste to biofuels that reduce CO<sub>2</sub> emissions by 50-90% compared with gasoline,” says Tina Sejersgård Fanø, Executive Vice President, Agriculture & Bioenergy.**



Read more about our Bioenergy solutions on [Novozymes.com](https://www.novozymes.com)

# Agriculture & Feed



## 2017 results

Agriculture & Feed sales declined by 3% organically and by 4% in DKK compared with 2016.

Sales of microbes to the agricultural industry declined, primarily due to slow pick-up in demand towards the end of the year. Farm economics continue to be under pressure and impact sales negatively. In The BioAg Alliance with Monsanto, focus is on the development and rollout of new products as well as on expanding into new regions to drive long-term growth. The pipeline is making very good progress.

Animal health and nutrition organic sales growth rates in 2017 were on par with the year before due to somewhat lower end-market demand for feed enzymes. Animal health sales continued to develop positively, albeit from a low base, as products are rolled out in the marketplace.

In 2017, Novozymes recognized DKK 202 million of deferred income as revenue, compared with DKK 194 million in 2016.

## Key industry trends

1. Consumer focus on health, wellness and natural products
2. Sensitivity to fluctuations in commodity prices among farmers
3. Consolidation of large agricultural companies

## 2018 outlook

In 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 over the past 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.

## Product launches in 2017



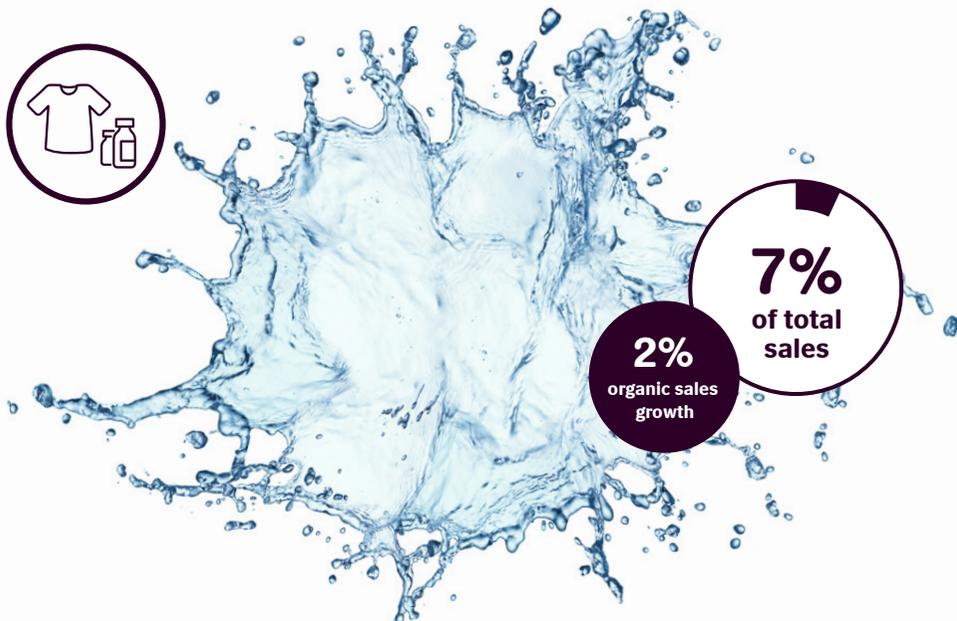
**Acceleron® B-200 SAT** – By enabling additional upstream treatment in soybeans, this enhanced isoflavonoid stimulates beneficial microbe growth in the soil and improves nutritional uptake, enhancing plant health.

**“We find enzymes and microbes in nature that help farmers produce more sustainable food. Our products can reduce use of antibiotics in animal farming and lower phosphate emissions to the environment. They increase crop yields and replace pesticides and fertilizers,” says Tina Sejersgård Fanø, Executive Vice President, Agriculture & Bioenergy.**



Read more about our new collaboration in probiotics in Targets

# Technical & Pharma



## 2017 results

Sales to the Technical & Pharma industries were up 2% organically and declined by 3% in DKK compared with 2016. Organic sales growth was mainly driven by Pharma.

In December 2017, Novozymes divested Albumedix, its stand-alone pharma entity which was separated from Novozymes in 2016. After a careful review, it has been concluded that the entity no longer benefits from being part of Novozymes. A good future ownership solution for Albumedix has therefore been found, with Novozymes retaining 8% ownership of the company.

Novozymes realized a net loss of DKK 66 million relating to this divestment.

## 2018 outlook

We expect Technical & Pharma to contribute to overall organic sales growth. Technical & Pharma is impacted by the divestment of Albumedix. The divestment will not impact organic growth. Looking ahead, the divestment will reduce some of the quarterly lumpiness in sales.

## Key industry trends

1. Continuous focus on process optimization and cost reduction
2. Water scarcity driving demand for solutions that reduce water consumption, improve water quality and clean wastewater

## Cleaner water for all

Solving the world's water problems presents a monumental challenge for society. As part of its Sustainable Development Goals (SDGs), the United Nations has identified Clean Water & Sanitation as Goal 6, and also recognized that water is the key to unlocking progress in several of the other SDGs.

At Novozymes, we are committed to finding biological answers for better lives in a growing world. We believe that some of these answers can ensure clean water and reduce pollution in rivers and oceans. We are working to reduce water consumption and pollution by industrial processes. Building on our current knowledge and technologies, we decided to initiate a more dedicated innovation program targeting the water and wastewater markets, because we believe there are further untapped opportunities in this area.

**In essence, we are exploring how biotechnological solutions can be used in water treatment. For example, our enzymes and microorganisms could be used for:**

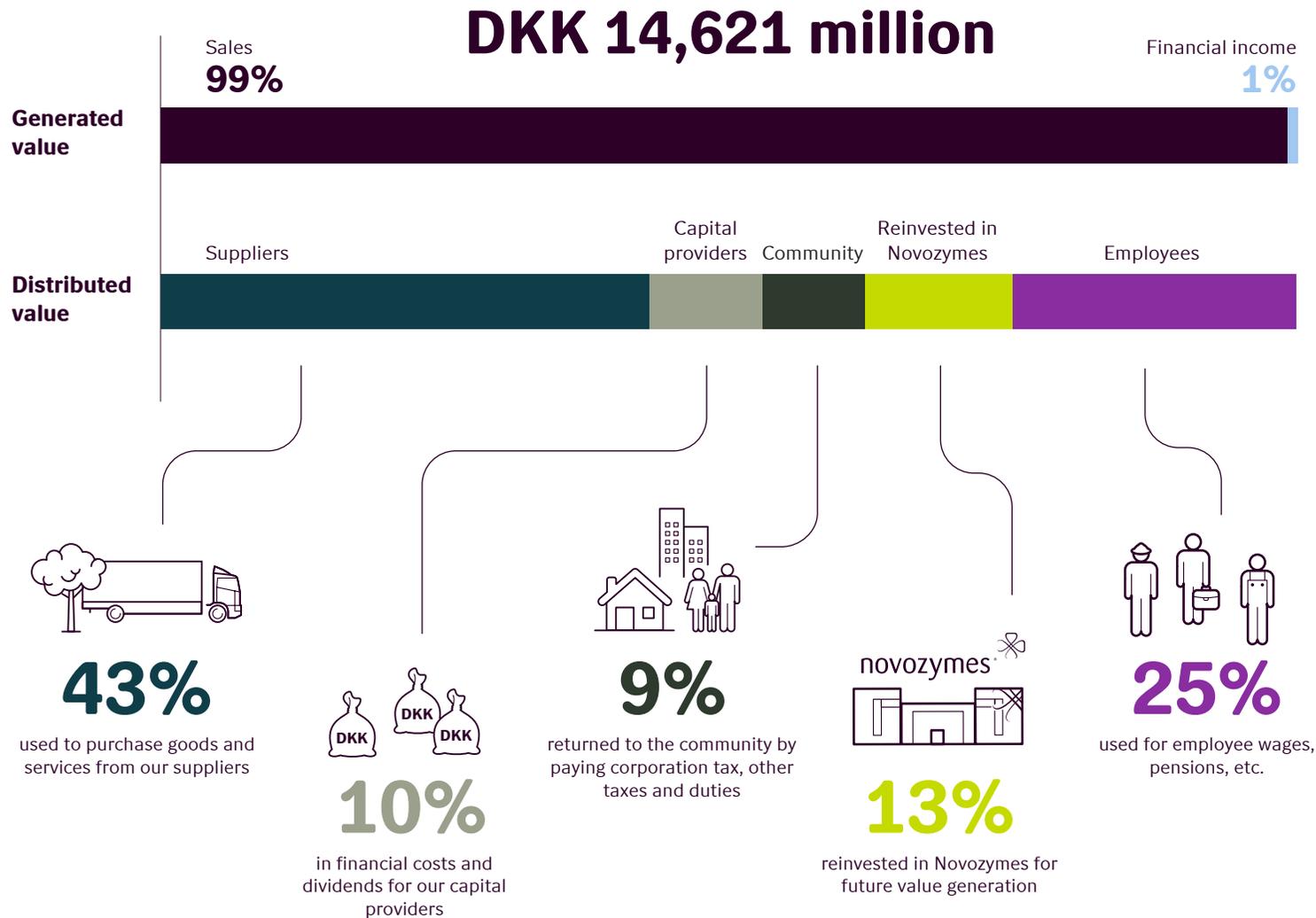
- Cleaning fouling in water treatment systems
- Degrading compounds in process water and wastewater
- Removing and recovering nutrients from wastewater
- Generating energy, such as biogas, from wastewater

In addition to our own research, we are working to establish strong partnerships and connectivity to innovation environments in relation to water. Together with UNICEF and Grundfos, we launched the HelloScience open innovation platform in 2017. Its purpose is to find new answers to some of the world's most pressing water challenges.



Read more about HelloScience on [HelloScience.io](https://www.helloscience.io)

# Economic contribution



In 2017, Novozymes generated value of DKK 14,621 million. 87% of this amount was returned to society. The remaining 13% was reinvested in Novozymes to develop the company, and ensure competitiveness and future value generation for distribution among key stakeholders.

In addition to the 10% returned to capital providers, Novozymes bought back shares worth DKK 2 billion in 2017.

### A positive tax contribution

Novozyymes' overall tax strategy and transfer-pricing policy support a positive tax contribution to society and governments in the countries in which Novozymes operates. Novozymes continuously works to fulfill its tax obligations in the countries where it operates. We seek to obtain a competitive tax level in a fair and responsible way, and with full regard to national and international laws and regulations. Besides taxes, our economic contributions include duties, VAT, employee taxes, employee pension and benefit programs, procurement from local vendors and job creation.

In 2017, Novozymes incurred corporate income taxes, and other taxes and duties that came to approximately DKK 1,375 million. In addition, Novozymes collected and withheld tax contributions on dividends and wages totaling approximately DKK 1,375 million. Novozymes' total tax contribution therefore amounted to approximately DKK 2,750 million, compared with approximately DKK 2,725 million in 2016.

# Five-year summary

DKK million	2017	2016	2015	2014	2013
<b>Income statement</b>					
Revenue	14,531	14,142	14,002	12,459	11,746
Gross profit	8,413	8,126	8,129	7,149	6,716
EBITDA	5,114	4,960	5,011	4,400	3,639
Operating profit / EBIT	4,047	3,946	3,884	3,384	2,901
Financial items, net	(157)	(34)	(257)	(84)	(134)
Net profit	3,120	3,050	2,825	2,525	2,201
<b>Balance sheet</b>					
Total assets	18,373	18,659	17,791	18,426	16,506
Shareholders' equity	11,267	11,745	11,593	11,280	11,066
Invested capital	12,880	12,584	11,891	10,535	11,871
Net interest-bearing debt	1,642	990	437	(716)	805
<b>Investments and cash flows</b>					
Cash flow from operating activities	4,063	3,840	3,339	4,525	2,599
Purchases of property, plant and equipment	1,593	1,076	968	703	762
Net investments excluding acquisitions*	1,665	1,188	1,015	715	783
Free cash flow before net acquisitions and securities	2,398	2,652	2,324	4,229	1,816
Business acquisitions, divestments and purchase of financial assets	3	161	242	14	640
Free cash flow	2,395	2,491	2,082	4,215	1,176

\* Excluding The BioAg Alliance impact

		2017	2016	2015	2014	2013
<b>Key ratios</b>						
Revenue growth, DKK	%	3	1	12	6	5
Revenue growth, organic	%	4	2	4	7	7
R&D costs (% of revenue)	%	13.2	13.2	13.5	14.8	13.0
Gross margin	%	57.9	57.5	58.1	57.4	57.2
EBITDA margin	%	35.2	35.1	35.8	35.3	31.0
EBIT margin	%	27.9	27.9	27.7	27.2	24.7
Effective tax rate	%	19.5	21.4	22.0	23.0	20.2
Equity ratio	%	61.3	62.9	65.2	61.2	67.0
NIBD/EBITDA		0.3	0.2	0.1	(0.2)	0.2
Return on equity	%	27.1	26.1	24.7	22.6	21.3
ROIC including goodwill	%	25.6	25.1	25.9	23.1	20.0
WACC after tax	%	6.5	6.5	5.3	3.7	4.7
Earnings per share (EPS), diluted	DKK	10.49	10.06	9.12	8.02	6.93
Dividend per share (2017 proposed)	DKK	4.50	4.00	3.50	3.00	2.50

Key ratios have been prepared in accordance with The Danish Finance Society's "Recommendations & Financial Ratios 2015 Nordic Edition" as well as certain key figures for the Novozymes Group as described in the Glossary.

## Environmental and social data

Total number of employees	No.	6,245	6,441	6,485	6,454	6,236
Rate of employee turnover	%	11.9	10.4	9.1	8.1	7.5
Frequency of accidents with absence per million working hours		1.6	2.2	2.5	1.7	2.4
Women in senior management	%	26	25	24	23	23
Estimated CO <sub>2</sub> reductions from customers' application of Novozymes' products*	Mill. tons	76	69	60	60	52

\* Data for 2013 have been calculated based on life cycle assessment data from 2008.