

# Targets

**We measure the success of our purpose and strategic focus areas using a number of financial and nonfinancial long-term targets. These ambitious targets reflect the belief that the use of our biological solutions will have a real and positive impact on the world.**

Our long-term targets tell us if we are succeeding in helping the world become more sustainable, at the same time as ensuring Novozymes' continued growth.

## **Long-term financial targets**

Novozyymes is investing to strengthen its leadership position within industrial biotechnology and unleash the potential of our innovation pipeline (see Business model). Once we successfully commercialize the programs in the pipeline, we are confident that we will grow the business in line with the historical performance. Since most of the programs will not have a commercial impact with significant revenue contribution for the next one to two years, Novozymes does not currently expect organic sales growth rates in line with the historical performance to be achievable in 2017. Once the programs have been commercialized, these will be achievable again.

Novozyymes' other two long-term financial targets – EBIT margin at 26% or above and ROIC including goodwill of 25% or above – are unchanged. The ROIC includes goodwill, but does not include impacts from acquisitions.

The company continues to find both targets challenging in light of the desire to invest in innovation, business development and further capacity expansions over the coming years within enzyme and microbe production, as well as the new innovation campus in Denmark. As a result, the ROIC is expected to be below the long-term target for the next 2-3 years.

## **Long-term sustainability targets**

We will keep our six long-term sustainability targets, to drive our actions toward supporting the UN Sustainable Development Goals (SDGs). The 17 SDGs were adopted by more than 190 UN member states in September 2015. The SDGs represent the global community's ambitions to end hunger, eradicate poverty, stop climate change and more. We believe the goals are not only necessary and important, but also point companies in the right direction to deliver solutions that contribute to sustainable growth.

On the following pages, we elaborate on our long-term sustainability targets.

## Novozyymes' long-term targets

**Return to historical growth rates**

**≥ 26% EBIT margin**

**≥ 25% ROIC incl. Goodwill**

**Reach 6 billion people with our biological solutions by 2020**

**Educate 1 million people about the potential of biology from 2015 to 2020**

**Catalyze 5 global partnerships for change from 2015 to 2020**

**Deliver 10 transformative innovations from 2015 to 2020**

**Save 100 million tons of CO<sub>2</sub> by 2020**

**Enable Novozymes' employees to develop by 2020**

# Reach 6 billion people with our biological solutions

Every time a consumer uses a product that has been made or treated with Novozymes' technology, or contains one or more products made by Novozymes, the world becomes a bit more sustainable. By 2020, we want 6 billion people worldwide to be using products made with our solutions at least once a week.

This target is closely connected to our sales performance. Increasing our reach therefore depends on the successful execution of our strategy within each of our industries, and on expanding our sales in emerging and developing markets, which have the greatest untapped potential.

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## Achievements in 2016

- We reached approximately 5 billion consumers with more than one of our solutions on a weekly basis – approximately 100 million more than last year
- This growth was driven by the global increase in textile products and by laundry products in China
- Furthermore, we have refined how we calculate delivery of this target

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## What's next

The growth potential of the REACH target is greatest in India, China and Africa, with the laundry and animal feed industries being the key growth drivers.



Consumers are buying more clothes today than ever before, and brands and consumers are increasingly conscious of the environmental footprint of the clothes they make and wear. Novozymes' textile solutions help textile producers make their processes more sustainable.

One of the biggest positive impacts can be seen in the desizing process. To protect yarn so that it does not break during the weaving process, textile manufacturers need to coat the yarn with "size," typically a starch-based substance. The size needs to be removed before dyeing the fabric. Novozymes'

amylase enzymes allow for efficient desizing of textiles, which enables textile mills to save on water and chemicals compared with nonenzymatic size removal. Since enzymatic desizing is milder than chemical desizing, the fabrics retain their strength for longer.

Novozymes' textile desizing solutions are used to treat 4-5 million tons of woven fabric every year, saving 3-4 million tons of CO<sub>2</sub> and 3 million tons of chemicals. This also results in the manufacture of higher-quality woven textiles used by an estimated 5 billion people.



[Read more about our textile desizing solutions at \*\*Novozymes.com\*\*](#)

# Educate 1 million people about the potential of biology

Education is crucial for global sustainable development as articulated in Sustainable Development Goal number 4. Novozymes' employees have a wealth of knowledge about science and sustainability to share, and regularly engage with schools, universities and communities through various outreach programs. The more people we educate about biology, sustainability and the environment, the more people will get involved in creating sustainable biological solutions in the future. Novozymes' educational activities included under this target exclude those related directly to sales and marketing of our technologies.

## Achievements in 2016

- Novozymes is dedicated to encouraging local education with global impact by driving EDUCATE activities out of our largest regions: China, India, Brazil, North America and Europe, Middle East & Africa (EMEA)
- In 2016, Novozymes educated more than 100,000 learners through regional partnerships. This brings our total to more than 130,000 learners since 2015

## What's next

In the coming year, we will continue to scale up our most successful programs in all regions. We will also develop new partnerships with relevant educational organizations.



Novozymes is aiming to educate 1 million people about the potential of biology by 2020. To achieve this, the company runs educational programs with local partners to reach children and teenagers in Brazil, China, India and the US.

In the US, EDUCATE partners include Morehead Planetarium and Science Center and Bertie Early College High School in North Carolina.

In Brazil, Novozymes is working with SESI, a chain of high schools, to create and launch a series of interactive mobile applications. Given that smartphones are ubiquitous in Brazil, these apps help educate students and teachers about the SDGs and how biology can solve some of the world's biggest problems, such as poverty, hunger, water and sanitation. By encouraging mobile-based reading and learning,

Novozymes is able to reach more students faster, in remote regions and across social classes, and engage with them in creative ways.

In India, Novozymes has teamed up with the NGO Agastya International Foundation, which promotes creativity-based education for rural and economically disadvantaged children, to create a lab and learning center for children from rural government schools near Bangalore. Known as the Let's Investigate Corner, the center mixes fun with learning so that children can understand and remember concepts better and develop their capacity for analysis, evaluation and creativity. Also in India, Novozymes is working with the Centre for Environment Education on a project that creates awareness about environmental issues among rural school students.



[Read more about our contributions to the UN Sustainable Development Goals in Sustainability indices & data](#)

## Catalyze 5 global partnerships for change

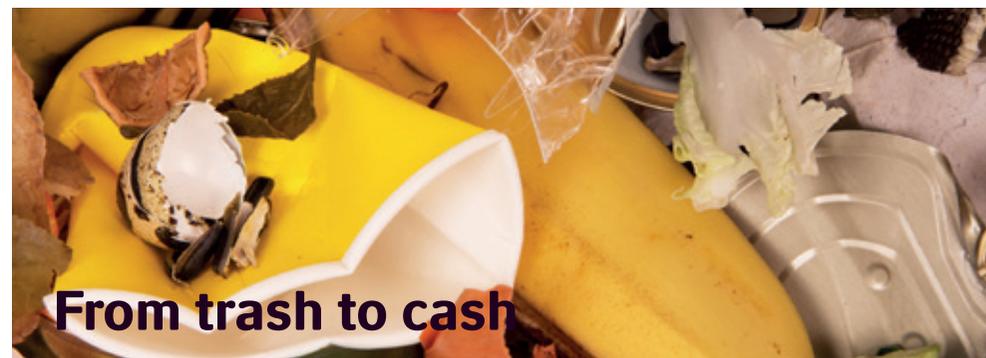
To make the necessary impact on the world, we need strong partners dedicated to solving key global issues with us. By 2020, we aim to form five high-impact partnerships with public or private organizations that share our agenda and support Novozymes' commercial activities.

### Achievements in 2016

- Forming new strategic partnerships is not easy, and developing strong, impactful partnerships that have lasting and transformational impact on business takes time and effort
- In 2016, we made headway on forming promising partnerships for change. One of these partnerships was with DONG Energy. Novozymes will supply enzymes to the world's first energy plant turning household waste into biogas, electricity and fuel. Novozymes and DONG Energy have also agreed to further develop the enzymes for the technology

### What's next

In 2017, we will dedicate additional organizational resources to help accelerate new promising partnerships as well as focus on further enhancing the partnering culture across Novozymes.



Rotten apples, milk cartons, eggshells and other household waste will soon be powering homes in the UK thanks to DONG Energy's REnescence plant, which will use Novozymes enzymes.

Located in Northwich, near to Manchester, UK, the plant will be the world's first full-scale bioplant capable of processing household waste through the use of enzymes. It will ensure that the waste collected from 110,000 UK households is recycled and converted into green power, thereby reducing the impact on landfill sites.

The unsorted waste is mixed with water and enzymes in a large reactor. Enzymes dissolve all the food waste, labels and similar types of organic waste, converting these into a liquid that can be used for biogas. The biogas will generate around 5 MW of electricity, which is sufficient to supply approximately

9,500 typical households with power. The remaining plastic and metal waste is recycled or converted into fuel. The plant can sort 15 tons of waste per hour, or 120,000 tons per year.

DONG Energy will finance, build and operate the plant, which is expected to become operational in early 2017, and will also look into the possibility of building similar plants in other locations around the world.

Biorefineries like this, where trash is transformed into value, are an excellent example of circular economy in practice. Novozymes and DONG Energy have agreed to further develop the enzymes for the technology together.



Read the press release at [Novozymes.com](http://Novozymes.com)

# Deliver 10 transformative innovations

Every innovation Novozymes delivers has an impact. Some of our innovations transform markets and ultimately impact people's lives. By 2020, we aim to deliver 10 such transformative innovations, creating significant impact for our customers and making the world more sustainable.

When evaluating our innovation efforts and pipeline, we consider their financial and transformative potential and measure their impact against the SDGs.

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## Achievements in 2016

- Acceleron® B-300 SAT, our new-generation corn seed treatment developed with Monsanto, represents a step-change improvement in crop yield and resilience

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## What's next

We have a number of other promising transformational innovations in our pipeline that are expected to launch in 2017 and contribute to this target. An overview of some of the programs in the innovation pipeline is provided in the Business model section.



[Explore our business model](#)



## First product from The BioAg Alliance

In December 2016, The BioAg Alliance launched the first-ever microbial seed treatment solution for corn, capable of boosting corn yields by more than 3 bushels per acre (~1.5%). Known as Acceleron® B-300 SAT, the solution is based on a fungus found in soil and is coated on corn seeds without harming the performance or longevity of the microbes. The Acceleron® B-300 SAT inoculant will be applied to all of Monsanto's new 2017 corn hybrids sold in the US.

Using the power of nature's microbes, farmers will be able to produce more crops with fewer resources. This will benefit agriculture, consumers and the environment. This is the first product jointly developed by Monsanto and Novozymes, and it shows the kind of innovation we can achieve in The BioAg Alliance.

Seed treatments protect crops from natural threats that reduce yield, so improving plant health and increasing uptake of

nutrients. Acceleron® B-300 SAT increases plants' ability to take up nutrients and is an improved version of JumpStart®, a product from Novozymes' pipeline prior to the formation of the Alliance.

While JumpStart® lasts for 120 days on the seed after application, Acceleron® B-300 SAT lasts for at least two years on the seed and is compatible with other seed treatments. This allows The BioAg Alliance to coat the seeds with the microbial product before they are shipped to retailers and farmers.

As announced in January 2017, the BioAg Alliance has an improved version of the recently launched Acceleron® B-300 SAT in the pipeline, namely Acceleron® B-360 SAT, which can increase corn yields by up to 5 bushels per acre (~2.5%) and is expected to enter the market in 2019.



[Read the press release at Novozymes.com](#)

# Save 100 million tons of CO<sub>2</sub>

Our products help customers improve their environmental performance by reducing their consumption of energy, raw materials and chemicals, and lowering their CO<sub>2</sub> emissions. To help address climate change, we have set a target of saving 100 million tons of CO<sub>2</sub> in 2020 through the application of our solutions.

## Achievements in 2016

- Based on life cycle assessments (LCAs) – from raw material extraction, through production and use, to final disposal – we estimate that our solutions saved customers a total of 69 million tons of CO<sub>2</sub> in 2016
- The main drivers of the additional savings compared with 2015 (a total of 60 million tons) were our household care, animal health & nutrition and textile products
- Fuel ethanol is one of the industries with immense potential to contribute to achievement of the SAVE target. However, 2016 saw a slight decline in this contribution due to more or less flat sales in terms of product volume

## What's next

Delivery on the CO<sub>2</sub> savings target is closely connected to the volume of various enzymes brought to market. On top of the volume growth of the existing product portfolio, we continue to explore other opportunities to increase our CO<sub>2</sub> savings, for example by increasing sales of products with particularly positive CO<sub>2</sub>-saving profiles, either from our existing portfolio or by further accelerating specific innovations in our pipeline.



[See Note 7.1 Climate change](#)



## More climate-friendly meat production

Meat production has a considerable impact on the climate because energy is required to produce animal feed, and because farm animals emit greenhouse gases such as methane.

Novozymes has a range of products for animal health and nutrition that enable animals to extract more nutrients and energy from the feed. Use of Novozymes' products for animal feed reduces the cost to the farmer while reducing greenhouse gas emissions related to feed supply and manure disposal.

One of our products in this area is RONOZYME® HiStarch, which reduces the need for fat in chicken feed. The fat saved

can be used for biodiesel production, saving emissions from fossil diesel combustion, and the vegetable oil saved can reduce demand for palm oil, for example.

Another product is RONOZYME® ProAct, an enzyme that improves the digestion and uptake of protein in broiler chickens, thereby saving poultry producers money and reducing their environmental impact.

RONOZYME® HiStarch, RONOZYME® ProAct and other products in our animal feed range have been jointly developed by Novozymes and DSM. Established in 2001, the alliance has launched several innovative feed enzyme products.



[Read more about product launches in 2016 in Novozymes in a nutshell](#)

# Enable Novozymes' employees to develop

Great employees make for a great Novozymes. Our ability to grow and contribute to a better world is dependent on our ability to enable our employees to develop both personally and professionally.

This target will ensure that Novozymes builds the skills needed to deliver on its strategy and that all employees worldwide realize their full potential.

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## Achievements in 2016

- 90% of all Novozymes employees have Individual Development Plans with development targets and actions, exceeding our target of 80%
- Our dedication to employee development is measured through our annual employee survey. With a score of 79 in 2016, meeting our target of 75, our employees agree that development is a priority at Novozymes
- More than 2,600 employees worldwide participated in Development Week to enhance their personal and professional development skills
- Regional leadership pipelines were strengthened through targeted talent development initiatives. In China, for example, 62% of identified and developed talents were promoted, had their role expanded or were assigned new roles. In North America, 50% of identified and developed talents were promoted

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## What's next

Over the coming years, we will work on the following focus areas to "Enable Novozymes' employees to develop:"

- Unfolding the potential of talents across our global organization with a special focus on building capabilities and talent in our high-growth markets and high-investment business areas
- Developing leaders to be capable of leading a multigenerational, multicultural workforce in a changing business environment
- Promoting more agile working structures and building the skills and mindset required to embrace digitalization



Great employees  
make for a great  
Novozyms

As one of the world's leading biotechnology companies, Novozymes needs the best talents in its labs, production, sales force and administration to create the best solutions for its customers. Once we have recruited the best talents, we are committed to enabling them to develop both personally and professionally.

### Talents in China

In China, for example, Novozymes has initiated a talent program to strengthen the ability to identify leadership talent, helping us to succeed in a dynamic and highly competitive business environment.

In 2016, selected talents were involved in a three-month program that challenged them to identify and solve high-priority business challenges, accelerate professional and personal development, and improve cross-functional understanding.

The talents worked with three high-priority business challenges, and followed a rigorous process based on the 70-20-10 model for learning and development.

The talents came up with innovative and actionable business solutions, and the program gave the China Leadership Team, who acted as business case sponsors, valuable insight into the potential of the talents.

Every year, Novozymes' Executive Leadership Team visits all regions to review business progress and to evaluate regional talent pipelines and organizational competencies.

### Development Week to strengthen individual development worldwide

Novozyms kicked off 2016 with a global Development Week, a program offering online and offline learning sessions, tips & tricks and activities for enhancing personal and professional development skills. The sessions included insights into the company's business areas and how to better develop on the job. More than 2,600 employees participated in Development Week activities, both online and across 18 sites globally.