

Targets

We measure progress on our purpose and strategic focus areas against nine long-term financial and nonfinancial targets. These ambitious targets reflect our belief that our biological solutions can have a profound positive impact on the world.

Our long-term targets guide us toward our overall goal of helping the world become more sustainable, at the same time as ensuring Novozymes' continued growth and value creation.

Balancing financial, social and environmental aspects

Novozymes seeks to generate economic, environmental and social value. This is the triple bottom line approach we have always taken and which is engrained in our purpose, strategy and long-term targets. The triple bottom line approach ensures that business decisions balance financial, social and environmental considerations, always keeping in mind the best interests of our stakeholders.

Long-term sustainability targets

We launched our six long-term sustainability targets in 2015, inspired by the UN's 17 Sustainable Development Goals (SDGs). The goals form the blueprint for a better and more sustainable future for all. They address global challenges such as widespread poverty and hunger, inequality, climate change and water scarcity.

The SDGs encourage global businesses, national governments and wider society to use and develop solutions that contribute toward sustainable growth. Novozymes was one of

the first companies to link its business targets to the SDGs. The opportunity to provide solutions to these global challenges translates into business opportunities for Novozymes and strong partnerships with like-minded stakeholders.

Long-term financial targets

Novozymes' long-term financial targets expire at the end of 2019. They reflect our commitment to deliver economic value through organic sales growth at an attractive earnings level, while investing sensibly to drive additional long-term profitable sales growth. Delivering high economic value ensures that we are able to continue investing in innovation and driving a sustainability agenda. Growing organic sales is a priority, because only by selling more of our solutions will we achieve the sustainable impact we strive for and so live up to our purpose.

We continue to invest in strengthening our leadership position within industrial biotechnology and in leveraging the potential of our innovation pipeline (see Business model). From the perspective of profitability and return on capital, Novozymes' other two long-term financial targets are EBIT margin of 26% or above and Return on invested capital (ROIC) including goodwill of 25% or above (before the implementation of IFRS 16

Leases). The ROIC target excludes the impact of potential acquisitions.

For 2019 specifically, we expect to increase organic sales by 3-6%. Growth comes from innovation and increased market penetration, particularly in the emerging markets. New game-changing solutions, such as freshness in laundry, Balancius™ for feed and yeast for Bioenergy, will make strong contributions to our topline – and make the world more sustainable. Although the outlook reflects uncertainties, our view on 2019 is positive.

ROIC is expected at around 23% (2018: 24.2%) in 2019. The average calculation of invested capital now includes a higher end balance following the major investment programs that we announced early in 2017. Adjusting for the implementation of IFRS 16 Leases, which has a negative impact of around 1 percentage point, the outlook for ROIC would have been around 24% for 2019.

Our long-term sustainability targets

- ◎ **REACH**
6 billion people with our 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 CO₂ in 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 using or treated with Novozymes' technology, or contains one or more of our products, 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 relates to SDG 12 Responsible consumption and production

Our solutions enable more efficient use of natural resources, decreased use of chemicals and a reduced environmental impact. By giving more people access to biological solutions, we enable sustainable consumption and production.



This target is closely linked to our sales performance. The target achievement is essentially an estimation of how many people use a product that was made using, was treated with or contains Novozymes' solutions.

Achievements in 2018

In 2018, an estimated 5.6 billion consumers used more than one of our solutions on a weekly basis – up from 5.2 billion in 2017.

- In 2018, Novozymes took a long stride toward achieving the 6 billion target due to contributions from the laundry and textile industries
- Most of the REACH growth in 2018 originated from Africa, India and China, all of which will continue to be major growth regions for REACH in 2019

What's next?

A favorable increase in REACH depends on successful strategy execution in each industry and expanded sales in emerging markets.

Regional solutions to regional issues

As far back as 2000 B.C., people living in the Middle East developed fermentation techniques that they used in baking, brewing and cheese-making.



Flatbreads are hugely popular in the region, but they quickly go stale and become dry. At our new innovation center in Istanbul, Turkey, Novozymes is actively working to solve this and other issues.

Driving innovation with successful regionally tailored solutions requires an in-depth understanding of customers in the region and their consumers. One way to gain this understanding is to invite customers over to “our place,” to share our world with them and get to know theirs better. The Novozymes Innovation & Technology Center, our new customer center in Istanbul, is a key part of this approach in the Middle East and Africa (MEA) region. It opened in April 2018 and will enable us to develop solutions tailored to the specific needs, trends and production processes of customers in the region.

Emerging markets such as MEA have the greatest untapped potential when it comes to increasing the reach and associated impact of sustainable solutions. Water and arable land are scarcer in MEA than in any other region. Ensuring a

sustainable supply of quality food and beverages for a growing population despite these scarce resources is one of the most pressing challenges the region faces. Enzymes are nature's own toolkit for making more from less, so regionally tailored enzymatic solutions have huge potential when it comes to solving this challenge.

The center features state-of-the-art, locally relevant facilities, including an industrial-scale flatbread line.

“Together with our customers, we’ll accelerate innovation through on-site baking trials, flour analyses and evaluations of aspects such as texture and freshness,” says Andrew Fordyce, Executive Vice President, Food & Beverages. Over time, the center will also include facilities relevant to other industries, including starch processing, brewing, dairy and household care.

EDUCATE

1 million people about the potential of biology

Ensuring access to quality education for all is crucial for global sustainable development. At Novozymes, we believe that the more people we educate about biology, sustainability and the environment, the more people will get involved in creating and using sustainable biological solutions. The activities described in this target are purely for educational purposes and are not related to Novozymes' sales and marketing.

Achievements in 2018

In 2018, Novozymes educated around 302,000 people. This brings our total to more than 612,000 learners since 2015.

This target relates to SDG 4 Quality education

By helping young people to understand the potential of biology, Novozymes is helping them to gain the knowledge and skills to promote sustainable development. Our program also ensures that we roll out new solutions to improve learning outcomes related to biology.



Examples of activities:

- In North America, various events helped to teach more than 60,000 students, parents and teachers
- In Latin America, among other things, we partnered with educational institutions and educated teachers about scientific experiments to exemplify how to change the world through biology
- 25,000 children from across Denmark took part in the Mass Experiment to find good bacteria in nature
- In India, two flagship initiatives, Agastya Mobile Science Labs and Hand Print, educated around 80,000 people
- In China, employees got involved in the Parents' Class initiative to teach schoolchildren about biology
- As part of our global Teach for Tomorrow program, Novozymes employees taught elementary schoolchildren worldwide about bacteria

What's next?

In the coming year, we will build on the success of our programs across all regions. We also intend to develop new partnerships with relevant educational organizations.

We're going on a bacteria hunt!

Bacteria are all around us – and inside us.



Where we make a difference
"Bacteria are a fantastic resource that can be used to solve the biggest challenges of our time."

In fact, these single-celled organisms are so numerous, it is believed that there are more than a trillion different bacterial species in the world. Yet only 20,000 have been described.

In 2018, Novozymes took part in the world's biggest bacteria hunt, helping 25,000 Danish schoolchildren to search forests and parks for samples of beneficial bacteria. The hunt was part of the Mass Experiment organized by Astra, the Danish national center for education in natural sciences. Novozymes developed this year's bacterial theme in collaboration with Astra in the hope of children being inspired by science and nature.

"Bacteria are a fantastic resource that can be used to solve the biggest challenges of our time. They can be used as biological fertilizer, to produce biochemicals and to develop health-beneficial products containing live bacteria," says Mads Bjørnvad, Senior Department Manager, Microbe Technology.

Only 20,000 of more than 1,000,000,000,000 bacterial species in the world have been described.

After the schools had analyzed their findings, they sent the test kits – decorated with hearts, leaves and messages such as "I love nature. Science is exciting!" – to Novozymes, so that our scientists could screen and characterize the bacteria.

The results were published in January 2019 as a bacterial map of Denmark, showing where to find the various species of *Lactobacillus* bacteria.

Read more about our educational initiatives in Note 8.4 Community engagement

CATALYZE

5 global partnerships for change

To make the necessary impact on the world, we need strong partners dedicated to working with us to solve key global issues. 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 2018

Novozymes is a founding member of the Brazilian Association of Industrial Biotechnology (ABBI) – an organization that seeks to promote innovation and

sustainable development of the industrial biotechnology sector in Brazil. Through our engagement with ABBI, we provided input for new public biotechnology policies as well as for sustainability programs that promote biotechnology in the country. This work resulted in the approval of RenovaBio – a government program designed to stimulate biofuel production and use in Brazil to help meet the country's commitment under the Paris Agreement to reduce greenhouse gas emissions. In 2018, we collaborated with ABBI to help to implement the program.

Between 2015 and 2018, Novozymes has catalyzed two global partnerships for change: below50 (2017) and ABBI for RenovaBio (2018).

What's next?

In 2019, we will continue to develop existing partnerships and work to create promising new partnerships.

This target relates to SDG 17
Partnerships for the Goals



Boosting biofuels in Brazil with RenovaBio



Governments across the world are seeking to meet the Paris Climate Agreement's 2°C temperature increase cap and support SDG 7 Affordable and Clean Energy. One component of this is finding sustainable alternatives to traditional fossil fuels. Wanting to be ahead of the game, the government of Brazil recognized some time ago that in order to keep to the Paris Climate Agreement, it would need more sustainable alternatives to meet the country's growing demand for transportation fuels.

Introducing RenovaBio

ABBI was formed to help support the move toward sustainable fuels, with Novozymes as a founding member. ABBI promotes innovation and sustainable development of the industrial biotechnology sector in Brazil.

"Brazil is a large and growing market for Novozymes' bioenergy solutions. Cofounding ABBI was a great opportunity for Novozymes to engage in dialogue with key stakeholders on securing a sustainable future for industrial biotechnology in Brazil," says Pedro Luiz Fernandes, Head of Corporate Affairs & Sustainability, Latin America.

Through ABBI, along with other industry groups, Novozymes provided the Brazilian government

with input and support for the creation of the national biofuel policy, the RenovaBio program, which was approved by the National Congress on December 26, 2017.

In short, the policy states that:

- The average carbon intensity of gasoline must be reduced by 10.1% by 2028
- Fuel distributors must gradually increase the amount of biofuels they sell each year in proportion to their respective market share for fossil fuels, thereby supporting the expansion of the bioenergy market in Brazil. According to a government study, this could double Brazil's ethanol production by 2030

In 2018, Novozymes and ABBI continued to provide detailed information to assist with the implementation of the RenovaBio program, including presenting new technologies for the production of renewable fuels.

DELIVER

10 transformative innovations

Our aim is to deliver 10 transformative innovations by 2020 that create significant impact for our customers and make the world more sustainable.

This target relates to SDGs 2, 6, 7, 9, 12 and 13

By working on transformative innovations, Novozymes is enhancing scientific research and upgrading the technological capabilities of industrial sectors globally. Our innovations will further contribute to achieving the SDG impacts related to agriculture, water treatment, energy consumption, sustainable consumption, production and climate change.



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

Achievements in 2018

Together with our partner DSM, Novozymes launched Balancius™ – the world’s first enzyme to improve gut functionality in broiler chickens.

Novozymes delivered five transformative innovations between 2015 and 2018. In addition to Balancius™, we launched Frontia® and our freshness solution in 2017, Acceleron® B-300 SAT in 2016 and Alterion® in 2015.

What’s next?

An overview of some of the most promising programs in Novozymes’ innovation pipeline as well as their current status can be found in the Business model section. Several of these have transformative potential.

Balancius™: a good gut feeling

Our new game-changing poultry gut health innovation helps farmers raise healthy flocks that grow and thrive.



Flashback to 1984, as Japanese Professor A. Yoneda, armed with petri dishes and ankle-deep in muck, enters a pigsty on a farm outside Tokyo, Japan. He collects some samples and heads back to his lab where, a little while later, his research reveals a unique fungus – from a rare class of microbes – capable of surviving in alkaline conditions.

Little did he know then that this expedition would hold the key to saving 4.2 million tons of CO₂ emissions 34 years later.

From pigsty to chicken guts

In view of the growing global population, the UN has highlighted food production and climate action as being among the world’s biggest challenges. At the same time, consumers are demanding meat from antibiotic-free, sustainably raised animals. So how can we produce more poultry, for more people, more sustainably? With Balancius™ – the world’s first enzyme that improves gut functionality in broiler chickens.

Scientists at Novozymes developed Balancius™ based on the same rare fungus that Professor Yoneda discovered more than three decades ago. Launched this year in partnership with DSM, the world leader in animal nutrition, Balancius™ allows chickens to absorb more nutrition from their food.

"Balancius™ is the first and only feed additive that targets the bacterial cell debris in the guts of chickens," says Susanne Palsten Buchardt, Vice President, Animal Health & Nutrition Commercial. "It's a game-changing technology that pushes industry boundaries."

All in the details

Balancius™ works by removing leftovers from dead bacteria from the chicken's gut without changing its natural gut flora, with the result that poultry farmers need 3% less feed to raise an animal.

That means significant savings for the average farmer, who spends 70% of total production costs on feed. It means big savings for the rest of us too. If Balancius™ were used for all broilers in Latin America and North America, the total potential annual saving in terms of greenhouse gas emissions would be 4.2 million tons of CO₂.

"Poultry farmers are constantly looking for new solutions to solve the challenges facing the industry while meeting consumer demands," continues Susanne Palsten Buchardt. "Balancius™ offers a new way for farmers to improve feed conversion into meat and deliver animal-based protein to feed a growing population more sustainably and naturally."

Our targets

REACH EDUCATE CATALYZE DELIVER **SAVE** ENABLE

SAVE

100 million tons of CO₂

Our products help customers avoid CO₂ emissions and improve their sustainability performance by reducing their consumption of energy, raw materials and chemicals. To help mitigate climate change impacts across the value chain, we aim to save 100 million tons of CO₂ in 2020 through the application of our solutions.

Achievements in 2018

We estimate that our solutions saved customers a total of 88 million tons of CO₂

This target relates to SDG 13 Climate action

By enabling low-carbon production, Novozymes is helping to improve climate change mitigation capacity across several industries.



in 2018. This figure is based on life cycle assessments (LCAs) spanning raw material extraction, production use and final disposal.

Our products for starch-based ethanol and BioAg contributed significantly to this target in 2018. For starch-based ethanol, the positive effect was driven by the launch of our yeast products (Innova® Drive and Innova® Lift), overall sales volume growth and a higher average CO₂ reduction effect due to changes in product mix. In BioAg, our new corn inoculants made a significant contribution to reduced CO₂ emissions.

What's next?

Delivering on the CO₂ savings target is closely connected to the volume of enzymes and microorganisms brought to market.

Solutions for starch-based ethanol, laundry and agriculture have significant potential to contribute further to the achievement of the SAVE target. We will continue to explore these and other opportunities to make even greater CO₂ savings.

Time to get excited about yeast

In 2018, Novozymes successfully launched two yeast solutions that will help Bioenergy customers to optimize their ethanol production, save on resources and achieve better yields.

In 2018, Novozymes revealed our new yeast platform for starch-based ethanol – Innova® – and introduced the first two products: Innova® Drive and Innova® Lift. Developed to meet the need for reduced fermentation time and increased stability, our yeast strains are totally unique.

Close collaboration with customers is key

Yeast represents a major bottleneck in ethanol production because it requires constant care and attention. Bringing a new product to market can be a challenge when that product is a vital part of the customer's production process. Because of the close working relationship between Novozymes and our customers, our technical service teams were invited to test the yeasts in customers' plants as part of the development process.

"Good customer relationships are important in this process," says Brian Brazeau, Vice President, Biofuels Commercial. "Customers trust us to test something new in their plants. In turn, they get access to the latest technology on the market."

Two products for two time ranges

Our Innova® platform consists of two products: Innova® Drive for fermentation times under 57

hours and Innova® Lift for fermentation times over 57 hours. Both products are highly tolerant and robust, putting ethanol producers in control and reducing operational stress.

"Customers trust us to test something new in their plants. In turn, they get access to the latest technology on the market."



ENABLE

Novozymes' employees to develop

Our ability to grow and contribute to a better world depends on our ability to enable our employees to develop, both personally and professionally. This target ensures that Novozymes builds the skills needed to deliver on our strategy. It will also ensure that all employees realize their full potential.

Achievements in 2018

- By 2020, Novozymes aims to have 30% or more women in senior management. In 2018, we met this target, as 30% of senior management are women

This target relates to **SDG 8 Decent work and economic growth** and **SDG 5 Gender equality**



- In 2018, we implemented TunedIn, a new employee survey and dialogue tool. The survey is used in conjunction with team talks throughout the company about how we work and grow together. The survey shows an employee development score of 78, which meets our target of 75 or above
- In 2018, we successfully enrolled more than 300 leaders (~30% of all leaders) in Lead the Way

What's next?

In the coming years, we will work on the following focus areas to enable Novozymes' employees to develop their skills:

- Unlocking the potential of talents across our global organization
- Further developing our leaders through Lead the Way and other initiatives
- Promoting more agile and flexible working structures, and building the skills required to embrace digitalization

Swipe right for leadership development

A new digital-based program helps Novozymes' leaders to develop their skills at the same time as staying on schedule.

Lead the Way is a new leadership development program that will ensure that all of Novozymes' leaders develop the core leadership skills needed to live our values and drive employee engagement and performance. Lead the Way is organized digitally through an app with a learning path, and while most leadership development programs typically last just a few days, Lead the Way focuses on continuous learning.

"We use a blended learning technique where we work with a variety of on-the-job learning modules," says Flemming Karstens Søbørg, Head of Leadership & Talent Excellence.

The program also boasts a library of e-learning resources, podcasts and videos as well as featuring a two-day practical training session, enabling leaders to meet face to face to share knowledge and get feedback from one another.

Overall, it has been designed to focus on five core leadership skills:

- ✓ Clarify direction and purpose
- ✓ Empower and follow up
- ✓ Assess and improve performance
- ✓ Coach and develop employees
- ✓ Build collaborative teams

"If our leaders master these five skills, they'll be able to drive employee engagement and performance and lead with the Novozymes touch," continues Flemming Karstens Søbørg.

Training on the go

The Lead the Way app enables leaders to track their progress and fit training modules into their work schedules. The app will prompt them when tasks need to be completed.

"Our leaders have busy schedules," concludes Flemming Karstens Søbørg. "That's why we took a pocket-sized approach to this program. Everything they need is just a swipe away!"

