

novo nordisk
foundation

Grant Report

2022

Benefitting people
and society



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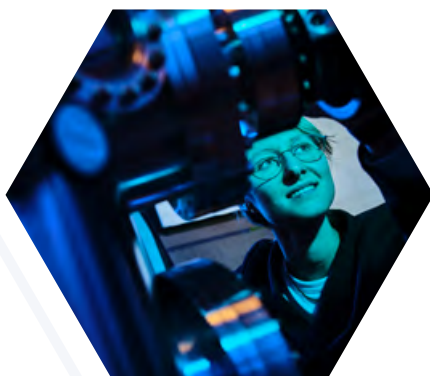


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Addressing global challenges



In the spring of 2022, the Novo Nordisk Foundation launched a new plan for our activities towards 2030. The plan provides a clear thematic framework and direction for our grant activities, which revolve around three focus areas: people's health, the sustainability of society and the planet, and boosting the life science ecosystem.

In the area of health, we continue to build on our legacy by supporting prevention and treatment of diabetes and other cardiometabolic diseases. We also continue to contribute to the world's epidemic preparedness in the wake of COVID-19 and to the battle against antimicrobial resistance. These areas constitute major challenges to global health.

Within sustainability, we are focusing on supporting research projects and initiatives with the aim of improving the world's food and agricultural systems in addition to developing climate change mitigating solutions.

We believe that society needs a strong life-science ecosystem to solve global challenges. Therefore, we are committed to supporting the whole value chain of life sciences, from children's early interest in science, through basic and applied research, to the development of new solutions that will benefit people and society.

The urgent need for sustainable alternatives

The year 2022 was a time of crisis on many fronts. Existing and emerging health crises – e.g. within cardiometabolic diseases and new epidemics – and the accelerating effects of climate change have been significant challenges this past year. Furthermore, the war in Ukraine revealed how exposed we are, both in terms of refugee crises and when it comes to energy and food supplies.

There is an urgent need to develop sustainable alternatives to ensure energy and food security, and to develop prevention and treatment initiatives to improve the health of society and our planet. This year's events underscore the relevance of our grant giving activities and will influence our priorities going forward.

Increasing grant awards in the years to come

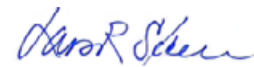
In 2022, Novo Holdings A/S, the Foundation's wholly owned investment and holding company, recorded income and returns of DKK 3.1 billion. The financial results of the companies in the Novo Group, which include Novo Nordisk A/S, Novozymes A/S and Novo Holdings, enable us to maintain our level of grant awards.

Looking to the future, we will continue to support activities within the specified focus areas towards 2030, and we expect to increase our grant awards in

the years to come. While we are strengthening our support of large-scale mission-driven initiatives and partnerships, we will also continue to support basic research and other activities through open calls.

This Grant Report provides detailed information about our grant activities in 2022.

We hope you find the Report interesting.



Lars Rebieen Sørensen
Chair of the Board



Mads Krogsgaard Thomsen
Chief Executive Officer

2022 in numbers

7,464

DKK million
awarded for grants

5,244

DKK million
paid out

695

grants
awarded

3,070

applications
received

The 2030 Strategy

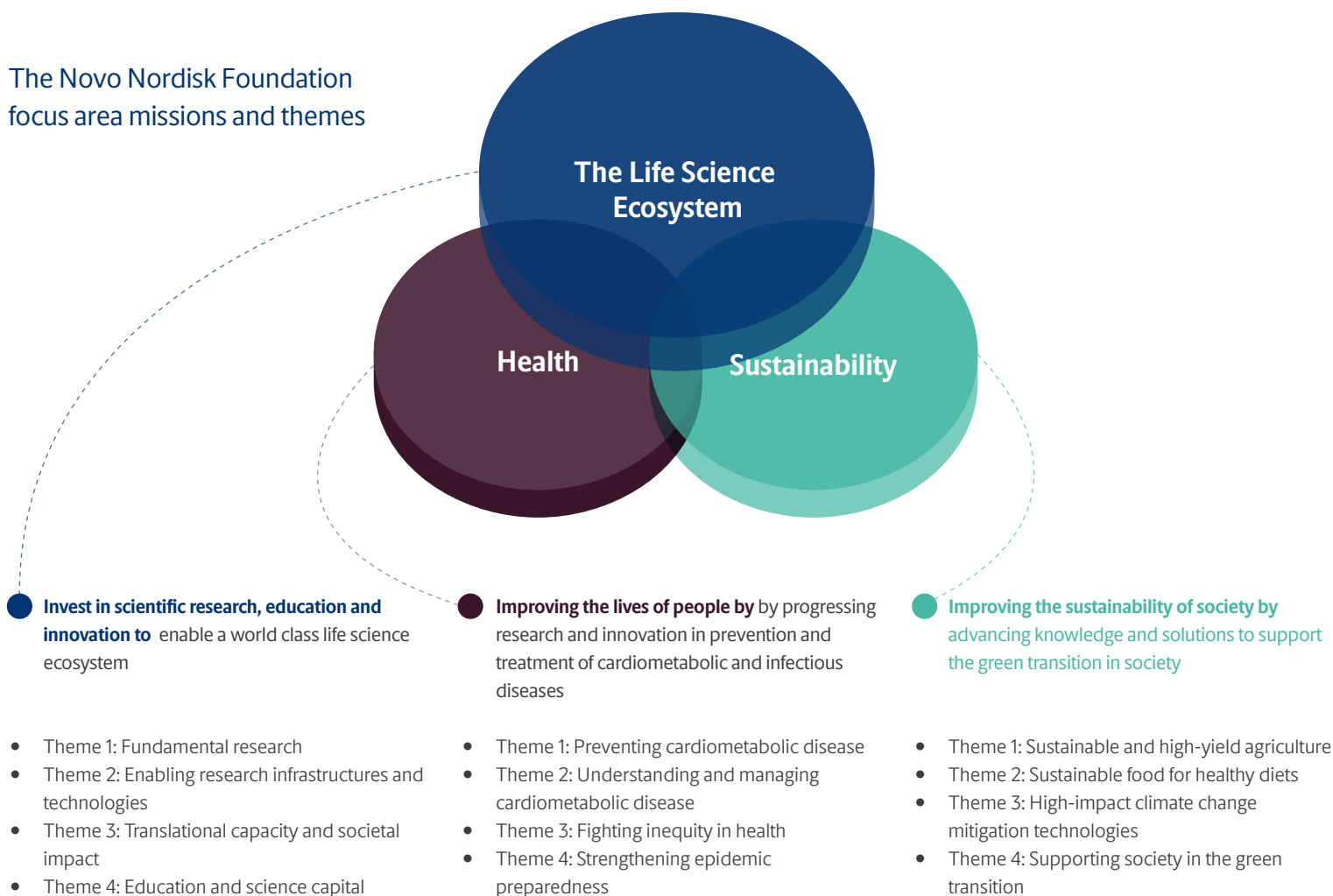
Our vision for the 2030 Strategy is to improve people's health and the sustainability of society and the planet. The strategy has three pillars: Health, Sustainability & The Life-Science Ecosystem.

While Denmark continues to be the centre of gravity for our grant giving, the Foundation had an increased focus on supporting research through international partnerships and collaborations in 2022. One reason is that many of the societal challenges we are facing today require a concerted


effort on an international level. But we also believe that forming such collaborative partnerships and gathering the expertise of leading scientists is a powerful way of strengthening the life sciences and the research environments, also in Denmark. During 2022, we have strengthened our

programme areas, which are: Medical Science, Infectious Diseases, Obesity, Nutritional, Natural Technical Sciences, Biotechnical Science, Innovation, Education & Outreach as well as Social & Humanitarian causes.

The Novo Nordisk Foundation focus area missions and themes





A woman with short blonde hair and glasses, wearing a white lab coat over a dark shirt, is looking upwards with a slight smile. She is positioned in front of a large, complex piece of scientific equipment, likely a quantum computing system. The equipment is illuminated with vibrant blue and orange lights, creating a futuristic and high-tech atmosphere. The background is dark, with some blurred lights and structures visible.

Ambitious **quantum**
computing programme
to unleash potential
within the life sciences

The Novo Nordisk Foundation has awarded DKK 1.5 billion for a Quantum Computing Programme including a co-located fabrication facility. The Programme has the ambitious goal of creating Denmark's first fully functional and generally applicable quantum computer by 2034.

Quantum computers can be used for developing new medicines and provide insights into climate change and the green transition, in ways not achievable with classical computers today. However, fully functional quantum computers capable of fulfilling this potential do not yet exist.

With the establishment of the Novo Nordisk Foundation Quantum Computing Programme, Denmark is taking a significant step forward in the development of the country's – and possibly the world's – first fully functional and generally applicable quantum computer.

Relevance within the life sciences

A fully functional and generally applicable quantum computer needs to be based on fault-tolerant operation of its quantum bits, and to be programmable to attack all classes of problems. Such a quantum computer has revolutionary potential for the life sciences within many areas, including epidemiology, genome research and neuroscience.

Many quantum-mechanical systems in nature cannot be classified and are not properly understood, even by the fastest classical computers. A quantum computer has an inherent capability of solving such tasks.

"Within the life sciences we could, for example, accelerate development in personalised medicine by using quantum computers to process the enormous quantity of data available about the human genome and diseases. This will make it easier to tailor optimal treatment," says Lene Oddershede, Senior Vice President, Natural & Technical Sciences,

the Novo Nordisk Foundation. "In the Quantum Computing Programme, physicists and engineers will work closely with researchers from the life sciences. The development of the technology will be guided by concrete biological experiments and problems. This close interdisciplinarity is a crucial parameter for success."

Co-located fabrication facility

DKK 400 million will be used to establish the Quantum Foundry P/S, a partner company co-located with the Programme. This fabrication facility will work closely with, and supply materials and hardware to, the Programme.

During the first seven years of the Programme, researchers will establish capabilities to co-engineer three of the most promising quantum computing platforms, which will set a basis for determining which platform or parts thereof are most suitable for further development.

The final five years of the Programme will be spent scaling the selected platform to a size that is functional for university and industry researchers, in addition to using it to solve relevant problems within the life sciences.

A world-class life science ecosystem

In 2022, the Foundation presented a new plan for its activities towards 2030. In this period, it will sharpen its focus in three key focus areas: people's health, the sustainability of society and the planet, and strengthening Denmark's life science ecosystem.

The Novo Nordisk Foundation Quantum Computing Programme is part of the Foundation's work to ensure a world-class life science ecosystem in Denmark.

The Foundation believes fundamental research is a prerequisite for development within the life science ecosystem and aims to support research infrastructures and technologies, to ensure translational capacity and societal impact and ensure education and science capital.

"To help build a world-class life sciences ecosystem in Denmark, the Foundation is

supporting the entire value chain, from natural science education for children and adolescents, through support of research at universities, to the establishment of new research-based start-ups. We also support the establishment of research infrastructure that both researchers and industry can use to create and develop new solutions and products," says Mads Krogsgaard Thomsen, CEO of the Novo Nordisk Foundation.

The Novo Nordisk Foundation Quantum Computing Programme will run for seven years with the possibility for a five year extension at the Niels Bohr Institute of the University of Copenhagen, with DKK 1.5 billion from the Novo Nordisk Foundation covering the first seven years.

The Programme is being led by Professor Peter Krogstrup Jeppesen at the University of Copenhagen, with research groups from leading universities and industries around the world, including the US, the Netherlands, Canada and Denmark, each contributing important specialist knowledge.

Read more on:

novonordiskfonden.dk/en/news/major-investment-for-developing-denmarks-first-fully-functional-quantum-computer/

The Novo Nordisk Foundation has awarded a grant of DKK 1 billion to support the establishment of Centre for Childhood Health. The mission of the Centre is to contribute to reducing the prevalence of overweight and obesity and improving the well-being of children in Denmark.

“There is a growing prevalence of childhood overweight and obesity, and many children will carry this into adulthood. The major consequences of being overweight – for an individual’s health, well-being and welfare, and also for society – are well-known. The growing number of children living with overweight and obesity is therefore an important trend,” says Professor Arne Astrup, MD, DMSc, Senior Vice President, Obesity & Nutritional Sciences, Novo Nordisk Foundation.

With the support of the Novo Nordisk Foundation, the Danish Ministry of Health has established Centre for Childhood Health to generate new evidence-based knowledge about weight trends and well-being among children.

Translating knowledge into practice

Understanding and addressing the complex set of causes behind childhood overweight and obesity, as well as the impact of factors such as socioeconomic and educational status, is crucial to enable change and prevent overweight and obesity.

The knowledge generated through the Centre will lead to the development of initiatives involving children, their families and healthcare professionals. These initiatives will promote healthy weight and prevent trends in weight gain that can negatively influence the physical and mental health of individuals.

The Centre’s initiatives will be created through strong partnerships with multiple stakeholders, including municipalities and educational institutions, and will have non-pharmaceutical commercial interests.

“I hope that the Centre can act as a catalyst to translate new knowledge into practice very rapidly, for the benefit of children.”

Professor Arne Astrup

Focus on improving health

The establishment of the Centre for Childhood Health is part of the Foundation’s work to improve people’s health.

In 2022, the Foundation presented a new plan for its activities until 2030. In this period, it will sharpen its focus in three key focus areas: people’s health, the sustainability of society and the planet, and boosting Denmark’s life science ecosystem.

Topics within people’s health include prevention and treatment initiatives related to such diseases as obesity, type 2 diabetes and cardiovascular diseases, which threaten public health in countries around the world and constitute the leading causes of death globally.

“We have become significantly better at treating people with certain chronic diseases, but we still have much to learn about why some people develop them whereas others do not. Increased knowledge in this area will contribute to creating greater equity in health, both in Denmark and globally,” says Mads Krogsgaard Thomsen, CEO of the Novo Nordisk Foundation.

The Novo Nordisk Foundation is supporting the establishment of the Centre for Childhood Health with a grant of up to DKK 1 billion over 10 years. The Danish government is allocating DKK 10 million annually from 2023 to 2032 to co-finance the Centre.

Søren Brostrøm, Director General, Danish Health Authority, has been appointed as Chair of the Board of Directors of the Centre, which also comprises representatives from the Danish Ministry of Health, the Ministry of Food, Agriculture and Fisheries, the Danish Regions, Local Government Denmark, the Novo Nordisk Foundation and the University of Copenhagen. This will ensure support for the Centre’s activities and that results can be implemented and make a difference in society.

Read more on:

novonordiskfonden.dk/en/projects/centre-for-childhood-health/



Significant new
investment to promote
**healthy weight in
children**



Accelerating the
development of
plant-based foods

Developing tasty, nutritious and sustainable plant-based foods is challenging. To accelerate development within this field, researchers and companies need to share new knowledge across sectors freely. A new open research collaborative platform, Plant2Food, will help do just that.

To make the most appropriate use of agricultural land and feed a growing world population, a significant part of food production must be converted to plant-based foods.

Developing a greater selection of tasty, nutritious and sustainable plant-based foods that are also affordable to consumers is key to accelerating this transition.

Collaborating to solve complex issues

The Novo Nordisk Foundation has granted DKK 127 million for Plant2Food's first phase over the next five years – a new Open Innovation in Science platform focusing on research collaboration across the various sectors within plant and food science, so as to accelerate the overall development of plant-based foods.

Universities and companies joining Plant2Food agree to publish all results from the open research projects and waive any claim to intellectual property rights. This will enable researchers and companies to co-develop and move forward with project ideas faster to solve the complex challenges of developing plant-based foods. The open approach also provides all stakeholders with the opportunity to further develop results, potentially for commercial use.

“We need to rapidly develop foods that can feed a growing world population without over-utilising the planet's resources. Plant2Food creates a unique opportunity to make Denmark a leader in developing plant-based foods, leveraging the huge potential which already exists within the

country's research community and industry, and to build networks with international experts in the field,” explains Claus Felby, Senior Vice President, Biotech, the Novo Nordisk Foundation.

Using crop knowledge to develop products

Plant2Food will focus on developing knowledge about the properties of crops and how they can be used to develop nutritious food products that are attractive to consumers, including how to reduce or block components that emit unpalatable odours in the finished product. To improve translation of the generated knowledge into practice, Plant2Food will also focus on linking researchers and industry.

Supporting the green transition

The grant for Plant2Food is part of the Novo Nordisk Foundation's work to advance the sustainability of society and the planet, one of three focus areas in the Foundation's activities until 2030 – the other two areas being people's health and boosting Denmark's life-science ecosystem.

Within sustainability, the Foundation is concerned with ensuring sustainable food for healthy diets, creating sustainable and high-yield agriculture, and contributing to scalable climate change mitigation technologies.

The Novo Nordisk Foundation has awarded a grant of DKK 127 million for Plant2Food's first phase, with 80% of the grant allocated to funding research projects awarded in open competition through the platform. The remaining 20% will fund secretariat services and networking activities. The project duration is five years.

Project partners in Plant2Food:

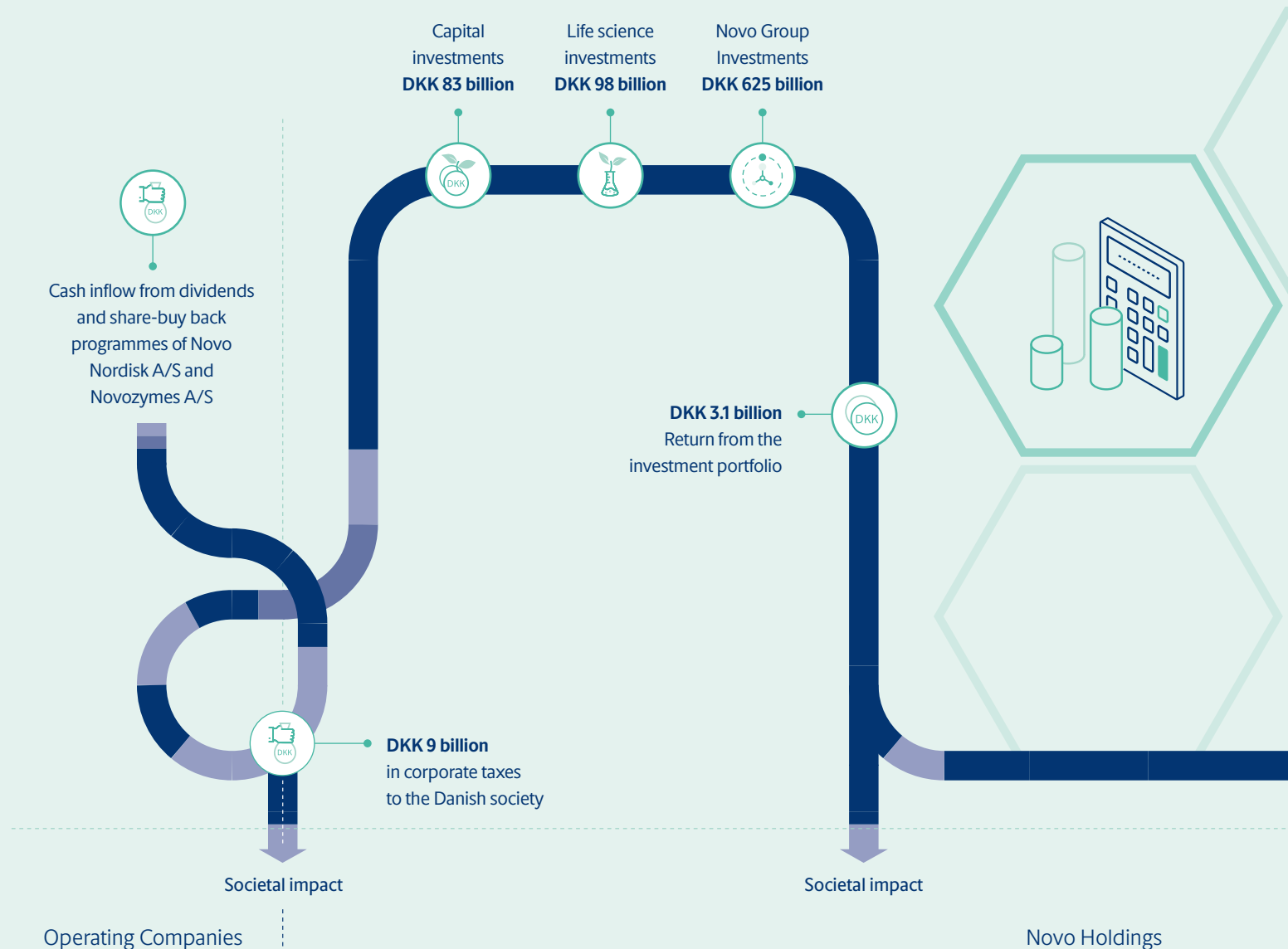
- Aarhus University
- University of Copenhagen
- Technical University of Denmark
- Wageningen University and Research, Netherlands
- Food & Bio Cluster Denmark

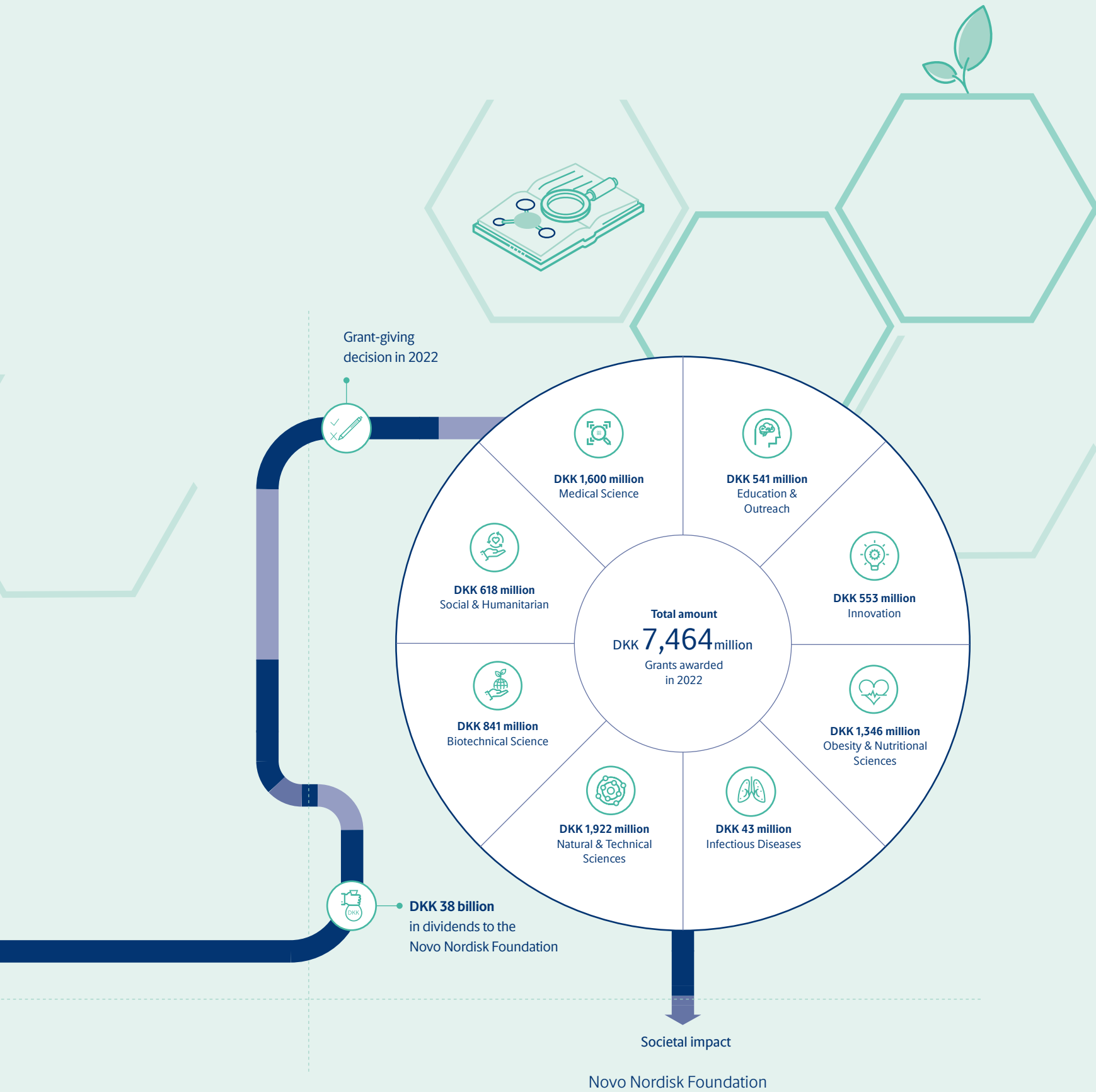
Read more on:

novonordiskfonden.dk/en/projects/plant2food/

The Novo Nordisk Foundation Business Model in 2022

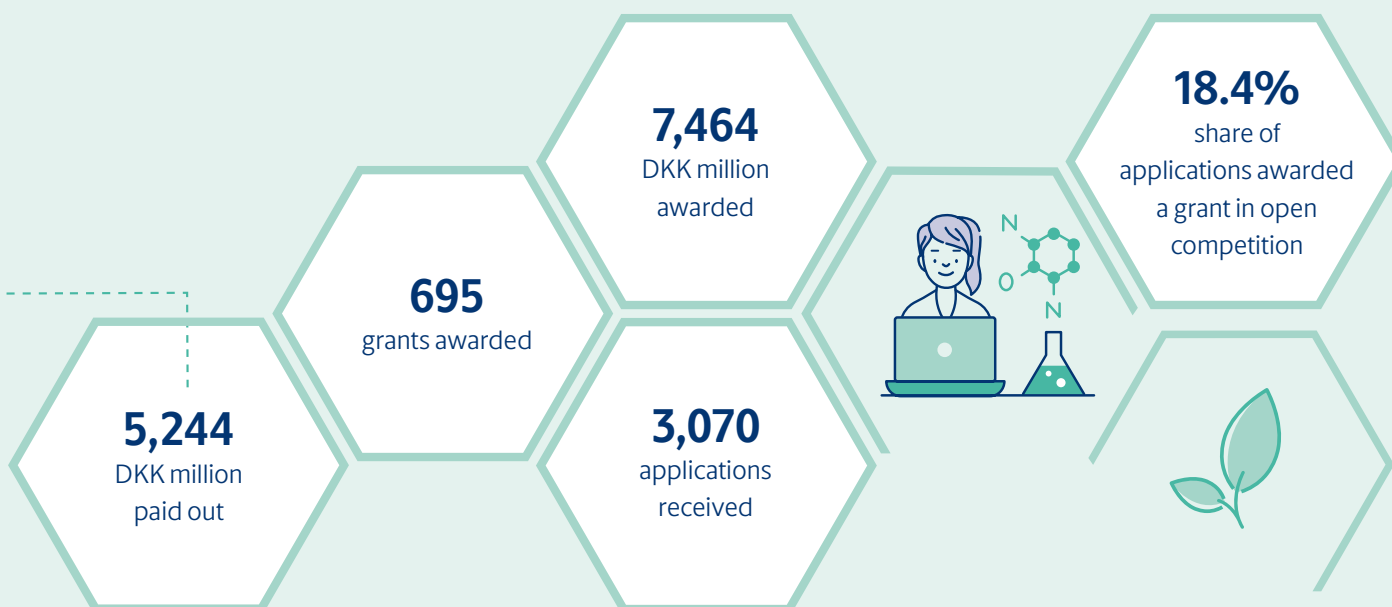
The Novo Nordisk Foundation is a Danish foundation with corporate interests, also called an enterprise foundation. It operates independently of other interests than the corporate and philanthropic purposes described in its Articles of Association, commonly referred to as its statutory purposes.



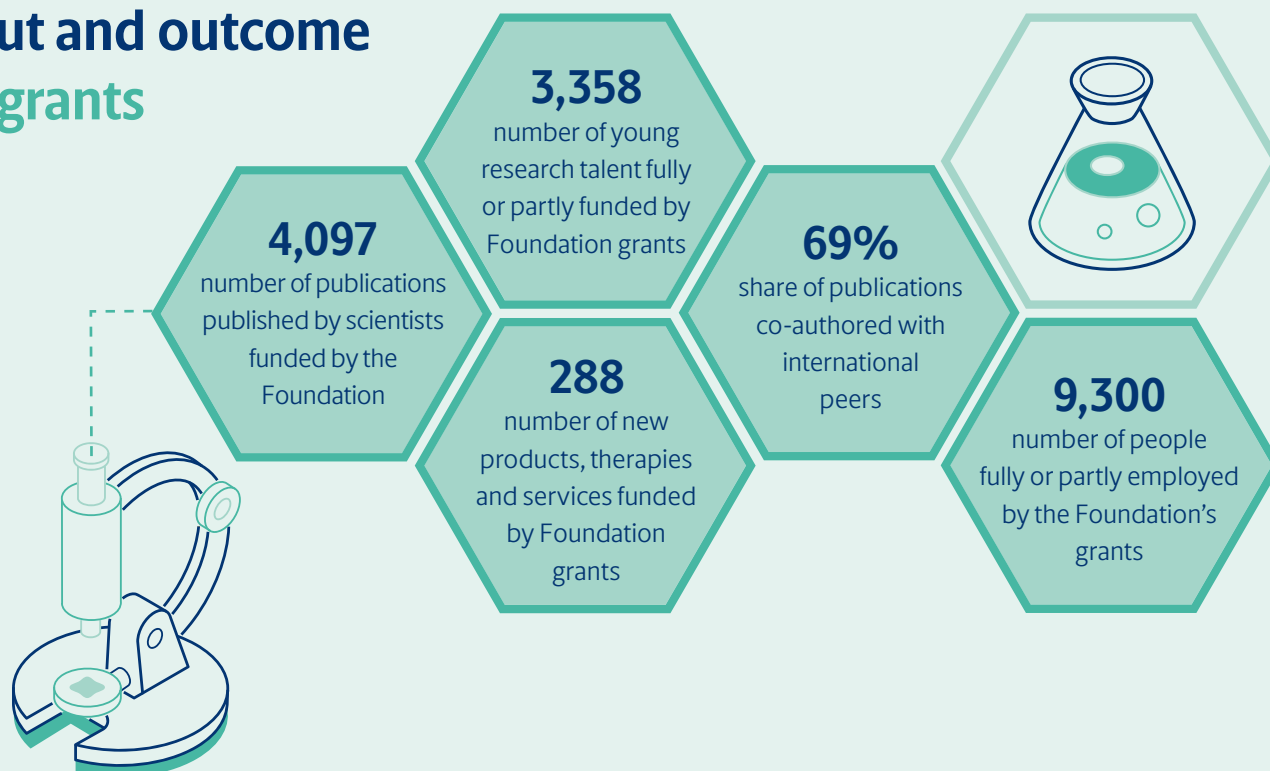


Grant

Facts & Figures 2022



Output and outcome from grants



Supporting the UN Sustainable Development Goals

The Novo Nordisk Foundation's grant giving in 2022 led to activities that support seven of the UN Sustainable Development Goals (SDGs). Four of the SDGs – 3, 4, 9 and 13 – are convergent with areas we support directly, while three SDGs – 5, 8 and 17 – are areas that we support indirectly through the way we manage our grant awards.



Read more

novonordiskfonden.dk/facts-and-figures/

The decisions of the Board of Directors on grants

The Board of Directors decides the Foundation's strategy, vision, payout ambition, the annual grant-giving budget and the grants. Decisions on grants are made directly by the Board, or on behalf of the Board by 27 expert committees, the Chairmanship and the Chief Executive Officer, who implements the Board's decisions.

The Foundation contributes to knowledge creation and growth that may pave the way to societal development and sustainable solutions that benefit people and society.

The Foundation has a wide range of grants that target the needs of the universities and researchers. The Foundation supports large as well as small research centres, research programmes and projects at universities, hospitals and other research institutions. We support researchers at all career stages – from PhD students and postdocs to associate professors and professors.

The Foundation also contributes to education, dissemination of knowledge, commercialisation, research-based innovation and infrastructure at the research institutions. We support the whole value chain that creates solutions for people and society. The Foundation offers a supplement to public research, and is to improve the quality of scientific research and contribute to a strong and dynamic research environment.

You can read more on the decision-making process at the Foundation's homepage:



novonordiskfonden.dk/en/who-we-are/the-decisions-of-the-board-of-directors-on-grants/



Policy on philanthropic activities

The Board has established a policy on philanthropic activities with overarching principles. The objective is to support philanthropic projects of the highest quality in accordance with the Foundation's strategy and national and international standards for assessment, evaluation and grant-awarding practices.

Overarching principles for the Foundation's philanthropic activities

The philanthropic activities of the Novo Nordisk Foundation will span an array of scientific and non-scientific disciplines, employing a wide range of funding tools and methods. Across all the strategic focus areas of the Novo Nordisk Foundation, we will consistently seek to support initiatives and partners that are:

Excellent:

We promote the highest standards of quality.

- We are committed to promoting excellence and quality through all our activities. Only by setting a high standard can real, sustainable impact be achieved. This includes both supporting world class research in selected areas and collaborating with relevant organisations to address educational and societal issues.

Innovative:

We strive to advance original and bold ideas.

- We encourage new ways of addressing challenges facing people and society. To do so, we are prepared to take risks to support promising projects and create the basis for breakthrough solutions, acknowledging that creative and innovative approaches are sometimes necessary to solve the most complex and intricate problems.

Collaborative:

We promote international collaboration and interdisciplinarity.

- We strive to bring together different ideas and perspectives to tackle challenges and develop solutions in new ways. By removing the barriers between traditional disciplines, institutions, sectors and geographies it is possible to find new and more effective ways to solve complex problems.

Knowledge-sharing:

We champion transparency and broad access to scientific knowledge.

- We promote openness and broad dissemination of knowledge and data in accordance with the FAIR principles. Making scientific knowledge and results available to other people is pivotal to catalysing further advances in any field. Furthermore, we see transparency as a prerequisite for trust and accountability. NNF Strategy 2030

Diverse:

We promote diversity, equity and inclusion.

- We embrace diversity and inclusion and the ability of these to create an environment that enables fairness by removing bias of existing systems, nurturing talents and innovative ideas, regardless of gender, age, geography and experience.

Policies and Rules

Diversity policy

The Foundation believes that diversity and inclusion is key to achieving our vision of improving the lives of people and sustainability in society. The Foundation continuously monitors the diversity in our activities and strives to improve the way we work.

The Foundation has formulated a diversity policy, which is described in full at:

novonordiskfonden.dk/diversity

Code of Conduct

Our Code of Conduct comprises a set of principles that describe the conduct we expect from our employees, our boards of directors, members of our committees, the people funded by our grants and other people and organisations that collaborate with the Foundation and our wholly owned subsidiary, Novo Holdings A/S.

Read more on:

novonordiskfonden.dk/en/code-of-conduct/

Standards for good research practice

To be eligible for grants, applicants must comply with recognised standards for good research practice, national and international rules on the safety and rights of clinical trial patients and health volunteers, animal welfare, and bribery and corruption.

Read more on:

novonordiskfonden.dk/en/about-the-foundation/standards-for-good-research-practice

Data ethics

The Novo Nordisk Foundation complies with both Danish and EU law on data and privacy protection. We recognise that the fast pace of technological development, along with evolving risks and benefits from large scale data use, require thoughtful and responsible decision-making where existing laws and regulations do not necessarily provide clear ethical guidance. To cope with these challenges the Foundation has developed a policy on data ethics.

Read more about the Foundations policy on data ethics here:

novonordiskfonden.dk/politik-for-dataetik/

Read more about our data policy related to impact assessment:

impact.novonordiskfonden.dk/grant-reporting-impact-assessment/

Rules for eligibility

The Foundation's rules for eligibility are comprised of three parts: i) rules specifying who are not eligible for applying for or receiving grants, ii) rules for who can assess grant applications, and iii) procedures to be followed in case of ineligibility.

Read more on:

novonordiskfonden.dk/en/about-the-foundation/rules-for-eligibility/

Research funding and costs covered by NNF Grants

The Foundation covers direct and indirect costs related to research projects, depending on the type of grant.

The indirect costs include bench fees, service contracts, operating and maintenance costs for equipment, IT costs, office expenses and other services. Within the awarded amount the grant holder can allocate up to 5% of the awarded amount to cover financial management and follow-up of the grant, based on the Foundation's requirements for administering and reporting on the grant.

Read more on:

novonordiskfonden.dk/wp-content/uploads/Novo-Nordisk-Fonden-Cost-Covered.pdf

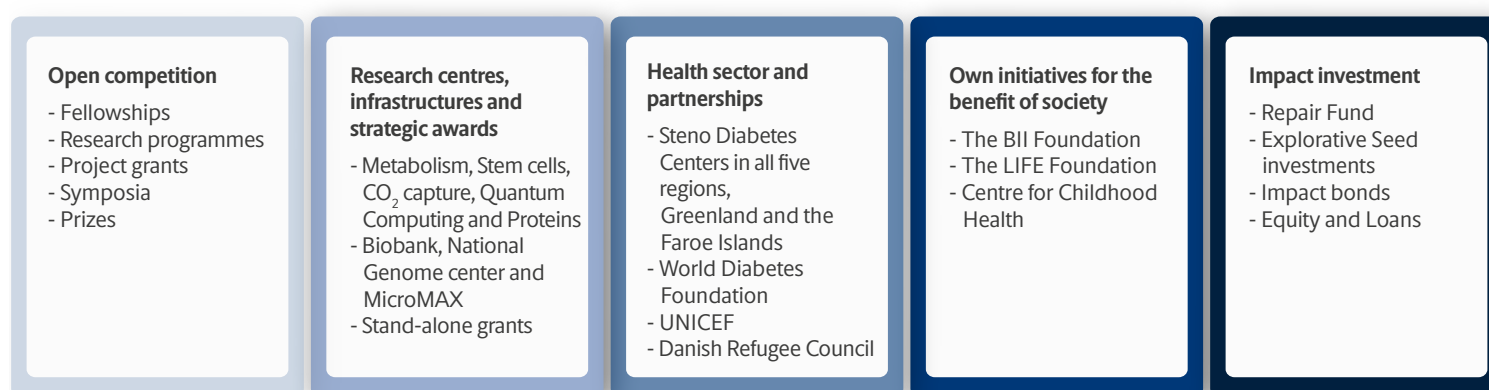
List of all policies and rules



novonordiskfonden.dk/en/how-we-work/what-are-grants/rules-and-policies/

Five grant-giving models

Applications and grants awarded are divided into the following five grant-awarding models.



Development of new programmes and strategic initiatives

The Foundation has adopted a new approach to the development of new programmes and strategic initiatives. As part of our continued implementation of this new approach, we developed our organisation to having a project-centric focus. In addition to this, the Foundation established new programme areas to help the internal Portfolio Board, the Chairmanship and the Board of Directors in the work of developing the individual programmes or strategic initiatives.

The Foundation has a Portfolio Board that is comprised of the CEO, the COO and the heads of all programme areas as well as the Director of Project Portfolio Management, who is responsible for developing new initiatives which will be presented to the Board of Directors and the Chairmanship. The heads of the Impact area and Finance & Digitalisation participate on an ad-hoc basis when relevant. On a regular basis, the Portfolio Board will review all activities within a given thematic area, ranging from open calls to strategic initiatives.

This is part of our effort to ensure that, after a grant is given, its journey and success is followed and attended to until the very end of the funding period. The management of grants is carried out by the Grant Management area.

Grants in open competition

The Foundation awards grants within the following programme areas:

- I. Medical Science
- II. Infectious Diseases
- III. Obesity and Nutritional Sciences
- IV. Life science research and industrial applications prompting sustainability (biotechnology)
- V. Natural and Technical Science research and interdisciplinarity
- VI. Education & Outreach and art research
- VII. Innovation
- VIII. Social & Humanitarian and development aid

In 2022, the Foundation awarded DKK 2,451 million and paid out DKK 1,623 million for grants in open competition.

All grants awarded in open competition are peer-reviewed by committees. Committee members are internationally recognised experts in their field who ensure that the grants are awarded for the projects of the highest quality and with the most potential in accordance with the international peer-review standard.

Strategic one-off grants, research centres and the Novo Nordisk Foundation Science Cluster activities

The Foundation supports strategic one-off initiatives, research centres, infrastructure and the Novo Nordisk Foundation Science Cluster. National and international research experts assess the submitted project applications. Applications submitted are assessed fully or partly by national and international experts or fully or partly by the Foundation's internal experts depending on the nature of funding instruments. Research applications are evaluated by external experts. The Board decides whether to support the projects. In 2022, the Foundation awarded DKK 3,023 million and paid out DKK 2,211 million in this category.



Grants for health sector and public-private partnerships

The Foundation supports research hospital activities within diabetes in Denmark, Greenland and the Faroe Islands, covering the entire Danish Realm. Between 2016 and 2021, Steno Diabetes Centers were established in Copenhagen, Aarhus, Aalborg, Odense, in Region Zealand, and in Greenland. In 2022, the Novo Nordisk Foundation awarded a grant of DKK 123 million (EUR 16.5 million) to the Faroese Ministry of Health for the establishment of a Steno Diabetes Centre Faroe Islands.

These public-private partnership grants awarded by the Foundation's Board of Directors help to increase research activities and bring treatment and prevention within diabetes and other endocrine disorders to a high international level, in addition to supporting the construction work of such centres. The Foundation also supports partnerships with humanitarian aid organisations as well as with Volkswagen Stiftung, La Caixa, Wellcome Trust, Open Philanthropy and the Bill & Melinda Gates Foundation, among others.

In 2022, the Foundation awarded DKK 387 million and paid out DKK 1,009 million in this category.

Own initiatives for the benefit of society

Currently the Foundation has four own initiatives, two of which are fully developed and spun out as independent foundations, the BioInnovation Institute (BII Foundation) and the LIFE Foundation, and two that are under development, namely Centre for Childhood Health and the Infectious Diseases Initiative.

BII Foundation was established on 1 December 2020, and is a continuation of the Foundation's BII initiative since 2018. BII Foundation helps talented researchers to translate research discoveries within the life sciences into new products and solutions for the benefit of people and society.

The LIFE Foundation was also established on 1 December 2020, and is a continuation of the Foundation's LIFE initiative since 2018. A new major not-for-profit learning initiative, the LIFE Foundation provides science education resources free of charge to schools throughout Denmark.

Centre for Childhood Health was established on 1 December 2022 by the Foundation's Board of Directors as a continuation of the Foundation's Healthy Weight Initiative (HWI) from 2020. The centre will work to promote healthy weight in children and their families through the establishment of strong partnerships with research and implementation partners as well as other partners in Denmark.

The Infectious Diseases Initiative is envisioned as interdisciplinary research centre with the mission to develop and translate innovative chemistry to understand and fight infectious diseases.

In 2022, the Foundation awarded DKK 1,603 million and paid out DKK 394 million.

Impact Management & Insight

The Foundation follows output, outcome, and the impact of all grant recipients' projects. The Foundation's work towards achieving impact from its grant awarding activities starts with the development of an impact management framework for each initiative.

Impact Management

The purpose of impact management is to support the Foundation and the grant holder in establishing the necessary and realistic impact framework conditions for a new initiative, and, once the initiative is funded, to ensure close monitoring, evaluation and if necessary, management of how the initiative progresses towards achieving its long-term objectives.

Content of Impact Management

Impact management covers all the processes and deliverables needed to collect data, monitor progress, facilitate evidence-informed management, and evaluate the achievement of milestones and success throughout all stages and beyond the grant life cycle. The three core elements of impact management are to:

1. Develop an **impact framework** that 1) identifies the logic model; 2) forms the theory-of-change of the initiative; and 3) formulates clear success factors and impact markers, as well as key performance indicators (KPIs) based on the long-term objective..
2. Implement the **data collection model** at grant start, based on the KPIs and success factors.
3. Efficiently collect data from grant holder and external databases and prepare data for **monitoring** purposes and for future evaluations, based on an annual wheel. When grants are in operation, reporting must be carried out on a regular basis

Reporting and NNF Dashboard

Our research on the outcomes and impact of the Foundation's grants draws on several data sources and extensive analysis. We analyse data on the activities, outputs and outcomes of the grant recipients' project, systematically collected through our two online data collection and reporting systems: Researchfish® and Foundgood. The two systems enable us to systematically monitor the activities of our grant recipients and the results of their work. Since all grant recipients report annually, we have data on the full population with no attrition.

It is mandatory for all grant recipients to use the Foundation's web-based survey systems (Researchfish® and Foundgood) for reporting on activities and results relevant to their grant. The grant recipients report annually for the duration of the project and 1–5 years after the project ends.

In 2022, the Foundation launched the NNF Dashboard which is a gateway to information about the Foundation's grant awarding activities and to sharing information and data on input, output, outcome and impact. In addition to visualising the progress for awarded grants, the NNF Dashboard provides insights on the overall development year-to-year in "Fact & Figures/Overview of Grant Awarding."

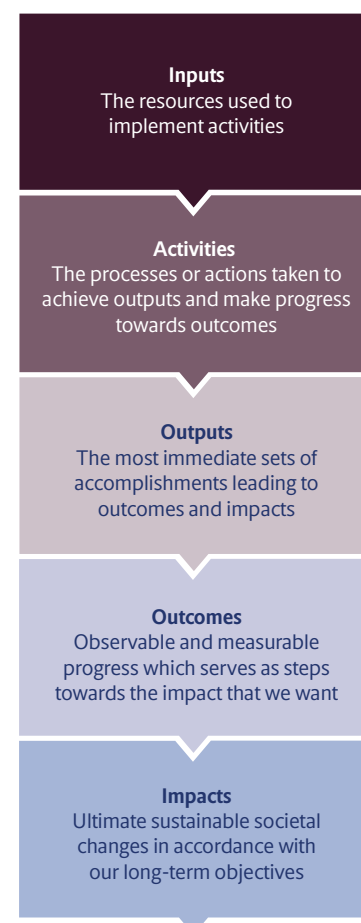


Read more

novonordiskfonden.dk/facts-and-figures/

Impact framework:

We develop chains of critical success factors from inputs to impacts that link the grants, step-by-step, to the long-term objectives of our strategy.



Nine principles for societal impact

The Foundation has established a framework for how to measure its key achievements to society. It is based on nine principles for the Foundation's contribution to society.

The Foundation uses the reporting to produce a digital annual impact report for each grant. The annual report might be the basis for a dialogue on progress between the grant holder and the Foundation.

The Foundation uses data in evaluating types of grant and funding instruments – what works and

what does not work – to support the Board in its decisions on grant policy and grant-awarding, and to support the implementation of impact frameworks to optimize societal impact.

Finally, the Foundation provides an overview of how grant-awarding activities support the Foundation's objectives in its strategy and the subsequent effects on society on research, education, and health and collaboration activities between researchers and industry. The Foundation's annual Impact Report and the public NNF Dashboard document the grant recipients' overall reporting of output and outcome and their impact on society.



Read more about impact assessment at novonordiskfonden.dk/en/impact/

Novo Nordisk Foundation's contribution to society

The impact of the Foundation is structured according to nine principles for societal impact. The principles help to guide the Foundation's activities.



Output

1. Fostering the development of talent across different genders, life ages and scientific fields
2. Supporting organisations, systems, and infrastructure to catalyse a knowledge-based societal development
3. Stimulating collaboration across international borders, scientific disciplines and sectors in society



Outcome

4. Promoting excellent research and innovation
5. Developing innovative products and solutions supporting a sustainable development
6. Developing new technologies, therapies as well as patient-centred and research-based care and disease prevention



Impact

7. Creating jobs, sustainable growth, efficient use of resources, and productivity in society
8. Support the development of world-class education at all levels and of a qualified and agile workforce
9. Helping people in difficult health, social, environmental, and humanitarian settings

Committees

The Board of the Foundation has established committees to implement the grants that the Board has decided to award in support of research, symposia and honorary awards.

Biomedical and health science research applications

- **Committee on Endocrinology and Metabolism**
Focuses on basic and clinical research within endocrinology and metabolism in the Nordic countries. Until 1989, the grant awarding was managed by the board of Nordisk Insulinlaboratorium and Nordisk Insulin Foundation.
- **Committee on Clinical and Translational Medicine**
Focuses on fellowships and project grants in clinical, translational and general practice medicine research in Denmark.
- **Committee on Bioscience and Basic Biomedicine**
Focuses on basic biomedicine and the natural sciences with subject matters that address biomedical issues in Denmark.
- **Committee on the Novo Nordisk Foundation Challenge Program**
These grants aim to develop and strengthen Denmark's research community within biomedicine and biotechnology. Focus is on in-depth research on specific challenges within annually selected research themes. In 2022 the themes within Biomedicine and Health Sciences was: immunity.
- **Committee on the Novo Nordisk Prize**
The Prize is awarded to recognise unique medical research or other research contributions that benefit medical science.
- **Committee on Nursing Research**
Focuses on projects and fellowships within nursing research in Denmark.

- **Committee on Steno Research Collaboration**
These grants target clinical research collaboration between research communities at the newly established Steno Diabetes Centers and research communities outside the Centers. The grants support clinical research, health promotion research and education research in relation to patients and healthcare personnel.

- **Committee for Coherence in Health Care**
The Committee implements the Board of the Foundation's decision to award the Foundation's grants for the programme "Project Grants for Studies on Integrated Care Pathways."

Life science research and industrial applications promoting sustainability

- **Committee on the Novo Nordisk Foundation Challenge Programme**
These grants aim to develop and strengthen Denmark's research community within biotechnology and biobased production. The focus is on in-depth research on specific challenges within annually selected research themes. In 2022, the theme within life-science research and industrial applications promoting sustainability was: recycling for sustainable society.
- **Committee on the Novozymes Prize**
The Prize is awarded to recognise outstanding research or technology contributions that benefit the development of biotechnological science for innovative solutions.

- **Committee on International Research Leader Grants**
Laureate Research Grants and Young Investigator Awards are aimed at promising research leaders who want to establish their research group in Denmark to carry out visionary research within biomedicine or biotechnology.
- **Committee for Plant Science, Agriculture and Food Biotechnology**
The programme funds excellent research within plant science, agriculture and food biotechnology which significantly contributes to the sustainability of society and the environment.
- **Committee for Industrial Biotechnology and Environmental Biotechnology**
The programme funds excellent research within industrial biotechnology and environmental biotechnology which significantly contributes to the sustainability of society and the environment.

Natural and technical science research and interdisciplinarity

- **Committee on Interdisciplinary Research**
Evaluates applications for postdoctoral fellowships at Stanford Bio-X and the Interdisciplinary Synergy Programmes supporting novel, cross-disciplinary research initiatives with high risk and high gain.
- **Committee on Nature and Technical Science**
Focuses on project grants in the natural and technical sciences, and on applications for the NERD (New Exploratory Research and Discovery) programme.

- **Committee on Data Science**
Focuses on the open competition programmes within the NNF Data Science Initiative: The Data Science Collaborative Research Programme, the Data Science Research Infrastructure Programme and the Data Science Investigator grants.
- **Committee on the Novo Nordisk Foundation Challenge Programme**
Evaluates grants aiming to develop and strengthen Denmark's research community within natural and technical sciences. The focus is on in-depth research on specific challenges within annually selected research themes. In 2022, the theme within Natural and Technical Sciences was: biocompatible energy materials.
- **The Committee on STEM Vocational Education and Training**
Focuses on projects that contribute to strengthening the interest in and the quality of teaching STEM subjects at vocational education and training (EUD and EUX).
- **Committee on the Novo Nordisk Foundation Teaching Prizes**
The prizes are awarded in recognition of extraordinary efforts among early childhood educators, primary and secondary schoolteachers, and teachers at teacher colleges.

Social, Humanitarian and Development Aid

Innovation

- **Committee on Innovation**
Focuses on the research community in the Nordic countries and aims to accelerate the commercialisation of application-oriented research findings and ideas: Pioneer Innovator Grants and Distinguished Innovator Grants.
- **BioInnovation Institute Board of Directors**
The BII Board of Directors approves all grants and convertible loans for projects in the Venture Lab, the Creation House and the BII Faculty Programme.
- **Humanitarian and Development Aid Advisory Panel**
The Panel advises the Foundation on strategic matters relating to the implementation of its humanitarian and development aid strategy. The Foundation's humanitarian focus areas are the improvement of young refugees' prospects and possibilities and the reduction of non-communicable diseases' morbidity and mortality.
- **Committee on Children, Health and Movement**
Focuses on grant activities supporting public institutions, non-profit organisations and researchers in evidence-based and innovative approaches across sectors to increase children's movement, physical activity and sports.

Education and Outreach

- **Committee on Research in Art and Art History**
Focuses on projects within art history research and fellowships in art history, art and curating for researchers affiliated with a research institution in Denmark.
- **Committee on Health Integrated in Social Initiatives**
Focuses grants for projects to promote health for vulnerable children in Denmark.
- **Committee on Science Education and Outreach**
Focuses on projects within natural science education, research on natural science education and natural science outreach.
- **Committee on Science Communication and Debate**
Focuses on grants for projects within science communication and debate using novel communication platforms.



List of all committee members is to be found on:
novonordiskfonden.dk/app/uploads/Tables-on-Committee-members-2022.pdf

Grants and payments in 2022

Scientific and non-scientific purposes

Main scientific orientation	Field of science & technology (OECD)	Amount awarded (DKK million)	Share of awarded amount	Payouts (DKK million)	Share of total payout	# of grants in 2022
Scientific purpose						
Agricultural biotechnology	Agricultural and veterinary sciences	103,5	1%	117,8	2%	7
Agriculture, forestry, and fisheries	Agricultural and veterinary sciences	203,2	3%	55,3	1%	19
Animal and dairy science	Agricultural and veterinary sciences	17,6	0%	34,1	1%	1
Art and architectural sciences	Humanities and the arts	54,4	1%	25,5	0%	24
Basic medicine	Medical and health sciences	756,1	10%	1025,1	20%	94
Biochemistry	Natural sciences	101,9	1%	73,9	1%	9
Chemical sciences	Natural sciences	140,9	2%	27,4	1%	7
Civil engineering	Engineering and technology	0,0	0%	12,2	0%	0
Clinical medicine	Medical and health sciences	672,1	9%	726,0	14%	132
Computer and information sciences	Natural sciences	1165,8	16%	26,0	0%	13
Economics and business	Social sciences	5,0	0%	10,4	0%	1,0
Educational science	Social sciences	375,6	5%	56,8	1%	51
Environmental biotechnology	Engineering and technology	238,1	3%	45,9	1%	25
Environmental engineering	Engineering and technology	76,6	1%	4,3	0%	6
Industrial biotechnology	Engineering and technology	50,8	1%	28,5	1%	10
Interdisciplinary science	N/A	180,9	2%	87,4	2%	27
Mechanical engineering	Engineering and technology	1,8	0%	0,0	0%	1
Media and communications	Social sciences	0,4	0%	0,0	0%	1
Medical biotechnology	Medical and health sciences	211,9	3%	115,7	2%	12

Medical engineering	Engineering and technology	25,7	0%	12,6	0%	2
Nano-technology	Engineering and technology	38,0	1%	11,8	0%	3
Other engineering and technologies	Engineering and technology	75,6	1%	54,5	1%	24
Other health science	Medical and health sciences	587,6	8%	933,9	18%	70
Other natural science	Natural sciences	101,5	1%	133,9	3%	28
Other social science	Social sciences	62,0	1%	44,5	1%	18
Pharmaceutical science, Pharmacology and Medicinal chemistry	Medical and health sciences	14,0	0%	4,8	0%	3
Physics (incl. Biophysics)	Natural sciences	67,6	1%	31,6	1%	5
Public health medicine and public health	Medical and health sciences	1531,2	21%	896,2	17%	40
Scientific purposes - Total		6859,7	92%	4596,1	88%	633
Non-scientific purposes						
International humanitarian purposes	Non-scientific purpose	493,3	7%	314,1	6%	33
Social purposes	Non-scientific purpose	111,2	1%	334,0	6%	29
Non-scientific purposes Total		604,5	8%	648,3	12%	62
Grand Total		7464,2	100%	5244,3	100%	695

Source: Novo Nordisk Fonden annual reporting to Statistics Denmark

About the grant report

Strategy period: 2022-2030

Vision: The Foundation's vision is to improve people's health and the sustainability of society and the planet.

Grant-giving themes: Medical sciences, infectious diseases, obesity and nutritional sciences, research hospitals, natural and technical sciences, interdisciplinary sciences, humanitarian and social purposes, education and outreach, art research, and innovation.

Grant amount awarded in 2022: DKK 7.5 billion

Payouts in 2022: DKK 5.5 billion

Total amount awarded in grants since 2016: DKK 41 billion

Accessible capital: DKK 158 billion by end 2022. Accessible capital constitutes total assets minus statutory ownership of and reserves for Novo Nordisk A/S and Novozymes A/S, minus grant-giving reserves. The grant payout ambition is 3-5% of five year average of accessible capital - based on the last two realised years, expected for the current year, and forecast for the coming two years.

Staff (head counts): 313 academic and non-academic employees

Organisation: An executive office and 17 Departments

CEO: Mads Krogsgaard Thomsen

Chair: Lars Rebieen Sørensen

Vice Chair: Marianne Phillip

Board of Directors: Six members elected under the Foundation's Article of Association and three employee-elected members. The Chair and the Vice Chair are elected by the Board.



About the Grant Report

The Grant Report 2022 is part of the Novo Nordisk Foundation Group's report to comply with Section §77 of the Danish Financial Statements Act.

The Novo Nordisk Foundation is subject to the Act on Commercial Foundations, and the Danish Business Authority therefore supervises the Foundation. In addition, the Foundation must comply with the recommendations of the Committee on Good Foundation Governance.

The Foundation organises its commercial and grant-awarding activities separately.

The Novo Nordisk Foundation is responsible for awarding grants, and its Board decides the strategy for the grants and which grants to award. Novo Holdings A/S manages the commercial

activities within the overall financial strategy set by the Foundation's Board, which has also laid down the Charter for the Novo Nordisk Foundation Group. Through its ownership of Novo Holdings A/S, the Foundation's Board approves Novo Holdings A/S' Annual Report and the appointment of members to its Board.

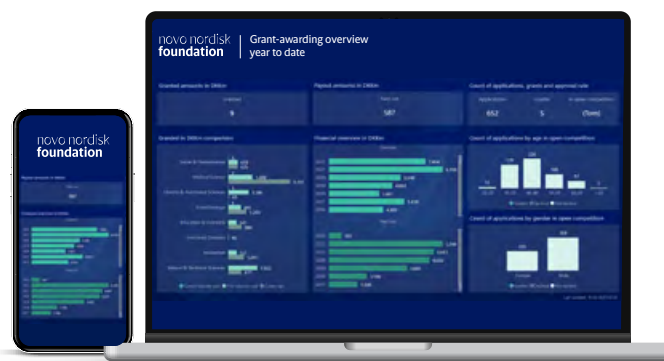
The Foundation funds its grants from income that primarily comprises dividends from Novo Holdings A/S. The Foundation's Board ensures reasonable consolidation through suitable appropriation of funds, possibly in Novo Holdings A/S. This is to enable the Foundation to participate as necessary in future capital increases of Novo Nordisk A/S and Novozymes A/S or other companies in which Novo Holdings A/S has a substantial ownership stake.

The NNF Dashboard

The NNF Dashboard is your gateway to information about the entire value chain of grant development, starting with Calls & Applications, through to awarded grants and their impact. In addition to visualising numbers on awarded grants, gender distribution of grant holder and grant recipients host institutions, the NNF Dashboard provides insights and details on the overall development year-to-year.



For more information read more on novonordiskfonden.dk/facts-and-figures/



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Benefitting people and society