



# SOCIETAL IMPACT

of the Novo Nordisk Foundation's grant activities

---

Highlights for 2019

---

The Novo Nordisk  
Foundation's vision  
is to contribute  
significantly to research  
and development that  
improves the lives  
of people and the  
sustainability of society.

## Novo Nordisk Foundation

### **Funding public research for more than 90 years**

Since 1927, the Novo Nordisk Foundation has awarded grants to researchers at universities and hospitals in Denmark and the other Nordic countries. Today, the Foundation supports research in biomedicine, biotechnology, general practice, nursing, art history and scientific objectives within innovation, education and outreach as well as humanitarian and social purposes.

### **Advocating public research**

This brochure presents some highlights from the annual impact report showing the Foundation's input of resources and the subsequent effects on research, health and companies.

# Key impact input, activities, output & outcome

## Overall grant-giving



In 2019  
**DKK 4.9**  
billion awarded

**DKK 3.6**  
billion paid out

**9.5%**  
of public research  
was funded by the  
Foundation

## Supporting people in science and knowledge creation



In 2019

**4,100**  
jobs in science

**1,780**  
PhDs and postdocs  
supported

**2,800**  
new publications  
were published

**61%**  
of journal articles  
published in 2014–2018  
were co-authored  
with international  
collaborators

## Promoting excellent research



In 2015–2017

**23%**  
of journal articles  
published are among  
top 10% most frequently  
cited in the world

**4%**  
of journal articles  
published are among  
top 1% most frequently  
cited in the world

**60%**  
of grants in open  
competition produced  
a journal article among  
the 10% most frequently  
cited within their field

## Research-based innovation



In 2019

**18%**  
of Foundation-funded  
journal articles cited  
in patent applications  
or granted patents  
9 years after their  
publication

**11%**  
of journal articles  
published were  
co-authored with  
industrial researchers

**11**  
new spinouts  
were created

## Education, outreach and policy contribution



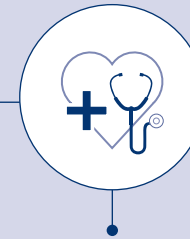
In 2019

**22,000**  
people reached  
by research-based  
educational activities  
taught or organised  
by grant recipients

**300,000**  
people reached by  
scientific outreach  
activities (e.g. talks  
or workshops)

**73**  
Foundation-supported  
members of guideline  
or policy committees

## Health and patient care



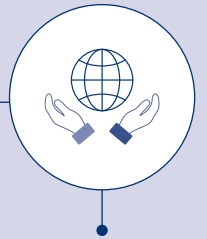
In 2019

**27,000**  
patients treated at  
Steno Diabetes  
Centres in Denmark

**48**  
commercial products  
were found to be  
directly or indirectly  
linked to Foundation-  
funded journal articles  
published since 1994

**54%**  
of clinical diabetes  
guidelines published  
cited Foundation-  
funded research

## Humanitarian aid



In 2014–2019

**800,000**  
people supported in  
Foundation-funded  
humanitarian crisis  
initiatives

**500,000**  
of those people  
were supported by  
acute humanitarian  
interventions

**45**  
countries reached  
by Foundation-  
funded humanitarian  
interventions

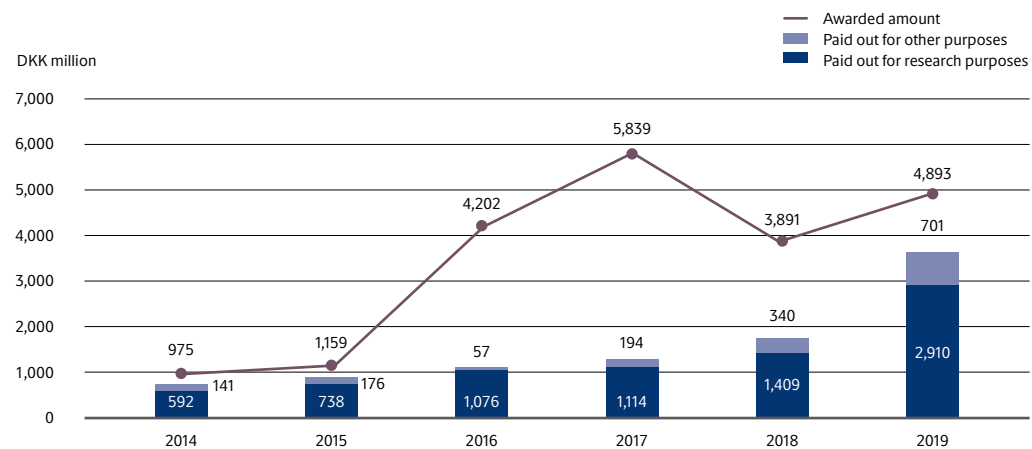




## Investing in knowledge and society

Development in grants and payouts from the Foundation

9.5%  
of public research  
was funded by the Foundation



The Foundation has four grant-giving models and several grant instruments. As part of the Foundation's strategy, the total payout has increased for all grant-giving models and grant instruments used by the Foundation between 2014 and 2019.



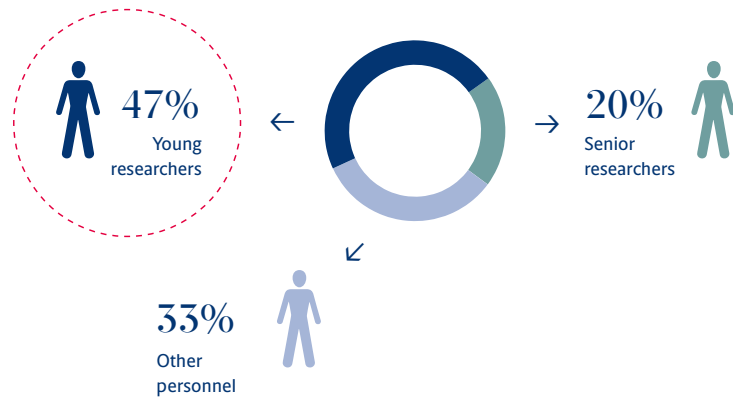


## Supporting people in science and knowledge creation

The number of people funded fully or partly by the Foundation, distributed between early career researchers and more senior researchers

2018  
**3,021**

Number of people fully or partly funded by the Foundation

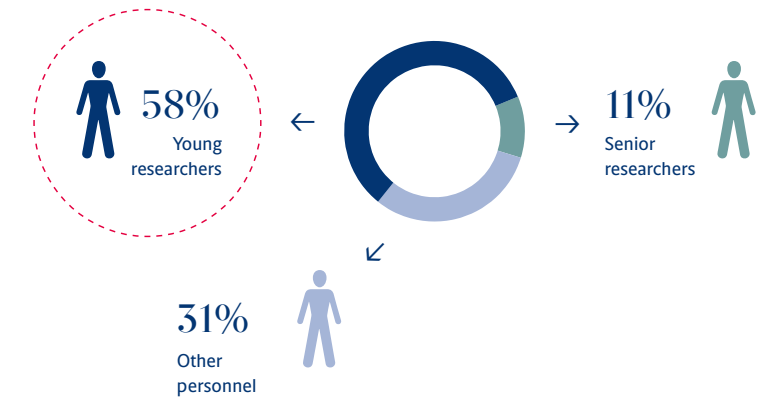


## 11 percentage points increase from 2018 to 2019

in the of the share of young researchers in science supported by the Foundation

2019  
**4,087**

Number of people fully or partly funded by the Foundation

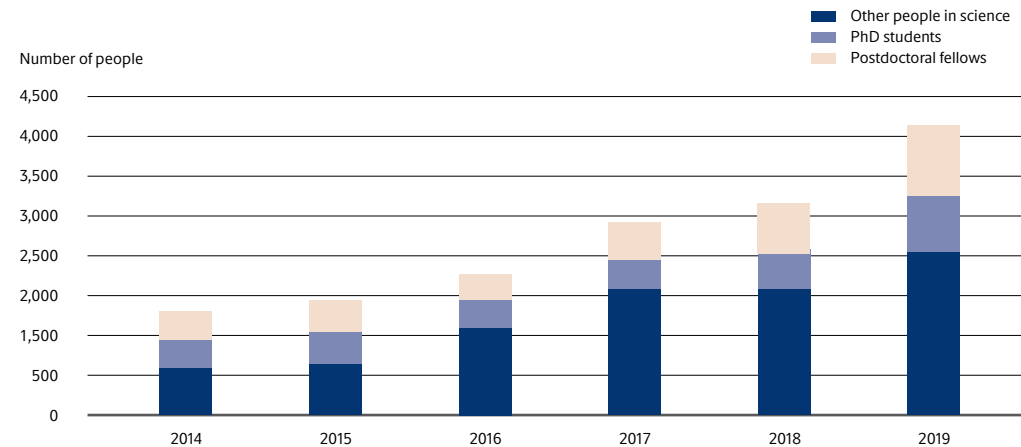




## Supporting people in science and knowledge creation

Increase in number of people fully or partly supported by the Foundation, 2014–2019

4,100  
jobs in science

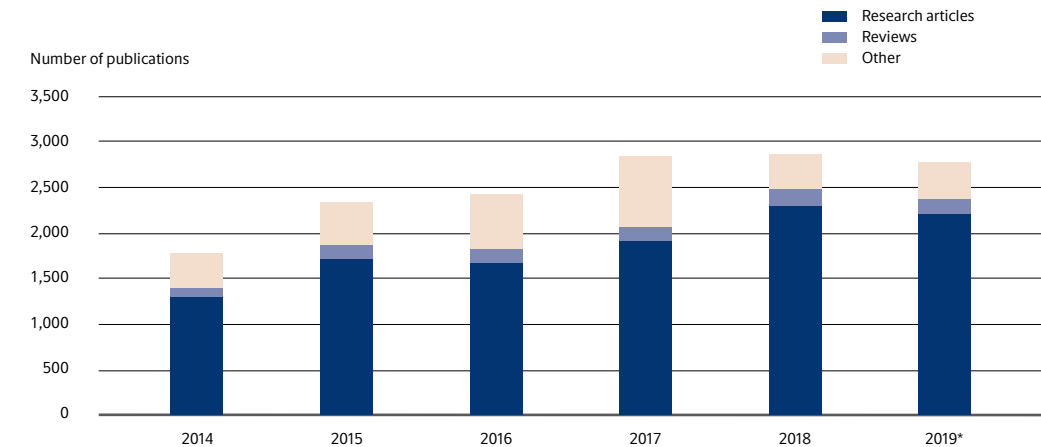


The Foundation aims to support the development of talents and that institutions can attract talented researchers from other countries at all career stages to Denmark. In 2019, the Foundation fully or partly funded 4,087 people within science or research hospital settings.

61%

of journal articles published in 2014–2018 were co-authored with international collaborators

Total number of publications published by recipients of Foundation grants, 2014–2019



\* Preliminary estimate. The actual figure is likely to be higher, since every year in January grant recipients also report publications they have previously omitted.

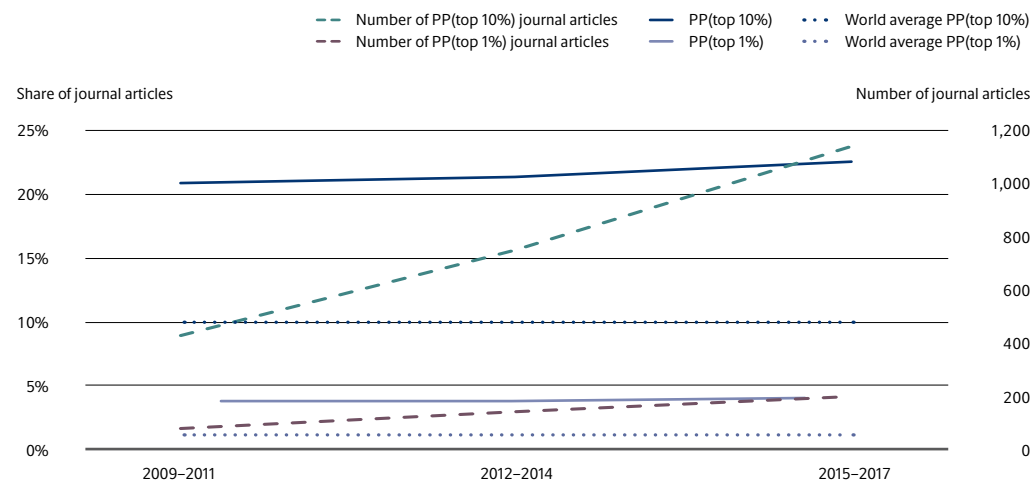
The Foundation aims to support research excellence, research collaboration and knowledge creation in all fields of science. In 2019, grant recipients reported almost 2,800 publications. Of the publications published from 2014 to 2019 funded by the Foundation, about 80% were journal articles (research articles and reviews) and 20% were other publications, such as policy papers, technical reports, letters and book chapters.



## Using knowledge in academic research

The number and share of journal articles by Foundation grant recipients among the top 1% and 10% most frequently cited journal articles in the world, 2009–2017

23%  
of the journal articles  
are in the top 10% most frequently  
cited journal articles in 2015–2017



The Foundation tracks the share of Foundation-funded journal articles among the 1% and 10% most frequently cited journal articles worldwide. The Foundation-funded research maintains a steady fraction (4%) of the top 1% of global research according to this citation impact measure.

4%

of journal articles published are  
among the top 1% most frequently  
cited in the world.



60%

of the funded research teams in  
open-competition grants produce  
a journal article among the 10%  
most frequently cited worldwide.





## Research-based innovation



**8,000**  
research and innovation  
grants since 2000

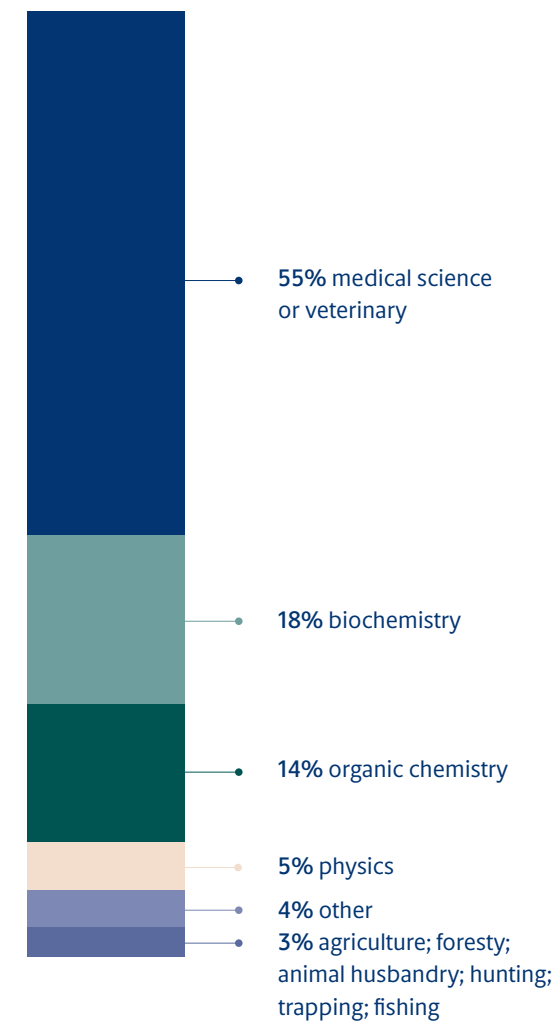


**20,000**  
Foundation-funded journal  
articles since 2000



**18%**  
cited in patents  
9 years after their publication

### Technological classification

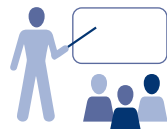






## Using knowledge in education, outreach and policy contribution

Foundation-funded grants delivered knowledge to education, the general public and policy in 2019

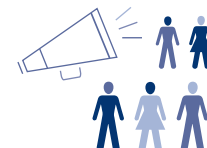


### Course activity

---

**25%**  
of grants  
include course activities

**22,000**  
people reached



### Outreach

---

**28%**  
of grants  
include outreach activities

**300,000**  
people reached



### Policy

---

**305**  
contributions  
to policy and practice reported  
by 127 grants during 2015–2019

**73**  
members of policy bodies



## Using knowledge in the health sector

Foundation-supported grants turn research and discoveries into medical interventions, new technologies, treatments for diseases, clinical trials, health interventions and diagnostics, products and clinical guidelines.

37  
clinical trials  
supported by the  
Foundation 2014–2019

9,595 people are enrolled  
in the 26 clinical trials registered



26  
clinical trials registered  
on [clinicaltrials.gov](https://clinicaltrials.gov)

Clinical trials	Phase	People
2	Phase I	167
4	Phase II	412
2	Phase III	4657
5	Phase IV	1889
13	NA/Unknown	2470

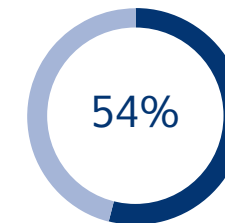
Clinical guidelines and treatment  
recommendations citing  
Foundation-funded research

24%  
of 800 guidelines

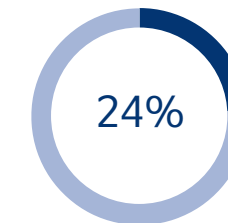
that cover three areas of disease – diabetes, cardiovascular  
diseases and cancer – cite Foundation-funded journal articles



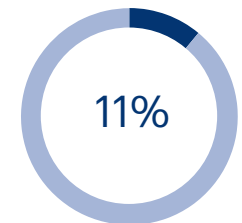
Diabetes  
145 guidelines  
(2008–2019)



Cardiology  
297 guidelines  
(2008–2019)



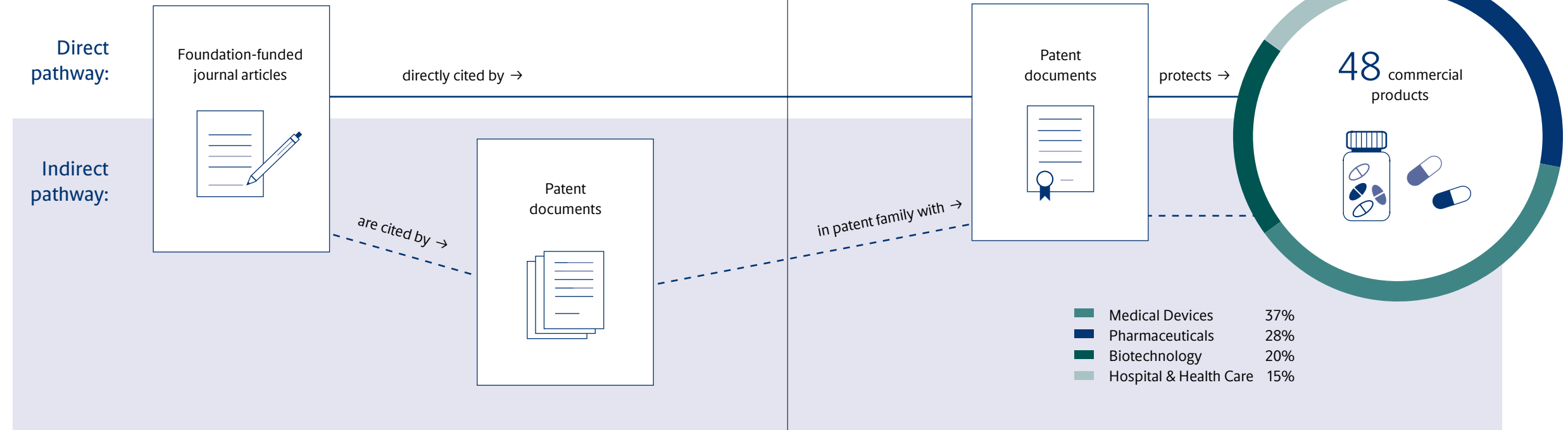
Cancer  
358 guidelines  
(2014–2019)





## Using knowledge in the health sector

48 commercial products can be directly or indirectly  
linked to Foundation-funded journal articles



# 2,238

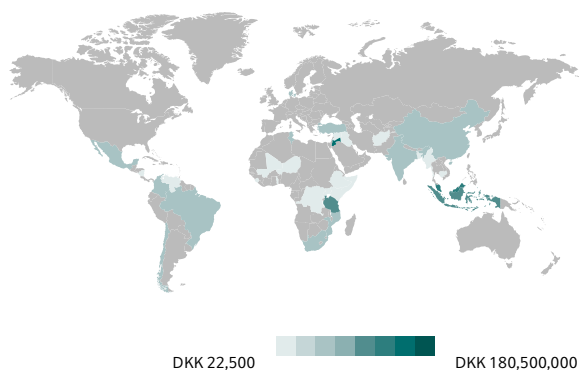
patent documents

cite Foundation-funded  
journal articles from 1994 to 2017

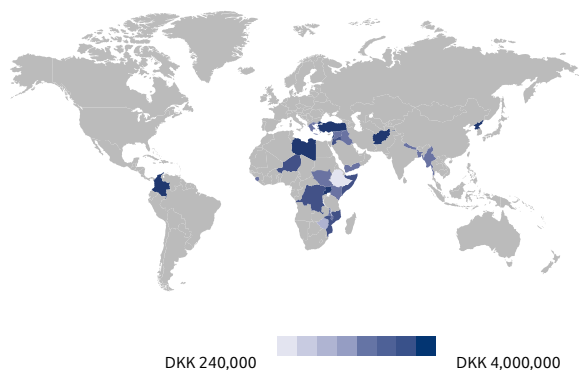


800,000 people have received development aid or humanitarian aid

Amount awarded by the Foundation for education, health and social causes, distributed geographically, 2014–2019

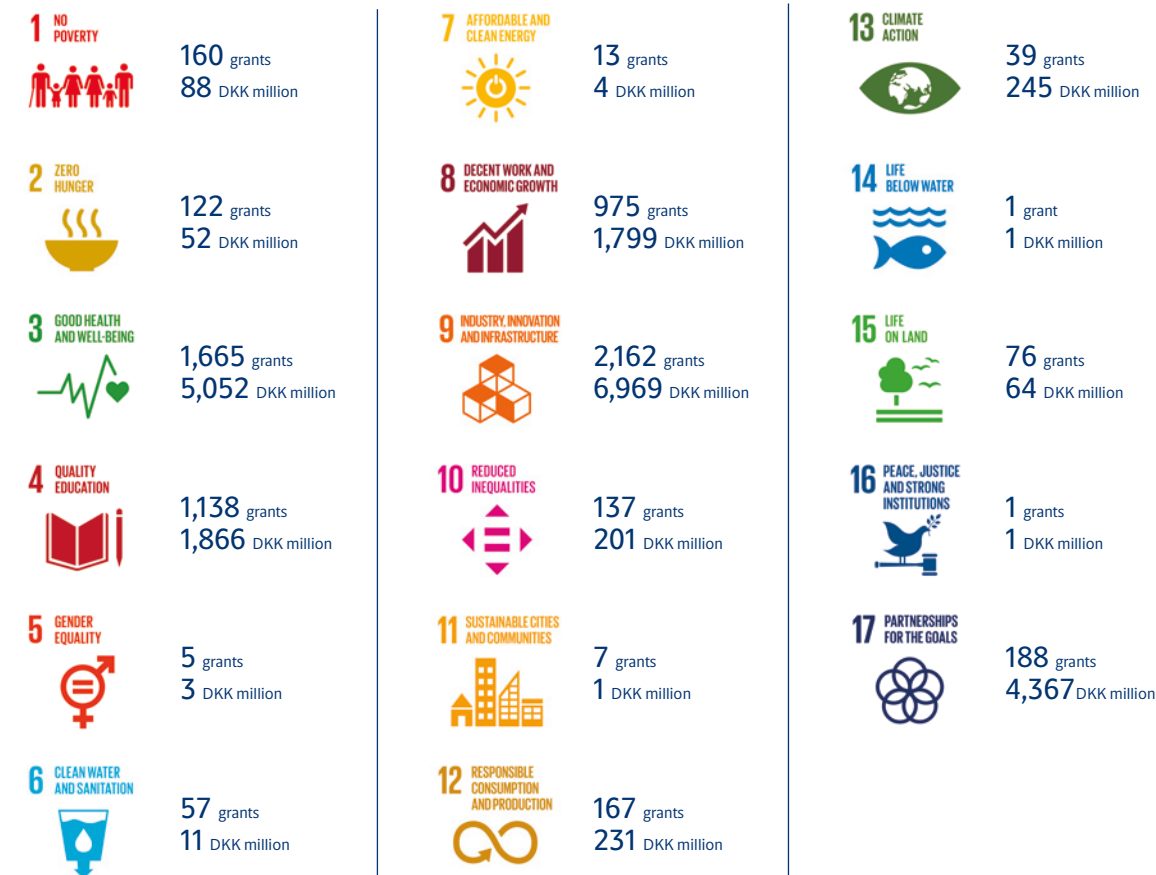


Amount awarded by the Foundation for acute humanitarian interventions distributed geographically, 2014–2019



## Sustainable Development Goals

In 2014–2019, the Novo Nordisk Foundation's grant-awarding activities led to actions that support the 17 UN Sustainable Development Goals (SDGs). Most grants have relevance for up to three SDGs each.



# Benefiting people and society

**Novo Nordisk Foundation**  
Tuborg Havnevej 19  
DK-2900 Hellerup  
Denmark

**T** +45 3527 6600  
**E** [nnfond@novo.dk](mailto:nnfond@novo.dk)  
**W** [novonordiskfoundation.com](http://novonordiskfoundation.com)

