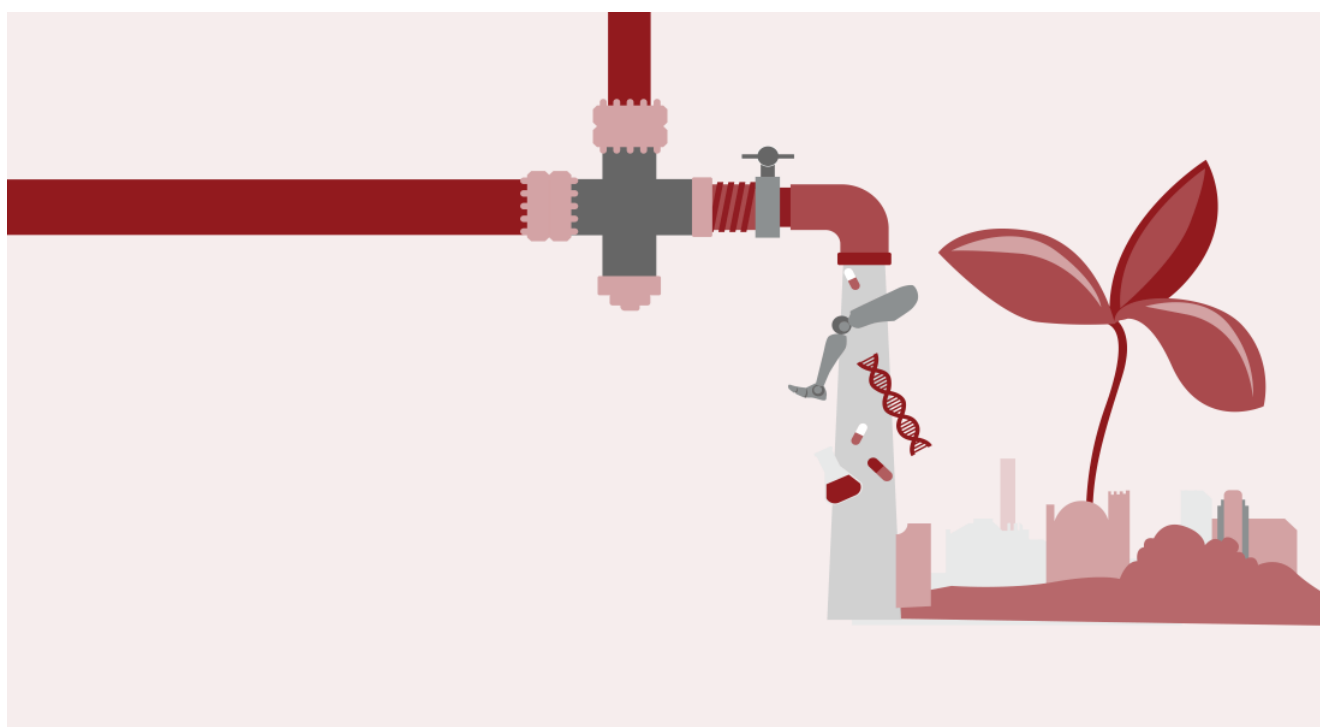




# SUND Innovation Report 2022

Education, External relations, and Funding





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## List of abbreviations

SUND Faculty of Health and Medical Sciences, University of Copenhagen  
UCPH University of Copenhagen

### Departments and Centres, in alphabetical order

AEM Department of Experimental Medicine  
BMI Department of Biomedical Sciences  
BRIC Biotech Research and Innovation Centre  
CBMR Novo Nordisk Foundation Center for Basic Metabolic Research  
CPR Novo Nordisk Foundation Center for Protein Research  
CTN Center for Translational Neuromedicine  
GI Globe Institute  
ICMM Department of Cellular and Molecular Medicine  
IF Department of Pharmacy  
IFSV Department of Public Health  
IKM Department of Clinical Medicine  
IKV Department of Veterinary Clinical Sciences  
ILF Department of Drug Design and Pharmacology  
IN Department of Neuroscience  
ISIM Department of Immunology and Microbiology  
IVH Department of Veterinary and Animal Sciences  
OI Department of Odontology  
reNEW Novo Nordisk Foundation Center for Stem Cell Medicine  
RI Department of Forensic Medicine

## Introduction

In this report, you will find fact sheets for the Faculty of Health and Medical Sciences (SUND) and its departments / centres.

Innovation plays an increasingly important role at the Faculty of Health and Medical Sciences. To support innovation activities across the faculty, SUND Innovation Working Group (IWG) was established in 2015. All departments are represented in the group, which meets four times annually to exchange ideas on how to best support innovation across the faculty and to share best practice.

Since 2017, SUND IWG has worked strategically and operationally to build the foundation for an innovation infrastructure at SUND. The intention is to improve the faculty's translational capacity and capability and contribute to solving SUND's innovation challenge: How to bring more of the excellent research out of the university to the benefit of humans, animals, and society. The first strategy from IWG was to build a coherent innovation infrastructure based on collaboration and network, consisting of:

- a [student hub](#)
- a virtual hub for researchers (called [the Pipeline](#))
- training elements (among which the PhD Course in Innovation is a signature project)
- acknowledgement of achievements in an annual celebration ([SUND Innovation Day](#))

SUND is actively involved in several initiatives focusing on innovation and liaison with stakeholders. These include Open Entrepreneurship (OE, a national initiative aiming to develop a world-leading university commercialization community to benefit Danish industry and society), School of Health Innovation (SHI, a Nordic postgraduate programme that offers courses in innovation covering the entire entrepreneurial span from business plans, development of prototypes and pitch training to financial aspects and funding), and [SPARK](#) (a national mentoring program that supports early-stage academic inventions towards commercialization with education, mentorship and funding).

Innovation can be defined as “*all actions that increase the use of research in private industry and public organisations to the benefit of humans, animals and society*”. It is not straight-forward to measure the level of innovation in a research institution like SUND. With this in mind, this report presents data that indicates the innovative actions that take place at SUND. The report covers the years 2018-2022.

Currently, the university has an increased focus on innovation. In recognition that a lot has happened with innovation at SUND since 2015, SUND is working on ‘Innovation 2.0’. KU SCIENCE has taken a similar initiative, and the two faculties are in close collaboration. At KU level, a new KU Innovation Strategy – ‘Ideas and Solutions for impact’ will be published in 2023. A new innovation centre (Lighthouse) has also been established and will collect the student hubs from all faculties in one, central location, thereby creating a central hub for innovation activities.

For each department / centre the following data are shown:

- Collaboration agreements with industry partners in 2018-2022
- Number of Industrial PhD students in 2018-2022
- Number of participants on innovation courses in 2020-2022
- Number of BRIDGE postdoctoral fellows in 2019-2022
- Licenses and patent documents in 2018-2022
- External funding of innovation projects in 2018-2022

## Definitions and data basis

The figures in this report are based on data recorded by the UCPH Technology Transfer Office, the Graduate School for Health and Medical Sciences, the BRIDGE Translation Excellence Programme, the SUND Innovation Team, and the SUND Financial Department.

The financial data is recorded in the financial system (Navision STAT) of the University of Copenhagen. The data included here covers the period 2018-2022, and was downloaded January 2023 via the local data warehouse, LDV. Data on external funding is registered by project start date, thus **external funding obtained in 2022, with project start in 2023 or later, is not part of this report.**

Data on Industrial PhD students are based on enrolment and graduation data from Fønix and PhD Planner in the period from 1 January 2018 to 31 December 2022. The databases are administered by the Graduate School of Health and Medical Sciences. Industrial PhD students are funded by the Innovation Fund Denmark, as confirmed at enrolment in the Graduate School. PhD students are associated to the department in which their principal supervisor is employed as Professor or Associate Professor.

Data on innovation courses are based on participant lists recorded by the SUND Innovation Team.

Data on BRIDGE postdoctoral fellows are based on hiring data recorded by the BRIDGE administration team. BRIDGE fellows are associated to the department in which their basic mentor is employed as Professor or Associate Professor.

Note that while the Globe Institute was established on 1 July 2019, the technical transfer of projects and staff etc. in the UCPH administrative systems, could only take place in January 2020. For this reason, financial figures for the Globe Institute are only reported from 2020 on.

### Links

Student hub - <https://sundhub.ku.dk/>

Pipeline - <https://healthsciences.ku.dk/innovation/>

SUND Innovation Day - <https://healthsciences.ku.dk/innovation/events/sund-innovation-day/>

IWG - <https://healthsciences.ku.dk/innovation/about-us/>

OE - <https://healthsciences.ku.dk/innovation/open-entrepreneurship/>

SHI - <https://healthsciences.ku.dk/innovation/school-health-innovation/>

SPARK - <https://sparkdenmark.ku.dk/>

# **Faculty of Health and Medical Sciences (SUND)**

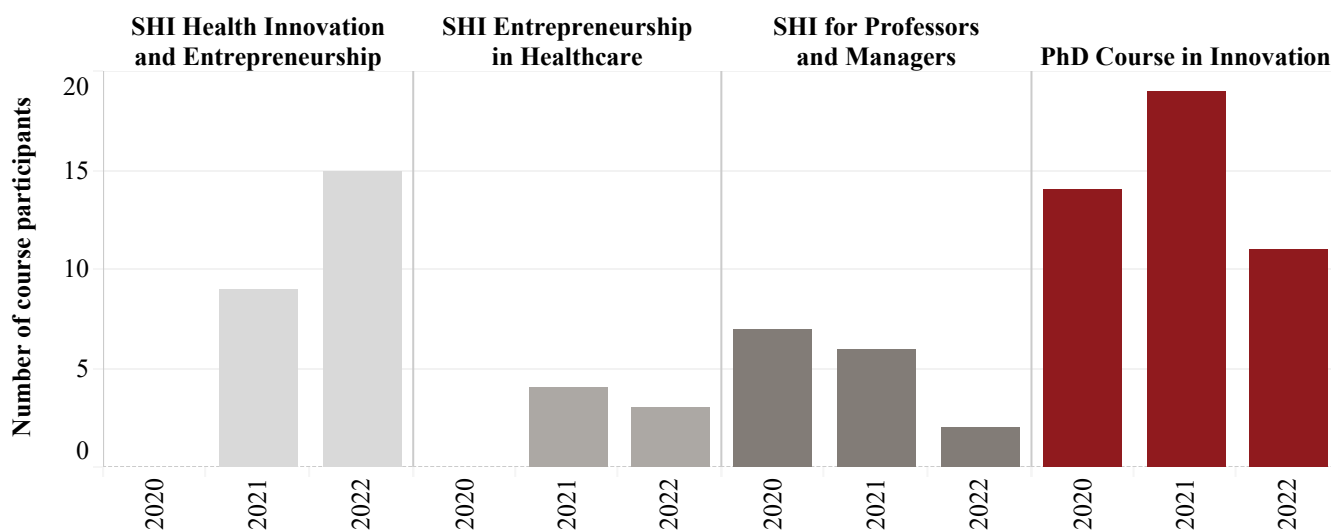
## Innovation

## Education and training

Since 2020, several course in innovation have been available to SUND researchers. These include the PhD Course in Innovation run by the SUND Innovation Team<sup>1</sup>, and three courses run by the School of Health Innovation<sup>2</sup>. The target group of the latter is researchers and clinicians at all levels – from PhDs to professors.

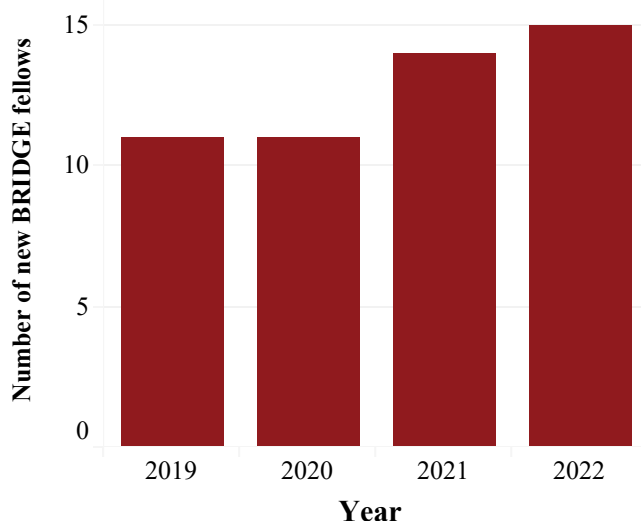
### Number of course participants from SUND in 2020-2022.

Source: SUND Innovation Team<sup>2</sup>.



Scientific health research is often carried out in close cooperation between the university, hospitals, clinics, regions, municipalities, agencies, patient organizations and citizen; termed *translational research*.

In 2019, SUND embarked a Novo Nordisk Foundation supported postdoctoral excellence programme in translational medicine, the BRIDGE programme<sup>1</sup>.



### Number of new BRIDGE fellows at SUND from 2019-2022.

Source: The BRIDGE programme<sup>3</sup>.

1 <https://healthsciences.ku.dk/innovation/about-us/>

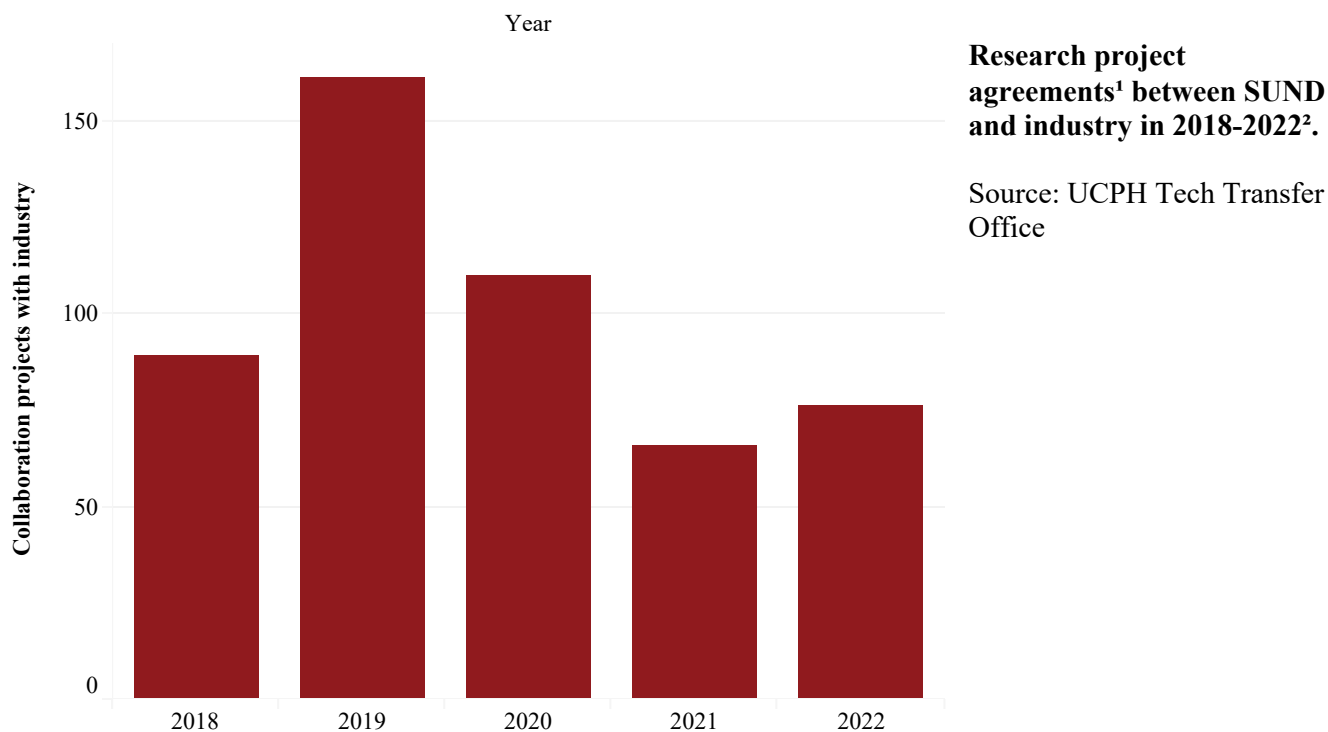
2 SHI is a collaboration between the University of Copenhagen, University of Oslo, the Norwegian University of Science and Technology and the Karolinska Institute. The school is financially supported by the Novo Nordisk Foundation in 2020-2023.

3 BRIDGE is a two-year postdoctoral fellowship, involving a fellow, a primary mentor from one of SUND's departments and a clinical mentor from a hospital / the life science industry. <https://bridge.ku.dk/>

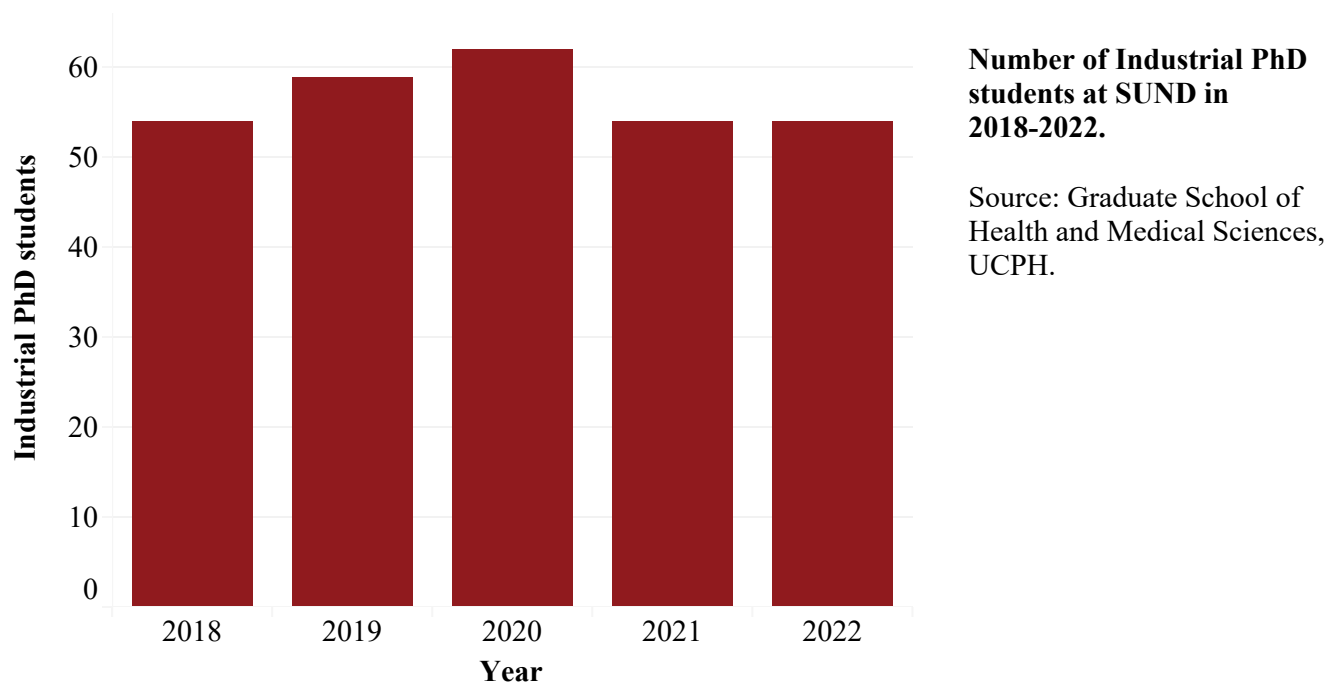


## Collaboration with industry

Over the previous four years, SUND has entered into collaboration-, license- and/or material transfer agreements with more than 420 companies<sup>1</sup>. A full list of company names can be obtained by request to SUND Research & Innovation.



Industrial PhD projects are collaborative projects that require three parties: an Industrial PhD student, a university partner, and a private company partner. The Industrial PhD programme is administered by Innovation Fund Denmark.



<sup>1</sup> Research project agreements equals "samarbejdsaftaler" with private companies listed under other agreements in the TTO report.

<sup>2</sup> Note, only agreements relating to the University's Intellectual Property Rights are included, as only these are registered by the UCPH Tech Transfer Office ([https://fi.ku.dk/english/tech\\_trans/](https://fi.ku.dk/english/tech_trans/)).

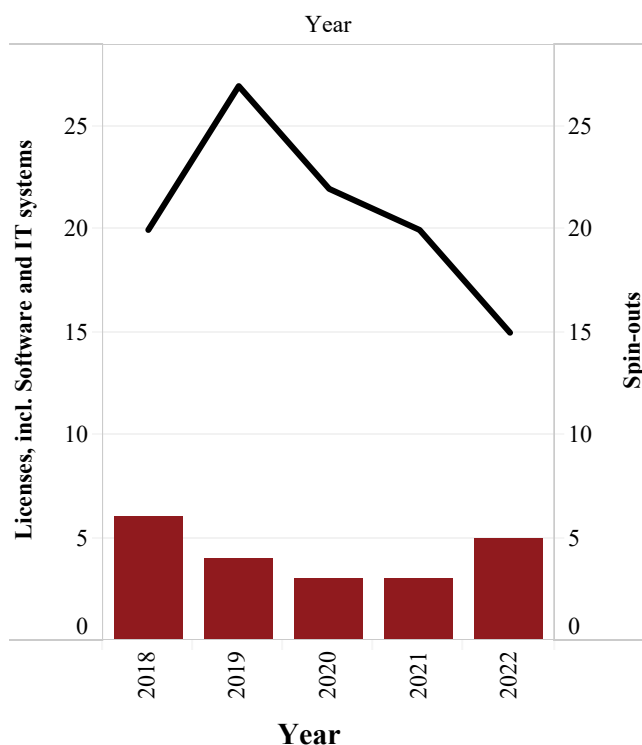
## Commercial output

When researchers produce results that could have commercial interest it is disclosed to the UCPH Tech Transfer Office<sup>1</sup>; over the previous four years SUND researchers have disclosed more than 230 inventions. The Tech Transfer Office confirms that a given piece of research has potential, and helps to commercialise it by entering license agreements for existing business or obtaining IPR licenses for spin-out companies.

### Resulting number of license agreements (incl. software and IT-systems) and spin-out companies at SUND in 2018-2022.

Source: UCPH Tech Transfer Office.

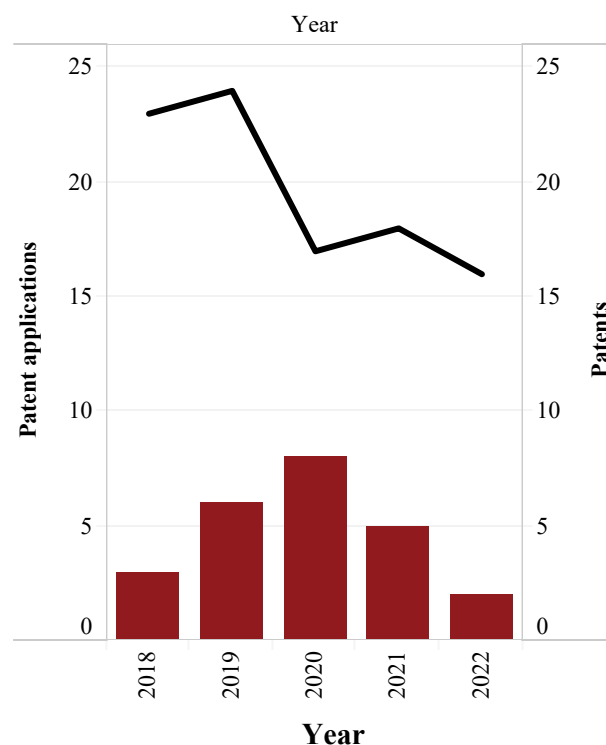
- Licenses, incl. software and IT-systems
- Spin-out companies



### Resulting number of filed and approved patent applications at SUND in 2018-2022.

Source: UCPH Tech Transfer Office.

- Filed patent applications
- Approved patent applications



Number of innovation disclosures and resulting licenses (incl. software and IT-systems), spin-out companies, filed and approved patent applications at SUND in 2018-2022. Source: UCPH Tech Transfer Office.

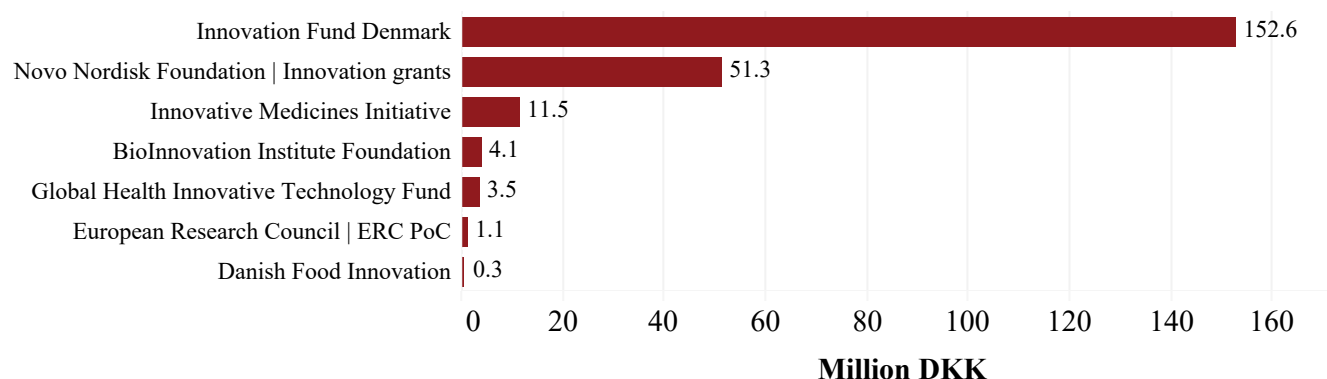
	Faculty				
	Invention disclosures	Licenses, incl. software and IT-systems	Spin-out companies	Filed patent applications	Approved patent applications
	SUND	SUND	SUND	SUND	SUND
2018	54	20	6	23	3
2019	56	27	4	24	6
2020	38	22	3	17	8
2021	47	20	3	18	5
2022	36	15	5	16	2
<b>Total</b>	<b>231</b>	<b>104</b>	<b>21</b>	<b>98</b>	<b>24</b>

<sup>1</sup> UCPH Tech Transfer Office: [https://fi.ku.dk/english/tech\\_trans/](https://fi.ku.dk/english/tech_trans/)

## External funding of innovation projects

A number of (inter-)national public and private foundations have funding instruments directed at innovative research projects. Included below are: BioInnovation Institute Foundation<sup>1</sup>, Danish Food Innovation, Global Health Innovative Technology Fund, Innovation Fund Denmark, European Research Council [Proof of Concept], Novo Nordic Foundation [BioInnovation Institute<sup>1</sup>, Distinguished Innovator, Pioneer Innovator]<sup>2</sup>.

### Sources of external funding (DR50 and 60) supporting innovative research projects at SUND in 2018-2022 (million DKK)<sup>2</sup>.



<sup>1</sup> Note, up until 2020 the BioInnovation Institute was part of the Novo Nordisk Foundation. As of 2021, the BII was established as an independent foundation, with long-term financing from the Novo Nordisk Foundation of up to EUR 470 million over 10 years.

<sup>2</sup> Unfortunately, innovation projects granted under EU Horizon Pillar II and III cannot easily be distinguished, and are thus not included in the overview.

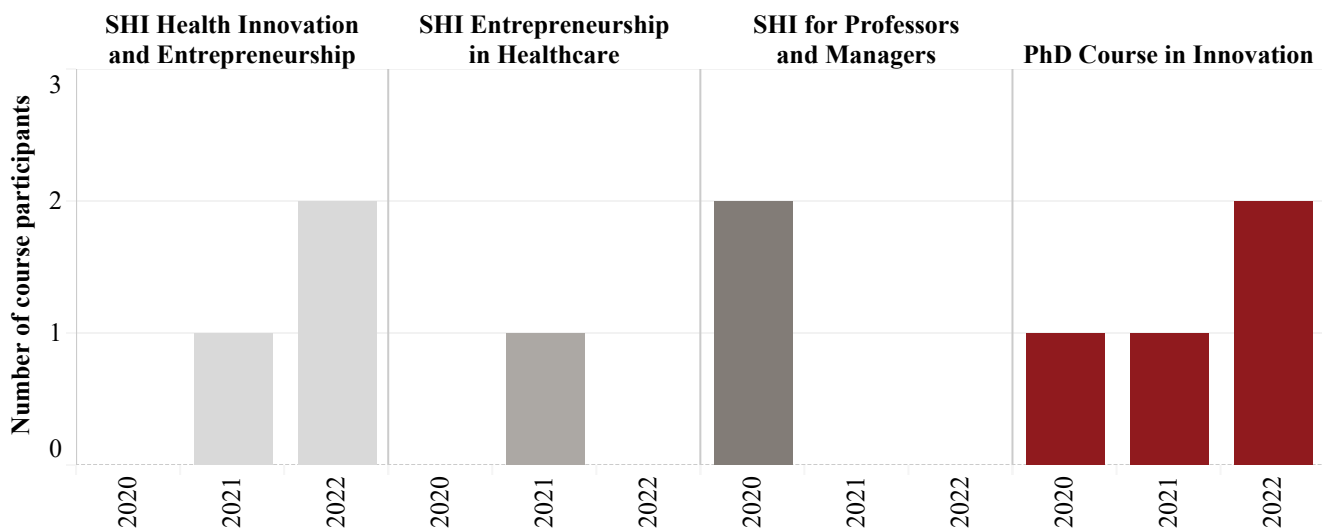
# **Biotech Research and Innovation Centre (BRIC)** Innovation

## Education and training

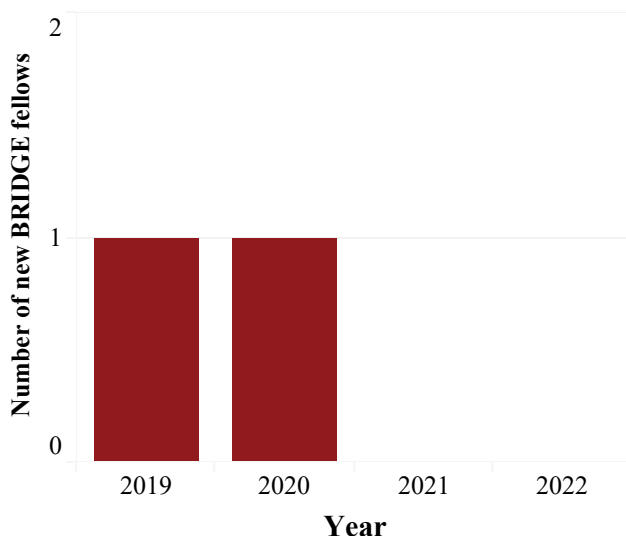
Since 2020, several course in innovation have been available to SUND researchers. These include the PhD Course in Innovation run by the SUND Innovation Team<sup>1</sup>, and three courses run by the School of Health Innovation<sup>2</sup>. The target group of the latter is researchers and clinicians at all levels – from PhDs to professors.

### Number of course participants from BRIC in 2020-2022.

Source: SUND Innovation Team<sup>2</sup>.



Scientific health research is often carried out in close cooperation between the university, hospitals, clinics, regions, municipalities, agencies, patient organizations and citizen; termed *translational research*. In 2019, SUND embarked a Novo Nordisk Foundation supported postdoctoral excellence programme in translational medicine, the BRIDGE programme<sup>1</sup>.



### Number of new BRIDGE fellows at BRIC from 2019-2022.

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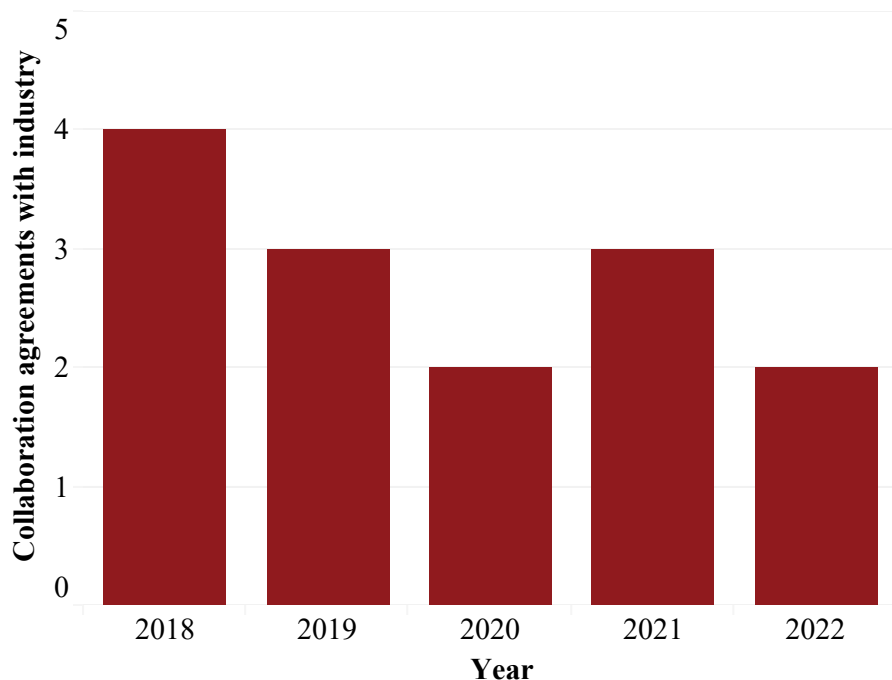
1 <https://healthsciences.ku.dk/innovation/about-us/>

2 SHI is a collaboration between the University of Copenhagen, University of Oslo, the Norwegian University of Science and Technology and the Karolinska Institute. The school is financially supported by the Novo Nordisk Foundation in 2020-2023.

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## Collaboration with industry

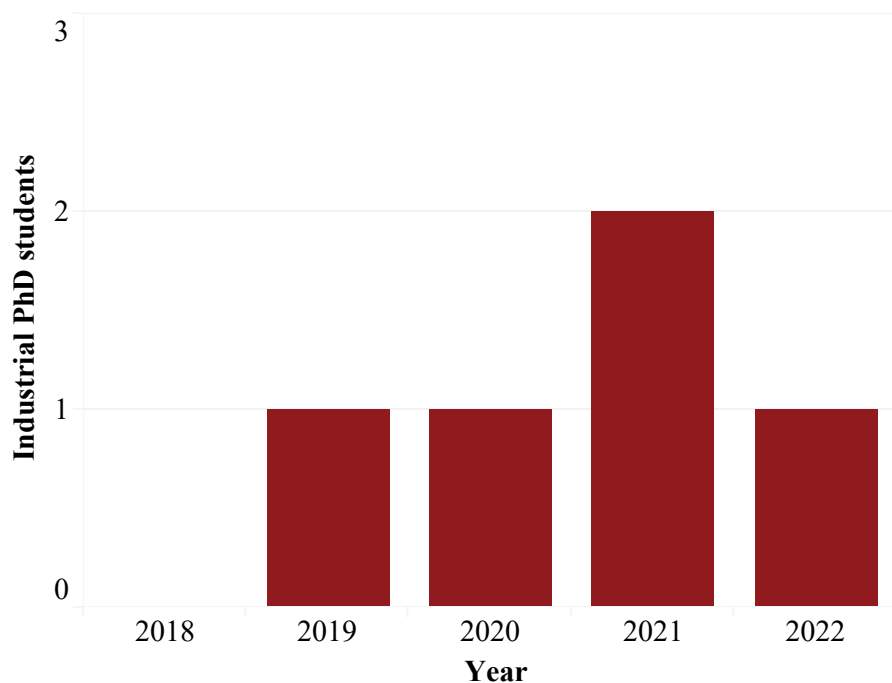
Over the previous five years, SUND has entered into collaboration-, license- and/or material transfer agreements with more than 430 companies<sup>1</sup>. A full list of company names can be obtained by request to SUND Research & Innovation.



**Research project agreements<sup>1</sup> between BRIC and industry in 2018-2022<sup>2</sup>.**

Source: UCPH Tech Transfer Office

Industrial PhD projects are collaborative projects that require three parties: an Industrial PhD student, a university partner, and a private company partner. The Industrial PhD programme is administered by Innovation Fund Denmark.



**Number of Industrial PhD students at BRIC in 2018-2022.**

Source: Graduate School of Health and Medical Sciences, UCPH.

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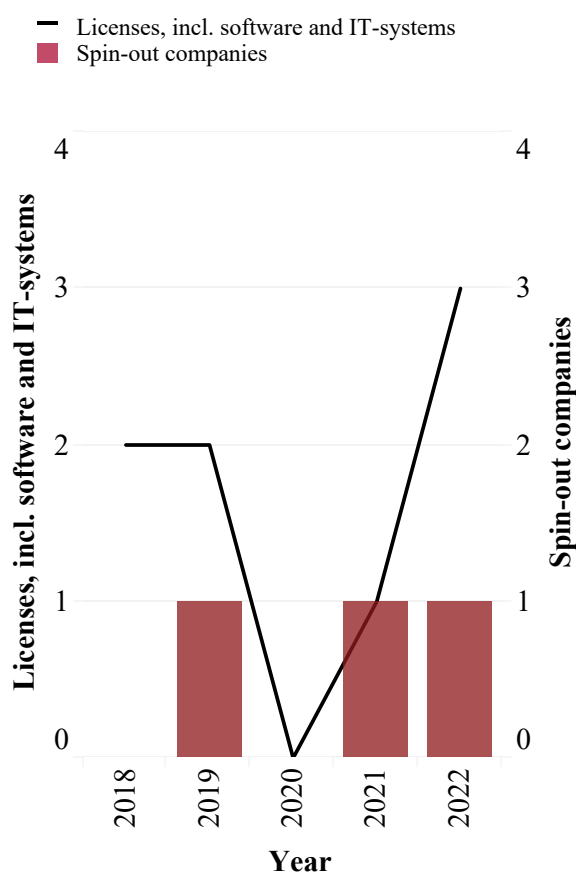
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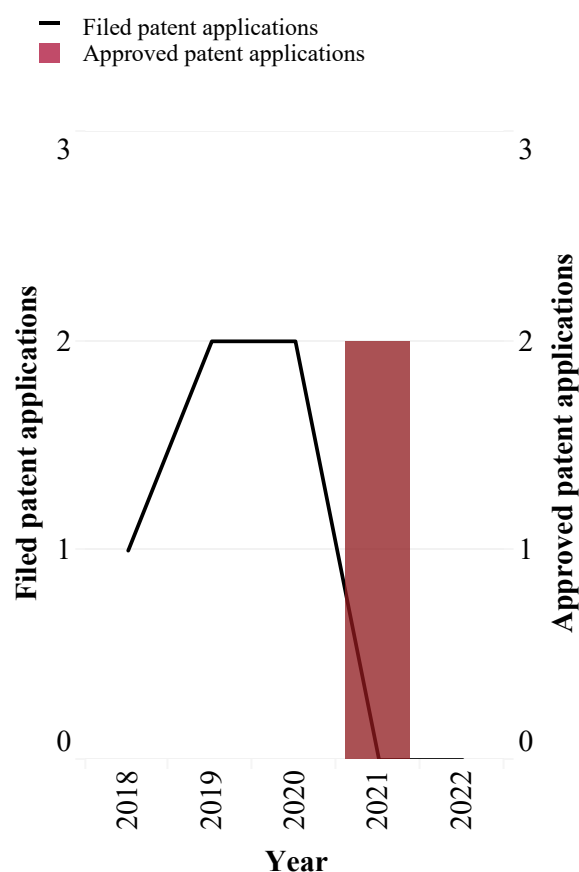
### Resulting number of license agreements (incl. software and IT-systems) and spin-out companies at BRIC in 2018-2022.

Source: UCPH Tech Transfer Office.



### Resulting number of filed and approved patent applications at BRIC in 2018-2022.

Source: UCPH Tech Transfer Office.



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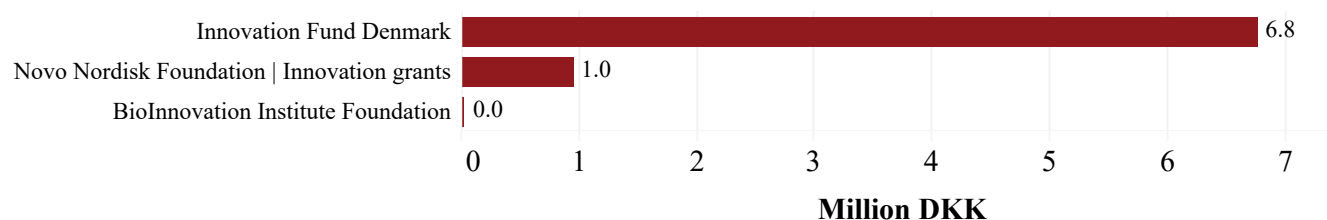
	Invention disclosures	Licenses, incl. software and IT-systems	Spin-out companies	Filed patent applications	Approved patent applications
2018	6	2	0	1	0
2019	3	2	1	2	0
2020	1	0	0	2	0
2021	2	1	1	0	2
2022	3	3	1	0	0
<b>Total</b>	<b>15</b>	<b>8</b>	<b>3</b>	<b>5</b>	<b>2</b>

<sup>1</sup> UCPH Tech Transfer Office: [https://fi.ku.dk/english/tech\\_trans/](https://fi.ku.dk/english/tech_trans/)

## External funding of innovation projects

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