

Funding for

COVID-19 related research

in the Nordic countries 2020-2021

Contents

Background and orientation to the report		
Summary of Nordic funding initiatives		
Mapping of funding initiatives	9	
Denmark	10	
The Faroe Islands	13	
Finland	14	
Greenland	18	
Iceland	18	
Norway	19	
Sweden	2	
Nordic level initiatives	32	
European level initiatives	34	
Links to reporting funding organisations	37	

Background and orientation to the report

The following account is a compilation of reports on initiatives by research funding organisations in the Nordic countries, government agencies as well as private foundations, to further research related to COVID-19.

The mapping is done on assignment for the Nordic Societal Security Programme, and in particular a workshop in January 2021, inviting all Nordic, governmental funders of societal security research, to discuss the possibilities and needs for a call on COVID-19 in a societal security perspective. The workshop concluded that many national funders in the Nordic countries have taken initiatives to fund COVID-19 related research, and for a joint Nordic call to be most useful, identifying the right focus area is crucial. Of special interest was research into the longer-term effects of the pandemic on society. NordForsk was tasked with coordinating a mapping exercise of research and calls being funded by the national funders. In February and March 2021, national funders, both government agencies and private foundations, submitted reports on their COVID-19 efforts and funded research.

This report summarises previous and ongoing calls, as well as the research being funded, in the Nordic countries, identifying the broad categories of COVID-19 related research. The mapping exercise includes all areas of research, not limited to relevance to societal security or long-term effects on society, but only to relevance to COVID-19. However, the summary highlights the research that has been funded within social sciences and effects on society.

Following the summary are the reports structured by each Nordic country and funding organisation, as well as brief reports on Nordic and European level initiatives. For orientation, each funding organisation is briefly presented. The few organisations that have not responded or had no initiatives to report are mentioned in the introduction of the country, but not otherwise included.

This mapping is not necessarily exhaustive, as the development of calls and programmes is constantly moving, especially in a time where new needs and aspects are continuously identified and prioritised. Further, what has been reported by each organisation differs in comprehension and approach, which means comparisons and analyses should be done with caution. The request for reports has been sent to all governmental research funders in the Nordic countries (traditional research funders and other agencies that have some portion of funding for research investments), and to private foundations deemed relevant. The mapping is based on the reports from each organisation in March 2021. In some cases, the organisation has made a written description, and in others, the report is compiled of information linked to on websites, from analysis of funded research etc. Content deemed not strictly research, such as efforts to strengthen hospitals and medical response or humanitarian initiatives, albeit relevant for combatting COVID-19 and its effects, has not been included. Beyond research projects, however, both research infrastructure and innovation that have been reported are included.

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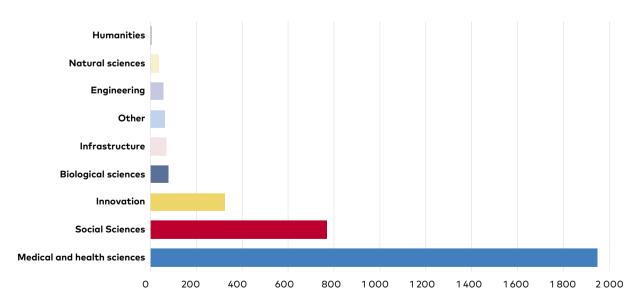


Summary of Nordic funding initiatives

This report maps what research initiatives related to COVID-19 Nordic funders have taken, and individual researchers and teams chosen to focus on in their proposed research since the world moved into a pandemic a year and a half ago. The overwhelming majority of initiatives and funded research is focused on medical and health sciences. much according to what may be expected of pandemic related research. There are, however, many initiatives and much research looking beyond understanding the virus and treating the disease, focusing on structural changes such as the conditions for health care workers, access to and quality of health care and services for the elderly, digital education and social life for children, and digital working life for adults, the role of the media and access to reliable information, and, the many aspects of what we can learn as societies and as governments for the next pandemic or crisis.

These are all aspects mentioned in research granted funding, out of the NOK 2.3 billion already invested into understanding and combatting COVID-19 and its effects. In this report, Nordic concluded, ongoing and upcoming initiatives with a total allocated budget of almost NOK 3.3 billion have been mapped and described.

Throughout this summary, all initiatives and research projects are presented through a disciplinary classification that can be used to get a visual grasp of them. However, it should be kept in mind that the classification is rudimentary and does not take into account the interdisciplinary nature of much of the research tackling grand challenges such as a pandemic, or other crises. Detailed information on each initiative can be found in 3. *Mapping of funding initiatives*.



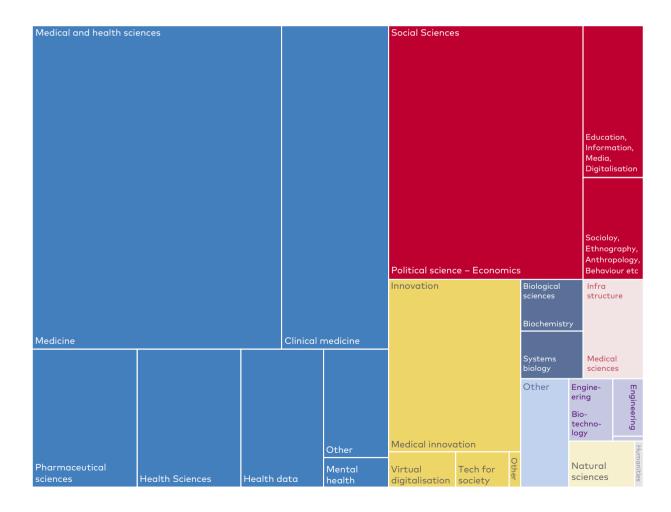
Graph 1: Distribution of funding (NOK million) to overarching, disciplinary areas. Concluded, ongoing and upcoming calls and initiatives related to COVID-19 2020-2021. Government agencies and private foundations in the Nordic countries.

Funding of research within medical and health sciences makes up 58%, or 1.9 of the NOK 3.3 billion to all initiatives. Adding to this, much of the research within innovation (10%), biological sciences (2%), and infrastructure (2%) is closely related to medical services and research. Out of the 10% to innovation, one fifth goes to innovation for virtual and digital applications and technology solutions for societal services, while the rest is medical related innovation.

Research within humanities and the arts is the very smallest disciplinary area, however there are a few projects, all funded in Denmark, looking at human expressions in the pandemic and our digital, socially distant existence. Much of the research within natural sciences and engineering is looking more broadly at crisis preparedness, rather than COVID-19 specifically.

The research within social sciences makes up 23% of the funding to all initiatives and can be divided into three large groups: Political science and economics; Sociology, ethnology, anthropology, behaviour etc; and Education, information, media, and digitalisation. The range of research topics is broad, and it cannot be stated that one area is clearly saturated or neglected.

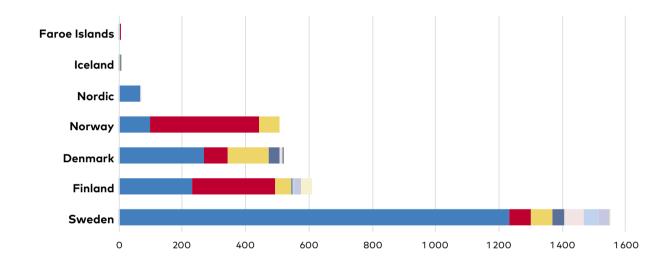
NOK 571 million has been granted to research within political science and economics, looking at governance, policies, and institutions and how they adapt and fare in the pandemic, and what can be learned from these experiences. It looks at policies for and effects of restrictions, access to democracy and safeguarding rights, effects on employment and working life as well as structural developments for sustainability, transportation, and urbanisation.



Graph 2: Distribution of funding to more specific disciplinary areas. Concluded, ongoing and upcoming calls and initiatives related to COVID-19 2020-2021. Government agencies and private foundations in the Nordic countries.

NOK 107 million has been granted to research within education, information, media, and digitalisation. This research concerns the changes induced by the pandemic to our lives when it comes to school, work and access to information and services that have rapidly moved online to a much larger degree than pre-pandemic. It looks at the effects for teachers, students, and parents when education is done digitally, and at online social relationships for children, adults, and vulnerable elders. Further, this research looks at the role of media, and access to reliable information for different groups in the pandemic.

The final group of research is Sociology, ethnography, anthropology, behaviour etc., which has been granted NOK 71 million. This research looks at public response and reactions to changes and restrictions, as well as the impact on lives such as mental health and welfare and the impact of effects such as unemployment and inequality.



	SE	FI	DK	N	Nordic	IS	FO
Medical and health sciences	1 234	229	268	98	66	6	2
Social Sciences	66	266	75	342	-	-	2
Innovation	70	50	129	68	-	1	-
■ Biological sciences	36	2	36	-	-	-	-
Infrastructure	60	-	7	-	2	-	-
Other	50	8	3	-	-	-	-
Engineering	34	21	-	-	-	-	-
Natural sciences	2	33	-	-	-	-	-
Humanities	-	-	5	-	_	-	-

Graph 3: Distribution of funding (NOK million) within countries, to different disciplinary areas. Concluded, ongoing and upcoming calls and initiatives related to COVID-19 2020-2021. Government agencies and private foundations in the Nordic countries.

Much of the funding to social sciences related to COVID-19 has been granted in Finland and Norway. It comprises 44% of total COVID-19 related funding in Finland, and 67% in Norway, while it is only 4% in Sweden and 14% in Denmark. In the Faroe Islands, the funding is divided between medical and health sciences to 56% and social sciences to 44%. In Sweden, 80% of the funding goes to medical and health sciences, and in Iceland it is 82% of the funding.

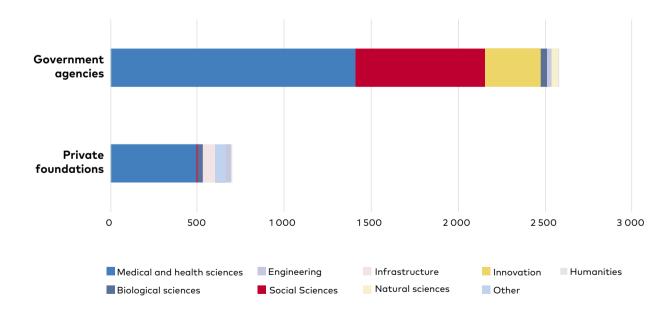
Turning it around, Sweden's funding to medical and health sciences related to COVID-19 makes up 65% of Nordic funding to the area. Denmark follows with 14%, and Finland with 12%. Sweden and Demark fund 49% and 48% of biological sciences related to COVID-19. Sweden has also granted the majority of funding to infrastructure and engineering, while Finland funds the majority of natural sciences related to COVID-19.

In total, the funding granted or committed in Sweden makes up 47% out of the NOK 3.3 billion. Finland 19%, Denmark 16%, Norway 16%, Nordic funding 2%, Iceland 0.2% and the Faroe Islands 0.1%.

In this mapping exercise, both government agencies (traditional research funders and other agencies that have some portion of funding for research investments) and private foundations have been approached for reports on their targeted initiatives and funded research in and outside targeted calls.

Funding from government agencies makes up the largest portion of funding to COVID-19 related research, 79%, while 21% comes from private foundations. It is mainly foundations in Sweden, Denmark and Finland that have reported having funded COVID-19 initiatives for research.

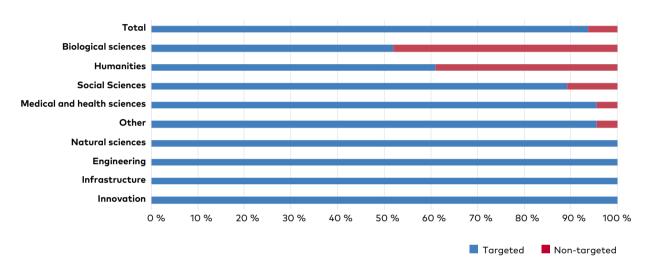
For foundations, 81% of the COVID-19 related funding has been allocated to medical and health sciences and infrastructure (also within medical and health sciences). For government agencies, the three largest areas are medical and health sciences making up 55% of funding, social sciences 29% and innovation 12%. Natural sciences and innovation related to COVID-19 are exclusively funded by government agencies in this mapping.



Graph 4: Distribution of funding (NOK million) to disciplinary areas within government agencies and private foundations in the Nordic countries. Concluded, ongoing and upcoming calls and initiatives related to COVID-19 2020-2021.

	•	•	0	#		#	+	
	SE	FI	DK	NO	Nordic	IS	FO	Total
Private foundations	500	47	147	-	-	-	-	694
Government agencies	1 052	561	375	508	68	8	4	2 576
Total	1 552	608	522	508	68	8	4	3 270

Table 1: Distribution of funding (NOK million) by type of organisation and country. Concluded, ongoing and upcoming calls and initiatives related to COVID-19 2020-2021.



Graph 5: Distribution (%) of funding to disciplinary areas in calls not targeted or specifically targeted to COVID-19 related research. Initiatives by government agencies and private foundations in the Nordic countries. Concluded, ongoing and upcoming calls and initiatives related to COVID-19 2020-2021.

While a large percentage of the reported COVID-19 related research funding is within specifically targeted calls, 94%, there are NOK 204 million that have been granted to related research outside of targeted calls. Within biological sciences and humanities, we find a larger percentage of relevant research outside targeted calls, where researchers have proposed and had granted COVID-19 related research in calls with no theme or a theme focusing on something else. There is a smaller percentage of funding from non-targeted calls in social sciences, medical and health sciences, and other/unclassified research, while remaining areas are exclusively in targeted initiatives.

It should be noted that organisations have different approaches to what is targeting COVID-19, and not all organisations have reported the non-targeted research. The amount of COVID-19 related research in calls with no theme or with another focus area can be expected to be significantly larger than what is included in this mapping, especially after funding decisions in now ongoing calls.

Mapping of funding initiatives

Denmark

The request for a mapping report was sent to the Danish Agency for Higher Education and Science, Independent Research Fund Denmark, Innovation Fund Denmark, Danish National Research Foundation, Novo Nordisk Foundation, The Carlsberg Foundation, The Lundbeck Foundation, The Velux Foundations, Denmark's development cooperation (Danida), and the Danish Emergency Management Agency (DEMA). There was no report from Denmark's development cooperation (Danida), or the Danish Emergency Management Agency (DEMA), and the Danish National Research Foundation reported that no targeted call had been issued and there were no plans to do so.

Danish Agency for Higher Education and Science

Introduction

The Danish Agency for Higher Education and Science was established 1 October 2020. The agency is a merger of the Danish Agency for Institutions and Educational Grants and the Danish Agency for Science and Higher Education. It is an agency in the Ministry of Higher Education and Science and handles tasks within preparation and administration of grants for research, higher education, and research-based innovation, as well as the State Educational Grant and Loan Scheme. Funding agencies within the agency's responsibilities are Innovation Fund Denmark, Independent Research Fund Denmark, and the Danish National Research Foundation (Grundforskningsfonden).

Report

The report from the Danish Agency for Higher Education and Science included an overview of both public funded calls and funds allocated by private foundations, some of which have also reported themselves. The report is sectioned according to responsible organisation.

A compilation of COVID-19 related funding initiatives in Denmark can be found here:

<u>Danish research and innovation initiatives related</u> to COVID-19.

Ministry of Higher Education and Science funding of COVID-19-related research

The Minister for Higher Education and Science and the Minister for Health have authorised an emergency grant of DKK 88 million to 19 research projects at resear.ch institutions in the public sector, aiming to acquire new knowledge and find new solutions in the fight against COVID-19 as quickly as possible. The objective was to support medical research that can reduce the impact of COVID-19 on the Danish society, for example the diagnosis or treatment of patients with coronavirus / COVID-19. The call was sent directly to selected research institutions and is only available in Danish. Read the memorandum here.

Independent Research Fund Denmark

Introduction

Independent Research Fund Denmark funds specific research activities based on researchers' own initiatives. The primary aim of Independent Research Fund Denmark is to support and promote the most original ideas and initiatives within Danish research. On an annual basis, the Independent Research Fund Denmark awards 400 grants to research projects. In total, the grants amount to well over DKK 1 billion.

Report DFF call for COVID-19 related research

Independent research fund Denmark (DFF) has allocated DKK 22 million in total to 15 research projects. The projects have been awarded using a fast track-scheme. It was a criterion that the research is related to COVID-19. The objectives of the call were to reduce the impact of COVID-19 on the Danish society and to learn more about COVID-19. The call funded 15 projects within humanities, technology, medical and health sciences, and social sciences. The call (in Danish) can be accessed here: Opslag af midler til coronarelateret forskning (PDF)

Innovation Fund Denmark

Introduction

Innovation Fund Denmark is a government agency established in 2014 by bringing together research, technology development and innovation grants from the Danish Council of Strategic Research, the Danish National Advanced Technology Foundation and the Danish Council for Technology and Innovation into one foundation. The Innovation Fund invests in innovative ideas, ranging from emerging entrepreneurs to solving important social challenges. In 2020 new investments of DKK 2.2 billion were made.

Report

Extraordinary call: COVID-19

Innovation Fund Denmark's (IFD) objective for this call, with a very fast assessment process, was to support research and innovation projects at companies, universities or other public or private research institutions. It was central that projects should be able to be launched immediately and potentially have a significant impact nationally or globally within a short time frame. In all over DKK 90 million has been allocated to 32 COVID-19 related projects.

Link: Extraordinary Grand Solutions call: COVID-19.

Novo Nordisk Foundation

Introduction

The Novo Nordisk Foundation is a private foundation with corporate interests that owns Novo Holdings A/S, a holding company and is the majority shareholder of Novo Nordisk. The foundation awards grants for approximately DKK 5 billion annually for projects based on applications it receives in open competition and for projects for which the foundation takes the initiative, including for research, education, innovation, humanitarian, and social projects.

Report

The Novo Nordisk Foundation has awarded funding of DKK 40 million for research projects into the long-term health consequences of COVID-19 as well as DKK 34.8 million other COVID-19 related research.

The foundation has also initiated several essential but non-research initiatives, such as medical and humanitarian, in relation to COVID-19.

Novo Nordisk coronavirus initiatives.

Long-term health consequences of COVID-19 illness

The Novo Nordisk Foundation is establishing a new programme supporting research into the long-term health consequences of COVID-19. Several reports indicate that COVID-19 is not just an acute respiratory disease but may cause long-term illness or discomfort by affecting organ systems. This includes persistent fatigue, neurological disorders, breathlessness, joint and chest pain, and metabolic disorders. Especially worrying is that COVID-19 seems to cause persistent symptoms even in those with milder illness trajectories. A total of up to DKK 40 million is available for grants between DKK 3 million and DKK 10 million for projects lasting up to 4 years.

Information about the Novo Nordisk programme.

Societal Responses to and Preparedness for Emerging Viral Infections – 2020

The purpose of this thematic call was to give excellent researchers the possibility, in a collaborative effort, to perform in-depth research addressing the interdisciplinary theme "Societal Responses to and Preparedness for Emerging Viral Infections". The call was aimed to fund interdisciplinary research and development projects that seek to optimize the Danish Societal Responses to and Preparedness for Emerging Viral Infections with focus on the following areas:

- Surveillance and early detection of disease.
 Rapid diagnostics of novel viruses. New technologies to prevent or combat epidemic viral infections.
- Infectious epidemiology, including methods for epidemic modelling, to predict and understand spread of disease. IT based methods for early detection of epidemics.
- National preparedness to deal with emerging viral infections, including drafting of policies in advance, procedures for rapid testing and approval of new treatments, technologies, and vaccines.

The call funded one project of DKK 10 million. Information and guidelines about the call on Societal responses to and preparedness for emerging viral infections (PDF)

The Carlsberg Foundation

Introduction

The Carlsberg Foundation is an industrial foundation and the principal shareholder in Carlsberg A/S, the world's third largest beer brewer. Among their commitments, the foundation use dividends from shares to support basic research within natural sciences, mathematics, philosophy, humanities, and social sciences. In 2019 the foundation granted awards to DKK 535 million, of which 423 million went to basic research.

Report

The Carlsberg Foundation reported that there had been no specific calls or programmes for research related to COVID-19, however eleven related projects have been funded in non-targeted calls to a total sum of DKK 75 million. The projects study the pandemic from various scientific areas, including medical and biological as well as sociological and psychological.

The Lundbeck Foundation

The Carlsberg Foundation

Introduction

The Lundbeck Foundation is a commercial foundation with ownerships in H. Lundbeck, ALK and Falck, as well as international venture capital companies. The foundation is worth approximately DKK 64 billion and grants at least DKK 500 million each year to Danish-based biomedical sciences research, focusing particularly on neuroscience.

Report

In March 2020, the Lundbeck Foundation earmarked DKK 30 million to support researchers who are trying to find solutions within both diagnosis and treatment of COVID-19.

More about the individual research projects and calls on the <u>Lundbeck Foundation's website</u>.

The Velux Foundations

Introduction

The Velux Foundations are comprised of the two philanthropic foundations Villum fonden and Velux Fonden, which granted a total of EUR 142 million in 2020. Villum fonden is a majority shareholder in the VKR Group and VKR Holding. Among their grant areas are scientific, environmental, social, and cultural purposes in Denmark and internationally.

Report

The Velux Foundation initiated a call on human and social data on how the COVID-19 crisis affects our lives and society, funding thirteen projects to a total of DKK 5.5 million. The projects are within sociology, public health, working life, anthropology, digitalisation, among others.

Funding announcement: <u>Humanities and social</u> scientists document the impact of the COVID-19 crisis.

Further resources private foundations

While efforts have been made to include relevant research initiatives by private foundations in this report, updated and further information on private foundation initiatives – regardless of sector – can be found here (in Danish): Fondenes COVID-19-indsatser.

+ The Faroe Islands

Research Council Faroe Islands

Introduction

Research Council Faroe Islands, Granskingarráðið, has two main working areas: to administer the Research Foundation which funds research, development and innovation and to advise the government and industry on matters of research policy. The Research Foundation is an independent institution with the main purpose of supporting research and receives an annual grant of approximately DKK 7-8 million from the Faroese Parliament.

Report

There has been one COVID-19 specific call in the Faroe Islands so far. The Research Council Faroe Islands issued an open call in April 2020. The total budget was DKK 3 million, of which 1 million was from the Research Council and 2 million were donations from private companies in the Faroe Islands. The call was for collection and registration of data, planning of future research projects and for smaller research projects. It was open for all thematic areas and disciplines. The maximum funding for each project was DKK 0.5 million. 14 projects were funded, spanning from DKK 70.000 to 500.000.

In addition to these projects, some other projects have been funded by private companies. One project was funded by a health funding programme in the Research Council.

See full list of current projects in the Faroe Islands.

There are no specific plans to make a special call for COVID-19 related projects at the moment. In the regular call for applications, which closed on 15 February 2021, there were no applications on COVID-19 specific issues.

Finland

The request for a mapping report was sent to the Academy of Finland, Business Finland and to the Ministry of the interior (as part of the Programme Committee). The Academy of Finland also provided an overview of relevant initiatives made by Finnish foundations.

The Academy of Finland

Introduction

The Academy of Finland is a government agency within the administrative branch of the Finnish Ministry of Education, Science and Culture. It is an expert organisation in science and research that funds high-quality scientific research, provides expertise in science and science policy and strengthens the position of science and research. In 2021, funding for research amounts to EUR 437 million. The Strategic Research Council is an independent part of the Academy of Finland and is included in the report below.

Report

Calls specifically targeting COVID-19

Special funding for research on COVID-19 epidemic and the mitigation of its effects

Funding: EUR 8.5 million (from the Academy's budget for research funding for 2020) 44 funded sub-projects (funding period ends 31.12.2021)

The objective of the Academy of Finland's special funding for research on the COVID-19 epidemic was to support and accelerate research into the current coronavirus epidemic and the mitigation of its effects and to support the utilisation of the research in society. The aim was to quickly redirect research already underway to support the fight against the COVID-19 epidemic and reduce its consequences.

In the application, the research organisation shall describe its research projects (i.e. subapplications) that are currently carrying out Academy-funded research that is relevant for this call. The research of these sub-applications is directly related to or can be directed towards the COVID-19 epidemic and the mitigation and/or prevention of its effects. The application must include a credible plan on the opportunities of the

sub-applications and their principal investigators to support society through research or by other means in coping with the epidemic and with its effects on both society and individuals.

Call text: special funding for research on COVID-19 epidemic and the mitigation of its effects

Funding announcement: Academy of Finland announces funding decisions on special call for COVID-19 research

Special funding for research into COVID-19 vaccines and pharmaceutical development

Funding: EUR 10 million

Funding was received in appropriation of 10 million euros to research in this field in the Finnish Government's third supplementary budget proposal for 2020:

An increase of EUR 10 million in the budget authority of the Academy of Finland is proposed for 2020. This is for the purpose of national COVID-19 vaccine and drug development research and research on the efficacy, safety and effectiveness of new coronavirus vaccines and drugs.

10 funded projects (Funding period ends 31.12.2022)

In this call for applications on COVID-19-related vaccine research and pharmaceutical development, projects were to be based on a scientifically high-quality and ambitious research plan that is implemented by a high-level research team or a consortium of research teams within a Finnish research organisation. The aim of the projects was to prevent adverse health effects of the COVID-19 pandemic and/or to support the treatment of COVID-19 cases. The pharmaceutical research may cover both the development of new medicines and the study of the efficacy of medicines authorised for other uses in the treatment of COVID-19. The funding will promote high-quality research that has both scientific and other impact. The aim was to support internationally high-quality scientific research, possible scientific breakthroughs, and potentially significant impacts on safeguarding human health. In principle, the projects we fund under this call must benefit Finnish research in the field, society, patients, and international collaboration.

Another important objective of the call was to strengthen expertise related to vaccine and drug development processes in Finland through active and multidisciplinary research, and to develop treatment practices for patients with coronavirus infection.

Funding was granted for vaccine and drug development research related to one or several of the following themes:

- promoting the treatment of patients with COVID-19
- · preventing more severe forms of COVID-19
- developing vaccines or medicines for COVID-19
- analysing the efficacy, safety and impact of vaccines and medicines for COVID-19
- preventing the spread of the SARS-CoV-2 virus.

In the review of applications, attention was paid to both the scientific quality of research and the societal impact of the project. Cooperation with primary healthcare, specialised care and relevant authorities was considered an important part of the research projects to be funded, and the utilisation of primary healthcare expertise and clinical patient work are considered an added value.

The funding granted under this call was also intended to promote the use of research knowledge in the prevention of health problems caused by the COVID-19 pandemic and in the mitigation of the adverse health effects of the pandemic.

Another goal was to promote the wider use of research-based knowledge and expertise in society. We therefore required that the research materials, publications, and other outputs produced with the funding be made openly available to other researchers and society, taking into account that data and material may, for justified reasons, come in varying degrees of openness, ranging from fully open to strictly confidential.

Call text: Academy of Finland grants €10m for COVID-19 vaccine and drug development projects

Funding announcement: Special funding for research into COVID-19 vaccines and pharmaceutical development

Special funding for research into crisis preparedness and security of supply

Funding: EUR 20 million

Funding was received in appropriation of 20 million euros to research in this field in the Finnish Government's fourth supplementary budget proposal for 2020:

Budget authority of EUR 20 million is proposed for scientific research related to crisis preparedness and security of supply.

16 funded projects (Funding period ends 31.12.2023)

This call for applications was aimed at funding scientific research at international level that will generate research knowledge for developing crisis preparedness and security of supply. The funding will support forward-looking and socially high-impact research that explores the strengthening of crisis preparedness for potential major national and international crises for which Finland should be able to prepare. The research may address one or more issues relevant to the theme of crisis preparedness and/or security of supply.

This special funding will promote a wide range of high-quality research with both scientific and societal impact. The aim was to:

- increase understanding of complex crises affecting society and how such crises can be anticipated and resolved
- promote diverse research on themes that are important for crisis preparedness and security of supply, and thus promote resilience, which supports, among other things, social stability and trust, political decision-making, the national economy, the integrity and production capacity of production value chains, the functioning of critical organisations, or social and psychological security in the face of crises and in minimising their impacts
- produce research data on issues related to the planning of crisis preparedness and security of supply and its knowledge base, tools, structures, agreements, management, decision-making and implementation as well as on issues related to the roles and cooperation of different sectors of society, both from a national and international perspective
- otherwise promote solutions to the challenges related to the call's theme.

Large crises affect society, its various actors and citizens in many ways, and it is necessary to prepare for them by means of crisis preparedness and security of supply. In an interconnected, highly networked society, it is often difficult to maintain and develop preparedness in crisis situations.

Successful crisis management and implementation of solutions emphasises the significance of close cooperation between different sectors, and with authorities, businesses and citizens – locally, regionally, nationally and internationally. The development of crisis preparedness and security of supply must take into account a number of complementary perspectives, such as policy, economy, business, the environment, technologies, cyber and other security, health and wellbeing, the legal system and people's behaviour, or other themes of importance to the theme.

This call did not provide funding for research into vaccine and pharmaceutical development aimed at preventing adverse health effects of the COVID-19 pandemic and/or supporting the treatment of COVID-19 cases.

Call text: Special funding for research into crisis preparedness and security of supply

Funding announcement: <u>Academy of Finland</u>
grants €20m for new research projects on crisis
preparedness and security of supply

Strategic research programme: Pandemics as a Challenge for Society (PANDEMICS)

Funding: EUR 10-12 million

The first stage of this call is currently under evaluation, applicants will be selected for the second round of the call in the spring 2021 and funding decisions taken in the autumn 2021.

This strategic research programme focuses on the crises caused by pandemics and their wide-ranging social impacts. Anticipation and prevention of pandemic crises, safeguarding the functioning of society, decision-making on measures to be taken and post-crisis reconstruction require comprehensive research-based solutions.

As the crisis caused by the COVID-19 pandemic shows, the prevention of pandemic threats and securing the carrying capacity of healthcare may require not only medical and public health measures but also extensive societal measures and restrictions. Such measures may require decision-making with insufficient information and making tough choices between potentially incommensurable factors. The consequences are far-reaching, for example in social, health and economic terms, both for individuals and for the wider society. How do we safeguard the Finnish welfare society from pandemics and support the post-crisis recovery? Research in this programme will create research-based solutions and multidisciplinary expertise to solve the societal challenges posed by pandemics, promoting the core tasks, operational security and citizen security of the welfare state.

Call text: Strategic research programme:
Pandemics as a Challenge for Society
(PANDEMICS), invited applicants

COVID-19 related research funded outside targeted calls

- A number of applications related to the pandemic have been submitted to our September Call 2020, which is non-thematic.
 The funding decisions will be taken in June 2021.
- Two Covid-related applications were funded in the FIRI 2020-call: Research infrastructures as collaborative platforms.

Business Finland

Introduction

Business Finland is the Finnish government organisation for innovation funding and trade, travel and investment promotion. Business Finland was created in 2018 by the merger of two organizations: Finpro, which offered services for internationalization, investments and tourism promotion, and Tekes, which offered funding for innovation activities. In 2020, Business Finland granted approximately EUR 89 million to research (5.1% of granted funding that year).

Report

Co-Creation funding to address the challenges caused by the corona crisis

Business Finland had one COVID-19 research call in 2020. Quote from call: The projects to be funded must be closely linked to tackling the challenges caused by the corona crisis and to commercializing the solutions in a changing world. The mere disruption of one's own research activities due to the corona crisis is not enough to grant funding under the specific conditions set out here.

It is possible to apply for temporary funding for solutions related to:

- Solutions that help in the corona crisis.
- Renewal of industries (e.g. tourism, consumer business and healthcare) affected by the corona crisis, cases where a leap of competitiveness within companies can be expected.

Timing: Call closed 30 June 2020. Project period maximum 6 months. Funding: Up to EUR 3000 000 per project.

The financial framework was EUR 4 million, funding 22 projects.

Call text: Temporary Co-Creation funding service for research organizations' projects related to resolving the corona crisis

At the moment there are no plans to launch new COVID-19 calls and no other COVID-19 research projects have been funded. The focus of their funding is on companies and their research funding is mostly allocated to few thematic calls and joint projects of companies and research organisations.

Finnish foundations

Introduction

The Academy of Finland has provided an overview of relevant initiatives made by foundations in Finland.

Report

A number of Finnish foundations have supported COVID-19 related research as part of their annual allowances. The funded research has mostly been in the fields of biomedicine, clinical medicine and public health research and the grants have mostly been minor.

A few examples:

- Four foundations opened a joint call for national research related to the coronavirus SARS-COV-2. Ten projects were funded, the total funding was EUR 800 000.
- The Juho Vainio Foundation funded public health research with a total amount of EUR 1.5 million. Special emphasis was placed on research on disease risk and lifestyle factors in relation to COVID-19.
- The Jane and Aatos Erkko Foundation granted two major research grants for COVID-19 research in the field of virology. The total amount of funding was EUR 2.25 million.
- The Finnish Paediatric Foundation opened a special call for research on COVID-19 in children.
 Three projects were funded, the total amount of funding was EUR 150 000.

Greenland

The Greenland Research Council

Introduction

The Greenland Research Council works to promote research rooted in Greenland. They fund research and handle the research professional advice for e.g. the Minister of Research, the Naalakkersuisut and international stakeholders. Every year, the Greenland Research Council distributes DKK 1.2 million. kroner for research projects with connections to Greenlandic research institutions. within and across all main scientific areas. Furthermore, through a Greenlandic-Danish co-financing, 3-5 scholarships are awarded annually to PhD and postdoc students. All funds are distributed in open competition and without thematic restriction. The Greenland Research Council attaches great importance to the anchoring of research in society, and that the projects help to build knowledge and competence in Greenland.

Report

To date, the Greenland Research Council has not funded research related to COVID-19. There have been no applications related to the topic to their research portfolio - there have been two calls since the lockdown in March 2020. There have also been no 'targeted calls' for the subject. Work is now underway, however, on a PhD study on the COVID-19 developments and the significance of vaccination in Greenland, at the University of Greenland.

In the Health area, online presentations have been made on an ongoing basis about the COVID-19 situation in the Arctic areas, this is done on research-based statements from the National Medical Office. Reports (non-research) have been made concerning the significance of the corona crisis for Greenland's economy, for tourism and GDP in Greenland'.

Link to compilation (in Danish):

COVID-19 forskning og analyser i Grønland



The Icelandic Centre for Research

Introduction

The Icelandic Centre for Research, Rannís, supports research, innovation, education, and culture in Iceland, and manages international cooperation programmes and national funds in the field of research and innovation. The Icelandic Research Fund (IRF) is an open competitive fund which provides research grants according to the general priorities of the Icelandic Science and Technology Policy Council and based on peer review of proposals. The role of the Technological Development Fund is to support research and development activities, which aim towards innovation in Icelandic industry. The Technology Development Fund is a competitive fund which issues its calls for proposals twice a year.

Report

The Icelandic Research Fund has financed three projects related to psychological influence of Covid on young people. The Technological Development fund has funded one project on automatic sanitation systems.

Norway

The request for a mapping report was sent to the Research Council of Norway, the Norwegian Directorate for Civil Protection (DSB), Norwegian Agency for Development Cooperation (Norad), Dam Foundation, and the Kavli Trust. DSB reported that no COVID-19 related research had been funded. No related research funded by the Kavli trust has been reported. Contributions from Norad to related research are included in the report from the Research Council.

The Research Council of Norway

Introduction

The Research Council of Norway is a national strategic body for research. It manages research funding from all of the Norwegian ministries and annually allocates funds of approximately NOK 10 billion to basic and applied research and innovation within all fields and disciplines. The report also includes some funding from the development aid budget, under the Norwegian Agency for Development Cooperation (Norad), as well as co-funding from Trond-Mohn Foundation and the Norwegian Cancer Society.

Report

Calls specifically targeting COVID-19

COVID-19 Emergency Call for Proposals: Collaborative and Knowledge-building Projects for the Fight Against Coronavirus Disease (COVID-19)

With this call for proposals we wished to contribute to the global response to the COVID-19 outbreak. Our aim was to support research that will enable us to understand and contain the new COVID-19, as well as to improve efficient patient management and public health (national and international) preparedness and response to the current and analogous outbreaks that may come in the future.

Original call of NOK 30 mill was extended with additional funding from RCN, The Norwegian Cancer Society and Trond-Mohn Foundation, up to a total of NOK 130 mill. This include NOK 15 mill from the societal security budget and NOK 20 mill from the development aid budget will be made available for project proposals within the thematic area that addresses and have direct relevance for low income countries.

34 funded projects were funded. **Total amount funded:** NOK 147 mill.

Call text: COVID-19 Emergency Call for Proposals: Collaborative and Knowledge-building Projects for the Fight Against Coronavirus Disease (COVID-19)

COVID-19 Emergency Call for Proposals: Innovation Project Involving Public-Private Collaboration (BIA-X)

This was a NOK 30 mill call for Innovation Projects for the Industrial Sector involving public-private collaboration. The purpose of the call was to stimulate R&D activity that promotes value creation and enhanced international competitiveness for the business sector and encourages innovation and sustainability in the health and care sector.

This call was intended to encourage genuine collaboration to help to address challenges that the public health and care services are facing as a result of the COVID-19 pandemic.
9 projects were funded.

Total amount funded: NOK 55 mill.

Call text: COVID-19 Emergency Call for Proposals:
Innovation Project Involving Public-Private
Collaboration (BIA-X)

Economic and Labour-market Consequences of the COVID-19 Pandemic for Norwegian Business and Working Life

The purpose of this NOK 30 mill call for proposals was to fund research on the economic ramifications for Norwegian business and working life of the COVID-19 pandemic and the government's measures to limit the spread of infection with the ensuing economic consequences.

Research activities may focus on the pandemic and the measures implemented separately or within a unified context. Projects may also revolve around the measures/changes to rules introduced by the authorities within labour-market and welfare policy and the resulting impacts.

9 projects were funded.

Total amount funded: NOK 43 mill.

Call text: Economic and Labour-market Consequences of the COVID-19 Pandemic for Norwegian Business and Working Life

Ongoing calls

Research on the economic handling of the coronavirus epidemic

A NOK 60 mill call for proposals with two thematic priorities:

Analyses of the economic handling of the coronavirus crisis in Norway, including the real-time decision basis and the effects of the measures that have been implemented. A comparison of the coronavirus crisis in Norway and the economic measures that were implemented in previous crises, such as the financial crisis in 2008/2009 and the oil price drop in 2015/2016.

Application assessment in progress.

Call text: NOK 60 million for research on the economic handling of the coronavirus epidemic

Research on democracy, governance, administration, and societal security

A NOK 85 mill available for projects that will generate knowledge on how fundamental values in Norwegian society are challenged and maintained.

This encompasses representativeness, democracy, participation and transparency, the role of various media and the challenges and opportunities brought about by the digitalisation of society. Circumstances that have been actualised by the current coronavirus crisis are particularly relevant. Application assessment in progress.

Call text: NOK 85 million for research on democracy, governance, administration and societal security

COVID-19 related research funded outside targeted calls

Common call (all topics) for proposals for Researcher projects.

This call for proposals includes an open call together with a broad range of topics. Several of these had COVID19-related priorities. Ten COVID19-related projects were funded from this call for proposals. A few of the most relevant topics in the call are listed below:

Research on societal security

A NOK 80 mill call for proposals on societal security. The already scheduled call was extended and updated due to the corona crisis. At least five granted projects are related to COVID-19.

Research on macroeconomic challenges

Funding for research addressing key macroeconomic challenges to generate knowledge of relevance to the design and implementation of economic policy. The challenges caused by the COVID19 pandemic mentioned specifically.

Research on global health

NOK 20 million of the amount available for funding was earmarked research that will contribute to filling in knowledge gaps related to COVID-19.

Call texts: Researcher Project for Scientific Renewal

Dam Foundation

Introduction

Dam Foundation has 45 members, all voluntary health and rehabilitation organisations based in Norway. The foundation receives part of the profit from the national lottery in Norway, Norsk Tipping and has granted NOK 5.5 billion since its initiation. The funds from the lottery supports project work in voluntary humanitarian organisations in preventive health care, rehabilitation and research.

Report

The foundation has not had any targeted calls for research related to COVID-19, and not funded any such projects in their open call of 2020 (with a deadline in February 2020). However, it is expected that projects submitted to the open call of 2021 will include those related to the pandemic. Further, the Dam Foundation has granted approximately NOK 260 million to three non-research programmes related to COVID-19 (not part of this mapping).



The request for a mapping report was sent to the Swedish Research Council, the Swedish Research Council for Sustainable Development (Formas), the Swedish Research Council for Health, Working Life and Welfare (Forte), Vinnova, Swedish Civil Contingencies Agency (MSB), Swedish Energy Agency, the Swedish International Development Agendcy (Sida), Mistra, Swedish Foundation for Strategic Research, Knut and Alice Wallenberg Foundation, Ragnar Söderbergs stiftelse, and Riksbankens Jubileumsfond.

Ragnar Söderbergs stiftelse has responded that no relevant initiative has been issued. Sida has not submitted a report. Sida grants an annual budget of approximately SEK 800 million within the aid budget to research collaboration in countries within the agency's area of responsibility and does not fund researchers in the Nordic countries. Funding has been invested in efforts for COVID-19 related research in the global south.

Besides individual initiatives by funding agencies and foundations, the Swedish government has announced several initiatives in the Research and Innovation Bill for the years 2021-2024. Many of the tasks in the bill are referred to in the reports below. Link to article on research bill:

New initiatives in the Government's research bill that relate to the Swedish Research Council

Swedish Research Council

Introduction

The Swedish Research Council is the largest public funding body for research at Swedish universities and higher education institutions. It funds research within all scientific disciplines by issuing calls for grant applications in open competition. Each year, they award almost SEK 7 billion to fund Swedish research.

Report

The Swedish Research Council have issued several calls for research related to COVID-19 during 2020 and 2021. Many initiatives are tasks with additional funding from the government. A summary of links to the initiatives can be found here:

Swedish Research Council responses to COVID-19

Career support:

Virus and virus-caused disease conditions

In 2020, the Swedish Research Council issued three calls for career support within the focus area Virus and virus-caused disease conditions. Total budget for the three calls was SEK 48 million, funding two starting grants and three consolidator grants.

International postdoc: The purpose of the grant is to give researchers who have recently been awarded a doctoral degree by a Swedish higher education institution the opportunity to increase their research competence and international networks to later establish independent research in basic virology and fundamental disease mechanisms caused by viruses.

Starting grant: The aim of the grant is to give junior researchers the opportunity to establish themselves as independent researchers in Sweden within basic virology and fundamental disease mechanisms caused by viruses.

Consolidator grant: The purpose of the grant is to give persons who are in the process of securing an independent research career in Sweden the opportunity to conduct long-term research in basic virology and fundamental disease mechanisms caused by viruses.

Starting grant for research on viruses and virus-caused disease conditions

Project grant for research into coronavirus and COVID-19

The initiative was a government mandate aimed at supporting research that can quickly contribute to stopping the spread of COVID-19 and preventing future pandemic outbreaks. Eligible applicants were individual researchers who were already project leaders for ongoing grants from the Swedish Research Council or Forte that had not yet ended. The initiative focuses on research that can reduce the spread and the effects of the ongoing COVID-19 pandemic, and also research aimed at preventing future pandemics. The research may relate to medical devices, treatment methods, medicines, vaccines, diagnostics, t ransmission, and pathogenesis for COVID-19, but data-driven research and questions relating to epidemiology and public health linked to COVID-19 are also relevant. The research supported shall

generate reliable and implementable results within the availability period of the grant (up until 31 December 2021). The budgetary framework was approximately SEK 33 million, funding 23 research projects mainly within medical sciences, biology, and biochemistry. Link: Project grant for research into coronavirus and COVID-19

Collaborative research on coronaviruses from cross-disciplinary teams to study the current crisis and prepare for future pandemics China-Sweden

The Swedish Research Council and National Science Foundation of China (NSFC) launched a call to support collaborative research projects from cross-disciplinary teams to study the current crisis and prepare for future pandemics. The call is part of the Sino-Swedish Joint Research Programme that was initiated in order to promote long-term basic research collaboration between researchers from Sweden and China as well as supporting research of the highest scientific quality. The focus of the call was cross-disciplinary research on COVID-19 and pandemic viruses. Research efforts across the entire spectra are necessary: from developing rapid and precise diagnostic methods to the development of novel treatments including antiviral drugs and vaccines, to mapping how the genetic material of the virus changes over time, and to study how the immune system is involved in both protective mechanisms of animalderived viruses and how the immune system is involved in COVID-19 disease. The call also includes aspects on public health management, health delivery sciences, and social and behavioural aspects of emergency public health response. The Swedish Research Council granted SEK 36 million, funding four projects within medical fields. Project grant for cross-disciplinary collaboration between China and Sweden on corona and virus research

South Korea-Sweden: Joint research collaborations on the control and prevention of COVID-19 epidemics

The purpose of the grant was to allow Swedish researchers to address COVID-19 related issues in collaboration with South Korean researchers, with the aim of exploring direct measures that can be implemented within a short time frame, such as new methods and products – vaccines, medical hardware, drugs, diagnostic tools as well as develop best practices for caring for COVID-19

infected individuals. The budgetary framework was SEK 12 million, funding four projects within medical sciences, biology, and biotechnology.

Project grant for research collaboration between South Korea and Sweden

National study of COVID-19

The Swedish Research Council provided SEK 10 million within Clinical Therapy Research to fund the ImmCoVA clinical study. The study is expected to run for three years and focuses on immune blockers to counteract excess reaction of the immune system to the infection caused by COVID-19. 10 million SEK to national study of COVID-19

Ongoing calls

Research environment grant for follow-up studies of COVID-19 vaccines

The purpose of the grant is to give researchers the opportunity to collaborate nationally to conduct follow-up studies of COVID-19 vaccine that are justified by the needs of health and medical care and that contribute to a permanent infrastructure for future follow-up studies. The initiative is based on a Government mandate, with a financial framework of SEK 100 million.

The research shall be clinically based and assumes access to healthcare structures and resources. National collaboration is a requirement, and the main part of the research in the application shall be conducted in Sweden. Central questions for health and medical care include the protective effect and safety of approved COVID-19 vaccines in the long and short term, for example for different age, risk and patient groups, for persons who have had COVID-19 with or without measureable antibodies, for persons previously treated in intensive care for COVID-19, or for the general population. The questions for health and medical care also include how outcomes have been affected by different strategies and approaches for the vaccination, and whether there are specific safety profiles for different vaccines in differing risk, patient or age groups.

Those who are awarded grants are expected to contribute to the build-up of infrastructure for follow-up studies. The infrastructure may include tools, processes, sample collections or databases enabling follow-up studies of COVID-19 vaccines. Swedish Research Council to fund research into COVID-19 vaccine and long COVID

Project grant for research on viruses and virus-caused disease conditions

The purpose is to give researchers the freedom to formulate their own research ideas, methods and implementation, and to solve a defined research task within a limited period of time. The focus of this call is on long-term research into basic virology and fundamental disease mechanisms caused by viruses. The financial framework is approximately SEK 50 million.

Virus-caused infections are a leading cause of ill health and high mortality around the world and are a great strain on healthcare and societal finances. The COVID-19 pandemic illustrates the problems that follow from limited knowledge about fundamental characteristics of a new virus, and the lack of effective antiviral treatments or vaccines against both unknown and known virus-caused infections. Virus-caused infections have great impact also under nonpandemic years, when outbreaks of influenza virus, RS virus, calici virus and measles among others have placed major hospitals under emergency conditions. Viruses develop resistance against existing medicines, which is also a problem, for example in the treatment of immuno-suppressed inpatients in hospitals. Project grant for research on viruses and virus-caused disease conditions

Initiatives that are not regular calls for applications

Re-focusing grants already awarded towards research into COVID-19

In March, researchers with grants from the Swedish Research Council were given the option to temporarily use part of their funding for research into COVID-19. This applied irrespective of the project idea the grant was originally awarded for. The research had to be completed no later than 31 July 2020. A total of 37 researchers used this option.

Clinical Studies Sweden to support COVID-19 studies

The Swedish Research Council has been mandated by the Government to temporarily reinforce the activities within Clinical Studies Sweden to increase the opportunities for clinical researchers in Sweden to conduct clinical studies linked to the disease COVID-19.

The grants of approximately SEK 3.3 million each to the six regional nodes are part of the increased government funding of SEK 100 million that the Swedish Research Council, in collaboration with Vinnova, shall allocate to research and innovation that can contribute to stopping the spread of COVID-19 and preventing future pandemic outbreaks. The Swedish Research Council and Vinnova regard the investment in Clinical Studies Sweden as an important joint prioritisation.

Clinical Studies Sweden is a collaboration between Sweden's six healthcare regions via regional nodes, funded and supported by the Swedish Research Council. The collaboration aims to strengthen the prerequisites for conducting clinical studies.

12 million SEK to Clinical Studies Sweden to support COVID-19 studies

Biobank Sweden for coordinating COVID-19 samples

Biobank Sweden will receive 10 million SEK from the Swedish Research Council to coordinate the collection of and access to samples linked to COVID-19. Through the national coordination, Biobank Sweden will ensure that samples collected are handled in a standardised way collection and storage of samples in biobanks are done strategically, both in terms of geographic distribution and sample type data on existing COVID-19-related biobanks and sample collections become accessible via channels such as the Swedish and European COVID-19 portals and the European biobank organisation BBMRI-ERIC. The funding amounts to 10 million SEK over the years 2020-2021. The funding is a part of Swedish Research Council's work with the Government's initiative to fund research into the coronavirus, proposed in the Spring Amendment Budget for 2020.

10 million SEK to Biobank Sweden for coordinating COVID-19 samples

National data portal for research into COVID-19

A new Swedish COVID-19 data portal is now being launched, to be coordinated with the European portal. It is aimed at researchers in all subject areas but is also open to the general public. The portal is operated by SciLifeLab and coordinated by the Swedish Research Council. It will now be easier for researchers to find and share relevant research data.

New national portal makes research data on COVID-19 accessible

Upcoming calls

Clinical Therapy Research: Project grant for research into post-COVID

The purpose of the project grant is to fund research into post-infectious conditions with remaining or late-onset symptoms following COVID-19 infection (post-COVID). The initiative is based on a Government mandate, with a budgetary framework of SEK 50 million.

Project grant for research into post-COVID

COVID-19 vaccine and long COVID

Many people have long-term symptoms after having had COVID-19, known as 'long COVID'. The Swedish Research Council has been tasked to fund research into long-term symptoms after COVID-19, with 50 million SEK allocated.

Research environment grant for follow-up studies of COVID-19 vaccines

National programme Viruses and pandemics

The Government's research bill for 2021–2024 proposes major investments in research. Six new ten-year national research programmes will be established. The Swedish Research Council will be responsible for four of these: viruses and pandemics, the consequences of digitisation, criminality, and segregation. Funding of SEK 400 million were set out in the research bill for the programme on viruses and pandemics, targeted to all relevant research areas.

New initiatives in the Government's research bill that relate to the Swedish Research Council

Formas – the Swedish Research Council for Sustainable Development

Introduction

Formas is a government research council for sustainable development. They fund research and innovation within the areas of environment, agricultural sciences and spatial planning to 1.5 billion SEK annually.

Report

Societal effects and opportunities for transition after COVID-19 (Formas+MSB)

The call was a joint initiative by Formas and the Swedish Civil Contingencies Agency (MSB) within the framework of Formas' three national research programmes on climate, food and sustainable spatial planning, as well as MSB's responsibility for research within civil protection and preparedness. The call aims to help increase our understanding of the impacts of COVID-19 and the opportunities for transformation and recovery in the face of crises - through research that explores the current situation that the novel coronavirus has confronted us with, as well as the potential for transformation that it brings.

The call focused on the lessons we can learn from the pandemic. What long-term impacts can we expect due to the current circumstances? What can be learned with regard to future climate change, a sustainable food system and more sustainable communities? One thing is clear: People's everyday lives, perception of risk, consumption patterns, travel patterns, interactions with other people, and lifestyles have been affected. But how has this changed, and what can we learn for the future in a transitional initiative for sustainable societies? What can we learn concerning future civil protection and preparedness, and how must the crisis management system change as a consequence of COVID-19? For example, what conclusions can be drawn about vulnerability in critical infrastructure, essential operations and critical supply flows, and how should risk and vulnerability analyses be developed to equip society for future crises?

The total budget for the call was SEK 20 million and funded 20 research projects.

Link: <u>Societal effects and opportunities for transition after COVID-19</u>

Urgent grants for the protection of data or research material (Formas+Forte)

In this urgent call, Formas and Forte welcomed applications within all areas of responsibility of the two councils. The research must show an urgent need to ensure future availability of data (measurement data, collection of samples, etc.) or other research materials (interviews, participating observations, etc.). Applications within the areas of Forte must be linked to the corona pandemic and COVID-19. The call included all scientific disciplines: the humanities, natural sciences, social sciences and technology, as well as for interdisciplinary approaches. In 2020, 21 projects were granted a total of SEK 28 million.

For further information, please see description under Forte, page 26, *Urgent grants 2020*.

Relevant research outside targeted calls

Formas has also noted that research projects related to COVID-19 have been granted funding in other calls, not included in this report.

Forte – the Swedish Research Council for Health, Working Life and Welfare

Introduction

Forte is a research council under the Swedish Ministry of Health and Social Affairs, funding research on health, working life and welfare. Forte distributes around SEK 600 million annually to both basic and needs-driven research.

Report

Calls specifically targeting COVID-19 Increased knowledge on elderly care 2020

In view of the COVID-19 pandemic, Forte is now welcoming proposals for research that can respond to the challenges within elderly care. The call funded 9 projects, to a total of approximately SEK 8 million.

Sustainable health and welfare systems are central to societal preparedness and the capability to properly deal with challenges, as the ongoing COVID-19 pandemic has clearly shown. One area that has been particularly in focus is social care for the elderly population. The problems within elderly care are likely to be found at the system, organisational and practical training level, plus will also vary between municipalities.

In order to adequately deal with this, there is both a need for new knowledge and that the knowledge currently available will be put to good use. Forte is therefore announcing a call for research that can respond to the challenges within social care for the elderly population.

The call for proposals is made within the framework of the 10-year National Programme on Applied Welfare Research. The programme's focus, as well as identified needs, are described in the Strategic Research Agenda.

Urgent grants 2020 (Forte+Formas)

In view of the corona crisis, Forte is participating in Formas' call for urgent grants 2020. The purpose of the urgent grants is to provide the opportunity to collect data and research materials of urgent nature, to ensure the future availability of research. Researchers within Forte's areas can apply for funding for data collection linked to the corona pandemic.

The call "Urgent grants 2020" welcomes applications that demonstrate an urgent need to secure future access to research data. Call: Syntheses of working life research 2020 - There are major changes and challenges facing today's working life. Within the national programme for working life research, Forte has a strategic agenda that describes the focus and prioritised challenges of the programme. Three main challenges have been prioritised:

- · Creating a sustainable and inclusive working life,
- · Promoting good working conditions,
- · Achieving a working life that promotes health.

Research within these challenges is in need of strengthening and the research that already exists needs to be synthesised in order to enable communication, implementation and the identification of areas that need further resources in the coming years.

The current COVID-19 epidemic is affecting working life in a very tangible manner with consequences for individuals, companies, the public sector, and society at large. The consequences need to be highlighted from various perspectives and Forte welcomes applications that relate different aspects of the pandemic on working life.

This call offers two different types of grants:
Grant for research reviews: for collecting results
from research with relevance for the extensive
challenges in working life, including analyses of the
state-of-the-art research surrounding a research
question with relevance for working life as well as
identification of research needs.

Grant for research focus and development: to complete and synthesise previous research and relate the research to the research frontier within and outside the researcher's discipline. Grantees should apply a future-perspective on the research and summarise a concise report.

In 2020, 21 projects were granted a total of SEK 28 million.

Call text: <u>Urgent grants 2020 to secure access to</u> data or research materials

Complementary funding: Research within the welfare's quality, organisation and processes

One area that has proven particularly relevant to the corona pandemic is how we organize and manage care. Within the framework of Forte's initiative Welfare's quality, organization and processes, researchers with ongoing funding were given the opportunity for additional funding to link their research to the pandemic, and thus contribute to knowledge about sustainable welfare systems during a crisis. Nine of the 14 ongoing projects within the initiative applied for the grant, all of which were granted funding of approximately SEK 5.5 million in total.

Amended call: Corona perspective in the annual open call - In the annual open call 2020, Forte opened up the possibility for applicants to adapt their applications based on the ongoing pandemic. The 13 funded projects are mainly within public health and working life, granted a total of SEK 55 million.

Relevant research outside targeted calls

Forte also submitted a list of 13 relevant projects funded in calls not targeted to CIVID-19 related calls to a total of SEK 35 million. Of these, seven are within the open call, looking at welfare, public health and working life, two within a call on elderly care and four within a call on working life.

Vinnova

Introduction

Vinnova is Sweden's innovation agency, governed by the Swedish government, under the Ministry of Enterprise and Innovation. In 2020, Vinnova granted SEK 3 million to projects, SEK 33 million to system innovation, SEK 289 million to research and innovation, SEK 37 million to promote EU collaboration.

Report

Vinnova referred to the national mapping COVID-19 in Sweden – research and innovation support status report done by the Swedish Ministry of Enterprise and Innovation. The accounts below are relevant sections copied from that report.

Vinnova and RISE assigned to analyse Sweden's innovation and production capacity for vaccines

Vinnova has been commissioned, in collaboration with the Inquiry into access to vaccines against COVID-19 (S 2020: 07), the Inquiry into health preparedness (S 2018: 09) and Research Institutes of Sweden AB (RISE) to analyse and describe the conditions of Sweden's innovation and production capacity for vaccines and other biological drugs compared to that of other comparable countries. The assignment shall be reported no later than April 5, 2021.

Assignment description (in Swedish): <u>Uppdrag</u> att analysera Sveriges innovations- och produktionskapacitet för vaccin och andra biologiska läkemedel

COVID-19 crisis mitigation

Vinnova launched open calls in March 2020 to support COVID-19 crisis mitigation calling on innovative ideas to address the wider impact of the corona crisis. The call for proposals was aimed at projects that support our society in a challenging time. New solutions were conditioned to be ready to be put into practice within six to twelve months. The call for proposals was closed in September 2020. Maximum budget per project is SEK 1 million. Finding new ways in the time of a crisis

Vinnova launched two additional open calls in June 2020 to support 1) feasibility studies and 2) health-related innovation projects focusing on stopping the COVID-19 pandemic and future pandemics. The results of the innovation projects should be implemented and utilized during the ongoing pandemic, and the results of the feasibility studies will lead to increased preparedness for future pandemics. Project launch was set to September 1, 2020. Vinnova allocated SEK 30 million, from the government assignment shared with the Swedish Research Council, to the two calls

<u>Pre-studies for innovation projects in the health</u> area that prevent future pandemics

Eureka COVID-19 Call 2

Vinnova allocates SEK 15 million per year over a four-year period (2020-2023) to the EU Eureka call "Solutions for the Post-COVID19 -Next Human High-Impact Pandemic". The amount may increase to match national budgets in partner countries. The call targets company-led international collaboration projects with participants from at least two countries and research, development and innovation close to the market. Project time is 12-36 months and the project launch was November 1, 2020.

<u>Innovative solutions for increased preparedness</u> <u>for the next pandemic</u>

Bilateral COVID-19-related R&I collaborations

Swedish agencies are in discussion with several international partners regarding possible joint calls addressing COVID-19 related research. India: In 2020, Prime Minister Modi and Prime Minister Löfven expressed an interest in cooperating to jointly fight COVID-19. Since then, a joint call between Vinnova and the Indian Department of Biotechnology has been carried out, funding innovation projects within AI and health, including COVID-19. Vinnova has allocated SEK 15 million over a three-year period for Swedish participants in the projects. In March 2021, the two Prime Ministers met again virtually, discussing how the two countries could strengthen their cooperation to fight the pandemic and build more resilient societies after COVID-19.

Press release (in Swedish): <u>Digitalt toppmöte</u>
<u>mellan statsminister Löfven och Indiens</u>
<u>premiärminister Modi</u>

Swedish Civil Contingencies Agency

Introduction

The Swedish Civil Contingencies Agency (MSB) is responsible for helping society prepare for major accidents, crises and the consequences of war. In terms of research funding, MSB primarily supports applied, needs-oriented research, with the aim to generate practical applicable research findings that will lead to an increased ability to solve societal problems. In order to stimulate research on civil contingencies MSB allocates approx. SEK 120 million annually to a variety of research activities, for example, funding for major research programmes, individual projects, and competence and structural support.

Report

MSB is tasked with funding research for a more resilient and robust society. Events affecting society are important to study and learn from. Most often, research must study events after they have occurred, as a historical phenomenon. There is now the opportunity to let the research study an ongoing event, which can generate unique data and insights. For this reason, MSB has in a short time requested proposals from ongoing projects on how these can study the ongoing crisis in their research. Nine projects were selected, of which six will start already during the current crisis and three during the next year. Another project, which has been started earlier, concerns an analysis of Corona reporting in the Swedish media. Project list (in Swedish): Forskning relaterat till coronaviruset

The Swedish Civil Contingencies Agency has also funded the call *Societal effects and opportunities* for transition after COVID-19 with Formas – please, see page 25 for more information.

Swedish Energy Agency

Introduction

The Swedish Energy Agency works on behalf of the Swedish Government, in the Ministry of Infrastructures' area of responsibility. The Swedish Energy Agency supports research and development about the supply, conversion, distribution and use of energy. Assistance is also provided to development of new technologies. Approximately SEK 1.5 billion is granted annually to research and innovation.

Report

The Swedish Energy Agency reported that there had been no call or programme specifically targeting COVID-19 related research, however two projects on transportation within their programme on sustainable, transport efficient societies have relevance for COVID-19.

One project studies the recommended isolation under Covid 19 of, above all, the aging population, which constitutes a unique situation and provides an opportunity to study both short- and long-term effects regarding the elderly population's use of the transport system. In the project, the overall goal is to generate new knowledge about the elderly's travel habits so that the potential for energy-efficient travel can be assessed for different types of travel, and in different groups of the elderly over 65 years. The situation raises questions about how the elderly can be motivated to energy-efficient travel in the future; questions asked to validate the sub- and effect goals set by the project. In the unique situation that prevails, the project sees a need and an opportunity to carry out data collection both in the short term (right now during the ongoing pandemic) and in the future when the situation hopefully changes. Link: Potential for energy efficient travel in an aging population

The other project focuses on increasing knowledge about the car-borne leisure trips that make up at least a third of the car transport work in Sweden. One of the focus areas is everyday leisure travel with the aim of finding ways to make it less car-borne. In the wake of the COVID-19 pandemic, there are now related reductions in leisure travel, which provides highly interesting and changing conditions in terms of the energy efficiency potential that exists.

Swedish Foundation for Strategic Research

That we have reductions in the number of leisure trips and travel lengths is not surprising though raises important questions about which journeys are left and which have disappeared. Not least, questions are raised about how the situation is experienced and affects people's everyday lives. Additional issues that should be analysed are how the reductions are distributed in the population. Are some responsible for the reductions, while others keep their travels or are they evenly distributed in the population?

Link: Energy efficient car use for leisure purposes

Introduction

The Swedish Foundation for Strategic Research, SSF, is one of the foundations founded in 1994 with Swedish wage-earner funds after a decision by the government. The SSF supports research in science, engineering, and medicine for the purpose of strengthening Sweden's future competitiveness. Funds of approximately SEK 600 million from dividends on investments are given annually to research projects at universities and technical institutes, many in collaboration with industry, and also awards grants to leading researchers, with an emphasis on young coming stars.

Mistra

Report

Introduction

The Swedish Foundation for Strategic Research reported that no calls specifically targeted to COVID-19 related research had been issued but submitted nine research grants of relevance within other calls and programmes. These are both small, individual grants and large grants to centres within medical sciences, with a total funding of SEK 265 million. Further, previous synergy grants were mentioned, where several projects were focused on virus research.

Mistra was one of the foundations founded with Swedish wage-earner funds after a political decision in 1994. It invests approximately SEK 200 million in research annually. The objective of Mistra is to fund research that promotes the development of strong environmental research environments with the aim of creating a good living environment for all. The investments Mistra makes are also intended to assist in enabling companies, public stakeholders and users to develop new products, services and working methods with a view to meeting society's environmental challenges.

Report

Mistra reported that there have not been any calls specifically targeted to COVID-19 related research. However, there have been initiatives to study aspects of COID-19 within their funded programmes, which run 4+4 years and have a long-term approach. One example highlighted is Mistra Sport and Outdoors, where studies on pandemic challenges and scope for sport and outdoor life. Link: Mistra Sport & Outdoors

Knut and Alice Wallenberg Foundation

Introduction

The Knut and Alice Wallenberg Foundation was founded in 1917 with an initial endowment consisting of shares in SEB and Investor worth SEK 20 million. Through dividends on investments in Investor and FAM, the Foundations to award about SEK 2.4 billion in grants to Swedish research and education each year. In recent years, grants of almost SEK 2 billion annually have been awarded, making the Foundation one of the largest private funders of scientific research in Europe. The Foundation supports Swedish basic research and education, mainly in medicine, technology, and the natural sciences.

Report

The Knut and Alice Wallenberg Foundation has made several initiatives as a response to the COVID-19 pandemic. KAW decided to set aside SEK 50 million to build up a biobank and set up large-scale PCR-based methods for testing ongoing COVID-19 infections. This initiative was then followed by several further initiatives and in the spring of 2020 a total of SEK 130 million was reserved for COVID-19 related programs, which also included a large number of research projects to a total of SEK 5 million. During the autumn of 2020, a continuation grant for the years 2021-2022 of another SEK 50 million was offered for research projects and SEK 55 million for a new program to test the effects of the mass vaccination. The donations were made to Karolinska Institutet

and KTH and coordinated by Science for Life Laboratory. In total, the Knut and Alice Wallenberg Foundation in 2020 set aside SEK 235 million for the collection of patient samples, development and set-up of large-scale PCR and antibody tests plus a large number of COVID-19 related research projects.

Links: SEK 40 million for research on COVID-19 vaccine / SciLifeLab efforts addressing the COVID-19 pandemic

Detailed description of the initiatives: Collection of patient samples and construction of a biobank

In March 2020, the foundation decided to donate SEK 20 million for immediate collection of samples from people who have fallen ill with COVID-19. This initiative has been coordinated at Karolinska Institutet in collaboration with SciLifeLab and Karolinska University Hospital.

The researchers formed completely new teams that took samples from COVID-19 patients and together they studied the function of all large groups of immune system cells. Further, a biobank has been set up that contains samples taken on>700 unique occasions from>300 very seriously ill patients. Samples are now also collected from patients who are in clinical trials of new drugs or have been ill in the spring or have special diagnoses. At the end of 2020, the biobank contained more than 20,000 unique COVID-19 samples that are frozen at -180°C and made available to researchers upon application and assessment.

Lab construction for large-scale PCR-based tests of ongoing infection

Another early effort was to build a lab and purchase both equipment and materials for large-scale PCR-based tests of ongoing COVID-19 infections. The lab later received authorization and funding from the Public Health Agency of Sweden and is now connected to the regions' IT systems and can thus report to the agency on infected individuals. By the end of 2020, the new lab had analysed 621,783 samples for the presence of SARS-Cov-2 DNA, of which 59,874 (almost 10%) were positive and of these, DNA from more than 2,000 virus samples has been sequenced.

Development of large-scale antibody-based tests of history of infection

A third early effort was to support a project developing a new antibody test with high specificity and sensitivity. By the end of 2020, 35,500 antibody tests had been performed as part of the research and development project. In addition, 60,787 blood samples had been analysed for antibodies to the SARS-Cov-2 virus, of which 7.836 (11%) were positive. The newly developed antibody test has been used in a study of Danderyd's hospital staff where it was estimated that 19% of the more than 2,000 employees examined in April-May 2020 had had COVID-19. A follow-up study at the turn of the month August-September 2020 showed that 81% of those tested positive in April remained positive, indicating that immunity lasts for a long time after infection.

Other research projects

A fourth early effort was to mobilize the entire research community by announcing research funding. A total of 288 applications were received in the first call, of which 67 projects were granted research funding of SEK 50 million in total.

A second call for research funding for the years 2021-2022 was made in December 2020. A total of 27 follow-up applications and 49 new applications were received in the second call, for which SEK 50 million were available.

The projects that were funded during the spring were sorted into 9 broad research areas: biobanks, virus diagnostics, sequence evolution, serology, systems immunology, host cell biology, drug development, virus testing in the environment and data-driven research on COVID-19. As a complement to the biobank project at KI, funds were also granted to collect samples from COVID-19 patients at the hospitals in Gothenburg, Lund, Örebro, Umeå and Uppsala. A project within systems immunology has shown deficiencies in the alarm system for viruses in adults with lifethreatening COVID-19 disease. Studies of COVID-19 infections in children with weakened immune systems have had a particularly large international impact. In the area of virus testing in the environment, methods have been developed to determine the presence of SARS-Cov-2 DNA in wastewater or in the subway. The researchers in these projects have regularly reported results from the Uppsala-Stockholm area and warned as early as early autumn that a second wave was approaching. New methods have also been developed to sequence SARS-Cov-2 DNA directly from the environmental samples to study the presence of new virus variants in a systematic way in the future.

The vaccine program

A call for funds within the national vaccine program was announced in December 2020. with a deadline on 15 January 2021, 24 applications were received. Of these, 10 projects have been granted funding within the program. The project aims to study the effects of mass vaccinations and gain an in-depth molecular knowledge of the immune response after vaccination, what protection it provides, how long immunity lasts and any unwanted side effects in different patient groups. The immune response will be studied both in those who have been and those who have not previously been exposed to the virus, and in both healthy people and people with a moderate or severely weakened immune system. All data and all results will be made publicly available via the national COVID-19 data portal to benefit both other researchers and society as a whole.

Riksbankens Jubileumsfond

Introduction

Riksbankens Jubileumsfond (RJ) is an independent foundation with the goal of promoting and supporting research in the Humanities and Social Sciences. It was founded in 1964 based in a donation from the Swedish Central Bank, and further granted funding from the Swedish wage-earner funds in 1994. Among the objectives is funding research in areas where funding from other sources is limited, major, long-term projects, research with an international impact, interdisciplinary research. In 2019, RJ granted SEK 525 million to research.

Report

Riksbankens Jubileumsfond reported that no calls specifically targeted to COVID-19 related research had been issued. However, it has been noted that many of the submitted proposals to the ongoing call, including researchers within humanities and social sciences, propose COVID-19 related research. Decision on these will be made later this year.

Nordic level initiatives

NordForsk

Introduction

NordForsk is an organisation under the Nordic Council of Ministers that provides funding for and facilitates Nordic cooperation on research and research infrastructure. It was established in 2005 by the Nordic Council of Ministers for the purpose of strengthening Nordic research. The annual research budget of NordForsk is NOK 330 million. NordForsk opens calls in collaboration with its key stakeholders: the national research councils, universities, and other research-funding bodies. In the past five years approximately NOK 1.9 billion has been granted to research.

Report

Call specifically targeting COVID-19 research Nordic Health Data Research Projects on COVID-19

The Nordic countries joined to strengthen research cooperation on COVID-19 to prepare for future pandemics. A call was issued for proposals for funding of Nordic and Nordic-Estonian/Latvian collaboration projects on health data research on COVID-19. The projects granted funding are designed to generate new knowledge - using existing health data – that can help to combat the COVID-19 pandemic. Researchers throughout the Nordic countries and Estonia are taking part in this large-scale collaborative initiative, which has been awarded roughly NOK 53 million in funding. The call "Nordic Health Data Research Projects on COVID-19" is a collaborative effort between the Swedish Research Council, Academy of Finland, Innovation Fund Denmark, Research Council of Norway, Icelandic Centre for Research (RANNÍS), Estonian Research Council, Ministry of Education and Science of the Republic of Latvia, and Nord-Forsk.

Five projects were awarded in total approximately NOK 53 million for the period 2020-2022.

Announcement: Nordic region and Estonia join together on major grant for COVID-19 research

Relevant research outside targeted calls

One project, funded within the Nordic Programme for Interdisciplinary Research, is of high relevance to the COVID-19 pandemic. The first phase of the call was issued, and the proposed research submitted in a pre-proposal, before the pandemic. The full proposal, evaluation and granting of funding were made in 2020. The proposal, Pathogens, Pandemics and the Development of Nordic Societies (NORDEMICS), looks to create a deep qualitative understanding of the major diseases that have shaped human society, and broaden the knowledge base that helps us prepare for future pandemics. The project was granted approximately NOK 15 million over four years. Project webpage: Pathogens, Pandemics and the Development of Nordic Societies (NORDEMICS)

Nordic Trial Alliance

Introduction

The Nordic Trial Alliance is a NordForsk project that aims to facilitate clinical research cooperation in the Nordic region. The purpose of NTA is to make it easier to carry out clinical research in the Nordic countries with focus on cooperation on clinical multi-centre trials. NTA was initiated under the Norwegian Presidency of the Nordic Council of Ministers 2017 and operates between 2017-2021.

Report

Nordic COVID-19 Activities

The Nordic Trial Alliance is seeking projects that promote Nordic cooperation on COVID-19 research activities. Examples of relevant activities include strategic workshops, networking activities, knowledge transfer, coordination of national initiatives, including trials, and more. The activities must strengthen Nordic cooperation by providing concrete results and enhance the global knowledge base on COVID-19. The financial framework for the call was SEK 2 million. Four projects were granted funding.

Announcement: <u>Four collaborative clinical projects</u> to develop new knowledge about COVID-19

The Nordic e-Infrastructure Collaboration

Introduction

The Nordic e-Infrastructure Collaboration (NeIC) is hosted by NordForsk, which provides for and facilitates Nordic cooperation on research and research infrastructure across the Nordic region. NeIC was established in the key area of e-infrastructure in 2012, and its sustainability was consolidated through a Memorandum of Understanding between the five national research councils and NordForsk.

Report

Collaboration on e-infrastructure supporting COVID-19 related research

The Nordic e-Infrastructure Collaboration (NeIC) invited representatives of e-infrastructure providers, developers, researchers, and related communities around the Nordic region to propose a collaboration project to offer e-Infrastructure in support of Nordic research related to SARS-CoV-2 or COVID-19 disease.

The funded NeIC PaRI (Pandemic Research Infrastructure) project will:

- Facilitate collection and storage of sequence and other human related COVID-19 data
- Facilitate Nordic analysis of Nordic pandemic data using the open, web-based platform for computational biomedical research, Galaxy, and research e-infrastructure in the Nordics.
- Deploy Secure cloud infrastructure for sharing and presentation of pandemic research datasets and results.
- Contribute to building the evolutionary tree of viral strains, based on ribonucleic acid (RNA) sequences of patient samples infected with coronavirus as they become known and shared.
- Intend to make the viral and host data collected during pandemic findable, accessible, interoperable and reusable (FAIR) by supporting seamless cross-border access and adopting data representation standards by existing federated sharing platforms, e.g., European Genome-phenome Archive (EGA). Work in close collaboration with other Nordic e-Infrastructure projects in addition to EU projects to support the use cases.

NeIC had allocated up to NOK 2 million for the special effort.

Call text: <u>Invitation for collaboration on e-infrastructure supporting COVID-19 related research</u>

European level initiatives

Introduction

Horizon 2020 was 2014-2020 the financial instrument implementing the Innovation Union, a Europe 2020 flagship initiative aimed at securing Europe's global competitiveness. Horizon 2020 is the biggest EU Research and Innovation programme ever with nearly EUR 80 billion of funding available over 7 years (2014 to 2020) – in addition to the private investment that this money will attract. It promises more breakthroughs, discoveries, and world-firsts by taking great ideas from the lab to the market.

Horizon Europe replaced Horizon 2020 as of 1 January 2021 and is the EU's key funding programme for research and innovation with a budget of EUR 95.5 billion.

Report

The report of European initiatives encompasses projects and calls within Horizon 202 and Horizon Europe, with focus on Secure societies and Civil security for society. Besides what is reported below, there are other initiatives for research, for instance EUR 123 million from Horizon Europe to a programme on urgent research on coronavirus variants.

Coronavirus: Commission mobilises €123 million for research and innovation to combat the threat of variants

Projects funded under Horizon 2020, Secure Societies

H2020 Project PANDEM-2

PANDEM-2 implements and demonstrates the most important novel concepts and IT systems to improve the capacity of European pandemic planning and response. PANDEM-2 will enable and demonstrate the capture and integration of pandemic-relevant data from international systems (Go.Data outputs, EWRS, TESSy, etc.), participative surveillance (Influenzanet, Studybugs, etc.), fron laboratory (next generation sequencing) systems and from social media (Twitter, Reddit).

This data will be accessible and can be analysed via an online dashboard, designed and built to support the specific needs of pandemic managers. Additional high-priority tools for pandemic spread prediction, visual analytics and resources management, including workforce capacity mapping, will improve preparedness and planning, and enable pandemic managers to be as well positioned as possible for a pandemic when it comes.

Pandemic Preparedness and Response

H2020 Project ECRAID

As a European clinical research network ECRAID-Base will generate rigorous evidence to improve diagnosis, prevention and treatment of infections and to better respond to EID threats. The network has already been successfully used during the COVID-19 pandemic, with valuable lessons learned.

ECRAID-Base (European Clinical Research Alliance for Infectious Diseases) continues the activities of PREPARE, COMBACTE and ECRAID-Plan, which will lead to establishing ECRAID as an independent non-for-profit legal entity in December 2020. ECRAID-Base is the initial set of activities for ECRAID.

<u>European Clinical Research Alliance on Infectious</u>
<u>Diseases</u>

H2020 Project PATHO-CERT

Helping first responders to address waterborne pathogen contamination. Pathogens can easily spread via water, leading to serious health complications or even death. Due to the nature of their work, first responders are more likely to become contaminated when they need to operate in areas where water is present. The EU-funded PathoCERT project aims to strengthen the coordination capability of first responders in the event that they have to work in places where the risk of contamination via water is high. Within this scope, the project will produce pathogen contamination emergency response technologies, tools and guidelines to be validated by first responders, helping them to detect pathogens quickly and to better control emergency situations. Pathogen Contamination Emergency Response Technologies

H2020 Project STAMINA

Smart support platform for pandemic prediction and management. The goal of the EU-funded STAMINA project is to develop an intelligent decision support platform for pandemic prediction and management. The project will enable national agencies and first responders to anticipate pandemic threats and plan daily efforts to enhance health security. The objectives of the project include the creation of real-time web and social media analytics for the detection of possible disease outbreaks, predictive modelling of pandemic outbreaks and early warning systems. The crisis management part will define the roles of key actors during crisis management and include protection and diagnostic devices for first-line screening. Finally, STAMINA will develop a common operational picture as the main interface that enables coordinated response and demonstrate its application within and across EU borders.

Demonstration of intelligent decision support for pandemic crisis prediction and management within and across European borders

H2020 Project NO-FEAR

Network of practitioners for emergency medical systems and critical care

The emergency medical care in the EU is a fragmented chain including population, emergency medical services, volunteers, hospitals and cooperation with fire services, police and authorities. It needs to prepare to respond to new threats and assist casualties after security incidents. In response to this challenge, NO-FEAR proposes to bring together a pan-European network of practitioners, decision and policy makers in the medical and security fields. They will collaborate to achieve a common understanding of needs, as well as - in collaboration with academia and industries - increase the EU innovation potential that could better fill the operational gaps and recommend areas for future innovations.

Network Of practitioners For Emergency medicAl systems and cRitical care

Coming calls under Horizon Europe Civil Security for Society

FAIR and open data sharing in support to European preparedness for COVID-19 and other infectious diseases - HORIZON-INFRA-2021-EMERGENCY-01

This action responds to the need to enable researchers, health care professionals and society at large to share, access, analyse, link and process research data and other research digital objects across disciplines and national borders in response to the COVID-19 pandemic. As seen with other infectious disease outbreaks, such as haemorrhagic fevers, COVID-19 will likely remain a societal challenge beyond the immediate outbreak, considering its destructive and disruptive impact on healthcare systems and the economy. In addition to the ongoing health threat from SARS-CoV-2, the risk from other emerging pathogens also persists, which will also require similar concerted action to identify and characterise infections with pandemic potential, and enable rapid public health action to mitigate health and societal impact. Provision of comprehensive open data on infectious agents and diseases during outbreaks support evidence-based quality assessment – across scientific, medical, public health and policy domains and promotes reproducibility of research outcomes. Particular importance should be placed on mobilising raw viral sequences and identifying and monitoring the spread of SARS-CoV-2 variants. European readiness for future pandemics is of utmost importance and should be addressed to ensure the preparedness of infrastructure building on already existing frameworks for broader use such as the EOSC.

FAIR and open data sharing in support to

European preparedness for COVID-19 and other
infectious diseases

Research infrastructure services for rapid research responses to COVID-19 and other infectious disease epidemics- HORIZON-IN-FRA-2021-EMERGENCY-02

Proposals under this action, will integrate research infrastructure services to form a comprehensive and inclusive portfolio to support research in response to infectious disease epidemics or underpinning respective forefront research in the field. As a first immediate challenge, the delivered services should support research targeting newly emerging SARS-Cov-2 variants and addressing the on-going COVID-19 pandemic.

Proposals will support the provision of transnational and/or virtual access to researchers as well as training for using the infrastructures, and activities to improve, customise and integrate the services the infrastructures provide, so as to facilitate and integrate the access procedures and to further develop the remote or virtual provision of services.

Access to research infrastructure services will be provided to users to support their research projects targeting the development of new or adapted prevention and/or intervention tools and measures, such as new or adapted diagnostic procedures and therapies, drugs, vaccines, clinical disease management or disease vector control, or evidence-based public health, socio-behavioural and socio-economic measures. Priority should be given to supporting research projects targeting newly emerging virus variants, focusing on their detection, characterisation, surveillance and assessment (changes in transmissibility and disease manifestation) and on the adaptation of intervention and prevention measures (medication, vaccines, public health measures) which likely also requires additional regulatory and clinical trials support.

Research infrastructure services for rapid research responses to COVID-19 and other infectious disease epidemics

Links to reporting funding organisations

Denmark

Danish Agency for Higher Education and Science

Independent Research Fund Denmark

Innovation Fund Denmark

Novo Nordisk Foundation

The Carlsberg Foundation

The Lundbeck Foundation

The Velux Foundations

Faroe Islands

Research Council Faroe Islands

Finland

The Academy of Finland

Business Finland

Greenland

Greenland Research Council

Iceland

The Icelandic Centre for Research, Rannís

The Icelandic Research Fund

The Technological Development Fund

Norway

The Research Council of Norway

Dam Foundation

Sweden

Swedish Research Council

Formas - the Swedish Research Council for

Sustainable Development

Forte - the Swedish Research Council for Health,

Working Life and Welfare

Vinnova

Swedish Civil Contingencies Agency

Swedish Energy Agency

Mistra

Swedish Foundation for Strategic Research

Knut and Alice Wallenberg Foundation

Riksbankens Jubileumsfond

Nordic level

NordForsk

The Nordic e-Infrastructure Collaboration

Nordic Trial Alliance

European level

Horizon Europe



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