



BioNanoTech-Suport **Centru suport pentru proiecte Orizont 2020**

Programul de Pregătire Internă cu privire la Programul Cadru de Cercetare al CE

Cluster 1 HEALTH

Responsabil cluster: Anca Iftene

anca.iftene@bionanotech.ro

HORIZON EUROPE STRUCTURE

Cluster 1 SANATATE

THREE PILLARS FOR IMPLEMENTATION



WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

COMPETIȚII DESCHISE - SĂNĂTATE

Cohorts united against COVID-19 variants of concern

Open for submission

Programme	Horizon Europe (HORIZON)
ID	HORIZON-HLTH-2021-CORONA-01-02
Types of action	HORIZON Research and Innovation Actions
Deadline model	single-stage
Opening date	15 April 2021
Deadline date	06 May 2021 17:00:00 Brussels time

Vaccines & therapeutic clinical trials to boost COVID-19 prevention and treatment

Open for submission

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ID	HORIZON-HLTH-2021-CORONA-01-01
Types of action	HORIZON Research and Innovation Actions
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<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search>

CLUSTER 1. HEALTH

Introduction

The European Union and the world are challenged by the first pandemic for just over a century. While it has uncovered vulnerabilities in our social and economic systems, it has also provided new impetus, visibility and recognition of the critical role that health care systems and health professionals play in responding to the needs of people, serving society and underpinning the economy. It also underlined the power of research and innovation in uncovering the knowledge and developing the technologies to respond rapidly and effectively to public health emergencies.

There is thus an urgent need for research and innovation to understand the long-term effects of both COVID-19 and the social distancing measures on people's health and well-being, and in turn develop effective responses for a solid recovery of the European Union. Research conducted during the pandemic and following its sequels is pivotal to inform preparedness for potential similar events in the future.

Introduction I

General and specific objectives:

The work programme 2021-2022 of cluster 1 'Health' is directed towards two Key Strategic Orientations (KSOs) for research and innovation set by Horizon Europe's strategic plan 2021-2024, notably to:

- creating a more resilient, inclusive and democratic European society (KSO-D) and
- promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains (KSO-A).

Impact:

It aims to mainly contribute to four impact areas of the strategic plan:

- Good health and high-quality accessible health care;
- A resilient EU prepared for emerging threats;
- High quality digital services for all; and
- A competitive and secure data-economy.

Introduction II

More specifically, cluster 1 aims to contribute to **six expected impacts** as set out by the strategic plan, which are the following six destinations of this work programme:

Destination 1 - *Staying healthy in a rapidly changing society*

Destination 2 - *Living and working in a health-promoting environment*

Destination 3 - *Tackling diseases and reducing disease burden*

Destination 4 - *Ensuring access to innovative, sustainable and high-quality health care*

Destination 5 - *Unlocking the full potential of new tools, technologies and digital solutions for a healthy society*

Destination 6 - *Maintaining an innovative, sustainable and globally competitive health-related industry*

Destination 1 - Staying healthy in a rapidly changing society

Citizens of all ages stay healthy and independent in a rapidly changing society thanks to healthier lifestyles and behaviours, healthier diets, healthier environments, improved evidence-based health policies, and more effective solutions for health promotion and disease prevention.

Calls for proposals under this destination are directed towards the *Key Strategic Orientation KSO-D 'Creating a more resilient, inclusive and democratic European society'* of Horizon Europe's Strategic Plan 2021-2024.

Research and innovation supported under this destination should contribute to the impact area '*Good health and high-quality accessible health care*'

In addition, research and innovation supported under this destination could also contribute to the following impact areas:

- 'High quality digital services for all',
- 'Sustainable food systems from farm to fork on land and sea', and
- 'Climate change mitigation and adaptation'.

Destination 1 - Staying healthy in a rapidly changing society

Expected impacts:

- Citizens adopt healthier lifestyles and behaviours, make healthier choices and maintain longer a healthy, independent and active life with a reduced disease burden, including at old ages or in other vulnerable stages of life.
- Citizens are able and empowered to manage better their own physical and mental health and well-being, monitor their health, and interact with their doctors and health care providers.
- Citizens' trust in knowledge-based health interventions and in guidance from health authorities is strengthened, including through improved health literacy (including at young ages), resulting in increased engagement in and adherence to effective strategies for health promotion, diseases prevention and treatment, including increased vaccination rates and patient safety.

Destination 1 - Staying healthy in a rapidly changing society

Call	Budgets (EUR million)		Opening	Deadline(s)
	2021	2022		
HORIZON-HLTH-2021-STAYHLTH-01	69.00		22 Apr 2021	21 Sep 2021
HORIZON-HLTH-2022-STAYHLTH-01-two-stage		170.00	06 Oct 2021	01 Feb 2022 (First Stage) 06 Sep 2022 (Second Stage)
HORIZON-HLTH-2022-STAYHLTH-02		50.00	06 Oct 2021	21 Apr 2022
Overall indicative budget	69.00	220.00		

Destination 2. Living and working in a health-promoting environment

Living and working environments are health-promoting and sustainable thanks to better understanding of environmental, occupational, social and economic determinants of health.

Calls for proposals under this destination are directed towards the Key Strategic Orientation KSO-D ‘Creating a more resilient, inclusive and democratic European society’ of Horizon Europe’s Strategic Plan 2021-2024.

Research and innovation supported under this destination should contribute to the impact area ‘A resilient EU prepared for emerging threats’

In addition, research and innovation supported under this destination could also contribute to the following impact areas:

- ‘Good health and high quality accessible health care’,
- ‘Climate change mitigation and adaptation’, and
- ‘Clean and healthy air, water and soil’.

Destination 2. Living and working in a health-promoting environment

Expected impacts:

- Policy-makers and regulators are aware and well informed about environmental, socio-economic and occupational risk factors as well as health-promoting factors across society;
- Environmental, occupational, social, economic, fiscal and health policies and practices at the EU, national and regional level are sustainable and based on solid scientific evidence. These include overarching policy frameworks such as the European Green Deal, the Chemical Strategy for Sustainability, the 8th Environment Action Programme, the EU Strategic Framework on Health and Safety at Work and the European Environment and Health Process led by the World Health Organization;
- The upstream determinants of disease - related to choices in energy generation, agricultural practices, industrial production, land use planning, built environment and construction - are known, understood and reduced;

Destination 2. Living and working in a health-promoting environment

Expected impacts:

- The health threats and burden resulting from hazardous chemicals and air, water and soil pollution and contamination is reduced, so that the related number of deaths and illnesses is substantially reduced by 2030;
- Living and working environments in European cities and regions are healthier, more inclusive, safer, resilient and sustainable;
- The adaptive capacity and resilience of populations and health systems in the EU to climate and environmental change-related health risks is strengthened;
- Citizens' health and well-being is protected and promoted, and premature deaths, diseases and inequalities related to environmental pollution and degradation are prevented;
- Citizens understand better complex environment and health issues, and effective measures to address them and support related policies and regulations.

Destination 2. Living and working in a health-promoting environment

Call	Budgets (EUR million)		Opening	Deadline(s)
	2021	2022		
HORIZON-HLTH-2021-ENVHLTH-02	130.00		22 Apr 2021	21 Sep 2021
HORIZON-HLTH-2021-ENVHLTH-03	200.00		22 Apr 2021	21 Sep 2021
HORIZON-HLTH-2022-ENVHLTH-04		20.00	06 Oct 2021	21 Apr 2022
Overall indicative budget	330.00	20.00		

Destination 3. Tackling diseases and reducing disease burden

Health care providers are able to better tackle and manage diseases (infectious diseases, including poverty-related and neglected diseases, non-communicable and rare diseases) and reduce the disease burden on patients effectively thanks to better understanding and treatment of diseases, more effective and innovative health technologies, better ability and preparedness to manage epidemic outbreaks and improved patient safety.

Calls for proposals under this destination are directed towards the Key Strategic Orientation KSO-D ‘Creating a more resilient, inclusive and democratic European society’ of Horizon Europe’s Strategic Plan 2021-2024.

Research and innovation supported under this destination should contribute to the impact area ‘Good health and high-quality accessible healthcare’

In addition, research and innovation supported under this destination could also contribute to the following impact areas:

- ‘A resilient EU prepared for emerging threats’,
- ‘Climate change mitigation and adaptation’, and
- ‘High quality digital services for all’.

Destination 3. Tackling diseases and reducing disease burden

Expected impacts:

- Health burden of diseases in the EU and worldwide is reduced through effective disease management, including through the development and integration of innovative diagnostic and therapeutic approaches, personalised medicine approaches, digital and other people-centred solutions for health care. In particular, patients are diagnosed early and accurately and receive effective, cost-efficient and affordable treatment, including patients with a rare disease, due to effective translation of research results into new diagnostic tools and therapies.
- Premature mortality from non-communicable diseases is reduced by one third (by 2030), mental health and well-being is promoted, and the voluntary targets of the WHO Global Action Plan for the Prevention and Control of NCDs 2013-2020 are attained (by 2025), with an immediate impact on the related disease burden (DALYs).

Destination 3. Tackling diseases and reducing disease burden

Expected impacts:

- Health care systems benefit from strengthened research and innovation expertise, human capacities and know-how for combatting communicable and non-communicable diseases, including through international cooperation. In particular, they are better prepared to respond rapidly and effectively to health emergencies and are able to prevent and manage communicable diseases transmissions epidemics, including within healthcare settings.
- Citizens benefit from reduced (cross-border) health threat of epidemics and AMR pathogens, in the EU and worldwide. In particular, the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases are contained and hepatitis, water-borne diseases and other communicable diseases are being combated .
- Patients and citizens are knowledgeable of disease threats, involved and empowered to make and shape decisions for their health, and better adhere to knowledge-based disease management strategies and policies (especially for controlling outbreaks and emergencies).

Destination 3. Tackling diseases and reducing disease burden

Call	Budgets (EUR million)		Opening	Deadline(s)
	2021	2022		
HORIZON-HLTH-2021-DISEASE-04	262.50		22 Apr 2021	21 Sep 2021
HORIZON-HLTH-2022-DISEASE-06-two-stage		160.00	06 Oct 2021	01 Feb 2022 (First Stage) 06 Sep 2022 (Second Stage)
HORIZON-HLTH-2022-DISEASE-07		37.00	06 Oct 2021	21 Apr 2022
HORIZON-HLTH-2022-DISEASE-03		30.00	06 Oct 2021	21 Apr 2022
Overall indicative budget	262.50	227.00		

Destination 4. Ensuring access to innovative, sustainable and high-quality health care

Health care systems provide equal access to innovative, sustainable and high-quality health care thanks to the development and uptake of safe, cost-effective and people-centred solutions, with a focus on population health, health systems resilience, as well as improved evidence-based health policies.

Calls for proposals under this destination are directed towards the Key Strategic Orientation KSO-D ‘Creating a more resilient, inclusive and democratic European society’ of Horizon Europe’s Strategic Plan 2021-2024.

Research and innovation supported under this destination should contribute to the impact areas: ‘Good health and high-quality accessible health care’ and ‘A resilient EU prepared for emerging threats’

In addition, research and innovation supported under this destination could also contribute to the following impact areas:

- ‘Climate change mitigation and adaptation’,
- ‘High quality digital services for all’ and
- ‘A Competitive and secure data economy’.

Destination 4. Ensuring access to innovative, sustainable and high-quality health care

Expected impacts:

- Health and social care services and systems have improved governance mechanisms and are more effective, efficient, accessible, resilient, trusted and sustainable, both fiscally and environmentally. Health promotion and disease prevention will be at their heart, by shifting from hospital-centred to community-based, people-centred and integrated health care structures and successfully embedding technological innovations that meet public health needs, while patient safety and quality of services is increased.
- Health care providers are trained and equipped with the skills and competences suited for the future needs of health care systems that are modernised, digitally transformed and equipped with innovative tools, technologies and digital solutions for health care. They save time and resources by integrating and applying innovative technologies, which better involve patients in their own care, by reorganising workflows and redistributing tasks and responsibilities throughout the health care system, and by monitoring and analysing corresponding health care activities.
- Citizens are supported to play a key role in managing their own health care, informal carers (including unpaid carers) are fully supported (e.g. by preventing overburdening and economic stress) and specific needs of more vulnerable groups are recognised and addressed. They benefit from improved access to health care services, including financial risk protection, timely access to quality essential health care services, including safe, effective, and affordable essential medicines and vaccines.

Destination 4. Ensuring access to innovative, sustainable and high-quality health care

Expected impacts:

- Health policy and systems adopt a holistic approach (individuals, communities, organisations, society) for the evaluation of health outcomes and value of public health interventions, the organisation of health care, and decision-making.
- The actions resulting from the calls under this destination will also create strong opportunities for synergies with the EU4Health programme and in particular to contribute to the goals under general objectives 1a “protecting people in the Union from serious cross-border threats to health and strengthening the responsiveness of health systems and coordination among the Member States to cope with those threats” and 3 “strengthening health systems by improving their resilience and resource efficiency, in particular through:
 - i) supporting integrated and coordinated work between Member States;
 - ii) promoting the implementation of best practices data sharing;
 - iii) reinforcing the healthcare workforce;
 - iv) tackling the implications of demographic challenges; and
 - v) advancing digital transformation”.

Destination 4. Ensuring access to innovative, sustainable and high-quality health care

Call	Budgets (EUR million)		Opening	Deadline(s)
	2021	2022		
HORIZON-HLTH-2021-CARE-05	70.00		22 Apr 2021	21 Sep 2021
HORIZON-HLTH-2022-CARE-08		70.00	06 Oct 2021	21 Apr 2022
HORIZON-HLTH-2022-CARE-10		100.00	06 Oct 2021	21 Apr 2022
Overall indicative budget	70.00	170.00		

Destination 5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society

Health technologies, new tools and digital solutions are applied effectively thanks to their inclusive, secure and ethical development, delivery, integration and deployment in health policies and health care systems.

Calls for proposals under this destination are directed towards the Key Strategic Orientation KSO-A ‘Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains’ of Horizon Europe’s Strategic Plan 2021-2024.

Research and innovation supported under this destination should contribute to the impact area ‘High quality digital services for all’

In addition, research and innovation supported under this destination could also contribute to the following impact areas:

- ‘A competitive and secure data-economy’,
- ‘Industrial leadership in key and emerging technologies that work for people’, and
- ‘Good health and high-quality accessible health care’.

Destination 5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society

Expected Impacts:

- Europe's scientific and technological expertise and know-how, its capabilities for innovation in new tools, technologies and digital solutions, and its ability to take-up, scale-up and integrate innovation in health care is world-class.
- Citizens benefit from targeted and faster research resulting in safer, more efficient, cost-effective and affordable tools, technologies and digital solutions for improved (personalised) disease prevention, diagnosis, treatment and monitoring for better patient outcome and well-being, in particular through increasingly shared health resources (interoperable data, infrastructure, expertise, citizen/patient driven co-creation).
- The EU gains high visibility and leadership in terms of health technology development, including through international cooperation.

Destination 5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society

Expected Impacts:

- The burden of diseases in the EU and worldwide is reduced through the development and integration of innovative diagnostic and therapeutic approaches, personalised medicine approaches, digital and other people-centred solutions for health care.
- Both the productivity of health research and innovation, and the quality and outcome of health care is improved thanks to the use of health data and innovative analytical tools, such as artificial intelligence (AI) supported decision-making, in a secure and ethical manner, respecting individual integrity and underpinned with public acceptance and trust.

Destination 5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society

Call	Budgets (EUR million)		Opening	Deadline(s)
	2021	2022		
HORIZON-HLTH-2021-TOOL-06	115.00		22 Apr 2021	21 Sep 2021
HORIZON-HLTH-2022-TOOL-11		95.00	06 Oct 2021	21 Apr 2022
HORIZON-HLTH-2022-TOOL-12- two-stage		60.00	06 Oct 2021	01 Feb 2022 (First Stage) 06 Sep 2022 (Second Stage)
Overall indicative budget	115.00	155.00		

Destination 6. Maintaining an innovative, sustainable and globally competitive health industry

EU health industry is innovative, sustainable and globally competitive thanks to improved up-take of breakthrough technologies and innovations, which makes the EU with its Member States more resilient and less dependent from imports with regard to the access to and supply of critical health technologies.

Calls for proposals under this destination are directed towards the Key Strategic Orientation KSO-A ‘Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains’ of Horizon Europe’s Strategic Plan 2021-2024.

Research and innovation supported under this destination should contribute to the impact area ‘A competitive and secure data-economy’

In addition, research and innovation supported under this destination could also contribute to the following impact areas:

- ‘Industrial leadership in key and emerging technologies that work for people’,
- ‘High quality digital services for all’, and
- ‘Good health and high-quality accessible health care’.

Destination 6. Maintaining an innovative, sustainable and globally competitive health industry

Expected Impacts:

- Health industry in the EU is more competitive and sustainable, assuring European leadership in breakthrough health technologies and strategic autonomy in essential medical supplies and digital technologies, contributing to job creation and economic growth, in particular with small- and medium-sized enterprises (SMEs).
- Health industry is working more efficiently along the value chain from the identification of needs to the scale-up and take-up of solutions at national, regional or local level, including through early engagement with patients, health care providers, health authorities and regulators ensuring suitability and acceptance of solutions.
- European standards, including for operations involving health data, ensure patient safety and quality of healthcare services as well as effectiveness and interoperability of health innovation and productivity of innovators.

Destination 6. Maintaining an innovative, sustainable and globally competitive health industry

Expected Impacts:

- Citizens, health care providers and health systems benefit from a swift uptake of innovative health technologies and services offering significant improvements in health outcomes, while health industry in the EU benefit from decreased time-to-market.
- Health security in the EU benefits from reliable access to key manufacturing capacity, including timely provision of essential medical supplies of particularly complex or critical supply and distribution chains, such as regards vaccines or medical radioisotopes.

Destination 6. Maintaining an innovative, sustainable and globally competitive health industry

Call	Budgets (EUR million)		Opening	Deadline(s)
	2021	2022		
HORIZON-HLTH-2021-IND-07	44.00		22 Apr 2021	21 Sep 2021
HORIZON-HLTH-2022-IND-13		69.00	06 Oct 2021	21 Apr 2022
Overall indicative budget	44.00	69.00		

Other Actions not subject to calls for proposals

Grants to identified beneficiaries

1. Grant to the Global Alliance for Chronic Diseases (GACD)
2. European registry for human pluripotent stem cell lines
3. CEPI 3 - Contribution to the Coalition for Epidemics Preparedness Initiative

Other Instruments

1. Studies, conferences, events and outreach activities
2. Mobilisation of research funds in case of Public Health Emergencies
3. Subscription to the Human Frontier Science Program Organization
4. External expertise
5. Implement, expand and improve the Global Observatory on Health R&D

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