

# Horizon Europe Health Cluster

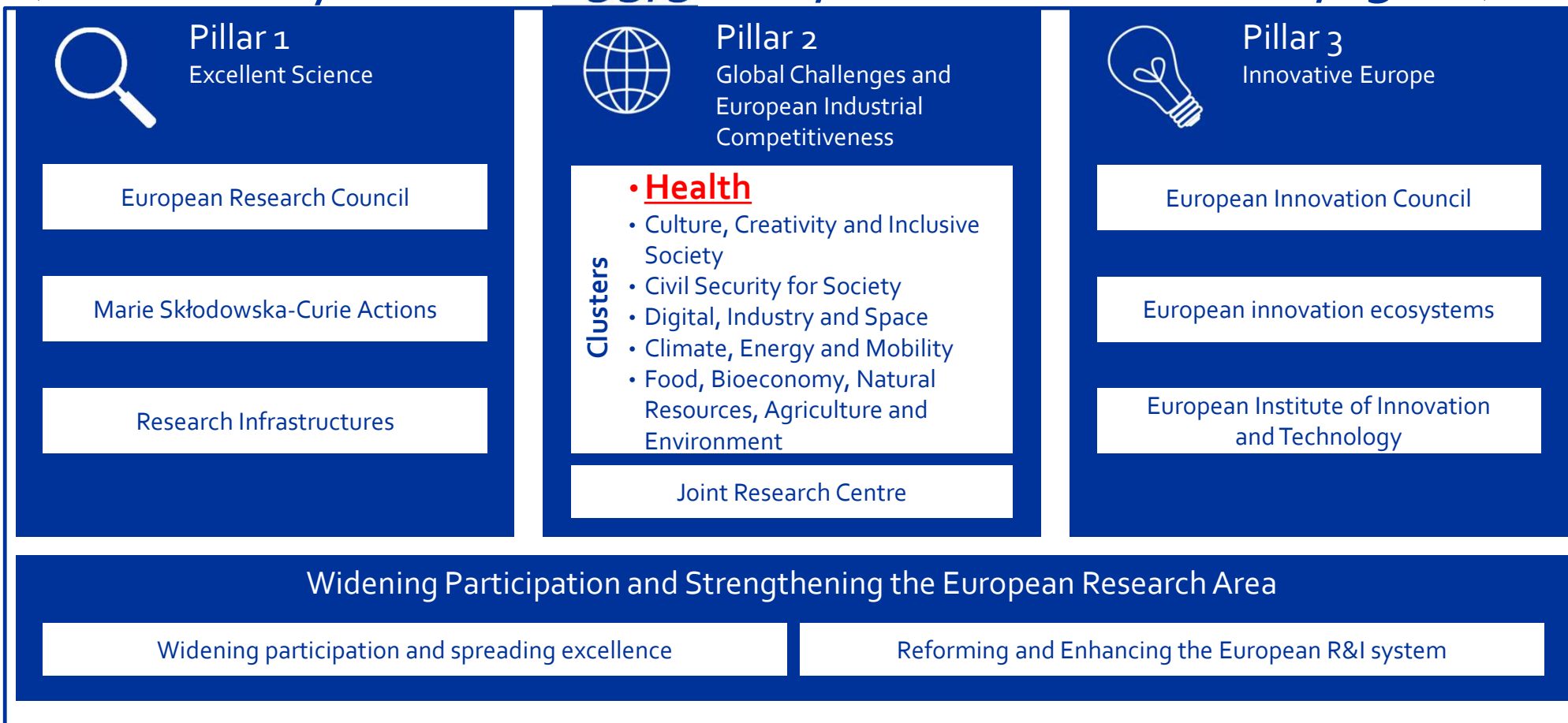
Webinar 13.1.2021

**HORISONTTI EUROOPPA**  
— EU:N TUTKIMUS- JA INNOVAATIO-OHJELMA —

# Agenda

- **Welcome!**  
Anni Kaukoranta, Ministry of Economic Affairs and Employment
- **EU & Health: Aiming at long-term health impacts**  
Antti Hautaniemi, Ministry of Social Affairs and Health
- **First Work Programme of Cluster Health – Destinations 1-6**  
Vera Mikkilä, Academy of Finland  
Marko Uutela, Academy of Finland  
Raimo Pakkanen, Business Finland
- **European Partnerships, Mission on Cancer & other opportunities**  
Sirpa Nuotio, Academy of Finland
- **Q & A**

# Horizon Europe, ~95,5 billion euros for 2021 – 2027 (tentatively Pillar 2 €53,52 bn, Health Cluster €8,25 bn)



# 'Shadow' Health Configuration of the Horizon Europe

## Representatives of Finland

- **Sirpa Nuotio**, Academy of Finland (Delegate)
- **Antti Hautaniemi**, MSAH (Alternate)
- **Vera Mikkilä**, Academy of Finland (Expert)
- **Raimo Pakkanen**, Business Finland (Expert)
- **Anni Kaukoranta**, MEAE (Expert)

- Mains tasks: to provide advice and expertise to the Commission in preparing the health cluster in the Horizon Europe and its WP
- <https://www.businessfinland.fi/suomalaisille-asiakkaille/palvelut/rahoitus/horisontti-2020/horisontti-yhteyshenkilot/horizon-europe-yhteyshenkilot>

# Health Cluster Expert Group

- To be nominated in the coming months ~20 national experts
- Main tasks include to provide expertise and advice to the Finnish Representatives in the Health Configuration of the Horizon Europe, coordination and communication
- More information about the expert groups ->  
<https://www.businessfinland.fi/ajan-kohtaista/blogs/horisontti-2020/2020/kansalliset-asiantuntijaryhmat-horisontti-eurooppa-ohjelman-komiteatyontukena>

# EU & Health

Antti Hautaniemi

Senior Specialist

Ministry of Social Affairs and Health

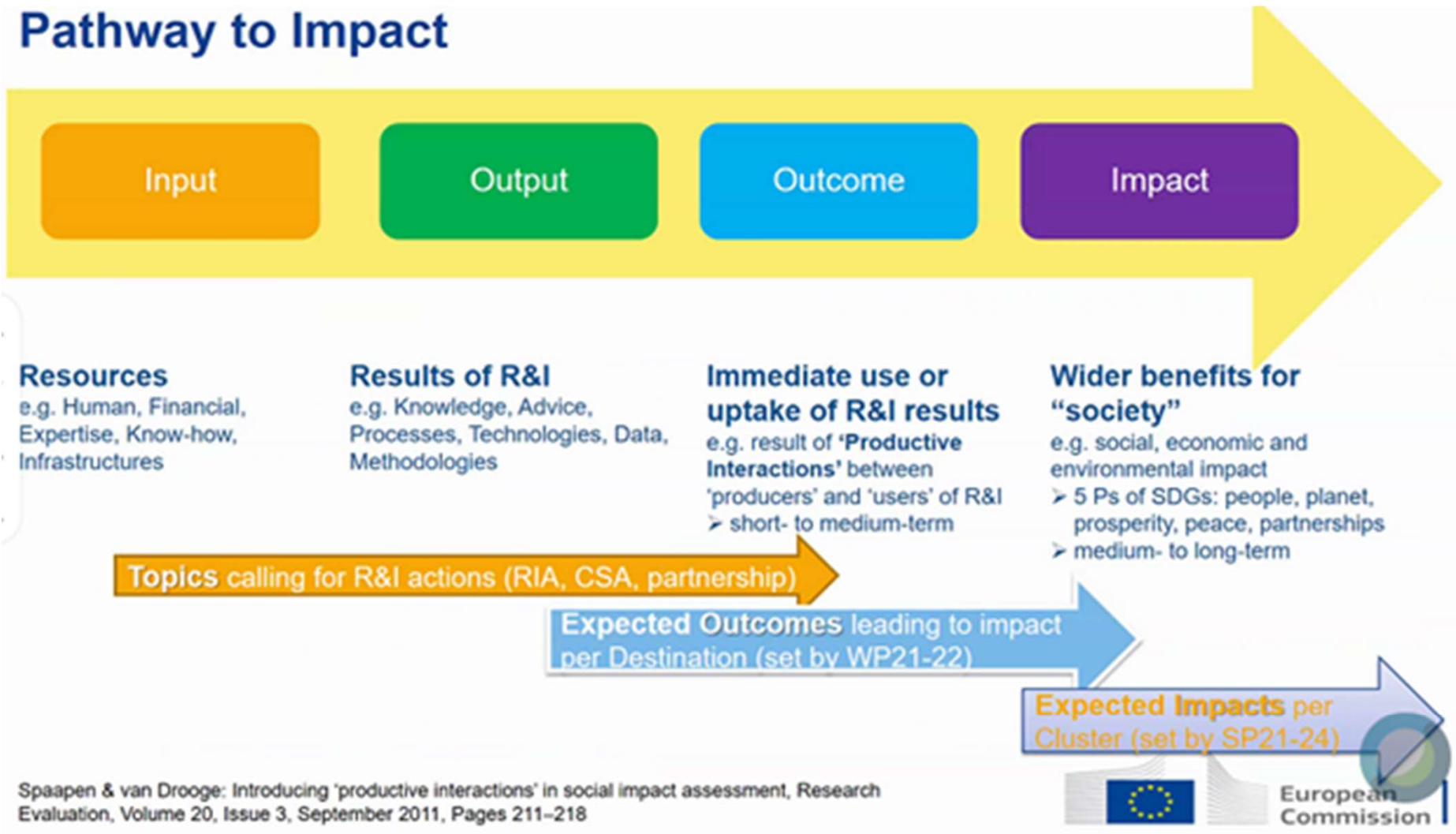
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# EU & Health - Aiming at long term health impacts

1. Big picture: Health and EU – towards a stronger health union
2. Health is also part of various EU-funding programmes that aim to create synergies with the Health Cluster of Horizon Europe (e.g. the new health programme, EU4Health [https://ec.europa.eu/health/funding/eu4health\\_fi](https://ec.europa.eu/health/funding/eu4health_fi) )
3. Overall aim of the Health Cluster  
*Health' cluster aims to promote and protect human health and well-being, prevent diseases and decrease the burden of diseases and disabilities on people and communities, support the transformation of health care systems in their efforts towards fair access to innovative, sustainable and high quality health care for everyone, and foster an innovative, sustainable and globally competitive European health industry.*
4. The logic to maximize the impact of R&I investments:
  - **topics** defined that call for research and innovation actions
  - ...that would lead to expected outcomes per health destinations (set in the Work Programme)
  - ...that would lead to long term expected impacts set for the Cluster (set in the Strategic Programme).

# Pathway to Impact



Spaapen & van Drooge: Introducing 'productive interactions' in social impact assessment, Research Evaluation, Volume 20, Issue 3, September 2011, Pages 211–218



# Horizon Europe 2021-2027

## Health Cluster

### Destinations 1 and 2

Vera Mikkilä, Academy of Finland

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# Horizon Europe: Main funding instruments 2021-2022

## INDICATIVE

### Research & Innovation Actions (RIA)

Funding rate 100%

Producing new information or technology  
Supporting research and development activities

### Coordination and Support Actions (CSA)

Funding rate 100%

Coordinate, support and activate research  
(e.g. networks, workshops, preparatory work)

### Innovation Actions (IA)

Funding rate 70% / non-profit 100%

Producing new or improved products or services  
Supporting actions closer to the market  
(e.g. prototypes, demonstrations, pilots)

### Pre-commercial Procurement (PCP)

Funding rate 90%

No near-to-the-market solutions available, new R&I needed

### Public Procurement of Innovative Solutions (PPI)

Funding rate 35%

Nearly or in small quantity on the market,  
R&I still required to de-risk

# Destination 1: Staying healthy in a rapidly changing society

Destination	<b>Main challenge</b>	<ul style="list-style-type: none"> <li>➤ <i>Healthy behaviour and lifestyles throughout the life course</i></li> <li>➤ <i>Long, active, inclusive and independent life</i></li> </ul>
	<b>R&amp;I Expected Impacts (SP)</b>	<p><i>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.</i></p>
Call Topics	<b>Problem Drivers (hooks for R&amp;I)</b>	<ul style="list-style-type: none"> <li>➤ <b>Rapidly changing society:</b> eg ageing, changing work places, social isolation, individual resilience to change and to diseases (personalised prevention and health promotion), climate change anxieties</li> <li>➤ <b>Unhealthy lifestyles and behaviour:</b> eg sedentary lifestyles, unhealthy diets (overweight and obesity in children)</li> <li>➤ Cultural diversity, urban vs rural setting, socio-economic status, age groups, sex/gender differences</li> <li>➤ <b>Limited health education and health literacy:</b> eg disinformation, digital empowerment</li> </ul>
	<b>Potential R&amp;I Expected Outcomes (WP)</b>	<p><b>Health care providers</b> understand how to prevent, assess and treat chronic and mental health conditions and illnesses, and use AI-supported tools to predict and decide on prevention and treatment pathways</p> <p><b>Citizens</b> are encouraged to make evidence-based life style choices and empowered to control their own health status and share their real-world health data</p> <p><b>Public authorities</b> draft clinical guidelines and design tailor-made prevention policies and campaigns</p> <p><b>Researchers and developers</b> of medical interventions understand predisposing factors for health disorders and chronic diseases and the transition from health to illness</p>

**Destination 1: Staying healthy in a rapidly changing society**  
**Call Staying healthy: Topics 2021 (Calls open ~April and close ~September)**

**HORIZON-HLTH-STAYHLTH-2021-01-01: Prevention of obesity through the life course- RIA** *update: transferred to 2022*

- Biological pathways; strategies and policies; economic cost calculation

**HORIZON-HLTH-STAYHLTH-2021-01-02: Towards a molecular and neurobiological understanding of mental health and mental illness for the benefit of citizens and patients – RIA**

- Interacting factors; biomarkers; evidence-based treatment and prevention

**HORIZON-HLTH-STAYHLTH-2021-01-03: Supporting digital empowerment and health literacy – Healthy citizens 2.0 – CSA**

- Digital tools for citizens to monitor and manage their own health

**HORIZON-HLTH-STAYHLTH-2021-01-04: A roadmap for personalised prevention – CSA**

- SRIA for research and policy makers; evidence-based policy decisions

**Destination 1: Staying healthy in a rapidly changing society**  
**Call Staying healthy: Topics 2022**

**HORIZON-HLTH-STAYHLTH-2022-01-two-stage-01: Boosting mental Health in Europe in times of change – RIA**

**HORIZON-HLTH-STAYHLTH-2022-01-two-stage-02: The Silver Deal: “A novel multi-policy approach on the challenges of the ageing population” – RIA**  
*update: transferred to 2023*

**HORIZON-HLTH-STAYHLTH-2022-01-two-stage-04: AI tools to predict the risk for chronic non-communicable diseases and/or their progression – RIA**

**HORIZON-HLTH-STAYHLTH-2022-02-01 (single-stage): Personalised blue print of chronic inflammation in health-to-disease transition - RIA**



# Destination 2: Living & working in a health-promoting environment

Destination	<b>Main challenge</b>	<ul style="list-style-type: none"> <li>➤ Environment impacts our physical and mental health (value / cost)</li> <li>➤ Causal links between exposure and health response often not known or not clear</li> <li>➤ Policies need robust evidences on hazards and risks</li> </ul>
	<b>R&amp;I Expected Impacts (SP)</b>	<p><b>Living and working environments</b> are health-promoting and sustainable thanks to better understanding of environmental, occupational, social and economic determinants of health.</p>
Call Topics	<b>Problem Drivers (hooks for R&amp;I)</b>	<ul style="list-style-type: none"> <li>➤ <b>Not sufficient knowledge and understanding</b> on the causal links and impact of environmental factors on people's physical and mental health and well-being: <b>Natural</b> environment: climate change, pollution of air/water/soil, loss of biodiversity; <b>Physical</b> environment: man-made technologies &amp; systems (radiation, transportation, digitalisation, urbanisation); <b>Social</b> environment: demographic changes, migration, urbanisation, poverty, inequalities; <b>Economic</b> environment: digitalisation of work (industry 4.0 / 5.0)</li> <li>➤ Advances in sensor technology, big data and AI provide <b>opportunities for comprehensive measuring and correlating data</b>: environmental factors – human health (biomarkers)</li> <li>➤ <b>Lack of robust concepts and models</b> to assign a socio-economic <b>value</b> (beneficial impact) or socio-economic <b>cost</b> (adverse impact) to environmental factors</li> </ul>
	<b>Potential R&amp;I Expected Outcomes (WP)</b>	<p><b>Public authorities</b> use scientific evidences, forecast models and socio-economic analysis to shape policies (environmental, occupational, social, economic, fiscal, health) and regulatory measures</p> <p><b>Researchers and health care providers</b> understand and take into account the impact of specific environmental factors on human health and well-being in developing health care solutions and their use in clinical practice</p>

**Destination 2: Living & working in a health-promoting environment**  
**Call Environment and health: Topics 2021 (Calls open ~April and close ~September)**

## **HORIZON-HLTH-ENVHLTH-2021-02-01: Exposure to electromagnetic fields (EMF) and health – RIA**

- Limitation of exposure; risk management by authorities; new methods; citizen information

## **HORIZON-HLTH-ENVHLTH-2021-02-02: Indoor air quality and health – RIA**

- Accessible data on pollutants; air quality monitoring; revised quality standards; Zero-Pollution Action Plan

## **HORIZON-HLTH-ENVHLTH-2021-02-03: Health impacts of climate change, costs and benefits of action and inaction - RIA**

- Climate policies; warning systems; risk assessments; guidelines and training materials

Destination 2: Living & working in a health-promoting environment  
Call Environment and health: Topics 2022

**HORIZON-HLTH-ENVHLTH-2022-04-01 (single stage): Methods for assessing health-related costs to environmental stressors - RIA**

**HORIZON-HLTH-ENVHLTH-2022-05-two-stage-01: The role of environmental pollution in non-communicable diseases - RIA** *update: transferred to 2023*

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# Horizon Europe 2021-2027

## Health Cluster

Destination 3. Tackling diseases and reducing disease burden

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

Marko Uutela, Academy of Finland

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# Destination 3. Tackling diseases and reducing disease burden

Destination	<b>Main challenge</b>	<ul style="list-style-type: none"> <li>➤ <i>Managing and treating specific diseases</i></li> <li>➤ <i>Reducing the disease burden</i></li> <li>➤ <i>Improving palliative care</i></li> </ul>
	<b>R&amp;I Expected Impacts (SP)</b>	<p><b>Health care providers</b> 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.</p>
Call Topics	<b>Problem Drivers (hooks for R&amp;I)</b>	<ul style="list-style-type: none"> <li>➤ <b>Unmet medical needs</b> to detect, treat or manage diseases:             <ul style="list-style-type: none"> <li>– Infectious diseases and epidemic outbreaks</li> <li>– Non-communicable diseases and disorders</li> <li>– Rare diseases</li> </ul> </li> <li>➤ <b>Safety, effectiveness and cost</b> of treatment options</li> </ul>
	<b>Potential R&amp;I Expected Outcomes (WP)</b>	<p><b>Researchers and developers</b> of medical interventions understand the onset and progression of infectious and non-communicable diseases and apply novel approaches for the development of vaccines and immunotherapies</p> <p><b>Health care providers</b> test and validate new, better or first-ever options to detect, treat and manage specific diseases and for palliative care, including through repurposing of medicinal products</p> <p><b>Health care providers</b> make full use of AI-based solutions for assessing treatment options in clinical and home-based care, including comparative cost-effectiveness considerations</p>

# Call – Tackling Diseases 2021

## RIA

- HORIZON-HLTH-DISEASE-2021-04-01: Comparative effectiveness research for healthcare interventions in areas of high public health need
- HORIZON-HLTH-DISEASE-2021-04-02: Building a European innovation platform for the repurposing of medicinal products
- HORIZON-HLTH-DISEASE-2021-04-03: Innovative approaches to enhance poverty-related diseases research in the post-COVID-19 era
- HORIZON-HLTH-DISEASE-2021-04-04: Artificial Intelligence for treatment and care
- HORIZON-HLTH-DISEASE-2021-04-07: Personalised medicine and infectious diseases: understanding the individual host response to viruses (e.g., SARS-CoV-2)

## CSA

- HORIZON-HLTH-DISEASE-2021-04-05: A roadmap towards the creation of the European One Health antimicrobial resistance partnership (OH AMR)
- HORIZON-HLTH-DISEASE-2021-04-06: Building a European Research and Innovation Partnership for Pandemic Preparedness

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

Destination	<b>Main challenge</b>	<ul style="list-style-type: none"> <li>➤ <b>Affordability and cost-effectiveness</b> of health care</li> <li>➤ <b>Performance and resilience</b> of health systems</li> <li>➤ <b>Quality of care &amp; patient safety</b></li> </ul>
	<b>R&amp;I Expected Impacts (SP)</b>	<p><b>Health care systems</b> 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.</p>
Call Topics	<b>Problem Drivers (hooks for R&amp;I)</b>	<ul style="list-style-type: none"> <li>➤ Fiscal, environmental and economic <b>unsustainability</b> of health systems</li> <li>➤ <b>Slow modernisation</b> of health systems</li> <li>➤ <b>Insufficient adaptation</b> of health systems to global/local changes and <b>preparedness</b> for health emergencies</li> <li>➤ <b>Slow uptake of health innovation</b> in clinical practice</li> <li>➤ <b>Unlocked potential of digital transformation</b> of health and care</li> </ul>
	<b>Potential R&amp;I Expected Outcomes (WP)</b>	<p><b>Public authorities and health systems</b> at national and regional level cooperate to identify needs for innovation procurement, apply socio-economic foresight in their planning, and use cost-effective procurement strategies for the modernisation, adaptation and 'greening' of their health care systems, including for resilience building</p> <p><b>Health systems</b> apply improved patient-centered procedures and guidelines to deliver quality health care, assess risks and take appropriate measures for ensuring patient safety</p> <p><b>Health systems and health care providers</b> make full use of health data using data-driven decision support systems</p>

# Call - Ensuring access to innovative, sustainable and high-quality health care 2021

## RIA

- HORIZON-HLTH-CARE-2021-05-01: Enhancing quality of care and patient safety
- HORIZON-HLTH-CARE-2021-05-02: Data-driven decision-support tools for better health and care delivery and for policy-making

## CSA

- HORIZON-HLTH-CARE-2021-05-04: Health and care innovation procurement network

# Horizon Europe 2021-2027

Health Cluster

Destinations 5-6

Raimo Pakkanen, Cluster expert, Business Finland

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# Destination 5: Unlocking the full potential of new tools, technologies & digital solutions for a healthy society

Destination	<b>Main challenge</b>	<ul style="list-style-type: none"> <li>➤ <b>Unlock innovation</b></li> <li>➤ Progress must be <b>ethical, trusted, safe and effective</b></li> <li>➤ <b>Personalisation and health data</b></li> </ul>
	<b>R&amp;I Expected Impacts (SP)</b>	<b>Health technologies, new tools and digital solutions</b> are applied effectively thanks to their inclusive, secure and ethical development, delivery, integration and deployment in health policies and health and care systems.
	<b>Problem Drivers (hooks for R&amp;I)</b>	<ul style="list-style-type: none"> <li>➤ <b>Opportunities</b> for cutting-edge health innovation due to rapid advances in biomedical research</li> <li>➤ <b>Convergence of technologies:</b> pharma, biotech, medtech, digital health</li> <li>➤ <b>Regulatory requirements</b> on safety and (comparative) effectiveness</li> <li>➤ <b>Health data economy is challenged</b> by data quality, standards, interoperability of systems, trusted cybersecurity</li> <li>➤ <b>Open sciences</b> approaches</li> </ul>
Call Topics	<b>Potential R&amp;I Expected Outcomes (WP)</b>	<p><b>Public health authorities</b> use better ways to assess and validate new health technologies and integrated solutions, including by effective use of real-world data</p> <p><b>Health professionals and researchers</b> test and validate advanced surgical procedures, smart medical devices, advanced medical therapies, and use improved models and AI-assisted strategies to provide personalised medical services to patients</p>

## **Destination 5: Unlocking the full potential of new tools, technologies & digital solutions for a healthy society**

### **Call - Tools and technologies for a healthy society (2021)**

- **HORIZON-HLTH-TOOL-2021-06-01: Smart medical devices and their surgical implantation for use in resource-constrained settings - IA**
- **HORIZON-HLTH-TOOL-2021-06-02: Next generation advanced therapies to treat highly prevalent and high burden diseases with unmet needs - RIA**
- **HORIZON-HLTH-TOOL-2021-06-03: Innovative tools for use and re-use of health data (in particular electronic health records and/or patient registries) – RIA**

### **Call - Tools and technologies for a healthy society (Single Stage - 2022)**

- **HORIZON-HLTH-TOOL-2022-11-01: Optimising effectiveness in patients of existing prescription drugs for major diseases (except cancer) with the use of biomarkers - RIA**
- **HORIZON-HLTH-TOOL-2022-11-02: New methods for the effective use of real-world data and/or synthetic data in regulatory decision-making and/or in health technology assessment - RIA**

### **Call - Tools and technologies for a healthy society (Two Stages - 2022)**

- **HORIZON-HLTH-TOOL-2022-12-01: Computational models for new patient stratification strategies - RIA**



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

Destination	<b>Main challenge</b>	<ul style="list-style-type: none"> <li>➤ <i>Unmet <b>medical needs</b> - market failure</i></li> <li>➤ <i>Environmental, societal and economic <b>sustainability</b></i></li> <li>➤ <b>Cybersecure digital health</b> applications and use of health data</li> </ul>
	<b>R&amp;I Expected Impacts (SP)</b>	<p><i><b>EU health industry</b> 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.</i></p>
Call Topics	<b>Problem Drivers (hooks for R&amp;I)</b>	<ul style="list-style-type: none"> <li>➤ <b>Traditional economic/business models fail</b> to provide sufficient incentives for risk-taking private investments:             <ul style="list-style-type: none"> <li>▪ high scientific and financial risks due to long-term uncertainties</li> <li>▪ Uncertain or weak markets</li> <li>▪ high safety standards and regulatory requirements</li> </ul> </li> <li>➤ <b>Critical dependencies</b> of health industry and health systems on supplies from outside the EU</li> <li>➤ Health sector is not yet <b>clean, circular and cost-effective</b></li> <li>➤ <b>Common standards and interoperability of systems</b> are not yet sufficiently assured</li> </ul>
	<b>Potential R&amp;I Expected Outcomes (WP)</b>	<p><b>Public health authorities</b> use better ways to identify needs and procure health services and innovation</p> <p><b>Health industries</b> rely on new economic models to invest into R&amp;D on unmet public health needs</p> <p><b>Health industries</b> use greener, more effective manufacturing processes and eco-design approaches</p> <p><b>Health industries</b> rely on and use European standards for digital health and data-enabled innovation, and apply trusted methodologies and tools that effectively increase cybersecurity of connected devices</p> <p><b>Patients and healthy citizens</b> can control their health and take stronger ownership of their health data, including by making it available for research</p>

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

### Call – A: Competitive health-related industry (2021)

- HORIZON-HLTH-IND-2021-07-01: Green and self-sustaining manufacturing use and disposal of pharmaceuticals in the EU - RIA
- HORIZON-HLTH-IND-2021-07-02: New payment models for cost-effective and affordable health innovations/new models of pricing - RIA
- HORIZON-HLTH-IND-2021-07-03: Promoting a trusted mHealth label in Europe: uptake of Technical specifications for “Quality and Reliability of Health and Wellness Apps”- CSA

### Call - A competitive health-related industry (2022)

- HORIZON-HLTH-IND-2022-13-01: Enhancing Cybersecurity of connected Medical Devices - RIA
- HORIZON-HLTH-IND-2022-13-02: Scaling up multi-party computation, data anonymisation techniques and synthetic data generation - RIA
- HORIZON-HLTH-IND-2022-13-03: Development procurement and responsible management of new antimicrobials - *update: CSA, transferred to 2021*
- HORIZON-HLTH-IND-2022-13-04: Setting up a European Smart Health Innovation Hub - CSA
- HORIZON-HLTH-IND-2022-13-05: Setting up a European Electronic Health Record Exchange Format Ecosystem - CSA

# European Partnerships, Mission and other opportunities

Sirpa Nuotio, Academy of Finland

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# European Partnerships

- New generation of objective-driven and more ambitious partnerships in support of agreed EU policy objectives
- EU Commission and private and/or public partners jointly develop and implement a research and innovation program
- Significant investment; up to 50% of the budget of Pillar II
- 49 Partnership candidates identified
- The [draft proposals](#) are available on the commission website and also info on [ERA-LEARN](#) website

# Health Cluster Candidate Partnerships

Partnership	Type	WP year	Start year
EU-Africa Global Health Partnership	Institutional art 187		2021
Innovative Health Initiative (IHI)	Institutional art 187		2021
Assessment risk of chemicals (PARC)	Co-funded	2021	2022
Health and Care Systems Transformation	Co-funded	2022	2023
Fostering ERA for Health	Co-funded	??	??
Personalised Medicine	Co-funded	2023	2023
Rare Diseases	Co-funded	2023	2024
One Health AMR	Co-funded	2023-2024	2024-2025

To be discussed: Pandemic Preparedness and Societal Resilience

# Innovative Health Initiative (IHI)

European public-private partnership in precompetitive R&I between the EU and health industries:

- Pharmaceutical companies (EFPIA)
- Medical imaging, radiotherapy, health ICT and electro-medical companies (COCIR)
- Medical technology companies (MedTechEurope)
- Biotechnology companies (EuropaBio)
- Vaccine companies (Vaccines Europe)

## General objectives:

- Contribute to the creation of an EU-wide health R&I ecosystem that facilitates translation of scientific knowledge into innovations
- Foster the development of safe, effective, people-centred and cost-effective innovations that respond to strategic unmet public health needs
- Drive cross-sectoral health innovation for a globally competitive European health industry

More info: [draft proposal](#); Helena Viita, Business Finland

Candidate European Partnership

# EU-Africa Global Health

Partnership between the EU and European and African States to contribute to reduce the burden of infectious diseases in sub-Saharan Africa and to increase the control of re-emerging infectious diseases.

- European Commission (representing the EU)
- EDCTP Association (representing European and African States)
- Other partners on *ad hoc basis*: private funders, other third countries and industry

## General objectives

- Promote the development and uptake of new or improved health technologies in sub-Saharan Africa
- Strengthen the research and innovation capacities for preparedness and response to control infectious diseases in sub-Saharan Africa and globally

More info: [draft proposal](#); Sirpa Nuotio, Academy of Finland

# Assessment of Risk of Chemicals (PARC)

Consolidate and strengthen the EU's research and innovation capacity for chemical risk assessment to protect human health and the environment and contribute to a non-toxic environment and a circular economy

- Creation of a **sustainable European Research and Innovation Network** for Chemical Risk Assessment to define priorities and ensure that the results are taken into account
- The implementation of a **European Research and Innovation Programme** to increase efficiency and effectiveness of current and future testing and assessment methods/strategies and to improve regulatory tools to ensure a high level of human health and environmental protection
- The creation or consolidation of **Research and Innovation Capacities and Platforms** in Europe to support next generation risk assessment

More info: [draft proposal](#);

Hanna Korhonen, STM



# Health and Care Systems Transformation

The opportunity:

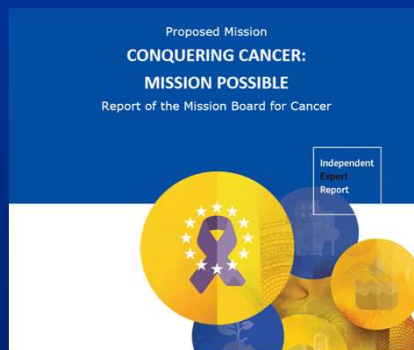
- to pool a critical mass of European/national/regional scientific resources
- to develop and test organisational, service and policy innovations.
- The context-specific knowledge and evidence will inform health policies and facilitate uptake of innovations, as well as their scaling-up and transfer to other countries and regions.

**General objective:** to ensure the transition towards more sustainable, resilient, innovative and high quality people-centred health and care systems

More info: [draft proposal](#); Marko Uutela, Academy of Finland  
Vera Mikkilä, Academy of Finland

# Mission on Cancer

CONQUERING CANCER: MISSION POSSIBLE  
[Report of the Mission Board for Cancer](#)



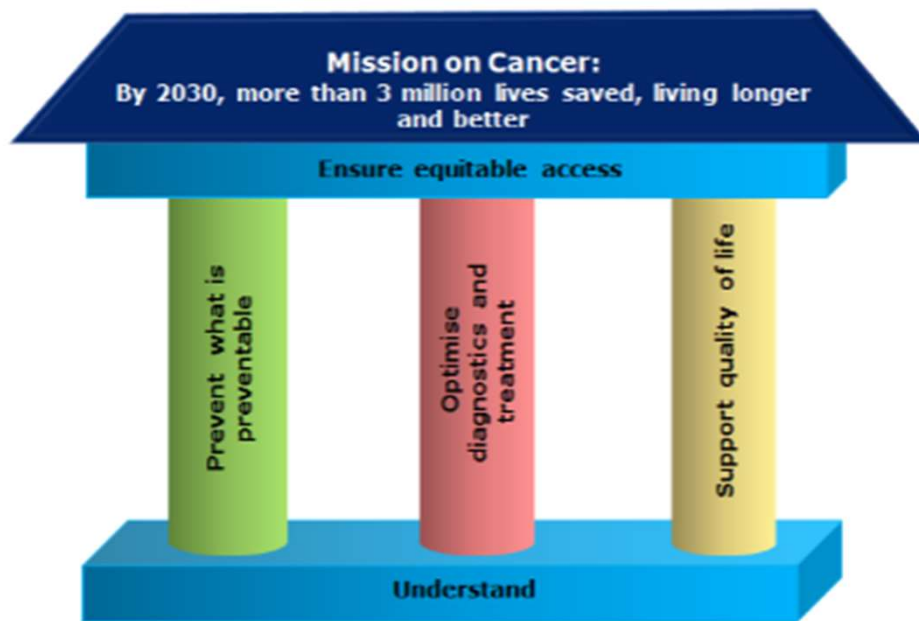
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# Mission on Cancer - Implementation



- **To go beyond research and innovation:** cancer is a societal challenge that requires coordinated efforts for effective action, not achievable via traditional research methods only (e.g. complementarity between the Mission and the Europe's Beating Cancer Plan).
- **'Holistic' policy approach:** an enabling environment is crucial, requiring targeted policies and revised/adapted regulatory frameworks.
- **Co-implementation:** citizens – including patients, survivors and carers, stakeholders, Member States, the Mission Board, the Commission and the European Parliament.
- **Financing:** multiple channels via Horizon Europe, other MFF instruments, EIB, and other funding streams.

# Mission on Cancer



- Preparatory phase: next 6 to 12 months
- 5 million EUR for each mission through separate Horizon Europe work programme 2021
- Mission National Hubs to be established

Remember also opportunities  
in other Clusters and Pillars!

**HORISONTTI EUROOPPA**  
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# Examples of Cross-cluster issues

## **Cluster 2 Culture, creativity and inclusive societies**

Health inequalities, other inequalities affecting health; End-users' engagement; Economic models, Cost-effectiveness, sustainability, accessibility of healthcare; Adaptation of public health systems to climate change, migration, demographic change

## **Cluster 3 Civil security for society**

Security of health care infrastructures, incl digital health infrastructures; Health systems preparedness and response to natural disasters and emergencies, epidemic outbreaks bioterrorism

## **Cluster 4 Digital, Industry and Space**

Cybersecurity; digitalised health and care; Health technologies, medical devices; smart homes; decision support systems

## **Cluster 5 Climate, Energy and Mobility**

Urban health; Transport and mobility related risks on health

## **Cluster 6 Food, Bioeconomy, Natural Resources, Agriculture and Environment**

Nutrition for health (incl. Human microbiome, mal- and over-nutrition, safe food); Personalised diets, food habits; Human biomonitoring; Healthy ecosystems and human habitats; AMR; health impact of climate change; Concepts / technologies for smart and healthy homes

# Pillar I: EXCELLENT SCIENCE: reinforcing and extending the excellence of the Union's science base

## European Research Council (ERC)

- Supports excellence in frontier research through a bottom-up, individual-based, pan-European competition
  - Independent Scientific Council
  - Excellence as the only criterion,
  - Support for the individual scientist – no networks!
  - Global peer-review
  - Bottom-up, all fields of science

### ERC contact in Finland

**Annika Raitala**, Academy of Finland

## Marie-Sklodowska-Curie Actions (MSCA)

- Equipping researchers with new knowledge and skills through mobility and training
  - International mobility
  - Bottom up, open to all domains of R&I
  - Open to the whole world
  - Supervision, mentoring, career guidance and career development
  - Participation of both academic and non-academic (private) sector organisations

### MSCA contact in Finland

**Satu Huuha-Cissokho**, Academy of Finland

## Research Infrastructures

- Integrated and inter-connected world-class research infrastructures
  - Developing, consolidating and optimising European Research Infrastructures
  - Enabling an operational European Open Science Cloud (EOSC) ecosystem
  - For frontier research and for challenge-driven research (e.g. health research, and green and digital transformation)

### Research Infrastructure contact in Finland

**Merja Särkioja**, Academy of Finland

# Pillar III: European Innovation Council, EIC

Support to the full innovation cycle from **research and development** to **rapid scale** up of innovative technologies and companies (mainly start-ups and SMEs) at international level.

- **Pathfinder** (ex-FET): early-stage research of breakthrough technologies by a multidisciplinary consortium
- **Transition**: develop market readiness of most potential research findings – open only to Pathfinder or ERC PoC projects
- **Accelerator** (ex SME Instrument): finalize the technology, commercialisation and scale-up by single innovative SMEs

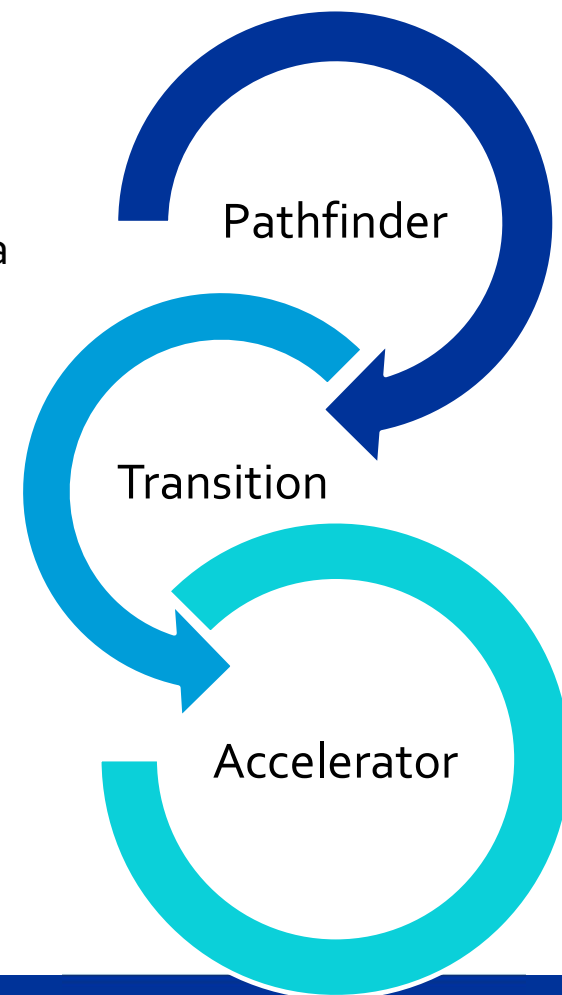
Funding mainly through **bottom-up schemes** – *Open Calls*

All instruments also contribute to **thematic priorities**: Health & Biotech, Digital, Energy, Climate & Environment :– *Challenge Calls*,

## EIC contacts in Finland

Elina Holmberg, Business Finland

Hannele Lahtinen, Academy of Finland





# Pillar IV: Widening participation and strengthening the European Research Area

A horizontal programme supporting

- 1) excellence and development of critical mass in the low R&I performing Member states (= widening countries), i.a. through collaboration with more R&I intensive MSs
- 2) mobility to widening countries (Inclusion Fellowships, ERA Chairs)
- 3) development of institutional policies and practices in ERA, related e.g. to open science, gender equality, citizen science, research integrity, science communication

**Widening/ERA contact in Finland**

Vera Mikkilä, Academy of Finland

# Up-coming Horizon Europe events in Finland

<https://www.businessfinland.fi/suomalaisille-asiakkaille/palvelut/rahoitus/horisontti-2020/lyhyesti>  
-> tapahtumat

- 14.1. Call information on HEU Cluster 5
- 14.1. Call information on HEU Cluster 2
- 19.1. Call information on HEU Clusteri 4
- 19.1. Euroopan innovaatio- ja teknologiainstituutti (EIT)
- 21.1. Call information on HEU Cluster 3
- 25.1. EOSC in Finland and in the European context
- 5.2. Horisontti Eurooppa: T&i-kumppanuudet

## Commission Info-Days in March (?) 2021



Thank you!

[www.horisonttieurooppa.fi](http://www.horisonttieurooppa.fi)

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