

# Horizon Europe\Cluster Health

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*24 giugno 2021 – 14:00 – 15:00*

**CAMPUS BIO-MEDICO UNIVERSITY OF ROME**  
Via Álvaro del Portillo, 21 - 00128 Rome - Italy  
[www.unicampus.it](http://www.unicampus.it)



# **Comitato di Programma Horizon Europe** **Cluster 1 Health**

## **Rappresentante Nazionale**

- **Eugenio Guglielmelli**, Università Campus Bio-Medico di Roma, e.guglielmelli@unicampus.it

## **Membri Esperti**

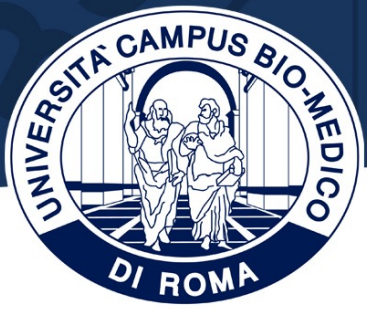
- **Paola Testori Coggi**, Cluster ALISEI, paola.testori@hotmail.com
- **Sabrina Montante**, Istituto Superiore di Sanità, sabrina.montante@iss.it
- **Maria Grazia Pizza**, GlaxoSmithKline Italia, mariagrazia.x.pizza@gsk.com
- **Stefano Vella**, Università Cattolica del Sacro Cuore, stefano.vella@unicatt.it



## ***Team Cluster 1 – Health @ APRE***

- ↗ Caterina Buonocore (coordinatore) – National Contact Point
- ↗ Marta Calderaro
- ↗ Irene Creta
- ↗ Mathilde De Bonis
- ↗ Bruno Mourenza

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# L'evoluzione della Medicina

1.0

**Symptom-based**  
*Intuition medicine*

2.0

**Interaction-based**  
*Measure medicine*

3.0

**Pattern-based**  
*Evidence medicine*

4.0

**Algorithm-based**  
*4P medicine*



The NEW ENGLAND  
JOURNAL of MEDICINE

HOME ARTICLES & MULTIMEDIA ISSUES SPECIALTIES & TOPICS FOR AUTHORS CME

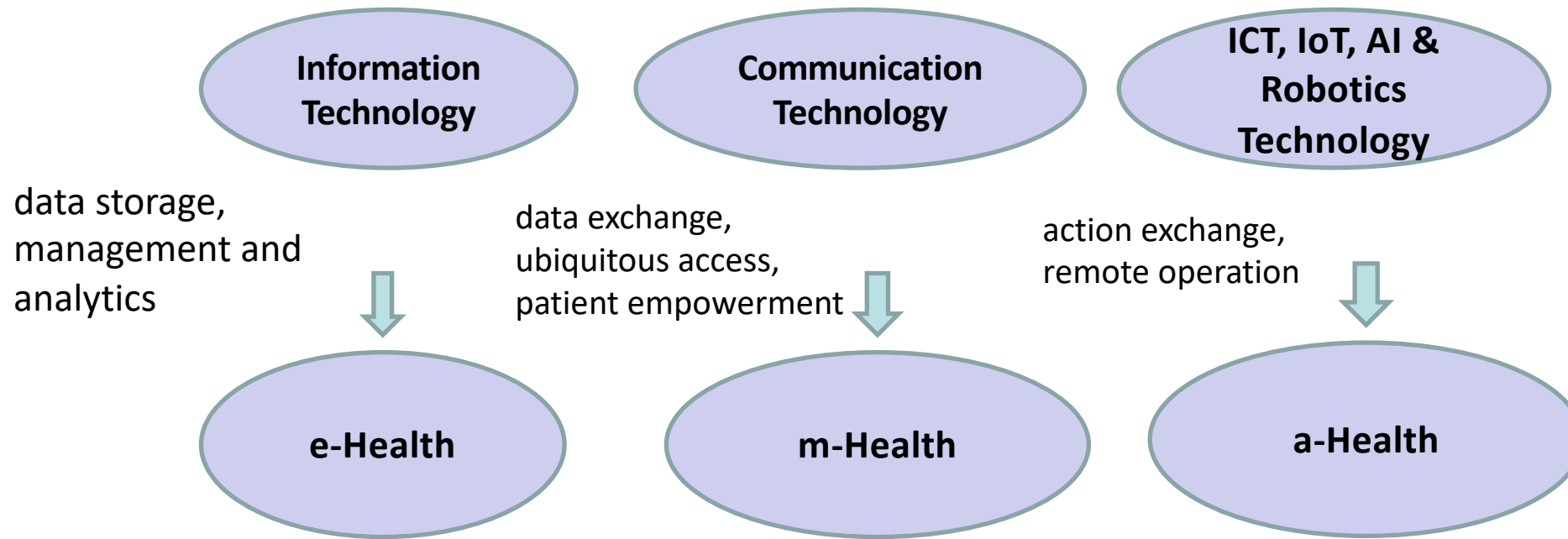


Perspective

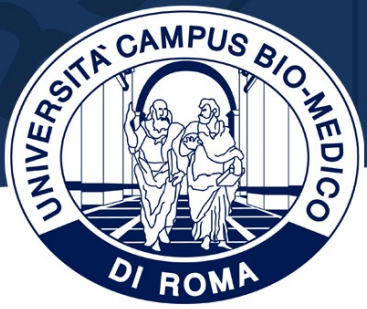
Lost in Thought — The Limits of the Human Mind and the Future of Medicine

Ziad Obermeyer, M.D., and Thomas H. Lee, M.D.

N Engl J Med 2017; 377:1209-1211 | September 28, 2017 | DOI: 10.1056/NEJMp1705348



*From electronic/digital-Health to mobile-Health....and to..... **automated-Health***

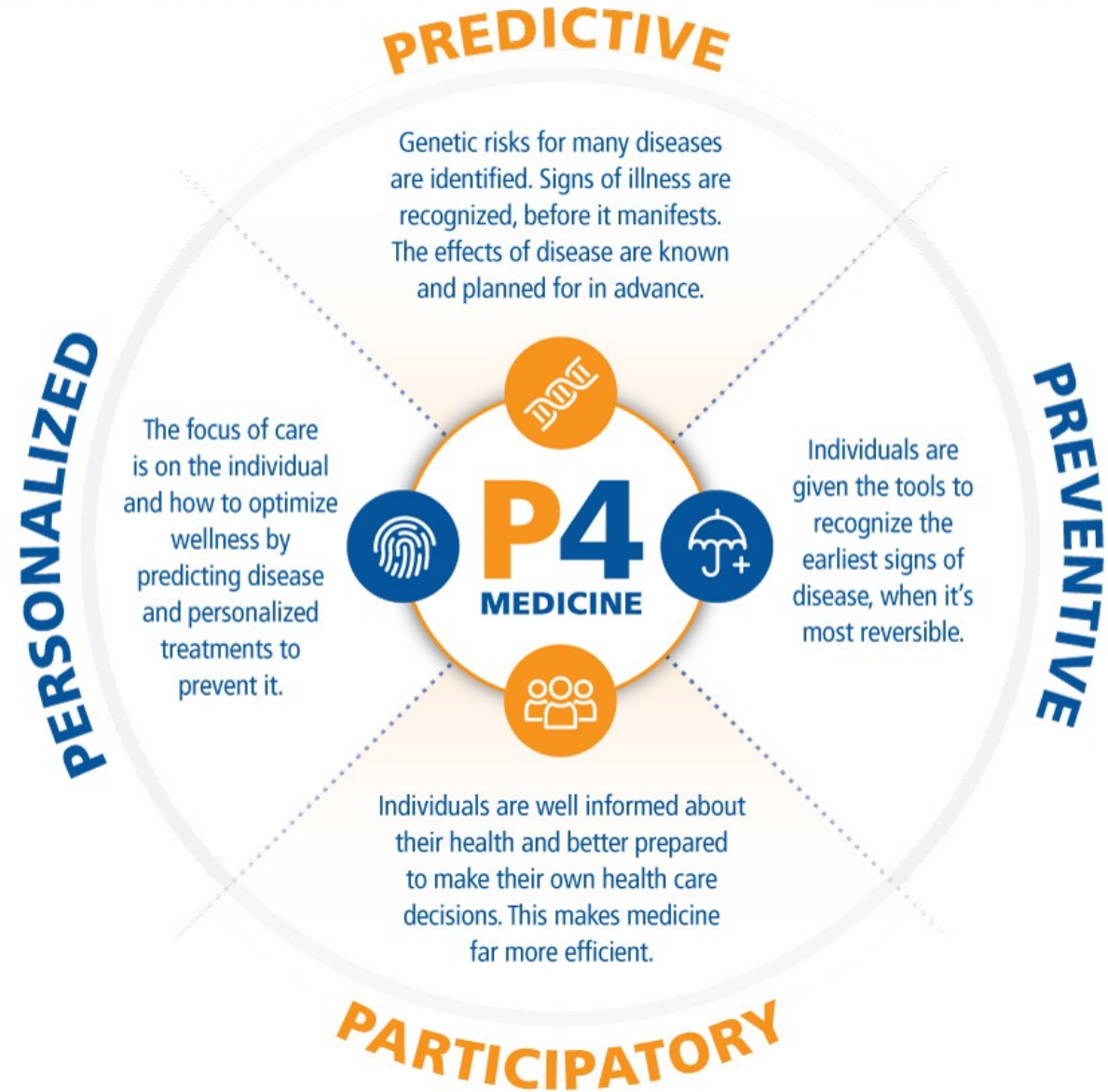


## L'evoluzione verso la Medicina delle 4P&4.0

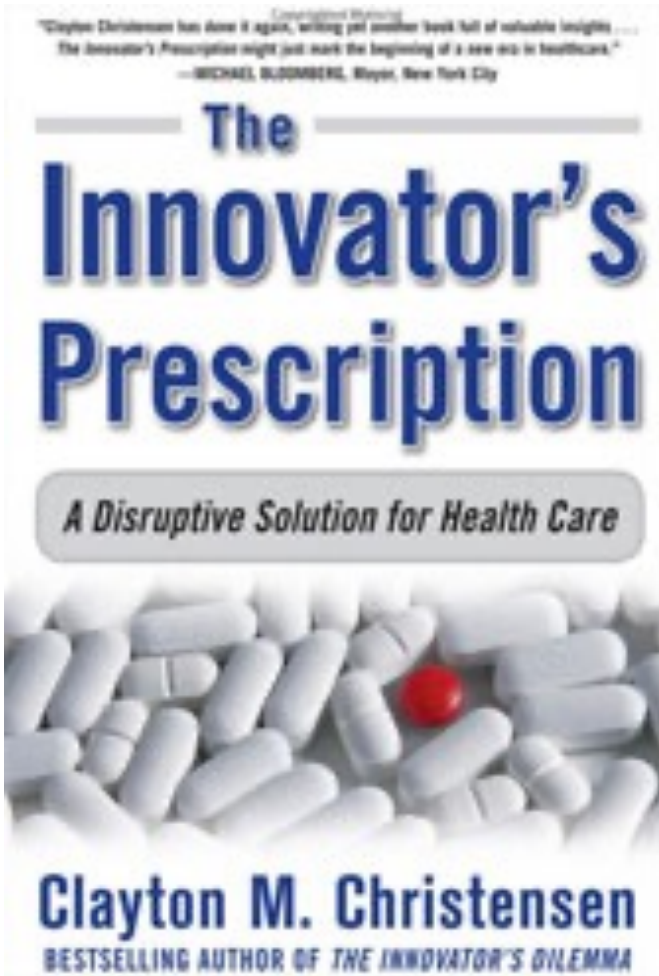
- Dall'analisi statistica\probabilistica dei dati di Evidenza clinica



- ad una migliore elaborazione di grandi quantità di dati eterogenei (Big Data) mediante strumenti informatici avanzati (intelligenza artificiale) per una Medicina 4P&4.0, basata su procedure cliniche sempre più rigorosamente strutturate.



# L'evoluzione verso la Medicina delle 4P&4.0



Imaging & molecular diagnostics



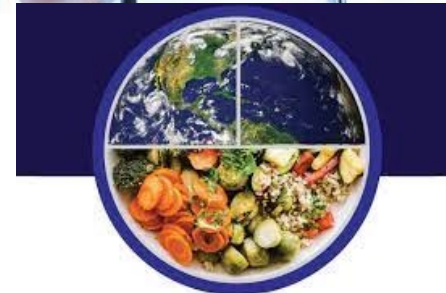
Evidence-based medicine

General Hospitals → Decentralization



# Main Goal

***To identify a call and conceive a project in response to the call for solving a defined problem and support its feasibility with a viable roadmap***





# Key elements of a project plan

## ***Make the objectives S.M.A.R.T.***

**Specific:** Specify the target group and factors that need to be changed

**Measurable:** Formulate objectives in a measurable format

**Appropriate:** Make sure objectives are achievable and acceptable for the target group

**Realistic:** Ensure that you can realistically achieve the objectives given the project's resources: time, money, staff?

**Time bound:** Connect objectives to a timeline



## ***Indicators***

- Used to measure the performance of the project
- Should be directly linked to the specific objectives
- They are needed to measure level to which the objective is reached

**Cluster «Health»**

**WP 2021-2022\***

**[cluster1@apre.it](mailto:cluster1@apre.it)**

**Caterina Buonocore**

*24 giugno, 2021 - Università degli Studi di Bari*



*\* La presentazione recupera ed elabora materiale della EC sul programma Horizon Europe. [Link](#)*



# Più fonti di finanziamento per le politiche sanitarie

Altri programmi dell'UE forniranno ulteriori investimenti nel settore della salute, complementari a Horizon Europe.





## Guida alla documentazione: dove trovare cosa

- 🔖 **Legal texts** (Framework Programme & Specific Programme): objectives, structure, budget, R&I activities, rules...
- 🔖 **Strategic Plan 2021-24**: strategic orientations for R&I, missions (maybe!), partnerships...
- 🔖 **Work Programmes 2021-22**: calls, topic...
- 🔖 **Proposal templates**: RIA, IA, CSA, ERC...
- 🔖 **Model Grant Agreement**

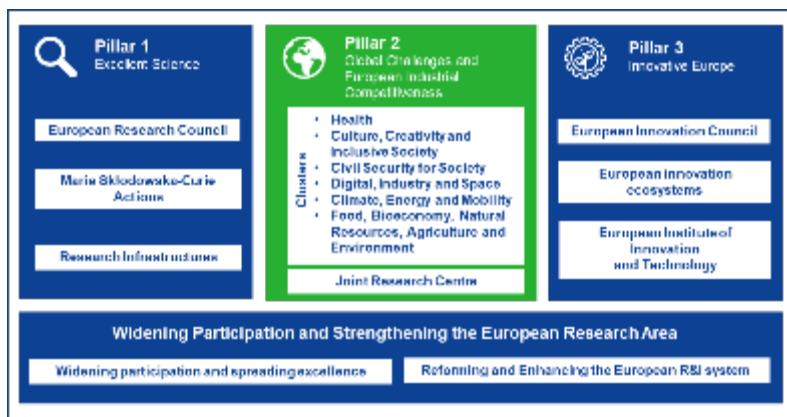
Reference documents (European Commission): [Funding and Tenders portal](#)

Tutti i documenti disponibili su Horizon Europe (APRE): <https://horizoneurope.apre.it/documenti-di-riferimento/>



# SPECIFIC OBJECTIVES

## Pillar 2- Global Challenges and European Industrial Competitiveness



to generate knowledge, strengthen the **impact of research and innovation** in developing, supporting and implementing Union policies and support the access to and uptake of innovative solutions in European industry, notably in SMEs, and society to address global challenges, including climate change and the Sustainable Development Goals;

- **Coerenza** tra le diverse parti del programma
- **Approccio sistemico basato sull'impatto** (interdisciplinare e intersettoriale)



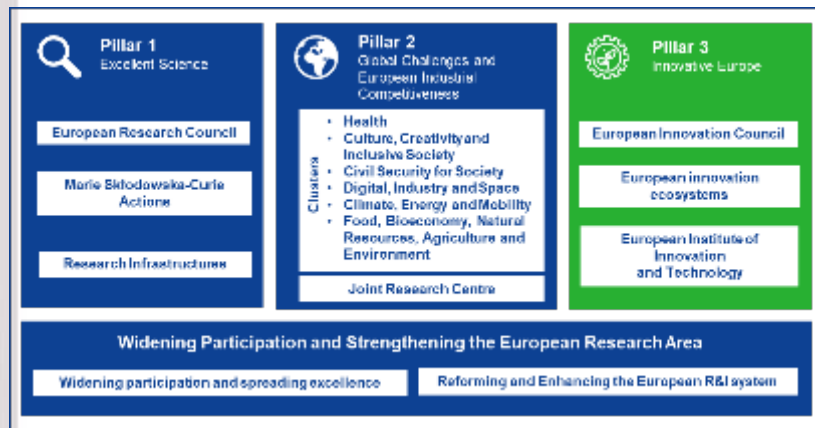
# SPECIFIC OBJECTIVES | Pillar 1



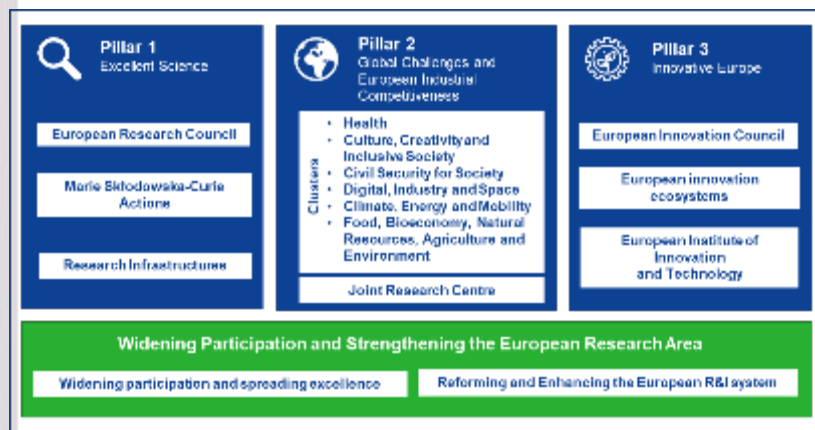
to develop, promote and advance scientific excellence, support the creation and diffusion of **high-quality new fundamental and applied knowledge, skills, technologies and solutions, training and mobility of researchers**, attract talent at all levels and contribute to full engagement of Union's talent pool in actions supported under this Programme; **bottom up**.



# SPECIFIC OBJECTIVES | Pillar 3 & WIDERA



to foster **all forms of innovation**, facilitate technological development, demonstration and knowledge and technology transfer, strengthen **deployment and exploitation of innovative solutions; bottom up**



to optimise the Programme's delivery for **strengthening and increasing the impact and attractiveness of the European Research Area**, to foster the excellence-based participations from all Member States, including low R&I performing Member States, in Horizon Europe and to facilitate collaborative links in European research and innovation. **Top down**

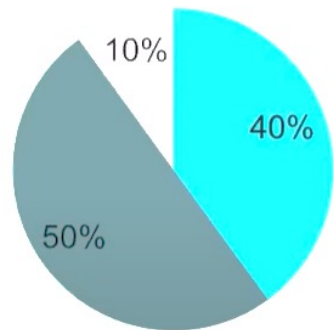
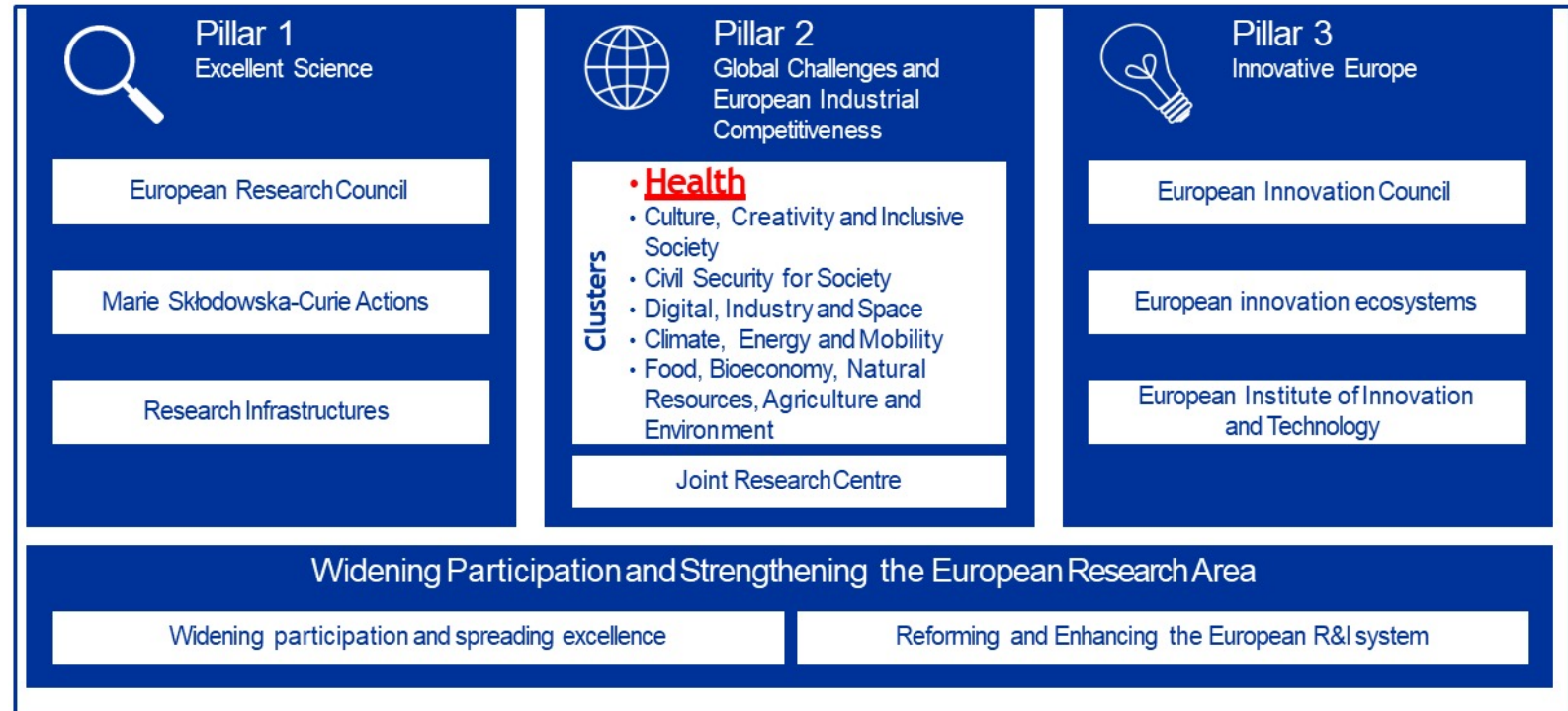


# HORIZON EUROPE (2021 – 2027)

~ € 95,5 billion

Pillar 2: € 53,52 bn

**Health: € 8,25 bn**



- Project based research
- Partnerships
- Missions





# SPECIFIC OBJECTIVES

## Cluster Health

CLUSTER 1. Health

*Improving and protecting the health of citizens at all ages, by developing innovative solutions **to prevent, diagnose, monitor, treat and cure** diseases; mitigating health risks, protecting populations and promoting good health; making **public health systems** more cost-effective, equitable and sustainable; and supporting and enabling patients' participation and **self-management**.*

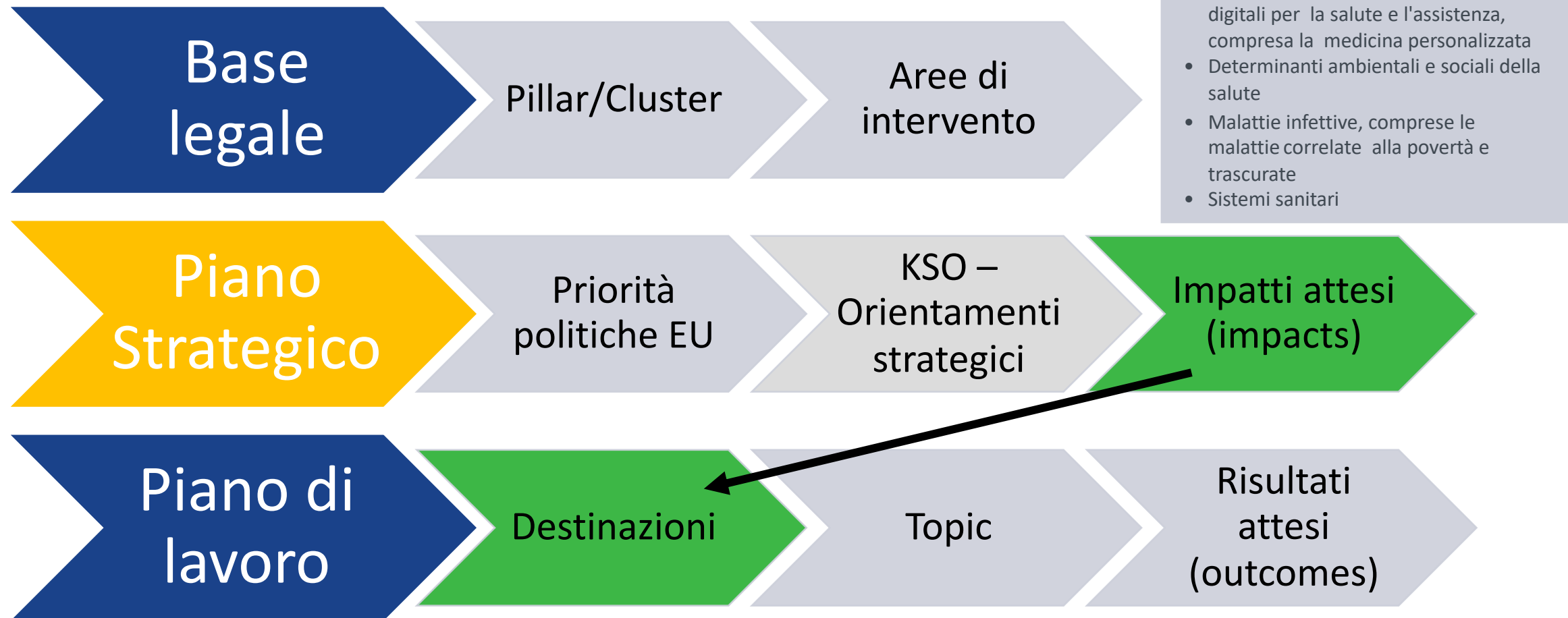
### Areas of intervention



- ↗ Health throughout the life course
- ↗ Non-communicable and rare diseases
- ↗ Tools, technologies and digital solutions for health and care, including personalised medicine
- ↗ Environmental and social health determinants
- ↗ Infectious diseases, including poverty-related and neglected disease
- ↗ Health care systems



# IL NUOVO GLOSSARIO NEL QUADRO LOGICO





# WORK PROGRAMME “HEALTH” 2021-2022

## Relazione con il Piano Strategico 2021-2024

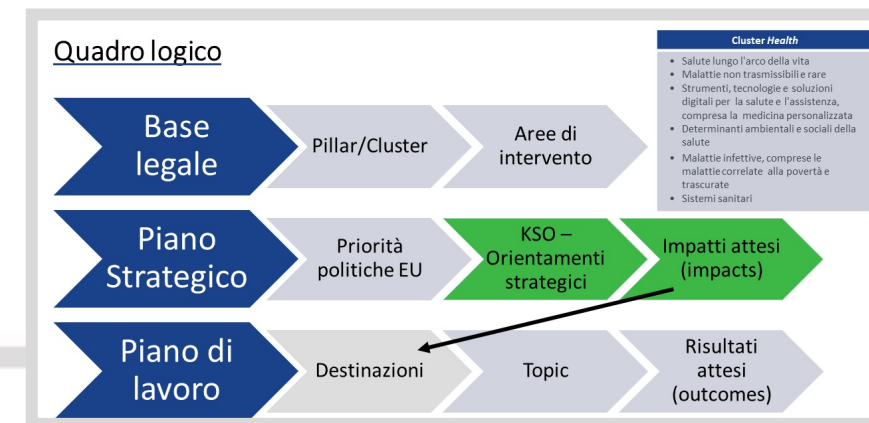
### ■ 2 Key Strategic Orientations

(Piano Strategico):

- Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains
- Creating a more resilient, inclusive and democratic European society

### ■ 4 impact areas (Piano Strategico):

- Good health and high-quality accessible healthcare
- A resilient EU prepared for emerging threats
- High quality digital services for all
- Competitive and secure data-economy

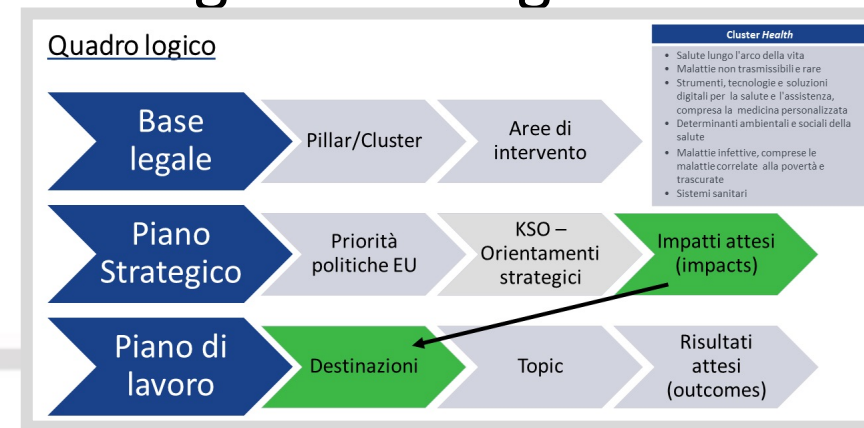




# WORK PROGRAMME “HEALTH” 2021-2022

## 6 Destinations

1. Staying Healthy in a rapid changing society
2. Living and working in a health-promoting environment
3. Tackling diseases and reducing disease burden
4. Ensuring access to innovative, sustainable and high-quality health care
5. Unlocking the full potential of new tools, technologies and digital solutions for a healthy society
6. Maintaining an innovative, sustainable and globally competitive health industry





# CLUSTER HEALTH | DESTINATION 1

## Staying healthy in a rapidly changing society

- Affronta le principali sfide sociali come l'**obesità**, l'**invecchiamento** e il cambiamento demografico, la **salute mentale**, l'empowerment nell'ambito della **digital health literacy**, la **prevenzione personalizzata** e l'Intelligenza Artificiale applicata alle **malattie croniche**.
  - Progetti di ricerca e innovazione che forniscano nuove evidenze, metodologie e strumenti per comprendere la transizione dalla salute alla malattia.



Health throughout the Life Course



Environmental and Social Health Determinants

### TOPICS 2021:

- ✓ Towards a molecular and neurobiological understanding of mental health and mental illness for the benefit of citizens and patients - **RIA**
- ✓ Healthy Citizens 2.0 - Supporting digital empowerment and health literacy of citizens - **CSA**
- ✓ A roadmap for personalised prevention - **CSA**
- ✓ Mobilising a network of National Contact Points (NCPs) for the Health Cluster - **CSA**

**Scadenza : 21 Settembre 2021 – SINGLE STAGE**



# CLUSTER HEALTH | DESTINATION 1

## Staying healthy in a rapidly changing society

- Affronta le principali sfide sociali come l'**obesità**, l'**invecchiamento** e il cambiamento demografico, la **salute mentale**, l'empowerment nell'ambito della **digital health literacy**, la **prevenzione personalizzata** e l'Intelligenza Artificiale applicata alle **malattie croniche**.
  - Progetti di ricerca e innovazione che forniscano nuove evidenze, metodologie e strumenti per comprendere la transizione dalla salute alla malattia.



Health throughout the Life Course



Environmental and Social Health Determinants

### TOPICS 2022:

- ✓ Boosting mental health in Europe in times of change – RIA
- ✓ Trustworthy artificial intelligence (AI) tools to predict the risk of chronic non-communicable diseases and/or their progression – RIA
- ✓ Prevention of obesity throughout the life course – RIA

**Scadenza: 1 Febbraio/6 Settembre 2022 – TWO-STAGE**

- ✓ Personalised blueprint of chronic inflammation in health-to-disease transition – RIA

**Scadenza: 21 Aprile 2022 – SINGLE STAGE**



# DESTINATION 1 | HORIZON-HLTH-2021-STAYHLTH-01-02

- Towards a molecular and neurobiological understanding of mental health and mental illness for the benefit of citizens and patients

- ✓ Deeper understanding of (epi)genetics, environmental risks and resilience factors
- ✓ Biomarkers discovery
- ✓ Comprehensive clinical trial data on the effectiveness of different (non-) pharmacological prevention strategies
- ✓ Prediction of treatment response and risk of relapse
- ✓ Multidisciplinary research, incl. medical sciences, psychological sciences & social sciences and humanities

Type of Action	Research & Innovation Action (RIA)
Expected EU contribution per project	About EUR 10.00 million
Budget	EUR 60.00 million
Deadline	21 Settembre 2021 – SINGLE STAGE



EXPECTED OUTCOMES & SCOPE



# Work Programme Health 2021-2022

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health\\_horizon-2021-2022\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health_horizon-2021-2022_en.pdf)

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

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





## CLUSTER HEALTH | DESTINATION 2

### Living and working in a health-promoting environment\*

- Comprendere gli **impatti** dell'inquinamento atmosferico indoor/outdoor, delle sostanze chimiche, dei campi elettromagnetici, dell'urbanizzazione, del cambiamento climatico e di altri cambiamenti ambientali, delle disuguaglianze socioeconomiche e del cambiamento degli ambienti di lavoro.
- Rafforzare la capacità di **adattamento** e la **resilienza** delle popolazioni e dei **sistemi sanitari** rispetto ai rischi per la salute legati ai cambiamenti climatici e ambientali.

\* Forte connessione con [European Green Deal](#)



Health throughout the Life Course



Environmental and Social Health Determinants

#### TOPICS 2021:

- ✓ Exposure to electromagnetic fields (EMF) and health - **RIA**
- ✓ Indoor air quality and health – **RIA**
- ✓ Health impacts of climate change costs and benefits of action and inaction – **RIA**
- ✓ European partnership for the assessment of risks from chemicals (PARC) - **Programme Co-fund Action**

**Scadenza : 21 Settembre 2021 – SINGLE STAGE**



## CLUSTER HEALTH | DESTINATION 2

### Living and working in a health-promoting environment\*

- Comprendere gli **impatti** dell'inquinamento atmosferico indoor/outdoor, delle sostanze chimiche, dei campi elettromagnetici, dell'urbanizzazione, del cambiamento climatico e di altri cambiamenti ambientali, delle disuguaglianze socioeconomiche e del cambiamento degli ambienti di lavoro.
- Rafforzare la capacità di **adattamento** e la **resilienza** delle popolazioni e dei **sistemi sanitari** rispetto ai rischi per la salute legati ai cambiamenti climatici e ambientali.

\* Forte connessione con [European Green Deal](#)



Health throughout the Life Course



Environmental and Social Health Determinants

### TOPICS 2022:

- ✓ Methods for assessing health-related costs of environmental stressors – RIA

Scadenza : 21 Aprile 2022 – SINGLE STAGE



# DESTINATION 2 | HORIZON-HLTH-2021-ENVHLTH-02-02

## ■ Indoor air quality and health

- ✓ FAIR data on air pollutants determinants, sources and risk factors
- ✓ User-friendly solutions to monitor indoor air quality
- ✓ Proposals for revised indoor air quality standards
- ✓ Identification of sources and routes of exposure and dispersion of chemical and biological indoor air pollution
- ✓ Development of scalable technologies to improve indoor air quality and reduce disease burdens

Type of Action	Research & Innovation Action (RIA)
Expected EU contribution per project	About EUR 8 million
Budget	EUR 40.00 million
Deadline	21 Settembre 2021 – SINGLE STAGE

5 PROGETTI

EXPECTED OUTCOMES & SCOPE



# **Work Programme Health 2021-2022**

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health\\_horizon-2021-2022\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health_horizon-2021-2022_en.pdf)

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

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



## CLUSTER HEALTH | DESTINATION 3



Environmental and Social Health Determinants



Non-communicable and Rare Diseases



Infectious diseases

### ▣ Tackling diseases and reducing disease burden\*

- Si concentra sulle principali sfide sociali come il **cancro**, le **malattie non trasmissibili**, le **malattie rare**, la **resistenza antimicrobica**, la **vaccinazione** e la preparazione alle epidemie.
  - Sviluppo di nuove misure di prevenzione, terapie e tecnologie sanitarie innovative.

\* *Complementare a [Europe's Beating Cancer Plan](#) e [EU4Health Programme](#)*

#### TOPICS 2021:

- ✓ Improved supportive, palliative, survivorship and end-of-life care of cancer patients - RIA
- ✓ Building a European innovation platform for the repurposing of medicinal products – RIA
- ✓ Innovative approaches to enhance poverty-related diseases research in sub-Saharan Africa - RIA
- ✓ Clinical validation of AI solutions for treatment and care – RIA
- ✓ Personalised medicine and infectious diseases: understanding the individual host response to viruses (e.g. SARS-CoV-2) – RIA
- ✓ A roadmap towards the creation of the European partnership on One Health antimicrobial resistance (OH AMR) – CSA
- ✓ **Building a European partnership for pandemic preparedness - CSA**

**Scadenza : 21 Settembre 2021 – SINGLE STAGE**



# CLUSTER HEALTH | DESTINATION 3



Environmental and Social Health Determinants



Non-communicable and Rare Diseases



Infectious diseases

## 🏠 Tackling diseases and reducing disease burden\*

- Si concentra sulle principali sfide sociali come il cancro, le malattie non trasmissibili, le malattie rare, la resistenza antimicrobica, la vaccinazione e la preparazione alle epidemie.
  - Sviluppo di nuove misure di prevenzione, terapie e tecnologie sanitarie innovative.

\* *Complementare a [Europe's Beating Cancer Plan](#) e [EU4Health Programme](#)*

### TOPICS 2022:

- ✓ Pre-clinical development of the next generation of immunotherapies for diseases or disorders with unmet medical needs - RIA
- ✓ Vaccines 2.0 - developing the next generation of vaccines – RIA

**Scadenza: 1 Febbraio/6 Settembre 2022 – TWO-STAGE**

- ✓ Pandemic preparedness - RIA
- ✓ Non-communicable diseases risk reduction in adolescence and youth (Global Alliance for Chronic Diseases - GACD) - RIA
- ✓ Support for the functioning of the Global Research Collaboration for Infectious Disease Preparedness (GloPID-R) – CSA
- ✓ European partnership fostering a European Research Area (ERA) for health research – Placeholder – Programme Co-fund Action

**Scadenza: 21 Aprile 2022 – SINGLE STAGE**



## DESTINATION 3 | HORIZON-HLTH-2021-DISEASE-04-04

- Clinical validation of artificial intelligence solutions for treatment and care

- ✓ Evidence-based clinical decision support for affordable treatment, including home-based care
- ✓ Clinical development, testing and validation of AI-driven treatment and care options
- ✓ Measure the (cost-)effectiveness of AI-driven development of therapeutic concepts
- ✓ Healthcare professionals better predict patients' response to personalised treatment
- ✓ Focus on traceability, transparency and auditability of AI algorithms in health

Type of Action	Research & Innovation Action (RIA)
Expected EU contribution per project	About EUR 6 million
Budget	EUR 60.00 million
Deadline	21 Settembre 2021 – SINGLE STAGE



EXPECTED OUTCOMES & SCOPE



# **Work Programme Health 2021-2022**

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health-horizon-2021-2022\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health-horizon-2021-2022_en.pdf)

## ***Destination 3. Tackling diseases and reducing disease burden***

Call	Budgets (EUR million)		Deadline(s)
	2021	2022	
HORIZON-HLTH-2021-DISEASE-04	263.00		21 Sep 2021
HORIZON-HLTH-2022-DISEASE-06-two-stage		160.00	01 Feb 2022 (First Stage) 06 Sep 2022 (Second Stage)
HORIZON-HLTH-2022-DISEASE-07		37.00	21 Apr 2022
HORIZON-HLTH-2022-DISEASE-03		30.00	21 Apr 2022
Overall indicative budget	263.00	227.00	





## CLUSTER HEALTH | DESTINATION 4

### Ensuring access to innovative, sustainable and high-quality care\*

- Sviluppo e adozione di soluzioni sicure, convenienti e incentrate sulle persone, con particolare attenzione alla salute della popolazione, alla **resilienza dei sistemi sanitari** e alle **politiche sanitarie basate sull'evidenza scientifica**.
  - R&I per supportare i sistemi sanitari nella loro trasformazione per garantire un **accesso equo** a servizi sanitari **sostenibili** di alta **qualità** per tutti i cittadini.

\* Forte sinergia con [EU4Health Programme](#)



Health throughout the Life Course



Tools, Technologies and Digital Solutions for Health and Care



Health Care Systems

#### TOPICS 2021:

- ✓ Enhancing quality of care and patient safety - RIA
- ✓ Data-driven decision-support tools for better health care delivery and policy-making with a focus on cancer – RIA
- ✓ Health care innovation procurement network - CSA

**Scadenza : 21 Settembre 2021 – SINGLE STAGE**



# CLUSTER HEALTH | DESTINATION 4

## Ensuring access to innovative, sustainable and high-quality care\*

- Sviluppo e adozione di soluzioni sicure, convenienti e incentrate sulle persone, con particolare attenzione alla salute della popolazione, alla **resilienza dei sistemi sanitari** e alle **politiche sanitarie basate sull'evidenza scientifica**.
  - R&I per supportare i sistemi sanitari nella loro trasformazione per garantire un **accesso equo** a servizi sanitari **sostenibili** di alta **qualità** per tutti i cittadini.

\* Forte sinergia con [EU4Health Programme](#)



Health throughout the Life Course



Tools, Technologies and Digital Solutions for Health and Care



Health Care Systems

### TOPICS 2022:

- ✓ Pre-commercial research and innovation procurement (PCP) for building the resilience of health care systems in the context of recovery - **PCP**
- ✓ Public procurement of innovative solutions (PPI) for building the resilience of health care systems in the context of recovery – **PPI**
- ✓ Better financing models for health systems – **RIA**
- ✓ European partnership on transforming health and care systems – **Programme Co-fund Action**

**Scadenza : 21 Aprile 2022– SINGLE STAGE**



## DESTINATION 4 | HORIZON-HLTH-2021-CARE-05-01

- Enhancing quality of care and patient safety

- ✓ Develop and implement coherent quality improvement and patient safety strategies
- ✓ Harmonisation and standardisation of health care processes
- ✓ Fill knowledge and practice gaps in quality of care and patient safety
- ✓ Innovative approaches for personalised treatment plans
- ✓ Empower and involve patients and caregivers

Type of Action	Research & Innovation Action (RIA)
Expected EU contribution per project	About EUR 5 million
Budget	EUR 25.00 million
Deadline	21 Settembre 2021 – SINGLE STAGE



EXPECTED OUTCOMES & SCOPE



# Work Programme Health 2021-2022

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health\\_horizon-2021-2022\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health_horizon-2021-2022_en.pdf)

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

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



## CLUSTER HEALTH | DESTINATION 5



Tools, Technologies  
and Digital Solutions  
for Health and Care

### Unlocking the full potential of new tools, technologies and digital solutions for a healthy society\*

- Promuovere lo sviluppo di strumenti, tecnologie e soluzioni digitali per trattamenti, farmaci, dispositivi medici, tenendo in considerazione **sicurezza, efficacia, adeguatezza, accessibilità** e valore aggiunto.
  - I **dati sanitari** e gli strumenti analitici innovativi vengono utilizzati in modo **sicuro ed etico**.

\* [!] [European Health Data Space](#) per promuovere lo scambio di dati sanitari e la ricerca transfrontaliera.

#### TOPICS 2021:

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

**Scadenza : 21 Settembre 2021 – SINGLE STAGE**



## CLUSTER HEALTH | DESTINATION 5



Tools, Technologies  
and Digital Solutions  
for Health and Care

### Unlocking the full potential of new tools, technologies and digital solutions for a healthy society\*

- Promuovere lo sviluppo di strumenti, tecnologie e soluzioni digitali per trattamenti, farmaci, dispositivi medici, tenendo in considerazione **sicurezza, efficacia, adeguatezza, accessibilità** e valore aggiunto.
  - I **dati sanitari** e gli strumenti analitici innovativi vengono utilizzati in modo **sicuro ed etico**.

\* [!] [European Health Data Space](#) per promuovere lo scambio di dati sanitari e la ricerca transfrontaliera.

#### TOPICS 2022:

- ✓ Optimising effectiveness in patients of existing prescription drugs for major diseases (except cancer) with the use of biomarkers - **RIA**
- ✓ 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**

**Scadenza : 21 Aprile 2022– SINGLE STAGE**

- ✓ Computational models for new patient stratification strategies - **RIA**

**Scadenza: 1 Febbraio/6 Settembre 2022 – TWO-STAGE**



## DESTINATION 5 | HORIZON-HLTH-2021-TOOL-06-02

- Next generation advanced therapies to treat highly prevalent and high burden diseases with unmet medical needs

Type of Action	Research & Innovation Action (RIA)
Expected EU contribution per project	About EUR 6 million
Budget	EUR 60.00 million
Deadline	21 Settembre 2021 – SINGLE STAGE

10 PROGETTI

- ✓ Test new advanced therapies based on pluripotent stem cells, gene editing or RNA through clinical trials meeting the appropriate regulatory requirements
- ✓ Method development for production and differentiation of pluripotent stem cells
- ✓ Development/validation of
  - ✓ Biological assays & methods that demonstrate efficacy, delivery, specificity and safety of genome editing products in targeted cells and tissues
  - ✓ novel RNA-based therapies for non-communicable diseases

EXPECTED OUTCOMES & SCOPE



# Work Programme Health 2021-2022

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health\\_horizon-2021-2022\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health_horizon-2021-2022_en.pdf)

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

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





## CLUSTER HEALTH | DESTINATION 6



Health Care Systems



Tools, Technologies  
and Digital Solutions  
for Health and Care

- ✚ Maintaining an innovative, sustainable and globally competitive health industry\*
  - Adozione di tecnologie e innovazioni rivoluzionarie in grado di integrare gli attori della catena del valore.
    - L'industria sanitaria dell'UE è più competitiva, sostenibile e strategicamente autonoma.

### TOPICS 2021:

- ✓ Green pharmaceuticals - RIA
- ✓ Development, procurement and responsible management of new antimicrobials – CSA
- ✓ Promoting a trusted mHealth label in Europe: uptake of technical specifications for quality and reliability of health and wellness apps - CSA

**Scadenza : 21 Settembre 2021 – SINGLE STAGE**



## CLUSTER HEALTH | DESTINATION 6

- ✚ Maintaining an innovative, sustainable and globally competitive health industry\*
  - Adozione di tecnologie e innovazioni rivoluzionarie in grado di integrare gli attori della catena del valore.
    - L'industria sanitaria dell'UE è più competitiva, sostenibile e strategicamente autonoma.



Health Care Systems



Tools, Technologies and Digital Solutions for Health and Care

### TOPICS 2022:

- ✓ Enhancing cybersecurity of connected medical devices - RIA
- ✓ Scaling up multi-party computation, data anonymisation techniques, and synthetic data generation – RIA
- ✓ New pricing and payment models for cost-effective and affordable health innovations – RIA
- ✓ Setting up a European Smart Health Innovation Hub – CSA
- ✓ Setting up a European Electronic Health Record Exchange Format (EEHRxF) Ecosystem - CSA

**Scadenza : 21 Aprile 2022 – SINGLE STAGE**



## DESTINATION 6 | HORIZON-HLTH-2021-IND-07-03

- Promoting a trusted mHealth label in Europe: uptake of technical specifications for quality and reliability of health and wellness apps

- ✓ European mHealth label allows more rapid integration of trusted solutions
- ✓ Propose activities that bring together app developers, health and care system representatives, medical societies, patient organisations, certification bodies etc.
- ✓ Set up a structured dialogue on the uptake of the Technical Specifications
- ✓ Co-create, develop and implement an action plan on the promotion of the mHealth label in the health and care system
- ✓ Inclusive dissemination strategy

Type of Action	Research & Innovation Action (RIA)
Expected EU contribution per project	About EUR 2 million
Budget	EUR 2 million
Deadline	21 Settembre 2021 – SINGLE STAGE



EXPECTED OUTCOMES & SCOPE



# Work Programme Health 2021-2022

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health-horizon-2021-2022\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-4-health-horizon-2021-2022_en.pdf)

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

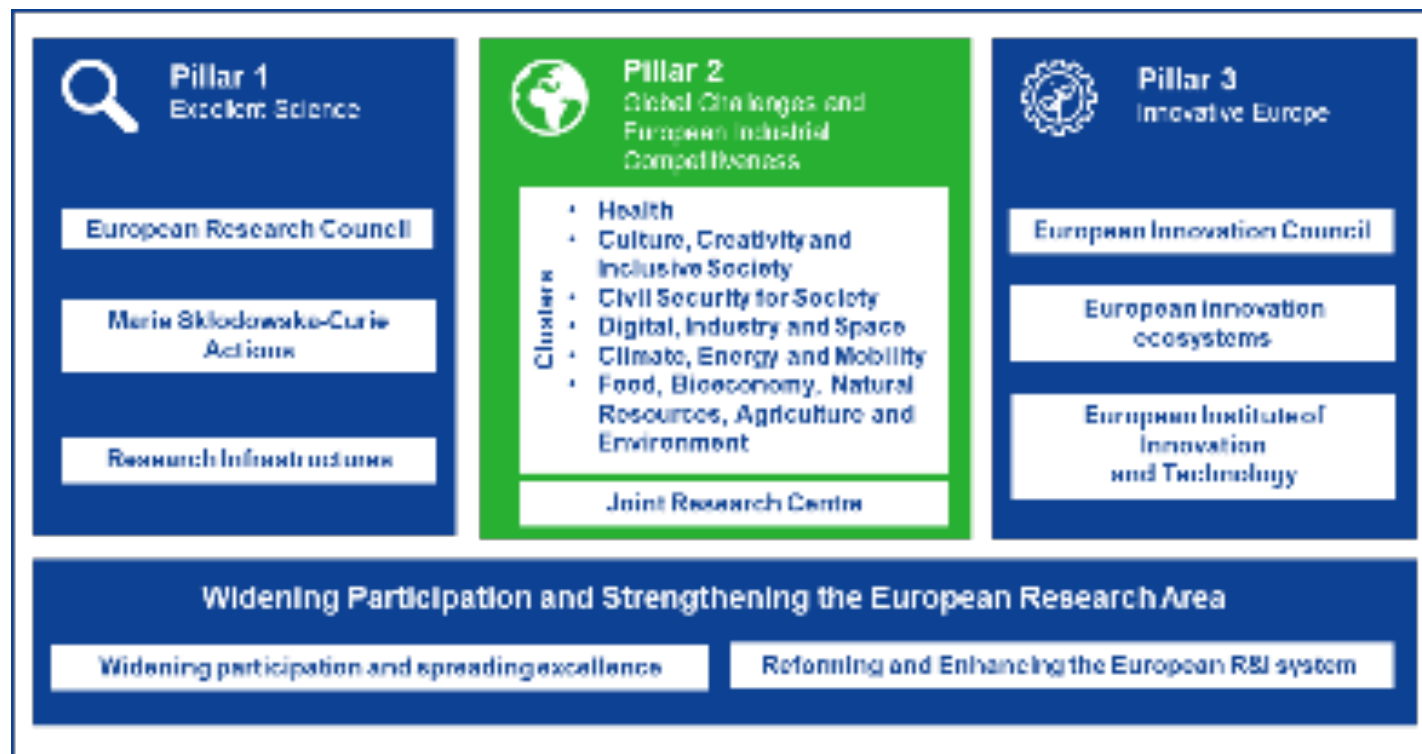
Call	Budgets (EUR million)		Deadline(s)
	2021	2022	
HORIZON-HLTH-2021-IND-07	44.00		21 Sep 2021
HORIZON-HLTH-2022-IND-13		69.00	21 Apr 2022
Overall indicative budget	44.00	69.00	



## TIPS & TRICKS



- ✓ Centra lo *Scope* del topic
- ✓ Attenzione ai criteri di eleggibilità
- ✓ **Excellence**: novità e chiarezza degli obiettivi
- ✓ **Impact**:
  - ✓ Affrontare tutti gli impatti previsti/richiesti in modo credibile e quantificabile
  - ✓ Affrontare gli impatti di tipo economico e sociale con termini e numeri appropriati
  - ✓ Prevedere misure per disseminare e sfruttare i risultati
- ✓ **Implementation**: la proposta è chiara, logica, di facile lettura, credibile e convincente
- ✓ **Consortio**: il partenariato copre tutte le competenze richieste, ha l'esperienza e l'expertise necessarie.



## OLTRE IL CLUSTER 1 «Health»

Opportunità per il settore *Salute* nell'ambito degli altri Cluster del Pillar 2



## CLUSTER 2. Culture, creativity and inclusive society

- 🏠 Democrazia e governance
  - obiettivo di creare sistemi di governance democratica sostenibili in un mondo post-pandemico
- 🏠 Trasformazioni sociali ed economiche
  - La dimensione sanitaria gioca inevitabilmente un ruolo importante nei bandi che affrontano le condizioni dei migranti e dei rifugiati in Europa
- 🏠 Futuro sostenibile per l'Europa
  - Inclusività del mercato del lavoro in termini di disabilità, salute, età e invecchiamento



*Strengthening European **democratic values**, including rule of law and fundamental rights, safeguarding our **cultural heritage**, and promoting **socio-economic transformations** that contribute to inclusion and growth,*



## CLUSTER 4. Digital, Industry and Space

- 🔗 Tecnologie produttive
- 🔗 Materiali avanzati
- 🔗 Internet di prossima generazione
- 🔗 Industrie circolari
- 🔗 Spazio, compresa l'osservazione della terra
- 🔗 Tecnologie abilitanti emergenti
- 🔗 Tecnologie digitali fondamentali, comprese le tecnologie quantistiche
- 🔗 Intelligenza artificiale e robotica
- 🔗 Calcolo avanzato e Big Data
- 🔗 Industria a basse emissioni di CO2 e pulita
- 🔗 Tecnologie abilitanti emergenti
- **DESTINATION 2** – INCREASED AUTONOMY IN KEY STRATEGIC VALUE CHAINS FOR RESILIENT INDUSTRY > **Biomaterials database for Health Applications**
- **DESTINATION 4** – DIGITAL AND EMERGING TECHNOLOGIES FOR COMPETITIVENESS AND FIT FOR THE GREEN DEAL > **Quantum sensing technologies for market uptake**



*Reinforcing capacities and securing Europe's sovereignty in **key enabling technologies for digitization and production**, and in **space technology**, to build a competitive, digital, **low-carbon and circular industry**; ensure a **sustainable supply of raw materials**; and provide the basis for advances and innovation in all global societal challenges.*





## CLUSTER 6. Food, bioeconomy, natural resources, agriculture and environment

- 🏠 Osservazione ambientale
- 🏠 Agricoltura, silvicoltura e zone rurali
- 🏠 Sistemi circolari
- 🏠 Sistemi alimentari
- 🏠 Biodiversità e risorse naturali
- 🏠 Mari, oceani e acque interne
- 🏠 Sistemi di innovazione biologici nell'UE
- 🏠 Bioeconomia



*Protecting, restoring, sustainably managing and using **natural and biological resources from land and sea** to address **food and nutrition security** and the transition to a low carbon, resource efficient **circular economy**.*



## CLUSTER 6 – Destination 2 – Fair, healthy and environmentally-friendly food systems from primary production to consumption

- From farming to food systems
- Expected topics for 2021:
  - Vaccines and diagnostics for priority animal diseases
  - Assessment of alternative proteins and dietary shift notably in nutritional and allergy terms
  - Microbes for healthy and sustainable food and diets
  - **[RIA] Transition to healthy and sustainable dietary behaviour** →
  - One health approach for Food Nutrition Security and Sustainable Agriculture (FNSSA)

- ✓ Improved understanding of the factors influencing dietary behaviour of different target groups > Means to foster behavioural changes
- ✓ A scientific basis to support policy makers and Member States for dietary advice and communication strategies
- ✓ Ultimate objective to empower citizens to make informed food choices
- ✓ Link with topics on prevention of obesity

EXPECTED OUTCOMES & SCOPE



## CLUSTER 6 – Destination 6 – Resilient, inclusive, healthy and green rural, coastal and urban communities

- Focus here on the communities rather than on the value chain
- Drive community-led innovations with through social and behavioural sciences dimension
- Inclusion and governance key
- Expected topics for 2021:
  - [IA] Integrated urban food system policies – how cities and towns can transform food systems for co-benefits

- ✓ Addressing the issue of poorly planned urban food environments that drive citizens, and children in particular, towards unhealthy packaged food that is high in calories, sugar, salt and saturated fat, which contributes to obesity and diet-related illnesses
- ✓ Driving people towards health food choices and transforming urban food systems to be healthier
- ✓ Governance and multi-actors engagement including from higher education institutions and research centres

EXPECTED OUTCOMES & SCOPE



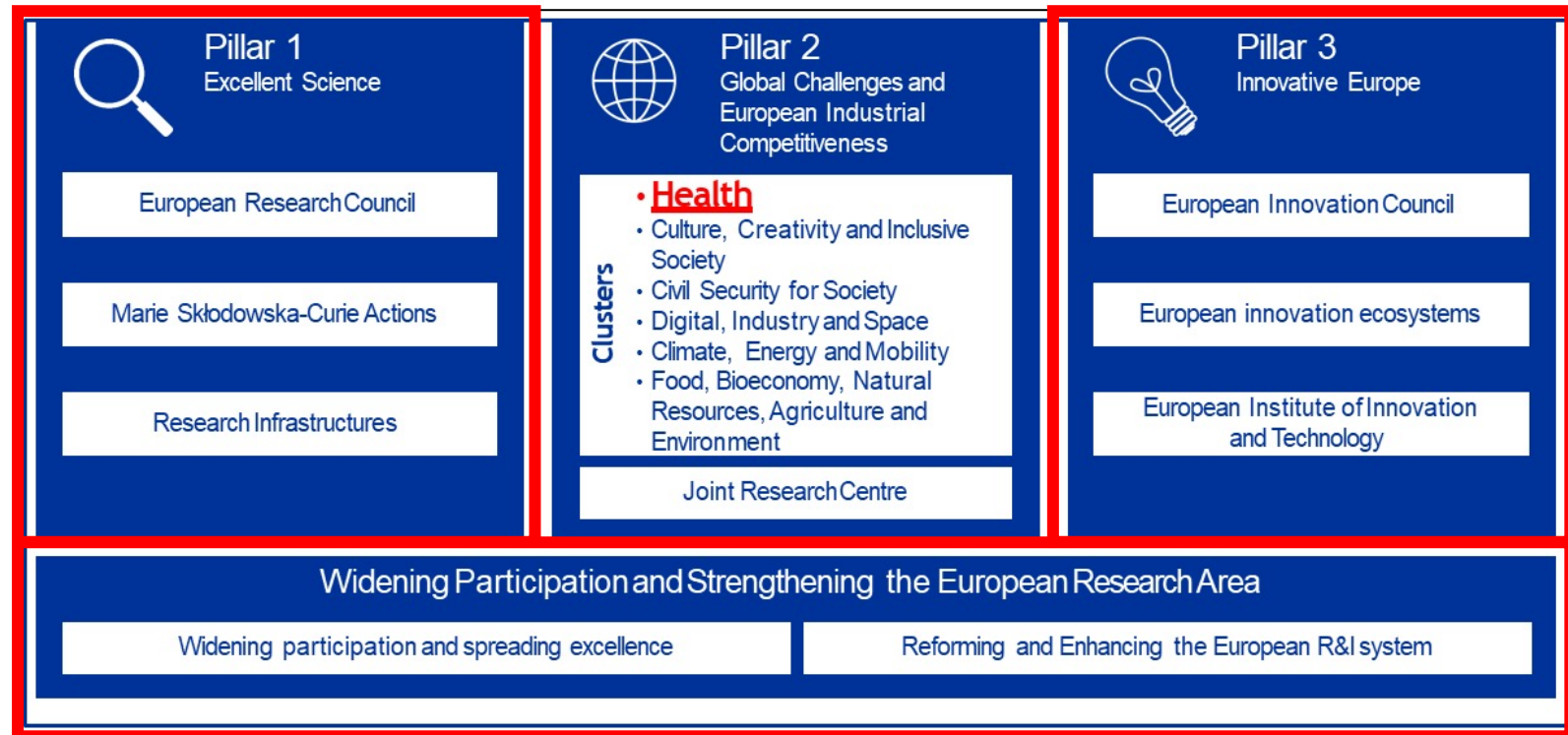
## PILLAR 2 | TIMELINE ALTRI CLUSTER

- 🏷 Pubblicazione WP: giugno 2021
- 🏷 Scadenze call: settembre ottobre 2021
- 🏷 Call 2021: single stage
- 🏷 Call 2022: single + two-stage



## OLTRE IL PILLAR 2

Opportunità per il settore *Salute* nell'ambito degli altri Pillar





## OLTRE IL PILLAR 2 | PILLAR 3

Stimolare innovazioni pionieristiche creatrici di mercato ed ecosistemi favorevoli all'innovazione

### **Consiglio europeo per l'innovazione**

- **Sostegno alle innovazioni dal potenziale pionieristico e creatrici di mercato**

**Proposta della Commissione: 10,5 miliardi di EUR, compresi fino a 500 milioni di EUR per gli ecosistemi**

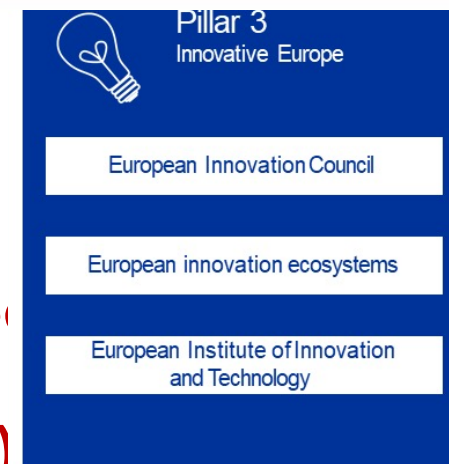
### **Ecosistemi europei per l'innovazione**

- Instaurare un legame con gli operatori dell'innovazione a livello regionale e nazionale

### **Istituto europeo di innovazione tecnologia (EIT)**

- Riunire gli operatori fondamentali (ricerca, istruzione e imprese) attorno a un obiettivo comune per favorire l'innovazione

**Proposta della Commissione: 3 miliardi di EUR**

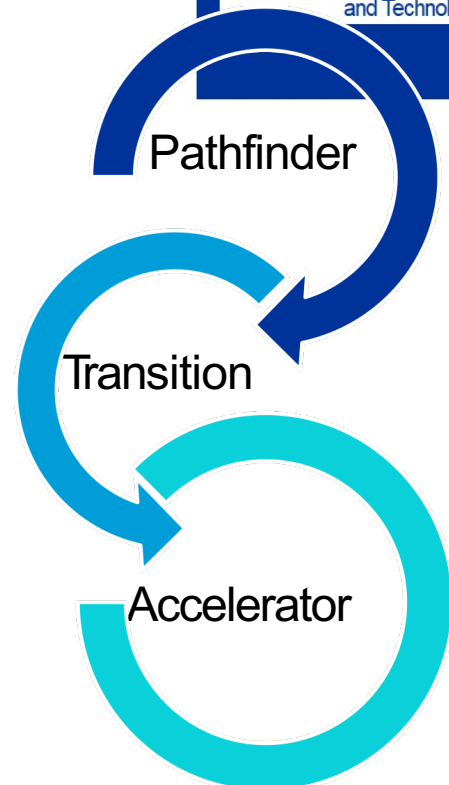




# OLTRE IL PILLAR 2 | PILLAR 3: EIC

Supporto all'intero ciclo di innovazione, dalla **ricerca e sviluppo** allo **scale up** di tecnologie e imprese innovative (principalmente start-up e PMI) a livello internazionale.

- **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*




EIC in APRE:  
[eic@apre.it](mailto:eic@apre.it)

- Prevalentemente **BOTTOM UP Open Calls**
- Tutti gli strumenti contribuiscono anche alle **priorità tematiche: Health & Biotech, Digital, Energy, Climate & Environment: Challenge Calls**



# OPPORTUNITA' PER IL SETTORE SALUTE IN EIC

TRL	PATHFINDER 1 - 4	TRANSITION 4 – 5/6	ACCELERATOR 5/6 - 9
<b>CHI PUÒ PARTECIPARE</b>	> 3 partner in > 3 Stati Membri Single applicant (in alcuni casi)	Single applicant Piccoli consorzi (< 5 partner)  Solo basati su ERC PoC & Pathfinder	Single Start-ups & SMEs (incl. spin-out), Individuals (intending to launch an SME) Small midcaps (equity-only)
<b>COSA FINANZIA</b>	< € 3m <i>Achieve proof of principle &amp; validate scientific basis of breakthrough tech</i>	< 2.5 €m <i>Validate &amp; demonstrate tech in application-relevant environment &amp; develop market readiness</i>	<b>BLENDED FINANCE</b> < 2.5 €m grant for tech devpt. / valid. 0.5 - 15 €m investment component for scaling up / other activities. Grant only/grant first is possible Investment only for small mid-caps or as follow up to grant only
	+ 2 Challenge-based topics: ▪ Tools to measure and stimulate activity in brain tissue ▪ Emerging Technologies in Cell and Gene therapy	+ 1 Challenge-based topic: ▪ Medical Technology and Devices: from Lab to Patient	+ 1 Challenge-based topics: ▪ Strategic Digital and Health Technologies (AI-driven tools for early diagnostics, point-of-care, bioprocessing 4.0, healthcare intelligence services, e-health solutions)
	19 May (open call) 27 October (challenge call)	22 September	2 cut-off dates: 9 June 6 October





## EU MISSIONS

Legate ad uno o più cluster del Pillar 2



## Missioni di R&I

Missioni di R&I

Migliore correlazione tra la ricerca e l'innovazione dell'UE e la società e le esigenze dei cittadini; grande visibilità e impatto

Una missione è un portafoglio di azioni interdisciplinari volte a conseguire entro un periodo prestabilito un **obiettivo audace, stimolante e misurabile**, che abbiano un **impatto** sulla società e sull'elaborazione delle politiche e siano rilevanti per una parte significativa della popolazione europea e un ampio spettro di cittadini europei.

Horizon Europe definisce le caratteristiche della missione e gli elementi di *governance*. Le missioni specifiche saranno programmate nell'ambito del pilastro "Sfide globali e competitività industriale europea" (attingendo ai contributi di altri pilastri)



# EU MISSIONS

Legate ad uno o più cluster del Pillar 2

Adaptation to climate change, including societal transformation

Cluster 5, Cluster 2



Cluster 6

Healthy oceans, seas, coastal and inland waters



Mission areas



Cancer

Cluster 1

Cluster 5

Climate-neutral and smart cities

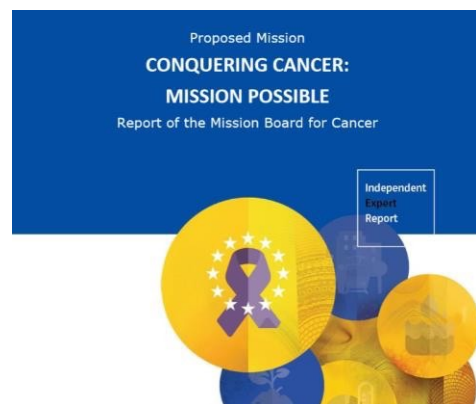


Soil health and food

Cluster 6



# MISSION CANCER | News



## Conquering Cancer: Mission Possible

13 recommendations

Targets by 2030: **more than 3 million lives saved, living longer and better:** achieve a thorough **understanding** of cancer, **prevent** what is preventable, optimise **diagnosis and treatment**, support the **quality of life** of all people exposed to cancer, and ensure **equitable access** to the above across Europe.

📄 Aggiornato la pagina delle Mission sul sito della Commissione:  
[https://ec.europa.eu/info/horizon-europe/missions-horizon-europe\\_en](https://ec.europa.eu/info/horizon-europe/missions-horizon-europe_en)

- Nomine dei **mission managers** e dei vice: [https://ec.europa.eu/info/horizon-europe/missions-horizon-europe\\_en](https://ec.europa.eu/info/horizon-europe/missions-horizon-europe_en)
- Schede per la valutazione dei **piani d'implementazione**, che dovrebbero essere presentati a giugno: [https://ec.europa.eu/info/horizon-europe/missions-horizon-europe/assessment-criteria\\_en](https://ec.europa.eu/info/horizon-europe/missions-horizon-europe/assessment-criteria_en)





# 13 raccomandazioni

Comprensione

Prevenzione

Diagnosi e trattamento

Qualità di vita

Accesso equo

Azioni trasversali

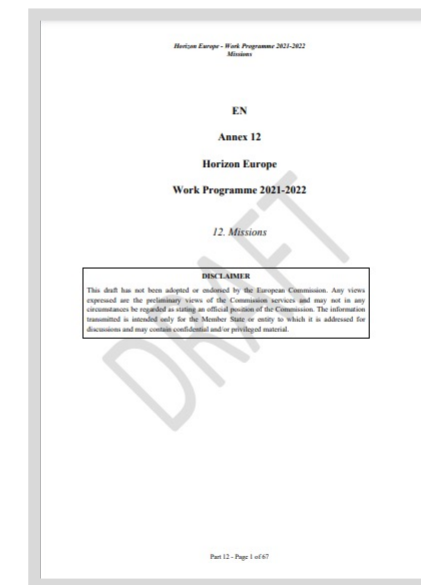
- 1 Varare UNCAN.eu – un'iniziativa europea per comprendere il cancro
- 2 Sviluppare un programma di ricerca a livello dell'UE per individuare i punteggi di rischio (poli)genico
- 3 Sostenere lo sviluppo e l'attuazione di strategie e politiche efficaci per la prevenzione del cancro negli Stati membri e nell'UE
- 4 Ottimizzare i programmi di screening esistenti e sviluppare approcci innovativi per lo screening e la diagnosi precoce
- 5 Promuovere e attuare approcci di medicina personalizzata per tutti i pazienti oncologici in Europa
- 6 Sviluppare un programma di ricerca a livello dell'UE per tecnologie di diagnosi precoce e di trattamento mini invasivo
- 7 Sviluppare un sostegno alle politiche e ai programmi di ricerca a livello dell'UE per migliorare la qualità della vita dei pazienti oncologici e dei sopravvissuti, dei familiari e dei prestatori di assistenza, nonché di tutte le persone che presentano una maggiore predisposizione al cancro
- 8 Creare un centro digitale europeo per i pazienti oncologici in cui questi ultimi e i sopravvissuti possano depositare e condividere i loro dati per un'assistenza personalizzata
- 9 Conseguire l'equità della salute oncologica nell'UE lungo il decorso della malattia
- 10 Istituire una rete completa di infrastrutture oncologiche all'interno degli Stati membri dell'UE e tra essi al fine di aumentare la qualità della ricerca e dell'assistenza
- 11 Tumori infantili e tumori in adolescenti e giovani adulti: curare di più e curare meglio
- 12 Accelerare l'innovazione e l'attuazione di nuove tecnologie e creare laboratori viventi incentrati sull'oncologia per sconfiggere il cancro
- 13 Trasformare la cultura, la comunicazione e lo sviluppo di capacità in ambito oncologico





# MISSION CANCER | News

Call	Budgets (EUR million)	Deadline(s)
	2021	
HORIZON-MISS-2021-UNCAN-01	3.00	09 Sep 2021
Overall indicative budget	3.00	



**Mission: Cancer** .....

**Call - Preparing UNCAN.eu, a European initiative to understand cancer** ..... 17

Conditions for the Call ..... 17

HORIZON-MISS-2021-UNCAN-01-01: Preparing UNCAN.eu, a European initiative to understand cancer ..... 18

- 🚩 *Europe-wide platform building on current researches & innovations*
- 🚩 *Investing in new models and technologies interrogating the interactions of cancer and their host as a first approach*
- 🚩 *Integration with longitudinal patient data, samples and biomarkers for identification and translation to patient benefits.*





# EU PARTNERSHIP | UN NUOVO APPROCCIO

Una nuova generazione di partenariati più ambiziosi a sostegno degli obiettivi politici dell'UE



## Caratteristiche principali

- **Architettura semplificata**
- **Approccio strutturato e trasparente all'intero ciclo di vita del partenariato**
- **Orientamento strategico**

### Co-programmed

Basati su protocolli d'intesa / accordi contrattuali; attuati in modo indipendente dai partner e dalla Commissione via Horizon Europe

### Co-funded

Sulla base di un programma congiunto concordato dai partner; impegno dei partner con contributi finanziari e in natura e contributo finanziario da Horizon Europe

### Institutionalised

Basati su una visione a lungo termine e sulla necessità di un'elevata integrazione; partenariati basati su Art.185 /187 del TFUE e sul regolamento EIT



## EU PARTNERSHIP | A COSA SERVONO

- Strumento usato per delegare una parte dell'implementazione del Programma quadro.
- ✓ Contribuire al raggiungimento delle priorità politiche dell'UE
- ✓ Allineare priorità settoriali al livello Europeo
- ✓ Superare la frammentazione nel panorama della R&I ed evitare la duplicazione degli sforzi
- ✓ Raggiungere una massa critica di investimenti (importante in HE)
- ✓ Creare dei network europei (autosufficienti sul lungo termine)

RAFFORZARE LO  
SPAZIO EUROPEA  
DELLA RICERCA



## EU PARTNERSHIP | SALUTE

### ■ **Institutionalised Partnerships:**

- Innovative Health Initiative (2021) (ex-IMI2)
- European Partnership for EU-Africa Global Health (2021) (ex-EDCTP2)

### ■ **Co-funded Partnerships:**

- European Partnership for the Assessment of Risks from Chemicals (PARC) (2021)
- European Partnership Fostering an ERA for Health research (2022)
- European Partnership on Transforming Health and Care Systems (2022)
- European Partnership for Personalised Medicine (2023)
- European Partnership on Rare Diseases (2024)
- European Partnership for One Health/AMR Antimicrobial Resistance (AMR) (2024/25)

**Draft proposals** of the candidates for European Partnerships in Health:

[https://ec.europa.eu/info/horizon-europe/european-partnerships-horizon-europe/candidates-european-partnerships-health\\_en](https://ec.europa.eu/info/horizon-europe/european-partnerships-horizon-europe/candidates-european-partnerships-health_en)



# Pandemic preparedness partnership

## 3 objectives



Improve EU's preparedness to prevent, predict and respond to epidemics / pandemics



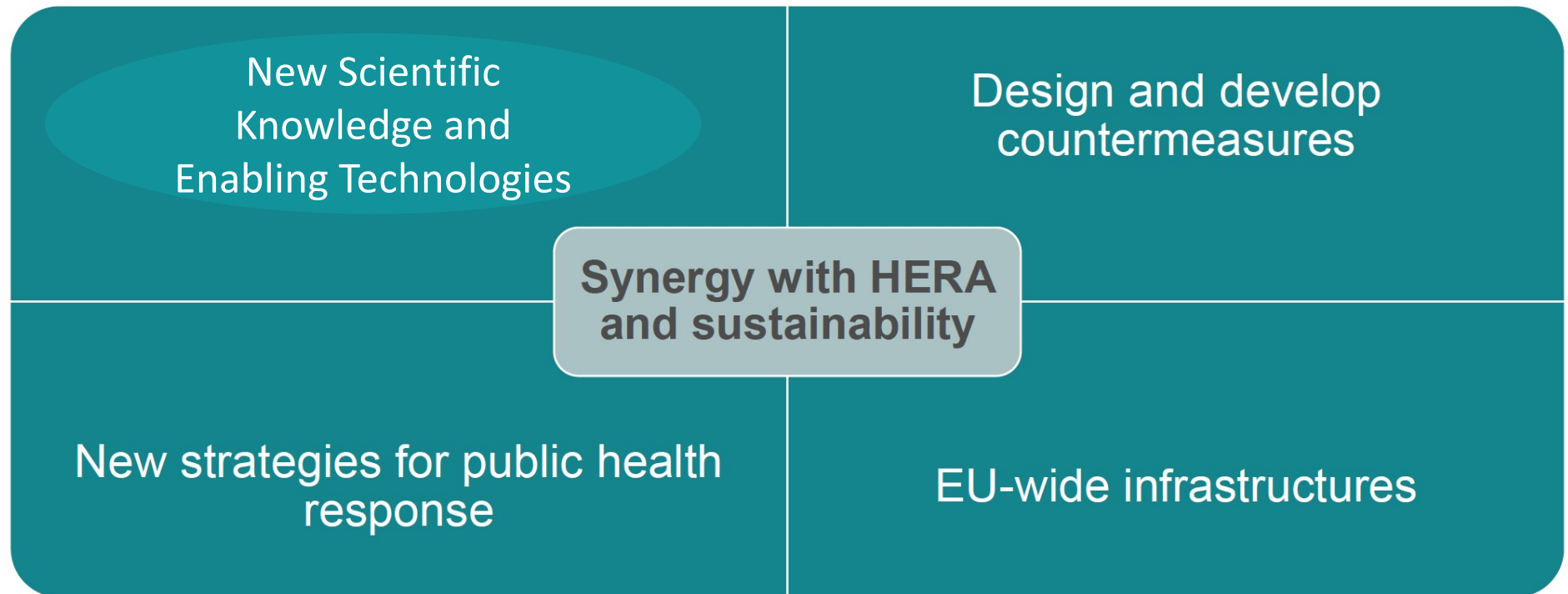
Develop Strategic Research and Innovation Agenda (SRIA) on preparedness



Build a European Research Area (ERA) in pandemic preparedness

# Pandemic preparedness partnership

## 5 areas of activity



2021 2027

HORIZON  
EUROPE



**WWW.HORIZONEUROPE.IT**



Info, aggiornamenti e materiali sul nuovo Programma Quadro

**GIORNATE HORIZON EUROPE**



Eventi sul Programma Quadro e le sue dimensioni

**GUIDA A HORIZON EUROPE**



Passo, passo dentro il nuovo Programma Quadro

**APRE BRIEF**



I factsheet sui temi e gli aspetti salienti di Horizon Europe

**AGENDA HORIZON EUROPE**



I principali appuntamenti nazionali ed europei sul Programma Quadro

Registrati a **APREmailing**

[www.apre.it](http://www.apre.it)

Seguici:   



**www.2021horizoneurope.info**

**#2021horizoneurope**

**#HorizonEU**



**CLUSTER 1 – Health | 9:30**

**Partecipa alla Settimana Horizon Europe "italiana"!  
Compila il modulo e indica le sessioni a cui vuoi partecipare.**



### Cluster 1 - Health

02/07/2021

This info day aims to inform (potential) applicants about topics included in the Cluster 1 'Health' work programme of 2021.

[See the programme >](#)

[REGISTRATI ALLE SESSIONI IN PROGRAMMA](#)



# APRE

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della Ricerca Europea

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