

Horizon Europe Programme

Caterina Buonocore

APRE, coordinatore NCP e sviluppi strategici



*Regione Liguria,
25 Novembre 2021*

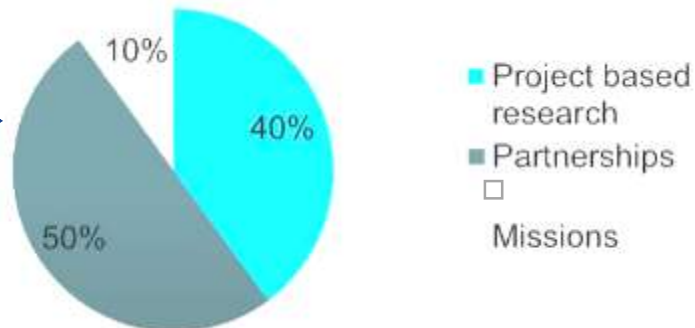
- Utilizzare quanto è stato fatto nella precedente programmazione: le reti regio/naz/euro create, la partecipazione alla EIP AHA, AAL, DIHs, Competence centres, Reference sites, i progetti già finanziati etc.
- Il tema è chiave e (multi-sfaccettato) anche per la nuova programmazione; trattato cmq da vari Programmi di Horizon EU (direttorato EU dedicato alle PERSONE) e fuori da Horizon Europe (vedi EU4health e DEP).

HORIZON EUROPE (2021 – 2027)

€ 95,5 billion

Pillar 2: € 53,52 bn

Health: € 8,25 bn
(15% of all Clusters)



* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

EU PARTNERSHIPS | SALUTE



■ Institutionalized Partnerships:

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

■ Co-funded Partnerships:

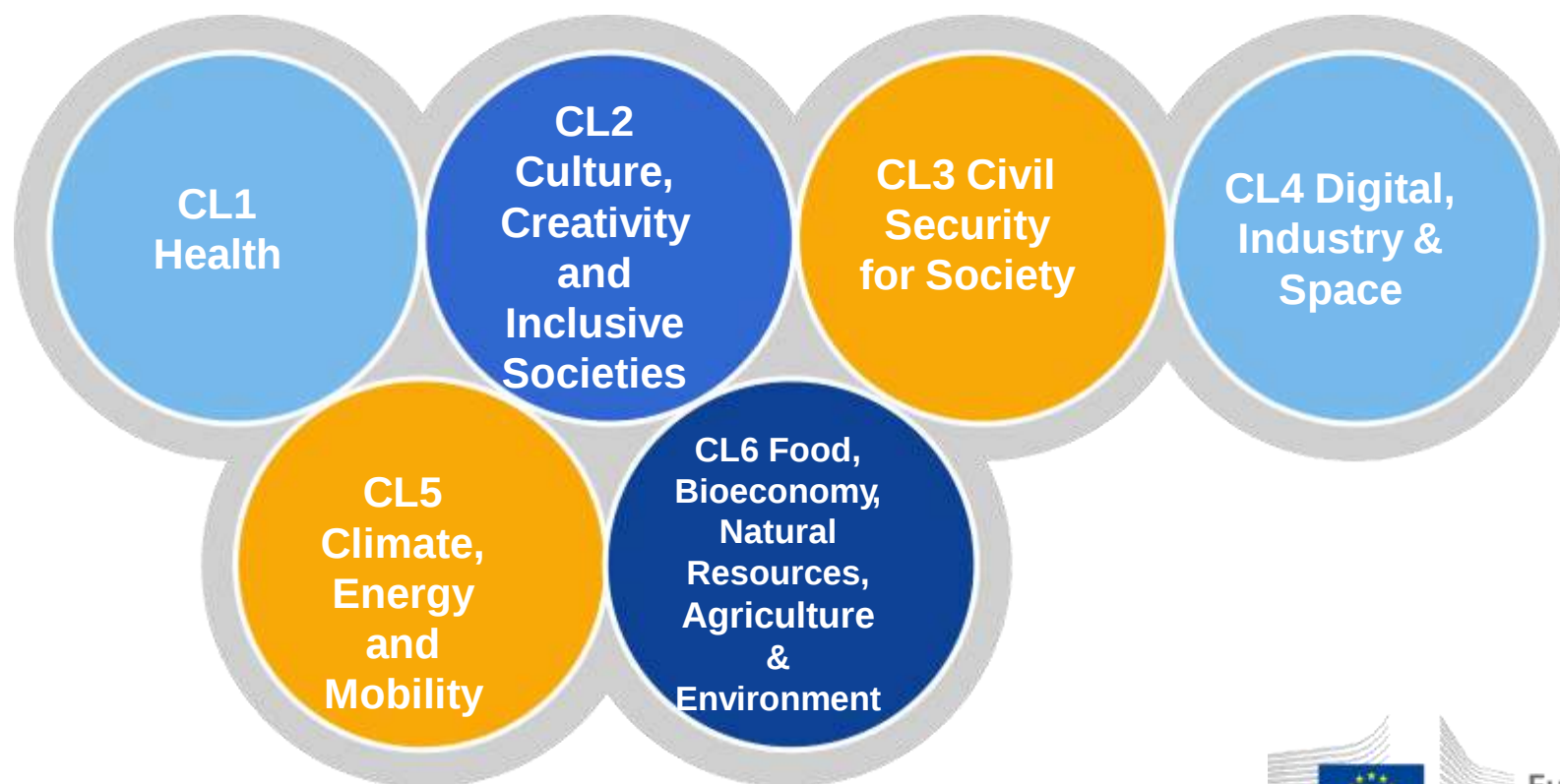
- European Partnership for the Assessment of Risks from Chemicals (PARC) (2021)
- European Partnership Fostering an ERA for Health research (2022)
- European Partnership on Transforming Health and Care Systems (2022)
- European Partnership for Personalised Medicine (2023)
- European Partnership on Rare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

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

SFIDE GLOBALI E COMPETITIVITÀ
INDUSTRIALE EUROPEA:

Commissione per il bilancio: 52,7 miliardi di EUR



Cluster	Aree di intervento	
Sanità	• <u>Salute lungo l'arco della vita</u> • Malattie non trasmissibili e rare • Strumenti, tecnologie e soluzioni digitali per la salute e l'assistenza, compresa la medicina personalizzata	• Determinanti ambientali e sociali della salute • Malattie infettive, comprese le malattie correlate alla povertà e trascurate • Sistemi sanitari
Cultura, creatività e società inclusiva	• Democrazia e governance • <u>Trasformazioni sociali ed economiche</u>	• Cultura, patrimonio culturale e creatività
Sicurezza civile per la società	• Società in grado di far fronte alle calamità • Protezione e sicurezza	• Cybersicurezza
Digitale, industria e spazio	• Tecnologie produttive • Materiali avanzati • Internet di prossima generazione • Industrie circolari • Spazio, compresa l'osservazione della terra • <u>Tecnologie abilitanti emergenti</u>	• 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
Clima, energia e mobilità	• Scienza e soluzioni climatiche • Sistemi energetici e reti • <u>Comunità e città</u> • Competitività industriale nei trasporti • Mobilità intelligente	• Approvvigionamento energetico • Edifici e strutture industriali in transizione energetica • Trasporti e mobilità puliti, sicuri e accessibili • Immagazzinamento energetico
Prodotti alimentari, bioeconomia, risorse naturali, agricoltura e ambiente	• Osservazione ambientale • Agricoltura, silvicoltura e zone rurali • Sistemi circolari • <u>Sistemi alimentari</u>	• Biodiversità e risorse naturali • Mari, oceani e acque interne • Sistemi di innovazione biologici nell'UE Bioeconomia



CLUSTER 1. Health

- Salute lungo l'arco della vita
- Malattie non trasmissibili e rare
- Strumenti, tecnologie e soluzioni digitali per la salute e l'assistenza, compresa la medicina personalizzata
- Determinanti ambientali e sociali della salute
- Malattie infettive, comprese le malattie correlate alla povertà e trascurate
- Sistemi sanitari



*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.*

CLUSTER 2. Culture, creativity and inclusive society

- 🏠 Democrazia e governance
- 🏠 Trasformazioni sociali ed economiche
- 🏠 Cultura, patrimonio culturale e creatività



*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..*



Socio-economic effects of ageing societies

HORIZON-CL2-2022-TRANSFORMATIONS-01-10 – (RIA)scadenza 22 aprile 2022

Expected outcomes:

Analyse the impacts of ageing societies on **productivity, society, employment** (by gender, sector, occupational group and skills needed), **investment, growth, healthcare systems, access to (digital) public services** and public finance sustainability in the medium and long term, while maintaining service adequacy.

Propose knowledge-based policy measures to reap the benefits of longer healthy life expectancy and explore ageing related phenomena, including (but not limited to) cultural factors, fertility, migration, family care, fight against ageism, active ageing, upskilling and reskilling policies.

Counteract the effects of ageism and age segregation, while promoting the benefits of experience and knowledge accumulation drawing on inclusive and dialogic approaches, including through job design that is appropriate to job holders and that builds on their experience.

Scope: Proposals should develop **recommendations on how European societies** need to cope with demographic changes in the short and medium term, with **the reforms** needed to ripen the economic benefits and limit the negative consequences, including in relation to societal values, also with reference to global examples. They should also consider how to do this while developing a long-term perspective aimed at increasing the EU's human capital. Explore and identify the opportunities of the '**silver economy**', not only in terms of consumption of goods, services and innovations directed to the older age population, but also in terms of production.

- o analyse the impact of demographic change on skills availability and needs

CLUSTER 3. Civil security for society

- ▣ Società in grado di far fronte alle calamità
- ▣ Protezione e sicurezza
- ▣ Ciphersicurezza



*This cluster has as its vision to support wider EU responses to security challenges i.e. to support ‘a resilient and more stable Europe that protects’ as well as for this purpose supporting a competitive European **civil security industry sector**. It will address the challenges arising from persistent security threats like **terrorism and crime**, including **cybercrime**, as well as **natural and man-made disasters**.*

CLUSTER 5. Climate, Energy and Mobility

- 7 Scienza e soluzioni climatiche
- 7 Sistemi energetici e reti
- 7 Comunità e città
- 7 Competitività industriale nei trasporti
- 7 Mobilità intelligente
- 7 Approvvigionamento energetico
- 7 Edifici e strutture industriali in transizione energetica
- 7 Trasporti e mobilità puliti, sicuri e accessibili
- 7 Immagazzinamento energetico



*Fighting **climate change** by better understanding its causes, evolution, risks, impacts and opportunities, and by making the **energy and transport sectors** more climate and environment-friendly, more efficient and competitive, smarter, safer and more resilient*

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

- 7 Osservazione ambientale
- 7 Agricoltura, silvicoltura e zone rurali
- 7 Sistemi circolari
- 7 Sistemi alimentari
- 7 Biodiversità e risorse naturali
- 7 Mari, oceani e acque interne
- 7 Sistemi di innovazione biologici nell'UE
- 7 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**.*

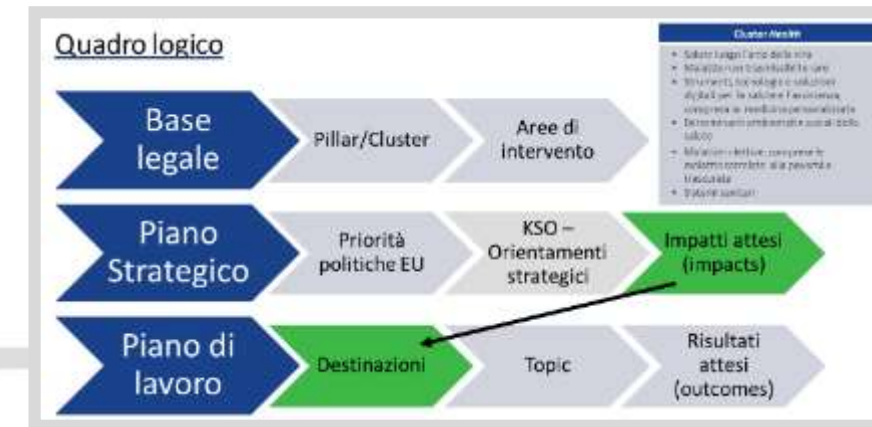
Cluster 1 Health



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.
 - **Budget: 289 mill Eur**



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

Deadline : 21 September 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.
 - **Budget: 289 mill Eur**



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

Deadline: 1 February /6 September 2022 – TWO-STAGE

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

Deadline: 21 April 2022 – 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.
- **Budget: 350 mill Eur**

* 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

Deadline : 21 April 2022 – 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.
 - **Budget: 240 mill Eur**

* 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

Deadline: 21 April 2022– 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.
 - Budget: 270 mill Eur

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

TOPICS 2022:

- ✓ Optimizing 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

Deadline: 21 April 2022– SINGLE STAGE

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

Deadline: 1 February/6 September 2022 – TWO-STAGE



Mission on Cancer: topics in 2021

HORIZON-MISS-2021-CANCER-02-01: *Develop new methods and technologies for screening and early detection (RIA)*

HORIZON-MISS-2021-CANCER-02-02: *Develop and validate a set of quality-of-life measures for cancer patients and survivors (RIA)*

HORIZON-MISS-2021-CANCER-02-03: *Better understand healthy versus cancer cells at individual and population level (RIA)*

Opening: 22 Dec 2021

Deadline(s): 26 Apr 2022

