



#InvestEUresearch

Horizon 2020 Work Programme for Research & Innovation 2018-2020

Supporting research on ageing at EU level

**H2020 Lifepath project
Final Policy meeting**

Fondation Louis-Jeantet, Geneva, 26/03/2019

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Research and
Innovation

Outline

- **EU support to research on ageing**
- **Opportunities offered by Horizon 2020**
- **Cohorts as tools for ageing**
- **Horizon Europe**



The challenges of ageing

Specificity

- Age as a risk factor for NCD
- Chronicity: lifelong lasting diseases
- Independent living/functions

Pressure

- Health care system
- Access to care, including within country
- Ageism: stereotyping based on age

Complexity

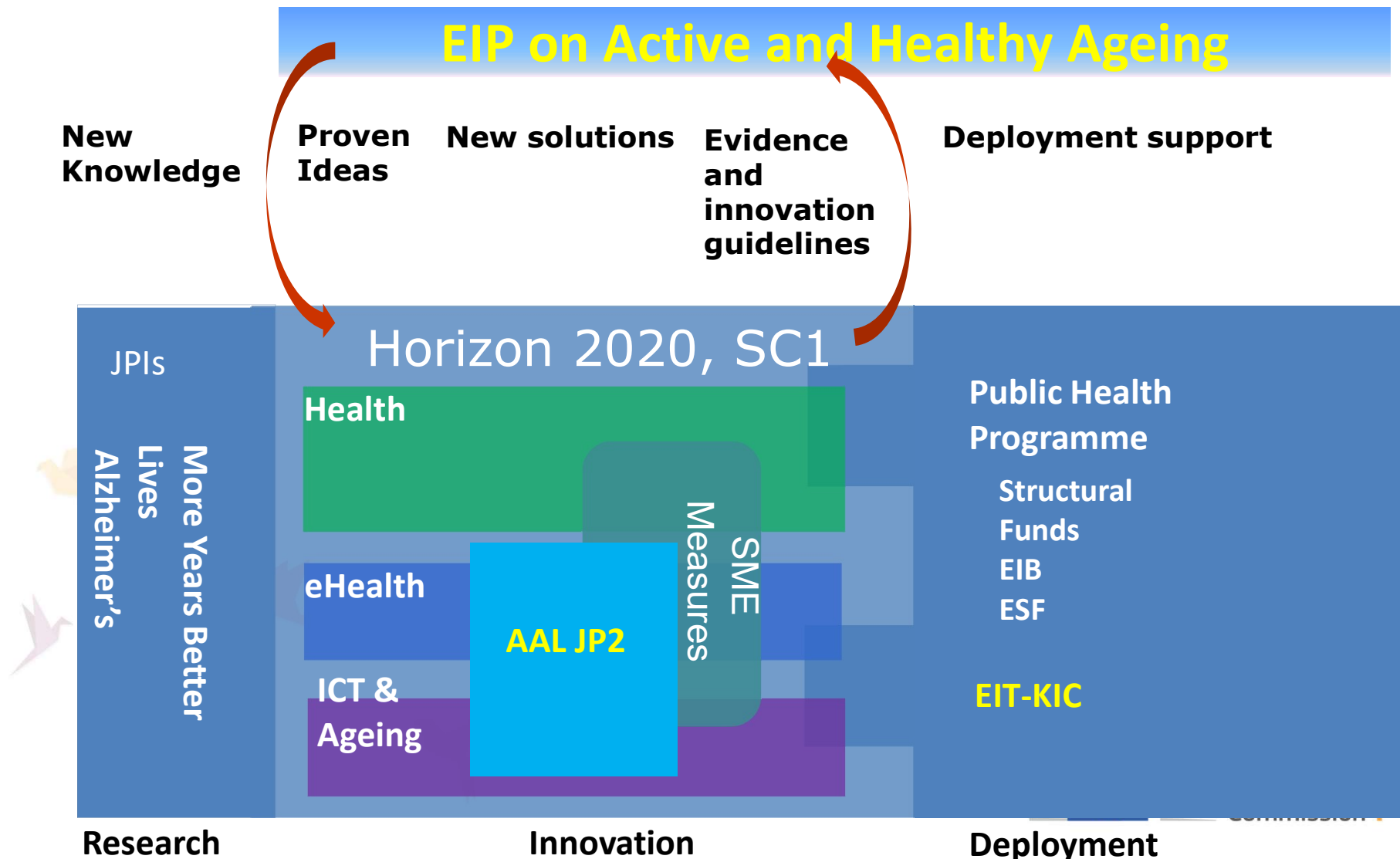
- Pathophysiology
- Environment
- Socio-economic
- Co-morbidity
- Diversity in older age

Expanding

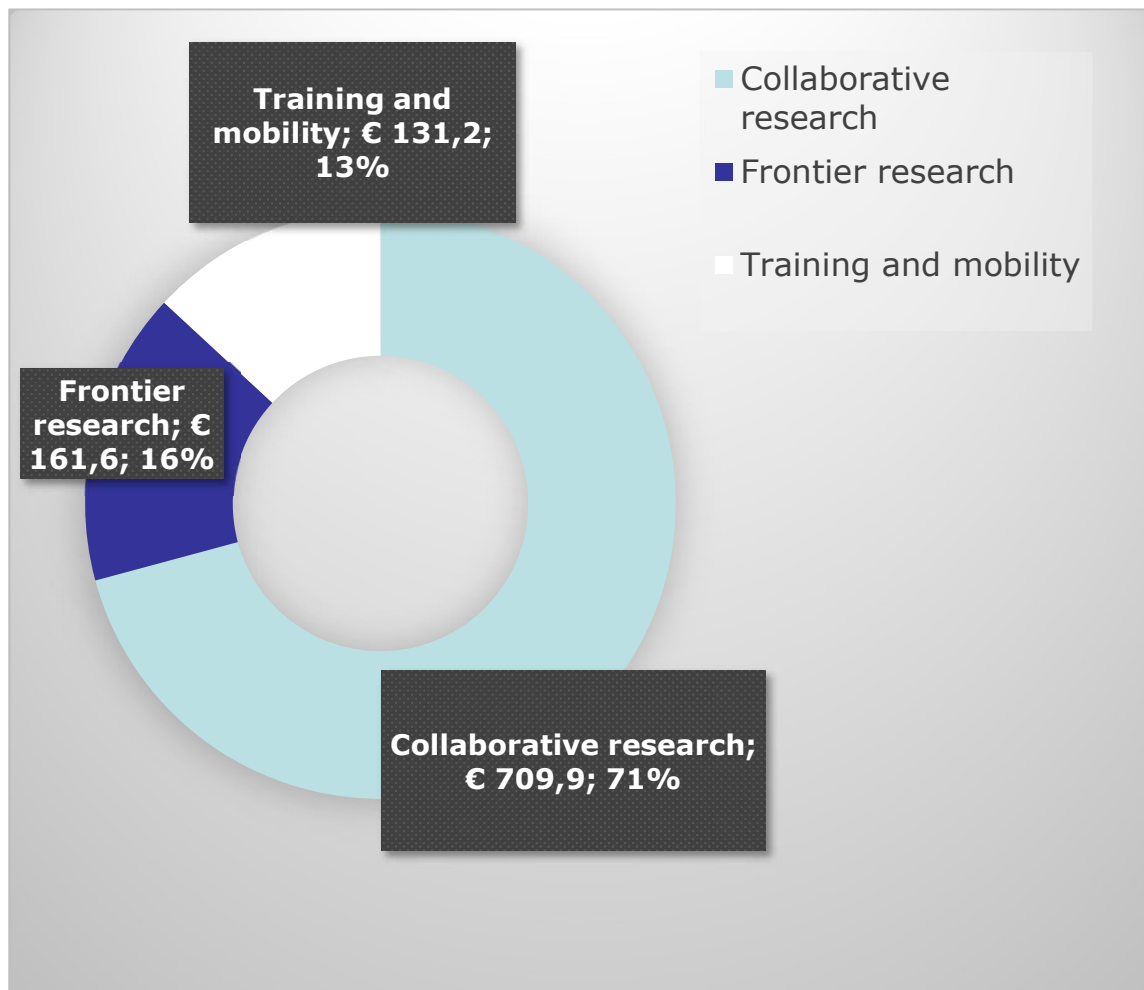
- A global health issue
- Forcing global poverty

Health and Ageing Well, the EU picture

Courtesy: DG CNECT



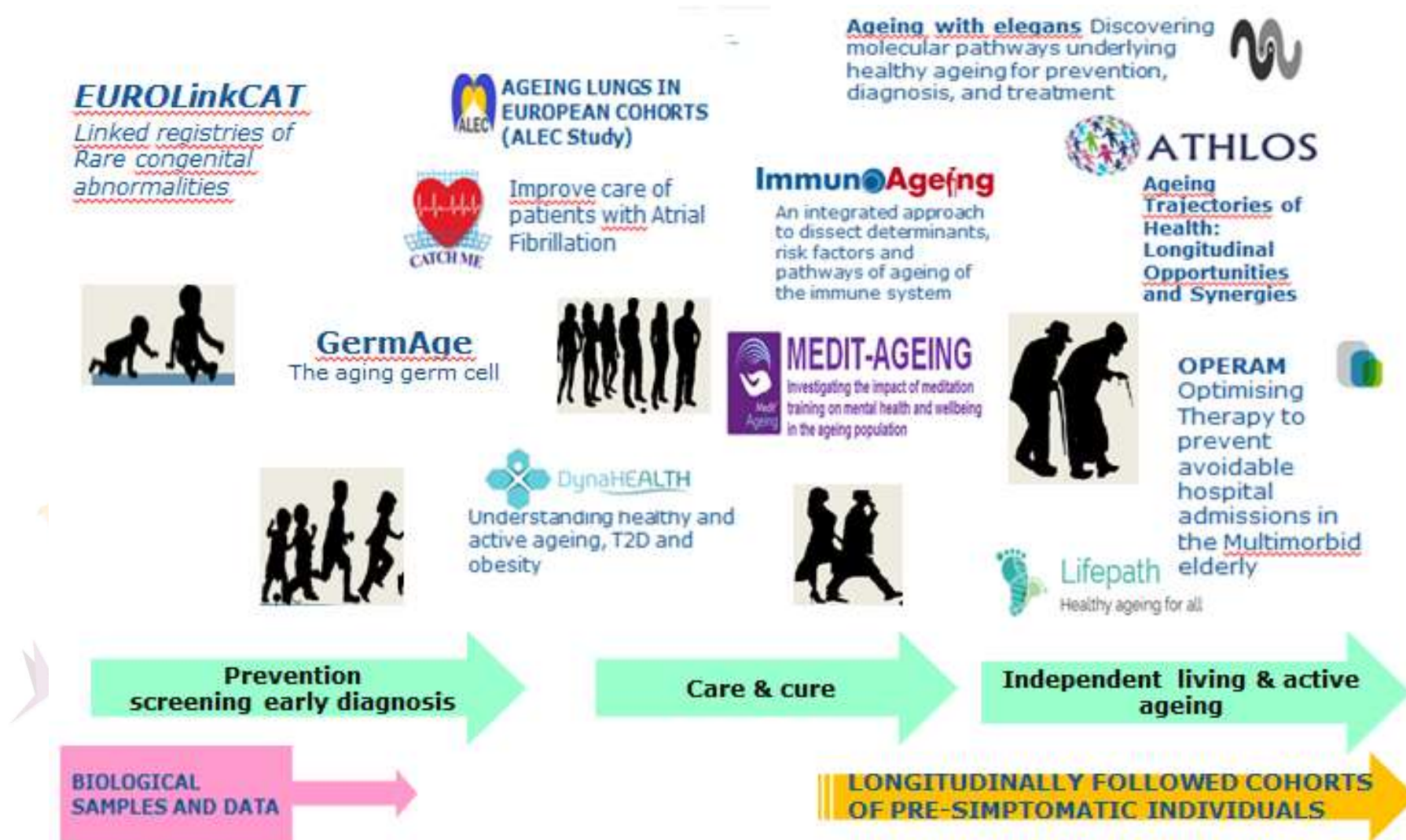
2007-2019: € 1002 Million invested in research for healthy ageing
447 projects



Translational research

- **multimorbidity**
- **poly-medication**
- **determinants**
- **technology /devices**
- **systems biology**
- **frailty**
- **falls**
- **cohort studies**
- **investigator-driven trials**
- **multimodality (physical activity, nutrition, environment)**

The life course approach of EU research on ageing



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Horizon 2020, Societal Challenge 1

- **In WP 2018-19, 24 topics** address Healthy Ageing, with an indicative budget of **€536 Million**.
 - **Call 1: 14** topics for personalized medicine, for promoting innovation in health and the healthcare industry as well as in the healthcare systems.
 - **Call 2: 9** topics devoted to eHealth, mHealth and ICT in health and care.
 - **Call 3: 1** topic addresses technologies and solutions with a focus on cybersecurity to assure data privacy, security and protection of health and care infrastructures.
- **WP 2020** foresees a number of topics on Healthy Ageing as for example:
 - **SC1-BHC-24-2020 : Healthcare interventions for the management of the elderly multimorbid patient**
 - **SC1-HCC-08-2020: Scaling up innovation for active and healthy ageing**
 - **SC1-DTH-04-2020: International cooperation in digital solutions and robotics for independent living**

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SYNCHROS

SYNergies for Cohorts in Health: integrating the ROle of all Stakeholders

- To develop a sustainable strategy for the **integration and harmonisation** of health cohort initiatives and networks across Europe and internationally.
- To **integrate data across** clinical trials, patient and population cohorts (exploiting commonalities across what are seemingly very different populations)

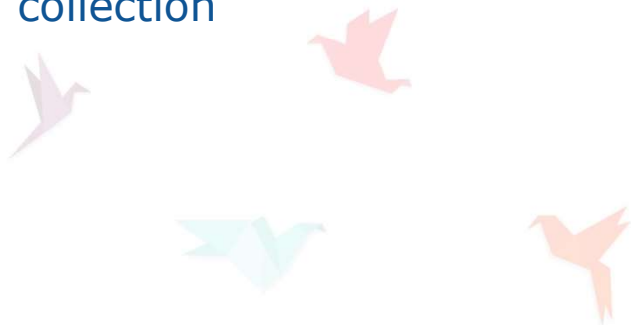
- Participants: 11 partners from 6 Countries
- Duration: 36 months
- Start date: 01/01/2019
- Cordis: <https://cordis.europa.eu/project/rcn/218999/factsheet/en>
- Call: [H2020-SC1-09-2018-Single-Stage-RTD](#)

Objectives

map the cohort landscape
identify best methods for integration
identify solutions for addressing practical, ethical and legal challenges
take stock of new data
conduct stakeholder dialogues
disseminate and make sustainable recommendations on standards to improve future sample and data collection

Strategy

define administrative and methodological challenges and priorities
study existing collaborative structures, as well as funding strategies and appropriate mechanisms for implementations
identify potential developments of data relevant to health outcomes and determinants
design coordination mechanisms to address gaps, best practices and potential solutions



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- **EU support to research on ageing**
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Commission proposal for
Horizon Europe

THE NEXT EU RESEARCH & INNOVATION
PROGRAMME (2021 – 2027)

#HorizonEU



Horizon Europe

is the Commission proposal for a **€ 100 billion** research and innovation funding programme for seven years (2021-2027)



to strengthen the EU's scientific and technological bases



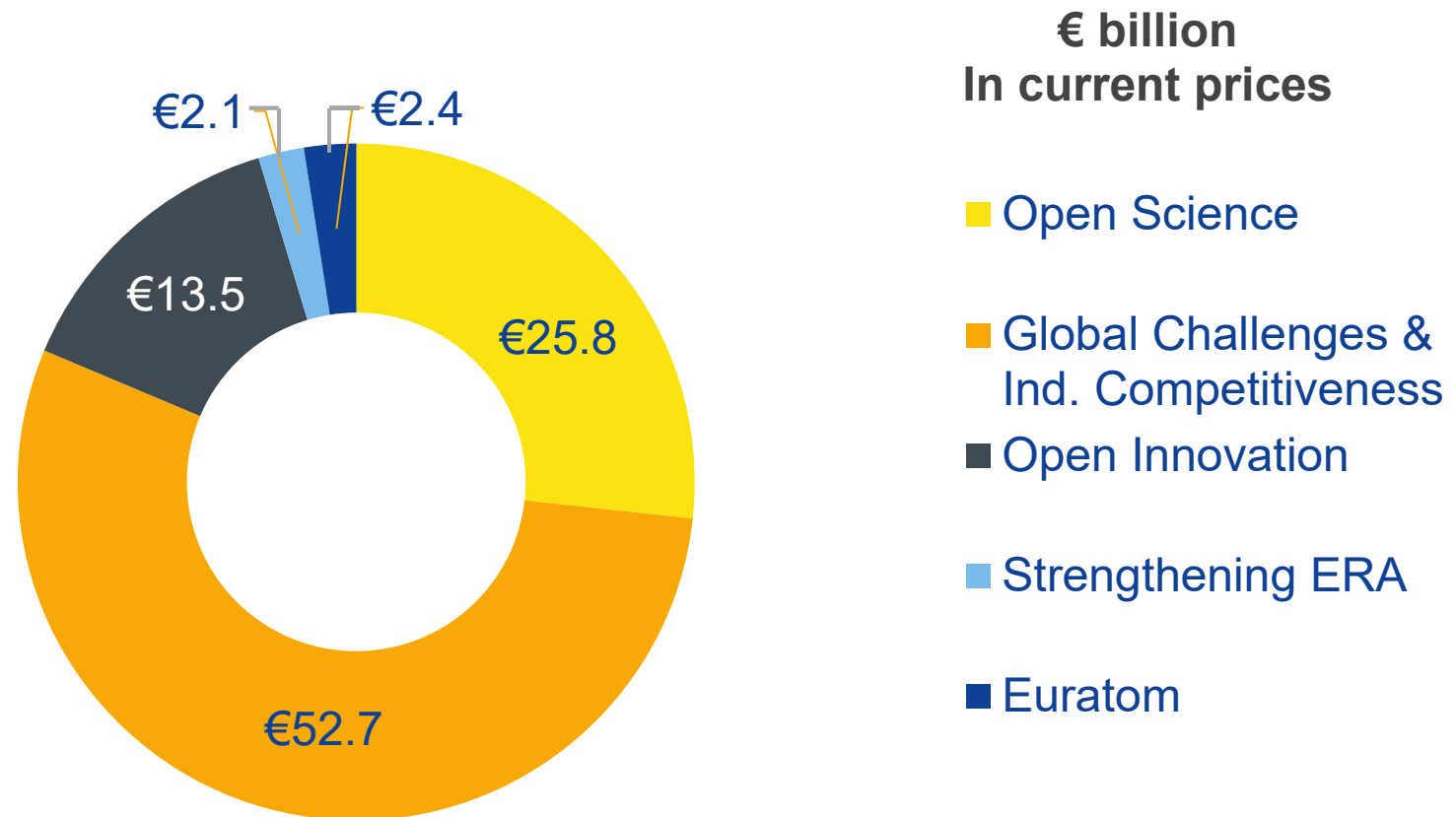
to boost Europe's innovation capacity, competitiveness and jobs



to deliver on citizens' priorities and sustain our socio-economic model and values

€ 4.1 billion are proposed to be allocated for defence research, in a separate proposal for a European Defence Fund

Budget: €100 billion*



* This envelope includes EUR 3.5 billion allocated under the InvestEU Fund.

Global Challenges & Industrial Competitiveness:

boosting key technologies and solutions underpinning
EU policies & Sustainable Development Goals **€ 52.7billion**

Clusters implemented through usual calls, missions & partnerships	2021-24
Health	€ 7.7
Inclusive and Secure Societies	€ 2.8
Digital and Industry	€ 15
Climate, Energy and Mobility	€ 15
Food and Natural Resources	€ 10
Joint Research Centre supports European policies with independent scientific evidence & technical support throughout the policy cycle	2021-27 € 2.2

Clusters in 'Global Challenges and Industrial Competitiveness'

Clusters	Areas of intervention	
Health	<ul style="list-style-type: none"> * Health throughout the life course * Non-communicable and rare diseases * Tools, technologies and digital solutions for health and care 	<ul style="list-style-type: none"> * Environmental and social health determinants * Infectious diseases * Health care systems
Inclusive and Secure Societies	<ul style="list-style-type: none"> * Democracy * Social and economic transformations * Protection and Security 	<ul style="list-style-type: none"> * Cultural heritage * Disaster-resilient societies * Cybersecurity
Digital and Industry	<ul style="list-style-type: none"> * Manufacturing technologies * Advanced materials * Next generation internet * Circular industries * Space 	<ul style="list-style-type: none"> * Key digital technologies * Artificial intelligence and robotics * Advanced computing and Big Data * Low carbon and clean industry
Climate, Energy and Mobility	<ul style="list-style-type: none"> * Climate science and solutions * Energy systems and grids * Communities and cities * Industrial competitiveness in transport * Smart mobility 	<ul style="list-style-type: none"> * Energy supply * Buildings and industrial facilities in energy transition * Clean transport and mobility * Energy storage
Food and Natural Resources	<ul style="list-style-type: none"> * Environmental observation * Agriculture, forestry and rural areas * Food systems * Circular systems 	<ul style="list-style-type: none"> * Biodiversity and natural capital * Sea and oceans * Bio-based innovation systems

Six main areas of intervention



Health throughout
the Life Course



Environmental and Social
Health Determinants



Non-communicable
and Rare Diseases



Infectious diseases



Tools, Technologies
and Digital Solutions
for Health and Care

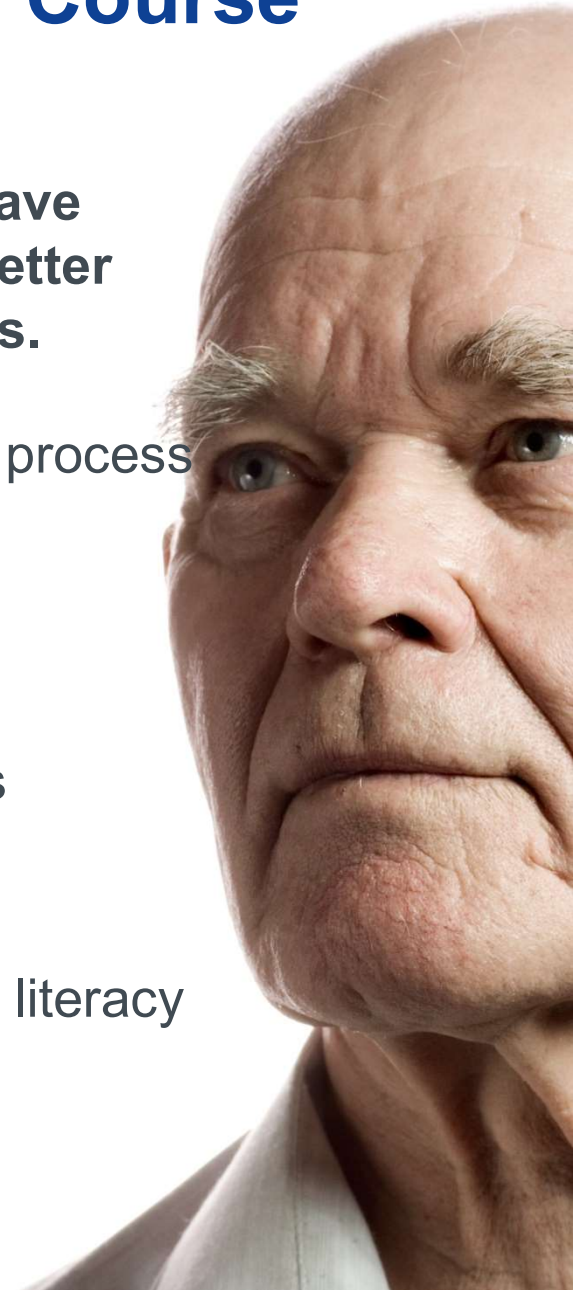
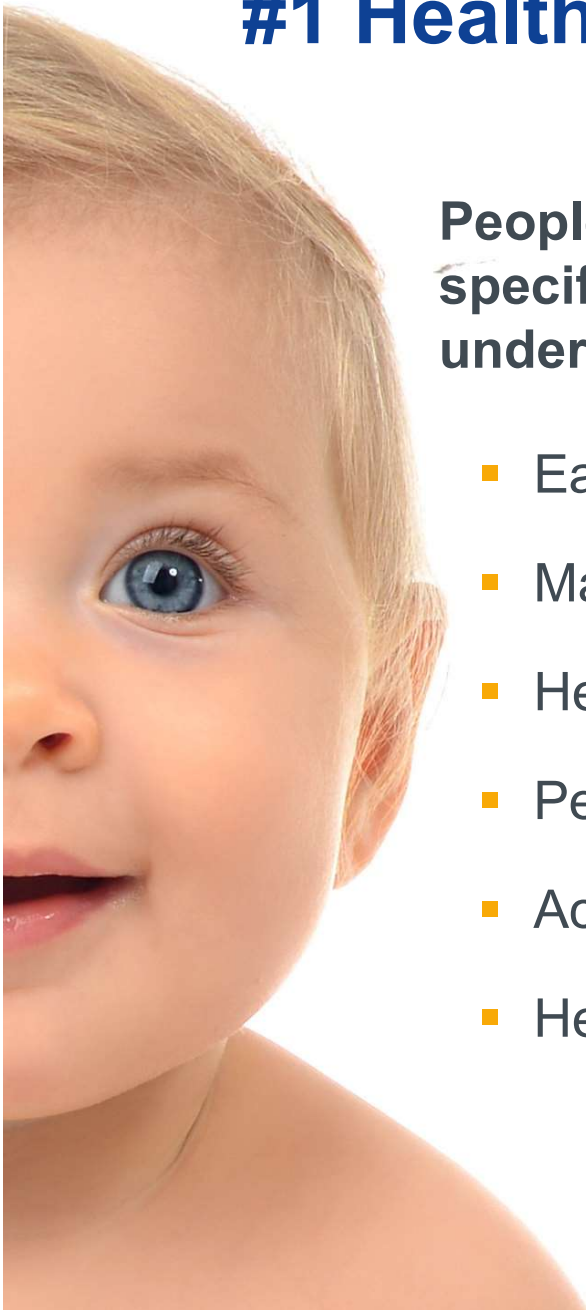


Health Care Systems

#1 Health throughout the Life Course

People in vulnerable stages of life have specific health needs, that require better understanding and tailored solutions.

- Early development and the ageing process
- Maternal and child health
- Health needs of adolescents
- People with disabilities and injuries
- Active life for the elderly
- Health education and digital health literacy



#2 Environmental and Social Health Determinants

We need to better understand how the social, economic and physical environment impacts our health and mitigate health risks and threats.

- Health hazards of chemicals, pollutants and environmental stressors
- Capacity and infrastructure to collect, share and combine exposure data with health and diseases
- Environmental, occupational, social and behavioural factors impacting physical and mental health
- Risk assessment, management and communication
- Health promotion and prevention





#3 Non-Communicable and Rare Diseases

Non-communicable diseases remain a major health and societal challenge requiring personalized approaches.

- Earlier and more accurate diagnoses
- Prevention and screening programmes
- Treatments and cures
- Palliative care
- Comparative effectiveness of interventions
- Scale up of health interventions

#4 Infectious Diseases

We must protect people in the world from the threats of infectious diseases and AMR.

- Drivers for the emergence and re-emergence of infectious diseases and their spread
- Prediction, early detection and surveillance of infectious diseases and AMR pathogens
- Vaccines, diagnostics, treatments and cures
- Emergency preparedness, response and recovery measures
- Uptake of medical interventions in clinical practice, health systems
- Specific challenges in low- and middle-income countries (LMICs)



#5 Tools, Technologies and Digital Solutions for Health and Care

New technologies are vital for public health and the competitiveness of European Health related industries.

- Tools and technologies for medical indications
- Integrated solutions for health incl. mobile and telehealth
- Piloting and large-scale deployment of healthcare technologies and tools in real-life settings
- Innovative processes for development, manufacturing and rapid delivery
- Safety, efficacy, quality and ethical and social impact
- Regulatory science



#6 Health Care Systems

Health systems are a key asset of the EU social system. We shall keep them accessible, resilient and sustainable and harness the potential of data-driven and digital innovation.

- Reforms in public health systems and policies
- New models for health and care and future workforce
- Improving health technology assessment
- Use of health data respecting security, privacy and interoperability
- Health systems resilience – crises and disruptive innovation
- Patient empowerment, self-monitoring, user-centered integrated care



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'With growing international competition, Europe needs to act urgently on research and innovation.

The proposed € 100 billion for the next EU research and innovation programme would be a huge boost.'

Carlos Moedas, Commissioner, 15/05/2018



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Horizon Europe dedicated website

<http://ec.europa.eu/horizon-europe>

European Innovation Council

<http://ec.europa.eu/research/eic>

EU budget for the future

http://ec.europa.eu/budget/mff/index_en.cfm



Thank you!

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<http://ec.europa.eu/horizon-europe>

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