



The European strategy for active and healthy ageing: challenges and opportunities in the new European Programming

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EU Policy Framework

Digital Health and Care



TRANSFORMATION OF HEALTH AND CARE IN THE DIGITAL SINGLE MARKET - Harnessing the potential of data to empower citizens and build a healthier society

European health challenges

- ⊗ Ageing population and chronic diseases putting pressure on health budgets
- ⊗ Unequal quality and access to healthcare services
- ⊗ Shortage of health professionals

Potential of digital applications and data to improve health

- ✂ Efficient and integrated healthcare systems
- ✂ Personalised health research, diagnosis and treatment
- ✂ Prevention and citizen-centred health services

What EU citizens expect...



Support European Commission:

1 Secure access and exchange of health data



Ambition:

Citizens can securely access and share (e.g. with doctors or pharmacies) their health data anywhere in the EU.

Actions:

- eHealth Digital Service Infrastructure will deliver initial cross-border services (patient summaries and ePrescriptions) and cooperation between participating countries will be strengthened.
- Proposals to extend scope of eHealth cross-border services to additional cases, e.g. full electronic health records.
- Recommended exchange format for interoperability of existing electronic health records in Europe.



2 Health data pooled for research and personalised medicine



Ambition:

Shared health resources (data, infrastructure, expertise...) allowing targeted and faster research, diagnosis and treatment.

Actions:

- Voluntary collaboration mechanisms for health research and clinical practice (starting with "one million genomes by 2022" target).
- Specifications for secure access and exchange of health data.
- Pilot actions on rare diseases, infectious diseases and impact data.

3 Digital tools and data for citizen empowerment and person-centred healthcare



Ambition:

Citizens can monitor their health, adapt their lifestyle and interact with their doctors and carers (receiving and providing feedback).

Actions:

- Facilitate supply of innovative digital-based solutions for health, also by SMEs, with common principles and certification.
- Support demand uptake of innovative digital-based solutions for health, notably by healthcare authorities and providers, with exchange of practices and technical assistance.
- Mobilise more efficiently public funding for innovative digital-based solutions for health, including EU funding.



EC Policy Framework

- EU Care Initiative – Q2 2022
- Green Paper on Active Ageing, Q1 2021
- Long Term Vision on Rural Areas, Q2 2021
- Report on Demographic Change, June 2020
- EPSCO - Council conclusions ‘Human Rights, Participation and Well-Being of Older Persons in the Era of Digitalisation’, 09 October 2020 (German Presidency)
- EPSCO – Council conclusions on “Mainstreaming Ageing in Public Policies”, March 2021 (Portuguese Presidency)
- EPSCO – Council conclusions on “Demographic Challenges – the Way Ahead”, 06 June 2020 (Croatian Presidency)
- EPSCO - Council conclusions on the Economy of Wellbeing, 24 October 2019 (Finnish Presidency)
- COM(2012) 83 : Taking forward the Strategic Implementation Plan of the European Innovation Partnership on Active and Healthy Ageing
- EPSCO - Council conclusions on Active Ageing (June 2010)
- ECOFIN - Conclusions on age-related spending (May 2018)

Lifecycle approach

Growing needs:
healthcare,
long-term care /
mobility, connectivity,
well-being



Retirement: volunteering,
intergenerational relations /
adequate, fair and sustainable
pension systems, old
age poverty



Formative years:
life-long learning, healthy
& active ageing



Working age: labour markets,
productivity, innovation and
business
opportunities



Territorial aspects

Main challenges

- **Demographic change**
 - Life expectancy projected to continue to grow. In 2070: 86 years for Men, 90 years for Women
 - Average childbirths per woman: 1.55; Median age: 31
 - By 2070: People over 65 will represent 30.3%; People over 80 will represent 13.2%
 - Households composition is changing: mono-parental families, couples without children, people living alone
 - Continuous migration from regions, leaving depopulated areas
 - Europe's population is shrinking in comparison to world's population and it will represent only 4% by 2070.
- **Long-term chronic, complex medical conditions**
 - health chronic conditions prevalence in case of people aged 50+ (high cholesterol, heart disease, mental illness, diabetes, arthritis, back problems, asthma) + multi-morbidity being very common among people aged 65+
- **Increased demand for social and health & care systems in terms of facilities, staff and supplies**
- **Lack of age-friendly living and working environments**
- **Gap in digital skills both for healthcare workforce and citizens/patients**
- **COVID-19 challenges** (isolation, mental health)
- **Lack of uptake of digital innovations**

Overview of the AHA market

- People aged above 65 years will account for 30% of the EU population by 2070 (compared to 20% in 2019) and people aged 80 years or older will increase their share by more than 120%
- Very segmented market with various niches (for example one investment landscape map divided the market to 15 segments). With varying access to funding. Largest funding market for solutions targeted at assisted living and care home segments.
- Technology adoption by the 65+ generation is growing fast which supports the market growth and increases investors' interest.
- The European Aging Economy was sized at €3,7 Trillion, by Oxford Economics roughly 20% of European GDP. Digital solutions are estimated to contribute about €160 billion to that number
- Age-Tech spending is poised to grow fast. Older people are the fastest growing demographic group (with around 2.5% annual populations growth vs. 0.7% for all population); digitization is growing across all sectors (to around 16% by 2025); and digitization in aging is converging towards the global average.

Work of CNECT.H3: eHealth, Wellbeing and Ageing

The Silver Economy

Europe is ageing



By 2060 one in three Europeans will be over 65



The ratio of working people to the 'inactive' others is shifting from 4 to 1 today to 2 to 1 by 2060



Costs for care are rising sharply. If we don't change our systems for health and social care, we will not have the money and the people to guarantee a good and healthy life for all



If we reinvent our systems for health and social care, innovative new ICT-products and services can help us deliver better and cheaper care for all



Europe has what it takes to benefit from these new opportunities

A solid R&I base in European industry



A host of SMEs & start-ups are now developing



New ICT products such as care robotics



Health mobile applications that assist with tracking



Big pharma companies are developing integrated therapeutic solutions



The Silver economy offers new highly skilled tech jobs



but also the opportunity for low qualified population to reskill



IMPACT OF EU-FUNDED RESEARCH & INNOVATION ON ICT FOR ACTIVE & HEALTHY AGEING – THE TOP 25 MOST INFLUENTIAL PROJECTS



[ACCOMPANY](#)
[Beyond Silos](#)
[Carewell](#)
[CARER+](#)
[DEM@CARE](#)
[eWALL](#)
[FARSEEING](#)
[FATE](#)
[GIRAFF+](#)
[GrowMeUp](#)
[I-DON'T-T-FALL](#)
[INCA](#)
[inCASA](#)
[iStopFalls](#)
[I-SUPPORT](#)
[PERSSILAA](#)
[IN LIFE LONG](#)
[LASTING](#)
[MEMORIES](#)
[MARIO RADIO](#)
[ROBOT-ERA](#)
[SILVER](#)
[SOCIABLE](#)
[STOP AND GO](#)
[UNIVERSAAL](#)



European Commission

AAL Achievements

The AAL Programme has delivered in multiple areas:

- It has **helped develop solutions** that are **used by older adults** and their networks, promising meaningful change to their lives
- AAL-funded solutions are being used by **carers in formal health and care settings**
- It has helped raise **awareness**, create new **skills & collaborations**, and lay the foundation for **market segments** across Europe



AAL has strengthen the Industrial base in Europe:

- 31 solutions have been developed and commercially launched in 13 EU countries
- 24 AAL-funded projects or 12% of all projects launched a solution
- Growing number of paying customers of solutions contribute to increased revenue by companies

Active and Healthy Living in the Digital World



European Innovation
Partnership on Active
and Healthy Ageing

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Active and Healthy Living in the Digital World is a multi-stakeholder information and communication hub for European citizens, innovators, patients, health and care providers, researchers and policy makers engaged in research and innovation, deployment, exchange and dissemination of best practices, innovative solutions, scientific collaboration and policies related to active and healthy living and aging with digital tools. It builds on the achievements of the [European Innovation Partnership on Active and Healthy Ageing](#) and promotes active and healthy living throughout the life-course.

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Wellbeing and
Health promotion



Ecosystems and
Reference Sites



International
Cooperation



Silver Economy &
HealthTech



Age-Friendly
environments



Digital Health
Literacy

H2020: Societal Challenge 1: more than 80 projects on Ageing managed by CNECT/H3

Robotics for Ageing Well



www.ict-acanto.eu

2015-18 – Robotic Friend



www.growmeup.eu

2015-18 – Self learning Robot



www.ramcip-project.eu

2015-18 Service robot for mild cognitive impairment



www.accra-project.org

2016-2019 – Robotics, Japan



www.i-support-project.eu

2015-18 – Robotic Shower System



www.caressesrobot.org

2017-20 – Culture aware robots



www.mario-project.eu

2015-18 Interacting Robot for Dementia

Innovating elderly care



SAAM - Supporting Active Ageing through Multimodal Coaching, with the creation of a virtual assistant. Extend, as much as possible, the active and independent life of people over 60 years of age living in their own homes, as well as to support the work of those taking care of them (family, friends, and social carers). <https://saam2020.eu/> 2017-20



Delivering personalised integrated health and social care services, better outcomes for older people and improved care experience. <https://projectvaluecare.eu> 2019-2023



vCare aims to provide a smart coaching solution grounded on personalized care pathways. vCare stands for Virtual Coaching activities for rehabilitation in elderly and aims at an improved rehabilitation for people as they age. <https://vcare-project.eu/> 2017-2021



ICT platform helping the family, caregivers and social care systems to share information on activities, conditions and moods of those they care about. A trusted ecosystem for apps providers. www.ehcobutler.eu 2015-2017



Innovative solutions for independent living



SMARTBEAR

2019-2023

Integrated Platform -sensors, assistive medical and mobile devices enabling continuous data collection from the everyday life of the elderly, which will be analysed to obtain the evidence needed in order to offer personalised interventions promoting their healthy and independent living.



WORKINGAGE

2019-2022

Measuring the user **emotional/cognitive/health state** and create communication paths. Promoting healthy habits of users in their working environment and daily living activities in order to improve their working and living conditions.

sustAGE

Person-centered solution for promoting the concept of "sustainable work" for EU industries, focuses on the **support of the employment and later retirement of older adults** from work and the optimization of the workforce management. 2019-2021



Framework providing principles for a two-way **adaptation in support** of ageing citizens, defining three types of smart adaptations in work systems with different level of technology sophistication. 2018-2022

seefar

Digitally enabled adaptive solution supporting ageing **workforce with vision loss**, an age-related condition, to remain actively involved in professional life. 2018-2021



Worker-centric AI system for **work ability sustainability**, integrating unobtrusive sensing and modelling of the worker state with a suite of novel services for context and worker-aware adaptive work support. It empowers the employer with AI decision support tools for efficient task completion and work team optimization through flexible work practices. 2019-2021



Platform for realtime **risk alerting and continuous coaching**, enabling the design of workplace interventions adapted to the needs and fitness levels of specific ageing workforce. 2019-2021

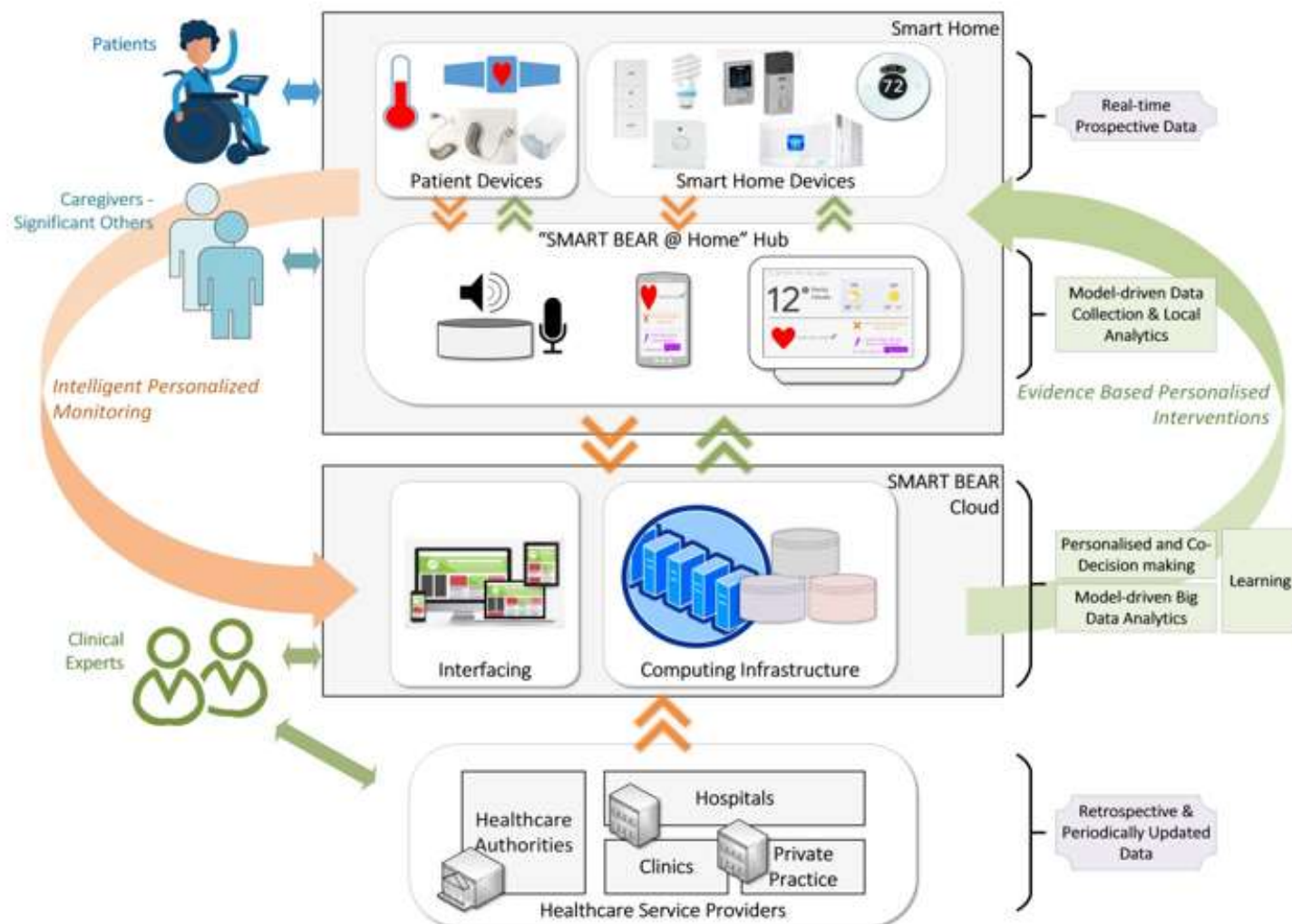


ageing at work
HR Health Management for Older Workers

ICT-based, personalized system to support ageing workers into designing fit-for-purpose work environments and managing flexibly their evolving needs. 2019-2021



The SMART BEAR platform



The aim is to integrate **heterogeneous sensors**, assistive medical and mobile devices to enable the continuous **data** collection from the everyday life of the elderly, which will be **analysed** to obtain the evidence needed in order to offer **personalised interventions** promoting their healthy and independent living

New Programmes New Opportunities

New MFF and complementarity of investments in Digital

EU-wide collective effort					National regional and local			Financial instrument
Horizon Europe	Digital Europe	CEF	Creative Europe	Health	Cohesion	Agriculture Funds	RRF	InvestEU
Research Innovation	Strategic capacities: computing, data, testbeds, etc. Advanced digital skills EU-Wide deployment	Broadband and 5G roll out Connecting Communities	Creative industry Media	Telemedicine eHDSI	Digital connectivity in white and grey areas Support to enterprises in line with Smart specialisation Digital skills for all citizens	Making use of Big Data for CAP monitoring Broadband rollout in rural areas	Connect Scale-up Modernise Reskill and Upskill 20% digital	Leverage private capital for investments in SMEs, research, digital, infrastructure, skills...

Health Cluster Horizon Europe

Six destinations



1. Staying healthy in a rapidly changing society



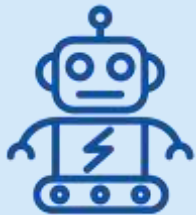
2. Living & working in a health-promoting environment



3. Tackling diseases & reducing disease burden



4. Ensuring access to innovative, sustainable & high-quality healthcare



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



6. Maintaining an innovative, sustainable & globally competitive health industry

Health in Digital Europe

Pending programme adoption

Cloud, data and Artificial Intelligence

Data spaces

Health data
space

Testing and
Experimentation
Facilities

TEF
for
Health

Cybersecurity and
trust

Support to the
health sector

Accelerating best
use of
technologies

Digital
Transformation
of Health &
Care

Digital
Innovation
Hubs

AI TEFs for Health: Examples

University Hospital with Testing facilities



- Focus on Cancer or Paediatrics
- Includes Clinical & MedTech, Trials Office, Integrated Ecosystem Long, term International Research & Business (Big Companies, SMEs, Start Ups) Scientific Association & Policy Makers Medical, Technical, Business, Legal, Ethical services
- AI, Robotics, MedIoT, IoT to Support Patient Safety, Quality of Care, and Process Efficiency;
- Access to medical staff and patients is vital
- Bring trust to users (medical staff and patients) and reinforce digital health ecosystems, by reducing the innovation gap

Real world testing facility for Active and Healthy Ageing (village)



- Large-scale testing environment, such as village, for digital technologies for Active Ageing
- Includes Hospitals, Care facility, Public insurance, Ethics, Legal, social, Nursing school
- Care facilities of the future —> real-world apartments with IoT and sensors for better monitoring of health status of elderly people
- Real-world technologies and reference and standardized infrastructures for accessibility, educational programs for HCWs
- Special Research zone, including testbeds, field testing, legal sandboxing, certification,
- Embedded ethics / legal / social paradigm

EU4Health programme for a healthier and safer Union

#EUBudget #EU4Health

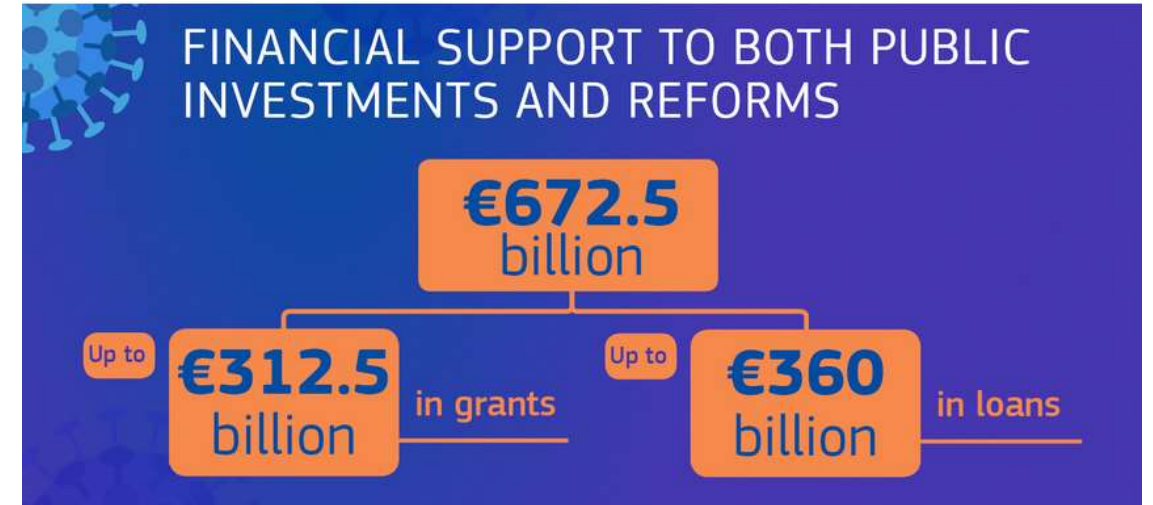
26 March 2021

Objectives

- Improving and fostering health in the Union to reduce the burden of communicable and non-communicable diseases.
- Protecting citizens from serious cross-border health threats.
- Improving the availability, accessibility and affordability of medicinal products and medical devices and crisis relevant products.
- Strengthening health systems by improving their resilience and resource efficiency.

The Recovery and Resilience Facility

- The Commission proposed the RRF in May 2020 as the centerpiece of the Next Generation EU recovery instrument.
- Access to the Facility based on National Plans, drawn up and submitted by Member States (deadline 30 April 2021)
- To be operational as of 1 Jan 2021 until 2026
- Effective implementation of Next Generation EU can deliver 2% of additional GDP by 2024 and create 2 million jobs.



And what about AHA?

Policy focus beyond 2021

- From Active and Healthy Ageing to **Active and Healthy Living**
- **Green Paper on Ageing** : Long-term care and digital + Active and Healthy Ageing with Digital tools and digital skills => **EU Care Initiative**
- **Focus on:**
 - Life-course health and wellbeing promotion, leading to prevention of complex diseases
 - Active ageing (healthy living) at the workplace, Independent living and Integrated care
 - Silver economy and support to an EU single market for innovative health solutions for AHA
 - Age-friendly homes, environments, cities and communities
 - Implementation practices and **deployment** (repositories, knowledge sharing, market place)
 - Capacity building & Digital skills
 - Promote International Cooperation on AHA

In the pipeline...

- Study on Study on “Effectiveness of digitally enabled solutions and the potential of emerging technologies and digital nutrigenomics for personalised prevention and for healthy aging and wellbeing “
- Supporting deployment with actions including accelerators, regional cooperation, strengthening the European Age-Tech industry
- Scale- up comprehensive actions, such as:
 - scaling up smart, healthy, age-friendly homes/environments for healthy living;
 - connected homes (between health practitioners and citizens, with comprehensive set of technologies to provide integrated care solutions)
- Support to high TRL digital solutions to be deployed across regions
- Actions directed to support Digital Skills of Health practitioners and of citizens.