The Future of Ageing and Wellbeing in the Digital World

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28 April 2021

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**

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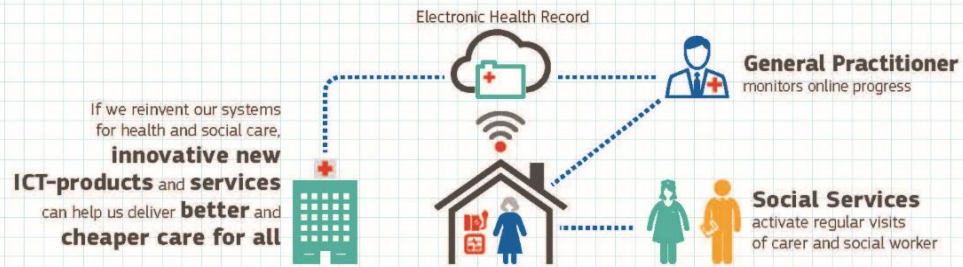
EC Policy Framework and Developments

- Green Paper on Active Ageing, Q1 2021

- Long Term Vision on Rural Areas, Q2 2021

- Report on Demographic Change, June 2020

- Council Conclusions on Mainstreaming Ageing in Public Policies (Portuguese Presidency)

- 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 "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)

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The Silver Economy

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

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European Innovation Partnership on Active and Healthy Ageing

EIP on AHA is driven by **Action Groups**

(Commitments & Collaborative Works) and

Reference Sites (Regional ecosystems):

- **Individual commitments** and **collaborative works** clustered in 6 Action Groups

- **Reference Sites** i.e. coalitions of regions, cities, integrated hospitals or care organisations aimed at providing a comprehensive, innovation-based approach to active and healthy ageing

- Increase the average healthy lifespan by two years by 2020 and to pursue a a Triple win for European citizens

- **103 Reference Sites** to scale up innovation for active and healthy ageing

- More than **1200 organisations**, researchers, stakeholders in the Action Groups

- Twinning Schemes

A1 › Adherence to prescription

A2 › Falls prevention

A3 › Functional decline and frailty

B3 › Integrated care

C2 › Independent living solutions

D4 › Age friendly environments

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

1 Better quality of life for older adults and their networks
2 Increased efficiency and sustainability of support and care systems
3 Strengthening the industrial base in Europe

AAL Programme objectives

Feeling safe · Participate in social life · Active life-style · Supporting informal carers · Supporting formal carers · Early detection of risks · Cost efficiency · New market /uptake of AAL solutions · Commercial income

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Robotics for Ageing Well

Innovating elderly care

www.accra-project.org

2016-2019 – Robotics, Japan

www.ict-acanto.eu

2015-18 – Robotic Friend

www.i-support-project.eu

2015-18 – Robotic Shower System

www.growmeup.eu

2015-18 – Self learning Robot

www.caressesrobot.org

2017-20 – Culture aware robots

www.ramcip-project.eu

2015-18 Service robot for mild cognitive impairment

www.mario-project.eu

2015-18 Interacting Robot for Dementia

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*

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*

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

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*

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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*

COADAPT

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*

BIONIC
body information on an intelligent chip

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*

smartwork

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*

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*

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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…

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HE Destination 1 – Staying healthy in a rapidly changing society

Call 1.1 – Staying healthy (2021)

CSA 1.1 Supporting digital empowerment and health literacy – Healthy citizens 2.0

Call 1.2 – Staying healthy (2022)

Topic 1.4 The Silver Deal: "A comprehensive engagement on the challenges of the ageing population"

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

- **Call 4.1 – Ensuring access to innovative, sustainable and high-quality health care (2021)**

  - Data-driven decision-support tools for better health and care delivery and policy-making

- **Call Partnerships in Health 2022**

  - European Partnership on Transforming Health and Care Systems

Destination 6 – Maintaining an innovative, sustainable and globally competitive health-related industry

- **Call 6.1 – A competitive health-related industry (2021)**

  - Promoting a trusted mHealth label in Europe: uptake of Technical specifications for "Quality and Reliability of Health and Wellness Apps"

- **Call 6.2 – A competitive health-related industry (2022)**

  - CSA 6.2 Setting up a 'European Smart Health Innovation Hub'

  - CSA 6.3 Setting up a European Electronic Health Record Exchange Format Ecosystem

*Other potential topics are detailed in a specific set of slides

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Towards a European Partnership on Transforming Health and Care systems

Horizon Europe – Cluster 1 - Health
Destination 4: Ensuring access to innovative, sustainable and high-quality health care in the EU

Key problem drivers:
- Demographic changes.
- Poor uptake of technological innovations.
- Climate changes, environmental factors and globalisation.
- Changes in political and social landscape.

The opportunity offered by the THCS co-funded partnership:
To pool a critical mass of European/national/regional scientific resources to research, develop and test organisational, service and policy innovations. The context-specific knowledge and evidence will inform health policies and facilitate uptake of innovations, as well as their scaling-up and transfer to other countries and regions.

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

Key Specific Objectives to be achieved by 2030:
1. To provide multidisciplinary research and innovation actions in priority areas of common interest **to fill knowledge gaps, produce evidence and develop guidance on how to transform health and care systems**.
2. To provide applied research/development and innovation actions in priority areas of common interest **to develop new solutions for health and care to support and maintain people's health**.
3. To **strengthen the research and innovation community** in the field of health and care systems across Europe.
4. To improve the ability of relevant health and care actors **to take up innovative solutions, including organisational, service and policy innovations**.
5. To establish a platform for connection and coordination of relevant stakeholders **to develop the ecosystems allowing for a swift scaling up and transfer of successful innovations** to different health and care systems.

Digital Europe Programme:

recap the main objectives

strategic autonomy

Compete globally

Other regions of the world invest huge amount of public capital in advanced technologies. For example, the US and China spend € 10-20 billion annually on AI alone

Achieve scale through collective co-investments

Given the size of investments needed, scale required and risks involved Europe needs to pool the resources together

Regain control over Europe's value chains

and ensure Europe's technological sovereignty

Better address Europe's economic and societal challenges

E.g. climate, health, mobility and public services

Ensure broad take-up of digital technologies across all regions of EU

In deploying latest technologies to offer best services to citizens and business

Support SMEs to acquire or access the latest technologies and skills

More than 400,000 EU vacancies in these fields

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Digital Europe and Health

- Data Space for Health (infrastructure)

- Genomics Data Space

- *European Cancer Imaging Initiative*

- *Testing and Experimentation Facilities for Health*

- *Digital Transformation of Health and Care (CSA)*

- *An ecosystem for digital twins in healthcare (CSA)*

- *Cybersecurity support to health (CSA)*

- *Advanced Digital Skills in Health (Master courses and Short-term trainings)*

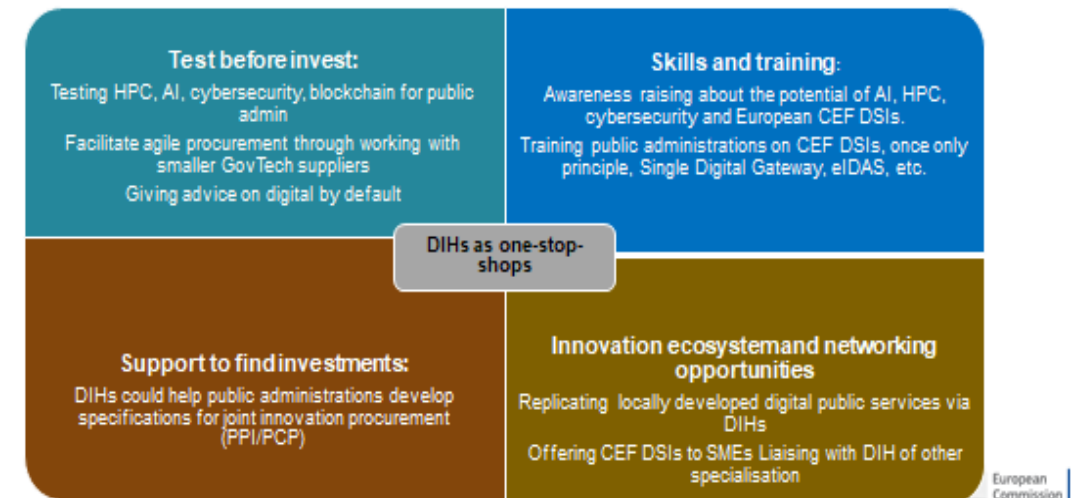- *European Digital Innovation Hubs in Health*

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Digital Europe Programme

Artificial Intelligence on Testing and Experimentation Facilities in Health

A network of DIHs working on scaling-up Innovation in Health

- The purpose of Testing and Experimentation Facilities would be to enable innovators to fully test the accuracy, robustness and safety of AI digital health approaches by providing access to appropriate health data sets, as well as or number of cases, before deploying them. These facilities would be a resource to European innovators and be closely connected to hospitals, researchers and innovators.

- Use case: **Real world testing facility for Active and Healthy Ageing (village, district, care home)**

European Digital Innovation Hubs provide technological expertise and experimentation facilities to enable the digital transformation of the industry and the public sector

Test before invest:
Testing HPC, AI, cybersecurity, blockchain for public admin
Facilitate agile procurement through working with smaller GovTech suppliers
Giving advice on digital by default

Skills and training:
Awareness raising about the potential of AI, HPC, cybersecurity and European CEF DSIs.
Training public administrations on CEF DSIs, once only principle, Single Digital Gateway, eIDAS, etc.

DIHs as one-stop-shops

Support to find investments:
DIHs could help public administrations develop specifications for joint innovation procurement (PPI/PCP)

Innovation ecosystem and networking opportunities
Replicating locally developed digital public services via DIHs
Offering CEF DSIs to SMEs Liaising with DIH of other specialisation

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Lifecycle approach

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

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

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

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

Territorial aspects

Policy focus beyond 2020

- **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

- **Focus on:**

  - Life-course health and wellbeing promotion

  - Active ageing at the workplace, Independent living and Integrated care

  - Silver economy and support to an EU single market for innovative health solutions for AHA (**IHI**)

  - Age-friendly environments, cities and communities (**New European Bauhaus**)

  - Implementation practices and deployment (repositories, knowledge sharing, market place) => **IN-4-AHA**

  - Capacity building & Digital skills (**Twinnings, DEP, HE, ERDF**)

  - Promote International Cooperation on AHA (**IDIH, EU-Japan, EU Canada**)

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Active and Healthy Living in the Digital World

Active and Healthy Living in the Digital World is a multi-stakeholder forum of EU citizens, patients, health and care providers, government authorities, innovators, researchers, civil society and policy makers engaged in discussion, exchange and dissemination of innovations, policies and challenges related to active and healthy living and aging with digital tools.

Subscribe to our newsletter >

- Wellbeing and Health promotion
- Ecosystems and Deployment
- International Cooperation
- Silver Economy & Health Tech
- Age-Friendly environments
- Digital Health Literacy

Active and Healthy Living in the Digital World

- Membership is open to all stakeholders involved in the field of Active and Healthy Living and Ageing with Digital tools.

- Everybody can publish a best practice, news, events, policy documents in the library.

- Aim: increase collaboration and dissemination of results and best practices, break silos and increase the visibility of the topic to all citizens, policy makers and communities throughout the EU.

- A monthly newsletter is sent-out.

- Six sub-platforms working on specific challenges.

- IN-4-AHA is co-manager and Action Groups of the EIP-AHA will work on the platform.

https://futurium.ec.europa.eu/en/active-and-healthy-living-digital-world

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Thank you

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