

## DELIVERABLE 7.4 - POLICY RECOMMENDATIONS

*IN-4-AHA Project - Innovation Networks for Scaling Active and Healthy Ageing*

Work Package: WP7 Communication and dissemination

Deliverable: D7.4

Dissemination level: Public

Version: 5 - Final – November 2022

2022



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017603

<http://ec.europa.eu/digital-single-market/ehealth>

*Innovation Networks for Active and Healthy Ageing* (IN-4-AHA) is a project funded by the European Commission under the Horizon 2020 programme Coordination and Support Action (CSA), Grant Agreement No. 101017603.

This deliverable has been prepared within work package 7 task 7.3. This deliverable is to be reviewed and approved by the European Commission.

More information about the project can be found on the IN-4-AHA webpage and social media pages:

<https://innovation4ageing.eu/>

<https://www.facebook.com/IN4AHA>

[https://twitter.com/EIP\\_AHA](https://twitter.com/EIP_AHA)

<https://www.linkedin.com/groups/8912125/>

More information about the EIP on AHA community and FUTURIUM platform:

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

<https://digital-strategy.ec.europa.eu/en/policies/eip-aha>

#### DISCLAIMER OF RESPONSIBILITY:

The European Commission accepts no responsibility for the contents and results of any work carried out under the IN-4-AHA project.

#### Authors

Michele Calabro, Robbin Kappelhof (EUREGHA)

Contributed by the IN-4-AHA consortium partners.

#### History of changes

Version	Date	Modifications
1	May-June	EUREGHA
2	June-July	All partners
3	July- September	EUREGHA
4	September – October	All Partners
5	November	EUREGHA and TEHNOPOL IN-4-AHA Advisory Board



## Contents

1. Executive Summary.....	4
2. Background information and methodology.....	5
3. Challenges for an innovative active and healthy ageing ecosystem .....	7
4. Policy Recommendations.....	10
Recommendation 1 – Boost smarter and more accessible funding covering all innovation stages	11
Recommendation 2 – More harmonised regulatory and reimbursement frameworks to support AHA innovation .....	12
Recommendation 3 – Streamline information about funding, reimbursement, and regulations ...	13
Recommendation 4 – Unlock the power of data for AHA innovation.....	15
Recommendation 5 – Incentivise and support an innovation development approach based on co-creation and participatory design in real-life environments & adopt person-centred principles for impact evaluation. ....	16
Recommendation 6 – Invest in digital skills, education, and digital literacy to create competencies, boost trust and awareness for both health and care professionals and citizens. ....	18
Recommendation 7 – Better connect the AHA innovation community, making the most of existing platforms and initiatives .....	19
4. Conclusions .....	21
ANNEX 1 – INFOGRAPHIC.....	23
References .....	24



## 1. Executive Summary

**Innovation Networks for Active and Healthy Ageing (IN-4-AHA)** is an EU-funded Coordination and Support Action that aims to contribute to the cross-border scale-up of tested and ready-to-use applications in health and social care. The project brings together a large and diverse group of stakeholders related to innovation and active and healthy ageing (AHA).

The IN-4-AHA work highlighted a set of noticeable challenges impacting the innovation environment in the field of AHA, innovators and all other actors involved in the sector. These challenges cover issues related to fragmentation, regulatory framework, European data approach and infrastructure, innovation ecosystem and information availability. Fragmentation, however, was not the only fil rouge at the basis of the identified issues. Complex funding and reimbursement, limited health systems innovation readiness and an insufficient focus on co-creation also clearly represent obstacles to a thriving and person-centred AHA innovation environment.

To respond to these issues, the IN-4-AHA consortium proposes seven overarching policy recommendations, substantiated by a set of sub-recommendations further detailing potential actions:

- Boost smarter and more accessible funding covering all innovation stages.
- More harmonised regulatory and reimbursement frameworks to support AHA innovation.
- Streamline information about funding, reimbursement, and regulations.
- Unlock the power of data for AHA innovation.
- Incentivise and support an innovation development approach based on co-creation and participatory design in real-life environments & adopt person-centred principles for impact evaluation.
- Invest in digital skills, education, and digital literacy to create competencies, boost trust and awareness for both health and care professionals and citizens.
- Better connect the AHA innovation community, making the most of existing platforms and initiatives.

The recommendations are mainly targeted at both national and European policymakers. At the same time and considering the need for creating a more harmonised AHA ecosystem across Europe, the purpose of this document is also to provide other stakeholders involved in the field of AHA innovation - from innovators to patient organizations or health and care professionals - with useful pointers and indications on specific innovation challenges.

Finally, while these recommendations offer potential answers to a wide range of challenges, it is easy to highlight a few core bonding components between them: the need to shape a more person-centred, coherent and resourced AHA environment where innovators and other key stakeholders, from health professionals to policymakers, can harness the benefits of innovation. Equally, it will be essential to create an even more connected AHA environment going forward, beyond the IN-4-AHA activities and supporting a pan-European movement to keep the topic high on the agenda.

## 2. Background information and methodology

Policymaking in Active and Healthy Ageing (AHA) should be based on real-life needs, person-centeredness, and co-creation. Coordination and Support Action (CSA) projects such as IN-4-AHA have the privilege to collaborate with a large community of AHA stakeholders across Europe including decision-makers, users, innovators, and academia. This allowed the IN-4-AHA consortium, in the framework of its Work Package (WP) 7 (Dissemination and Communication) led by European Regional and Local Health Authorities (EUREGHA), to draft a set of recommendations directed at shaping an innovation-friendly AHA ecosystem, the core objective of this report.

To shape the recommendations, the inputs on AHA policy from 5 interviews with leaders from WP 2 to 6<sup>1</sup> were collected through semi-structured interviews. The interviews enquired partners, who led the work around different WPs, about the key challenges and learnings identified during their work in IN-4-AHA, to capture their experiences in the field.

The interviews were conducted online (via video call) and, for two participants, in written form. Thanks to these interviews we were able to capture views from different WP leaders, and experts in the field of AHA from the health perspective and therefore ideally positioned to shed light on obstacles they found during IN-4-AHA's 2-year tenure.

After transcription, the data from the interviews were grouped into thematic categories using qualitative content analysis. The clustering of the interview results was not defined *a priori* but derived from the data itself, to allow sufficient flexibility for the analysis of contributions from people with distinct cultural, linguistic, and professional backgrounds, as the IN-4-AHA consortium contains partners across Europe.

The following problems/challenges were mentioned most often in the interviews with WP leaders:

- regulatory barriers, incl. regulatory variety across member states;

<sup>1</sup> <https://innovation4ageing.tehnopol.ee/about/>



- lack of awareness/use of evaluation frameworks;
- lack of funding options;
- lack of information on different health and reimbursement systems;
- limited attention to person-centred approach.

These five challenges areas, which will be further elaborated in chapter 3, were taken as a basis for the policy recommendations outlined in chapter 4, supplemented by additional inputs from the IN-4-AHA partners through a hybrid workshop organised in June 2022 by EUREGHA. During the workshop, IN-4-AHA partners focused on the elements included in the first draft of the policy recommendations, providing live feedback and comments.

Following the workshop, a more advanced version of the recommendations was drafted in order to include the received inputs, collect additional feedback from the IN-4-AHA consortium and the IN-4-AHA advisory board, and shape the final set of recommendations.

In addition to the generic rounds of feedback, specific consortium partners provided inputs based on some of the key deliverables of the project, such as the IN-4-AHA roadmap (WP3) or the outputs produced by other WPs covering, for instance, Market Enablers, Policies and Demand (WP2), Innovation Impact Evaluation (WP5) or Long-term Investment Strategy (WP6).



### 3. Challenges for an innovative active and healthy ageing ecosystem

Building on the results of the interviews, the co-creation workshop, and additional knowledge exchange with partners and external stakeholders, a series of core challenges for AHA innovation in Europe were identified.

In the table below you may find an at-a-glance recap of these challenges impacting innovators and the broad AHA innovation ecosystem, clustered by a series of key topics that emerged through the input collection process. It is important to notice that the clustering does not directly represent the specific focus of WPs, but it is based on the identification of commonalities between the individual obstacles highlighted across the IN-4-AHA activities.

<b>Fragmented regulatory framework</b>	<ul style="list-style-type: none"> <li>• Regulatory frameworks strongly differ across borders.</li> <li>• Such fragmentation impacts various stages of innovation, from market access to evaluation, funding, reimbursement, and data use.</li> <li>• Focusing on Data – Fragmented application of the General Data Protection Regulation (GDPR) across the EU increases difficulties for innovators to navigate such a complex and limited environment.</li> </ul>
<b>Absence of a developed European data approach and infrastructure</b>	<ul style="list-style-type: none"> <li>• Interoperability challenges limit the possibility to bring different datasets together and integrate them from different data sources.</li> <li>• Organisational policies and practices in data management vary. This is exemplified for instance by different data standards and exchange protocols, different terminology, data security practices and ways of identifying people, etc.</li> <li>• Limitations (user access and consent) to use data for secondary purposes (such as research and innovation).</li> <li>• Issues with the quality of data input for digital solutions – different data formats, fragmented information, and data not in a machine-readable format.</li> </ul>
<b>Complex pathways for innovation evaluation</b>	<ul style="list-style-type: none"> <li>• Knowledge of and/or access to evaluation tools by service providers appears to be limited.</li> <li>• Service providers tend to wait to evaluate their service only when they need to support scaling-up, further develop their solution, boost</li> </ul>

marketing, acquire a certification or access reimbursement.<sup>2</sup> However, it would be more efficient and impactful to incorporate evaluation from the start of the development process.

- In addition to regularly assessing economic progress and measuring clinical efficacy, it is recommended to include the user’s perspective and person-centeredness dimension for a more complete impact assessment.
- Service providers need knowledge support and funding for the use and access to appropriate evaluation frameworks and tools.
- Lack of common acceptance of clinical validation studies made in one country by other member states.
- Ethical issues when testing AHA innovations with real (sometimes vulnerable) users.

**Complex funding and reimbursement**

- Proper medical and economic validation is challenging due to the lack of early-stage funding, thus limiting access to the market for less-resourced innovators. This is due, for instance to the limited capability of angel investors and smaller venture capitalists to evaluate the potential/risks ratio of nascent health firms.
- The fragmented reimbursement panorama across borders limits innovators’ capabilities to access markets beyond borders.
- Developmental and health and care system disparities between EU countries make the EU market for AHA solutions more complicated, thus more difficult for innovators to obtain funding and enter the market.
- Difficulty in acquiring funding, including EU funding, without CE marking.
- Limited innovation procurement systems and limited awareness among innovators/procurers.
- Lack of dedicated financial instruments focused on healthy ageing suitable for AHA innovators.

**Fragmented European**

- Bringing together all actors active in AHA innovation is challenging, both within and across borders.

<sup>2</sup> IN-4-AHA, Deliverable 5.1, Innovation Networks for Scaling Active and Healthy Ageing IN-4-AHA <https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/DS-1-Report-IN-4-AHA-toolkits.pdf>





<p><b>innovation ecosystem, with lack of harmonised information</b></p>	<ul style="list-style-type: none"> <li>• Lack of truly connected common marketplaces for AHA innovation.</li> <li>• EU-level information for SMEs is not easily accessible, or collected in one place. Lack of a clear and transparent EU database with guidelines regarding each national health system and health insurance system and how to navigate them.</li> </ul>
<p><b>Limited preparedness and innovation readiness in health systems</b></p>	<ul style="list-style-type: none"> <li>• Lack of skills and specific expertise (such as data protection or security) to improve data management by all health and care providers.</li> <li>• General stiffness of the public medical systems and inertia towards adopting new digital tools and processes. This varies across Europe and it is impacted by cultural and societal elements.</li> <li>• Uneven digital infrastructure within and across European countries.</li> <li>• Developmental and health and care system disparities between EU countries make the EU market for AHA solutions more complicated, thus more difficult for innovators to obtain funding and enter the market.</li> <li>• Lack of legislation and protocols to support the integration of digital technologies in providing health and care services.</li> <li>• Lack of digital skills among professionals and citizens.</li> </ul>
<p><b>Insufficient focus on co-creation</b></p>	<ul style="list-style-type: none"> <li>• Limited application of person-centred co-creation with users and participatory design approaches to AHA innovation.</li> <li>• Lack of application of co-creation approaches from the initial phases of development. Tendency to apply co-creation, partially, and at later stages of the solution development.</li> <li>• Lack of co-creation hampers the impact of potentially important innovation.</li> <li>• Lack of real-life testing environments and cooperation between stakeholders to enable this kind of testing.</li> </ul>



## 4. Policy Recommendations

This section of the document can be considered the core part of the deliverable. Based on the challenges outlined in Chapter 3 and knowledge exchange with IN-4-AHA project partners, we are here proposing a set of clustered recommendations providing indications mainly for policymakers to efficiently respond to said issues. The overarching objective of these recommendations is to create a thriving ecosystem for innovation in the field of AHA, covering all stages and actors involved in the process in the most comprehensive way possible.

*Considering this context, the recommendations will be clustered as follows:*

- Boost smarter and more accessible funding covering all innovation stages.
- More harmonised regulatory and reimbursement frameworks to support AHA innovation.
- Streamline information about funding, reimbursement, and regulations.
- Unlock the power of data for AHA innovation.
- Incentivise and support an innovation development approach based on co-creation and participatory design in real-life environments & adopt person-centred principles for impact evaluation.
- Invest in digital skills, education, and digital literacy to create competencies, boost trust and awareness for both health and care professionals and citizens.
- Better connect the AHA innovation community, making the most of existing platforms and initiatives.

For each recommendation, this section will include both an at-a-glance recommendation summary, recapping their key elements, and a more detailed description to better clarify the link between the challenges and the policy proposals.

The recommendations are mainly targeted at both national and European policymakers. At the same time and considering the need for creating a more harmonised AHA ecosystem across Europe, the purpose of this document is also to provide other stakeholders involved in the field of AHA innovation - from innovators to patient organizations or health and care professionals - with useful pointers and indications on specific innovation challenges.

## Recommendation 1 – Boost smarter and more accessible funding covering all innovation stages

### Summary recommendation

Increase access to smart and tailored support and funding mechanisms for innovators, taking into consideration their true needs, and supporting innovation from development phases even before the validation/certification stage, limiting barriers potentially discouraging innovation.

The IN-4-AHA work identified the **lack of smart and accessible AHA funding as an essential innovation barrier**<sup>3</sup>. This is particularly true if we are considering the early stages of innovation when adequate funding is needed to set in motion the complex process needed to validate, evaluate, and ultimately certify innovation. These are all steps needed for innovation to enter an already complex and highly fragmented market.

Without guaranteeing tailored opportunities and increased investments, innovators will be discouraged from approaching the field of AHA, potentially turning their attention to other sectors and therefore limiting the creation of novel solutions to an essential societal problem. Furthermore, the lack of tailored funding impacts not only the initial stages but it can also have detrimental impact on scale-up opportunities. Furthermore, when discussing the challenges related to funding, it is necessary to highlight that not only the ‘quantity’ of funding is important but also the typology of funding and the access pathways to it. If funding schemes are too complex and bureaucratic, their access might be limited. Furthermore, funding efficiency can also be limited if the funding is not shaped to respond to innovators’ needs, for instance targeting only part of the development process and not supporting, for instance, the commercialisation steps. While increasing funding and boosting the attraction of private investors in the field, must be seen as a starting point, making it more efficient is equally, if not more, important.

To address these issues, our first policy recommendations focus on calling for smarter and more accessible funding covering all innovation stages, which could be achieved by:

- Increasing public funding opportunities specific to the field of AHA, both through European and national funding streams.
- Attracting private investors to the AHA innovation field.

<sup>3</sup> IN-4-AHA, Deliverable 6.1, Investment Readiness Assessment  
[https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/FInal\\_D6.1-Investment-readiness-assessment.pdf](https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/FInal_D6.1-Investment-readiness-assessment.pdf)

- Increasing the innovation procurement for instance through additional investments and projects.
- Better coordinating EU and national funding streams in the field of AHA, in view of creating a more harmonised market.
- Better stratification and planning of funding covering all stages of innovation, thus giving innovators the chance to obtain support through tailored instruments depending on their needs.
- Limiting the red tape to access public funding, creating more changes for SMEs with limited resources.
- Engaging with innovators regularly to better understand funding needs, thus improving the efficiency of funding streams.
- Increasing investments in incubators and accelerators.
- Improving information on how to access and use funding and linked instruments for all innovators. We will focus on this matter in our third recommendation below.

## Recommendation 2 – More harmonised regulatory and reimbursement frameworks to support AHA innovation

### Summary recommendation

Regulatory frameworks related to the development, deployment, uptake, and reimbursement of innovative health technologies should become more harmonised across Europe as much as possible to limit fragmentation and allow a more agile and connected market.

Alongside funding issues, another key obstacle identified is the **high fragmentation of the European highly regulated market for innovation in the AHA sector**. European countries differ from each other including in how innovation is evaluated and can therefore enter the market, or reimbursement frameworks.

Such fragmentation hampers the development of the AHA innovation market<sup>4</sup>, creating unnecessary complexity for innovators, for those with more limited resources and thus more limited knowledge on how to engage with different regulators.

While it is of course necessary to keep in mind and respect the differences between European health systems, limiting the chance of building a true seamless single market, it is necessary to move towards

<sup>4</sup> IN-4-AHA, Deliverable 6.1, Investment Readiness Assessment

regulatory and reimbursement frameworks as harmonised as possible, to support AHA innovation across Europe. This can happen through measures such as:

- Learning from existing reimbursement frameworks such as the German Digital Health Applications (DiGA)<sup>5</sup> or the Belgian system<sup>6</sup> for inclusion of health apps in the national health system. While such frameworks are only a few early adoption examples, future developments in the same direction should build on their experience – adapted to the different health systems – rather than starting from scratch.
- Foster cooperation between European countries on health technology assessment, going beyond the mandatory scope of the Health Technology Assessment regulation.<sup>7</sup>
- Invest in European initiatives connecting European national, regional, and local health authorities from one side, and innovators, to foster a dialogue aimed at exchanging practices and solutions on regulatory issues.
- Support regulatory sandboxes for more agile and risk-controlled market access.
- Scale up the work of existing projects<sup>8</sup> aimed at creating European common frameworks applicable to innovation (e.g., evaluation or labelling).

The fragmentation in terms of the regulatory framework also clearly applies to health data regulations, which is specifically addressed in a separate recommendation (Recommendation 4). Furthermore, even with uneven and fragmented regulation, facilitating access to information about different frameworks can surely facilitate innovators' efforts in navigating the complex environment. We address this issue in our Recommendation 3

### Recommendation 3 – Streamline information about funding, reimbursement, and regulations

#### Summary recommendation

<sup>5</sup> Federal Institute for Drugs and Medical Devices (Germany), DiGA – Digital Health Applications webpage, [https://www.bfarm.de/EN/Medical-devices/Tasks/DiGA-and-DiPA/Digital-Health-Applications/\\_node.html](https://www.bfarm.de/EN/Medical-devices/Tasks/DiGA-and-DiPA/Digital-Health-Applications/_node.html)

<sup>6</sup> INAMI – Institut National d'Assurance Maladie-Invalidité (Belgium), Possibilité d'intégrer vos applications au système de santé et de remboursement webpage, <https://www.inami.fgov.be/fr/professionnels/sante/fournisseurs-implants/Pages/fabricants-distributeurs-applications-mobiles-medicales-notifiez.aspx>

<sup>7</sup> European Commission, Questions and Answers: Adoption of Regulation on Health Technology Assessment (13 December 2021), [https://ec.europa.eu/commission/presscorner/detail/en/qanda\\_21\\_6773](https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_6773)

<sup>8</sup> For instance, the recently launched Label2Enable on quality label for health and wellness apps (<https://label2enable.eu/>).

Ensure information regarding funding, certification, reimbursement systems, and other applicable regulations for health innovators but also health decision-makers and services is easily accessible in the least fragmented way possible.

While in the first two recommendations we have tackled the need for both creating new funding opportunities and a more harmonised regulatory framework, it is also necessary to address how innovators, and other key actors in the AHA ecosystem, can better navigate the current environment.

This could be possible by **gathering and curating information about the already existing funding chances and regulatory frameworks**. However, to this stage, this is not yet the case and access to information is still scattered and often unclear.

Providing streamlined information can thus represent a solution to this issue. This could be achieved by:

- Ensuring that current national information platforms dedicated to different regulatory and reimbursement frameworks are easily accessible and easy to navigate. Furthermore, information should always be available in English, to facilitate the access by innovators not speaking the same language.
- Guaranteeing transparent and timely access to a full range of funding opportunities, including clear information on which funding opportunity would be most suitable for specific SMEs at distinct stages of innovation development.
- Invest in dedicated training and information for innovators on how to seek and attract funding from public and private sources.
- Explore the feasibility of a common EU-wide platform on funding, regulatory and reimbursement frameworks in the field of AHA innovation. Such a platform could be financed in the context of future EU initiatives or EU Joint Action, such as dedicated EU4Health programme grants or Coordination and Support Actions under Horizon Europe. This platform could alternatively be seen as a connection point between different individual national platforms. The overarching goal should be to provide innovators with a solution as close as possible to a 'one-stop shop' for all information necessary to enter the AHA field, within and across EU countries.



## Recommendation 4 – Unlock the power of data for AHA innovation

### Summary recommendations

To achieve the full potential of health data, several challenges should be specifically addressed, such as tackling issues including data policy framework fragmentation, inadequate and unconnected infrastructures, interoperability issues and lack of dedicated investments. The European Health Data Space (EHDS) can and should be seen as a unique chance to address these challenges, unlocking the power of data in health and care, also specifically for AHA innovation.

In Recommendation 2 we have already addressed the general issue related to regulatory framework fragmentation across Europe. The IN-4-AHA work, however, highlighted how **particular attention should be dedicated to challenges that are still limiting the potential of using, accessing and sharing health data for health and care innovation**, in our case with a particular focus on AHA. The obstacles related to making the most of the health data revolution are multiple and specific. For instance, it is necessary to mention the complexity due to the diversified application of GDPR across Europe, the well-known issues in terms of interoperability and the lack of adequate infrastructure and investment in the field. Finally, to date, only a few initial steps have been made towards a well-functioning European approach to health data sharing across borders, with only a few virtuous examples<sup>9</sup>.

However, this context is set to be revolutionized by the new EHDS initiative, which could represent not only a ‘simple’ regulation but a new vision for health data in Europe.<sup>10</sup> Officially published in May 2022, the EHDS regulation promises to address several aspects of health data use and reuse across Europe: primary and secondary data use for research and policy-making, Electronic Health Record (EHR) systems and health data governance.

Building on the challenges identified during the IN-4-AHA work, the EHDS framework and its implementation should deliver a more predictable and clear health data framework, addressing and solving key health data challenges such as:

- Build on the GDPR with additional specific rights and mechanisms related to using and sharing personal health data, fixing the current extremely fragmented GDPR application.

<sup>9</sup> Example – SITRA managed funding opportunities to support data sharing pilots:

<https://www.sitra.fi/en/projects/call-for-pilot-projects-on-data-sharing-applications/>

<sup>10</sup> European Commission, European Health Data Space Information page, [https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space\\_en](https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space_en)



- Standardise patient health files and ensure that electronic health data is interoperable and can be accessed across borders.
- Introduce requirements for EHR systems to boost security and interoperability.
- Highlight the need for appropriate encryption tools and security standards to process sensitive health data and allow sharing of health records.
- Boost data quality through guidelines and standards.
- Streamline funding and initiatives in the field of health data.
- Bring together national and regional health authorities to foster health data exchanges across borders, providing adequate resources.

Should the EHDS deliver on its promises, innovators in the fields of AHA will be able to access a more coherent and connected health data European environment. This will not happen overnight and will require active engagement and commitment by all parts of the digital health ecosystem.

**Recommendation 5 – Incentivise and support an innovation development approach based on co-creation and participatory design in real-life environments & adopt person-centred principles for impact evaluation.**

#### **Summary recommendations**

Innovators and service providers should be encouraged, supported, and incentivized by policymakers to adopt a co-design and pro-evaluation approach and participatory design in real-life environments from the early stage of the development process.

This should be accompanied by the adoption of person-centred principles for impact evaluation.

Amongst the challenges identified within the IN-4-AHA work, it is also possible to highlight a general lack of co-creation and involvement of users in the evaluation of innovations. This limited approach to co-creation can for instance lead to the development of innovation not responding to people's needs, both for individual users and the health and care professionals that will need to deploy innovation in real-life settings. Furthermore, the timing for embedding co-creation is also essential. If users are engaged only towards the final steps of building or testing an innovative solution, their involvement risks being only tokenistic and useless.



To support the shift towards a more co-creation and person-centred approach<sup>11</sup>, this recommendation focused on the need to:

- Increase investments in educating and informing innovators about the importance of co-creating and integrating a person-centred impact assessment approach early in the development process.
- Incentivize and support the adoption of early-stage co-creation and regular monitoring and measurement of impact for innovative solutions. Solutions that are co-created from the initial stages of development should indeed have facilitated pathways as they are expected to better address users' needs.
- Support building of real-life environments for co-creating and testing AHA innovations with real users and all key actors, such as living labs and reference sites or other alternative methods (e.g. incubators).
- Facilitate the connection between innovators and health and care professionals to foster an understanding of specific needs, helping innovators to better tailor their solutions.

The shift towards a co-creation-based approach from the early-stages, however, would be not sufficient on its own. To further ensure person-centredness, embedding co-creation should be accompanied by:

- the adoption of person-centred principles for impact evaluation, thus incorporating a measure of person-centeredness into assessment tools.
- inclusion of impact evaluation at all stages of the development process, to avoid the collection of late feedback and therefore potentially waste time and finances.

---

<sup>11</sup> IN-4-AHA, Deliverable 5.2, AHA innovation assessment framework  
[https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/AHA-innovation-assessment-framework-ver-2.0-FINAL\\_280322.pdf](https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/AHA-innovation-assessment-framework-ver-2.0-FINAL_280322.pdf)



Recommendation 6 – Invest in digital skills, education, and digital literacy to create competencies, boost trust and awareness for both health and care professionals and citizens.

#### Summary recommendations

Digital skills, education and health literacy are essential to enable the digital transformation of health and care by building competencies and boosting trust. Policies and investments should be designed with European harmonization, adequate resources, and long-term vision in mind. It will be essential to tailor and stratify these efforts to achieve the best results possible for health and care professionals and the population considering the current level of digital skill and systems' readiness.

Tackling regulatory fragmentation or increasing funding to boost the attractiveness of AHA innovation will not be sufficient if another key challenge remains not addressed: the limited skills and health literacy linked to the deployment and adoption of innovative solutions by all key stakeholders involved.

If we look at supporting the development of a more harmonised European ecosystem, where innovation in the field of AHA can provide equal benefit to all in need, it is necessary to foresee a more holistic approach boosting competencies, knowledge, and literacy for all. Without the right competencies, even solutions that have an enormous potential risk to go unused or see their potential limited by misuse or scarce adoption.

Such an approach can encompass:

- Invest in policymakers' and health decision makers'/managers' education, aimed at better understanding how to address the issues related to AHA and innovation in the AHA field, leading to more informed policy-making and investments.
- Invest in education and skills development, on digital health, for health and care professionals, from health managers to doctors and nurses. This should drive once again a better understanding of the AHA sector, to ensure broader and more standardized purchase and adoption of innovative tools at a health service level.
- Invest in competence building for innovators, to increase their understanding of the ecosystem they operate in and how to better engage with different stakeholders (e.g., to improve co-creation with end users, as suggested in the previous Recommendation).



- Invest in education and skills development for all citizens, to boost education, awareness, and digital literacy to increase trust in innovation and digital preparedness. This should lead to increased interest in taking part in co-creation exercises, engaging in innovation development and increasing adoption, and best use, of innovative solutions.
- Ensure that technologies will be developed as user-friendly and intuitive as possible, to guarantee their widest possible usage, also for groups with limited or not improvable digital literacy and skills.
- Increase entrepreneurial skills for individuals, boosting their interest and knowledge not only in taking part but as a driving force for innovation (e.g., patients and health and care professionals becoming innovators themselves).
- Promote better links between initiatives on education, such as the Pact for Skills, and initiatives addressed at promoting innovation in the field of AHA, to better match challenges and needs.

## Recommendation 7 – Better connect the AHA innovation community, making the most of existing platforms and initiatives

### Summary recommendations

To create a true European ecosystem for AHA, a Europe-wide AHA movement, with corresponding national, regional, and local connections, should be facilitated and supported to connect all stakeholders in AHA, including SMEs, large industry companies, public service providers, private investors, existing innovation platforms and projects, health and care services, policymakers, health and care professionals and citizens organisations. Through the development of such a community, it will be possible to have an overarching coherent and linked-up approach to AHA innovation within and across borders.

As the final policy recommendation originating from the IN-4-AHA, it is necessary to promote the creation of a better-connected, stable, and cohesive AHA community. Such community should be connected yet stratified enough to consider not only all stakeholders involved in the field but also the different levels they are active in (European, national, regional, local, etc.).

Creating such an AHA community can go through several suggested steps such as:

- Support and incentivize the activities of a pan-European coalition bringing together actors representing stakeholders' categories involved in AHA or relevant EU-level initiatives. This EU coalition will allow EU institutions to have a first direct connection with contact points

bringing together relevant cohorts in the field of AHA, thus facilitating the shaping of EU investments and policy-making considering stakeholders' needs. This type of coalition is currently being developed in the framework of the final activities of IN-4-AHA as the European Coalition on Active and Healthy Living (EURAHL).<sup>12</sup>

- Such a European-level coalition should be coupled with national, regional, and local level-focused communities, building on the Reference Sites model<sup>13</sup> and thus allowing a better connection between actors active in a more circumscribed environment, therefore leading to an increased understanding of its specific local challenges. These local communities should be encouraged to develop interconnection with both other local ecosystems and the European-level coalition.
- Connection between actors in the field of AHA should be facilitated through better use of existing platforms, such as Futurium,<sup>14</sup> already developed at the European level to connect the AHA community. To achieve their objectives, the management of these platforms should be resourced to fuel constant activities and better networking.
- Prioritise interconnection and exchange of practice between EU projects and initiatives in the field of AHA, thus increasing the sustainability of the outcomes produced during their implementation beyond the project's ends. This could support a shift from an individual project approach to a stream of initiatives in the field, building on each other's results rather than reinventing the wheel.
- Dedicate particular attention to connecting innovators and funding mechanisms, facilitating matchmaking and thus access to financing.
- Keep investing in a dedicated EU week on AHA, creating a dedicated yearly opportunity for AHA actors to meet and exchange practices and information. This event should be coupled with regular matchmaking workshops, targeting both EU and national/regional/local levels.
- Foster connection between AHA innovation actors and citizens and patients organisations, to potentially increase future engagement of citizens and patients in innovation processes as active innovators.

<sup>12</sup> IN-4-AHA, EURAHL – European Active and Healthy Living Coalition webpage, <https://innovation4ageing.tehnopol.ee/community/eurahl/>

<sup>13</sup> IN-4-AHA, Reference Sites Collaborative Network (RSCN), <https://innovation4ageing.tehnopol.ee/aal/>

<sup>14</sup> European Commission, Futurium Platform, <https://ec.europa.eu/futurium/en/html>



## 4. Conclusions

The IN-4-AHA work highlighted a set of noticeable challenges impacting the innovation environment in the field of AHA, innovators and all other actors involved in the sector. These challenges cover issues related to fragmentation, in terms of the regulatory framework, European data approach and infrastructure, innovation ecosystem and information availability. Fragmentation, however, was not the only fil rouge at the basis of the identified issues. Complex funding and reimbursement, limited health systems innovation readiness and an insufficient focus on co-creation also clearly represent obstacles to a thriving and person-centred AHA innovation environment.

To respond to these issues, the IN-4-AHA consortium proposes seven overarching policy recommendations, substantiated by a set of sub-recommendations further detailing potential actions. While these are primarily addressed to policymakers, several actions and suggestions can be also taken as references by different stakeholders in the field of AHA.

The first recommendation calls for smarter and more accessible funding covering all innovation stages, to equip the AHA innovation ecosystem with the right resources. Considering the importance of fragmentation as a challenge, a more harmonised regulatory and reimbursement frameworks to support AHA innovation is thus suggested as the second key recommendation. Tackling fragmentation, however, should go together with offering the AHA innovation actors more streamlined information about funding, reimbursement, and regulations, to better navigate the existing ecosystem and framework. Furthermore, data is also recognised as fuel for health innovation, and thus the document also pushes for unlocking the power of data for AHA innovation, with a particular focus on the potential impact of the EHDS.

Co-creation and person-centred are then identified as crucial to ensure that innovation will ultimately respond to people's needs. To tackle this, there is the necessity to further incentivise an innovation development approach based on co-creation and participatory design in real-life environments, which should go together with the adoption of person-centred principles for impact evaluation.

Innovation must also be accompanied by the skills to harness its benefits. This goes through investments in digital skills, education, and digital literacy to create competencies, boost trust and awareness for both health and care professionals and citizens.

Finally, recognising the complexity of the AHA environment, the last recommendation calls for better connecting the AHA innovation community, making the most of existing platforms and initiatives and avoiding duplications.



To conclude, while these recommendations offer potential answers to a wide range of challenges, it is easy to highlight a few core bonding components between them: the need to shape a more person-centred, coherent, and resourced AHA environment where innovators and other key stakeholders, from health professionals to policymakers, can harness the benefits of innovation. Equally, it will be essential to create an even more connected AHA environment going forward, beyond the IN-4-AHA activities and supporting a pan-European movement to keep the topic high on the agenda.



## ANNEX 1 – INFOGRAPHIC

*This infographic summarises the policy recommendations outlined in Chapter 4 of this document. It is intended for social media/communication channels use and, in general, to facilitate the promotion of the recommendations towards targeted external stakeholders.*



### IN-4-AHA Policy Recommendations

Boost smarter and more accessible funding covering all innovation stages



More harmonised regulatory and reimbursement frameworks to support AHA innovation



Streamline information about funding, reimbursement, and regulations



Unlock the power of data for AHA innovation



Support an innovation development approach based on co-creation & participatory design in real-life environments, and adopt person-centred principles for impact evaluation



Invest in digital skills, education, and digital literacy to create competences, boost trust & awareness for health and care professionals and citizens



Better connect the AHA innovation community, making the most of existing platforms and initiatives.



Download the policy recommendations on the IN-4-AHA website!



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101017603



## References

- European Commission, European Health Data Space Information page, [https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space\\_en](https://health.ec.europa.eu/ehealth-digital-health-and-care/european-health-data-space_en)
- European Commission, Questions and Answers: Adoption of Regulation on Health Technology Assessment (13 December 2021), [https://ec.europa.eu/commission/presscorner/detail/en/qanda\\_21\\_6773](https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_6773)
- European Commission, Futurium Platform, <https://ec.europa.eu/futurium/en.html>
- Federal Institute for Drugs and Medical Devices (Germany), DiGA – Digital Health Applications webpage, [https://www.bfarm.de/EN/Medical-devices/Tasks/DiGA-and-DiPA/Digital-Health-Applications/\\_node.html](https://www.bfarm.de/EN/Medical-devices/Tasks/DiGA-and-DiPA/Digital-Health-Applications/_node.html)
- IN-4-AHA, Deliverable 5.1, Innovation Networks for Scaling Active and Healthy Ageing IN-4-AHA, [https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/D5.1-Report\\_IN-4-AHA-toolkits.pdf](https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/D5.1-Report_IN-4-AHA-toolkits.pdf)
- IN-4-AHA, Deliverable 6.1, Investment Readiness Assessment [https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/FInal\\_D6.1-Investment-readiness-assessment.pdf](https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/FInal_D6.1-Investment-readiness-assessment.pdf)
- INAMI – Institut National d’Assurance Maladie-Invalidité (Belgium), Possibilité d’intégrer vos applications au système de santé et de remboursement webpage, <https://www.inami.fgov.be/fr/professionnels/sante/fournisseurs-implants/Pages/fabricants-distributeurs-applications-mobiles-medicales-notifiez.aspx>
- IN-4-AHA, Reference Sites Collaborative Network (RSCN), <https://innovation4ageing.tehnopol.ee/aal/>
- IN-4-AHA, EURAHL – European Active and Healthy Living Coalition webpage, <https://innovation4ageing.tehnopol.ee/community/eurahl/>
- IN-4-AHA, Deliverable 5.2, AHA innovation assessment framework [https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/AHA-innovation-assessment-framework-ver-2.0-FINAL\\_280322.pdf](https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/04/AHA-innovation-assessment-framework-ver-2.0-FINAL_280322.pdf)
- Label2Enable European Project webpage, <https://label2enable.eu/>
- SITRA Finland, Funding opportunities to support data sharing pilots information page, <https://www.sitra.fi/en/projects/call-for-pilot-projects-on-data-sharing-applications/>

