D6.3. Investment Implementation Report

IN-4-AHA Project – Innovation networks for scaling active and healthy ageing

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More information about the project can be found on the IN-4-AHA website and social media pages:
https://innovation4ageing.eu/
https://www.facebook.com/IN4AHA
https://twitter.com/EIP_AHA
https://www.linkedin.com/groups/8912125/

More information about the EIP in the AHA community and the FUTURIUM platform:
https://futurium.ec.europa.eu/en/active-and-healthy-living-digital-world
https://digital-strategy.ec.europa.eu/en/policies/eip-aha

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Change history

Version	Date	Modifications
V1	15/12/22	First draft
V2	18/12/22	Participation of investors in the assessment of the investment strategy (6.2) and results of the campaign of the importance of investment in #silvereconomy.
V3	23/12/22	IN-4-AHA partner contributions

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1.EXECUTIVE SUMMARY

The implementation of the investment strategy aims to improve and increase the participation of new partners in the activities of the innovation framework in the programs of the active and healthy ageing network. Specifically, it seeks the participation of networks of investors, public investors, start-ups, and SMEs in the digital and health technology sectors.

To this end, a series of activities have been proposed, such as promoting the culture of investment with a cross-border impact through public procurement of innovation. Public procurement of innovation (PPI) consists of an administrative action to promote innovation aimed at promoting the development of new innovative markets from the point of view of demand through public procurement. [1] A survey has been carried out to know the impacts of the PPI in the different countries of Europe, resulting in the purpose of the PPI being to address new needs, to boost economic recovery, the digital transition and to provide a higher quality public service. The main obstacles impeding the PPI are the lack of knowledge on how to optimize the risk-benefit balance of procurement for both buyers and suppliers and the lack of clarity on how to procure R&D in accordance with the legal framework. In addition, a series of recommendations for a better experience in public procurement of innovation (PPI) are mentioned.

Another activity developed is the participation of investors in the activities of the IN-4-AHA project where they have been informed about the long-term investment strategy and have made us contributions for improvement. These are mainly summarized in the participation in the process of co-creation of professionals, especially doctors, in the case of medical devices that follow the line of the CE certificate. While living-labs can act as a platform to test solutions early, it is also noteworthy to work on creating appropriate regulatory environments for this type of technology and that does not depend so much on the relationship between the provider and the regional ministry. An example of this type of environment is the Sandbox. In addition, depending on the country, clinical root tests need hospitals or health research institutes. There are national or international networks of clinical studies/trials that could serve as a one-stop shop. Regarding the investment phase of Venture Capital (VC), it should be noted that very few invest in the development phase. Add that there are VCs specialized in the Stage Commitment, Public Funds such as Center for industrial technological development (CDTI) or tech transfer and more classic investors in the Traction phase. In general, the document has been very well received by both regional, national, and international investors consulted and that in general, it is considered a complete document although somewhat theoretical where more examples of success stories would have been appreciated.

A series of events have also been held to inform the business communities about the success stories in the AHA solutions where mention has been made of the IN-4-AHA project and the network of health and care living labs managed by CSG, ITGALL, resulting from this project and the sustainability plan that accompanies it.

And finally, awareness has been raised about the potential of investments in the silver economy through the European Strategy of the European Commission where it is estimated that by 2025 6.4 trillion euros of GDP and 88 million jobs will be reached where there are currently about 200 million people over 50 years of age or older as a target audience. In addition, to involve and educate the investment community about the AHA network and its benefits, two proposals have been presented, on the one hand, the

[1] Https://www.shareprocare.eu/ressource/ Green Paper, Public Procurement of Innovation (PPI) in the social and health sector, Procurement Project.

creation of new lines of work between the network of health clusters in Spain #ClustersSaludEspaña, and on the other, participation in online or face-to-face events to publicize the relevance of investment in Silver Economy.

2. PUBLIC PROCUREMENT OF INNOVATION (PPI)

a) INTRODUCTION TO INNOVATIVE PUBLIC PROCUREMENT

The 2014 guidelines on public procurement[2] adapted the public procurement framework to the needs of public buyers and economic operators arising from technological developments, economic trends and increased societal interest in sustainable public spending.

In the wake of the COVID-19 crisis, public procurement in innovation can boost economic recovery in Europe with the aim of spending taxpayers' money appropriately. That is why each public procurement arouses the interest of public opinion to know if the contracted solution is not only formally compliant, but also if it reports the best added value in terms of quality, profitability, and environmental and social impact, and if it provides opportunities for the market of suppliers.

In 2021, the document "Guidelines on public procurement in innovation" published in the context of the Communication "New European Agenda for Research and Innovation: an opportunity for Europa to chart its future" has been developed, which seeks more efficient and higher quality solutions, valuing environmental and social benefits, greater profitability, and new business opportunities for companies.

In addition, the EURIPHI project[3] has been developed, which is an EU initiative that aims to support the construction of a community of practice of public procurement organizations in the health and care sector at a European level that aims to address the needs unmet common unmet and gaps in current health systems and care delivery through the use of innovative procurement using an EU co-financed instrument of pre-commercial procurement (PCP) or 'public procurement of innovative solutions' (PPI).

What is public procurement of innovation (PPI)?

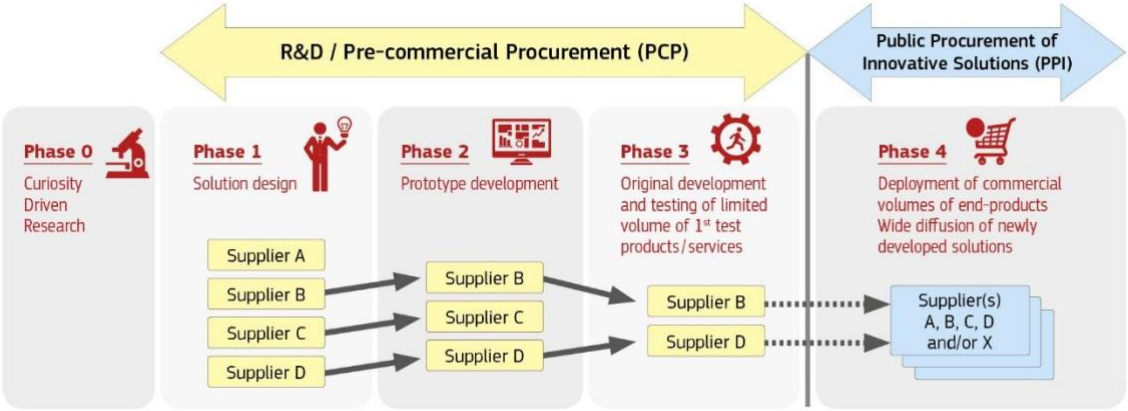
The PPI consists of an administrative action to promote innovation aimed at promoting the development of new innovative markets from the point of view of demand, through the public procurement instrument.[4]

To create a level playing field for businesses across Europe, EU law sets harmonized minimum rules for public procurement. These rules govern how public authorities and certain public service operators purchase goods, works and services. They are transposed into national law and apply to tenders whose monetary value exceeds a certain amount. For lower value tenders, national rules apply.[5]

[2] https://www.boe.es/doue/2014/094/L00065-00242.pdf
[3] https://www.euriphi.eu/the-project/
[4] Https://www.shareprocare.eu/ressource/ Green Paper, Public Procurement of Innovation (PPI) in the social and health sector, Procurement Project.
[5] https://single-market-economy.ec.europa.eu/single-market/public-procurement_en

It may happen that public procurement is the purchase of the innovation process (research and development services) where the public buyer describes its need, leading innovations to develop products or services that do not yet exist on the market. This is called pre-commercial procurement (**PCP**) where you can compare the pros and cons of competing alternative solution approaches allowing you to eliminate risk through solution design, prototyping, development and first product testing.

Or it may also happen that public procurement is the purchase of the results of innovation and that they do not need new research and development (R+D). This is called public procurement of innovation (**PPI).**[6] In addition, pre-commercial procurement (PCP) can go all the way to the development and purchase of a limited volume because in a service contract, the total value of the supplies purchased must remain below 50% of the total PCP of the contract value. As R+D cannot include large-scale production to produce commercial volumes of final products, pre-commercial acquisition does not cover large-scale commercialization. The deployment of commercial volumes of final products is the competence of innovative public purchasing. Pre-commercial procurement is therefore complementary to innovative public procurement.



Infographic showing the phases of Pre-Commercial Purchasing (PCP) and the Public Procurement of Innovative Solutions (PPI) phase. Source: European Commission, Directorate-General for Enterprise and Industry, *Public procurement as a driver of innovation in SMEs and public services*, Publications Office, 2015.

Steps for innovative public procurement

First step: form a critical mass of purchasing power on the demand side that incentivizes the industry to increase production to bring solutions to market with the price and quality requirements for large-scale implementation.

Second step: buyers make an advance announcement of innovation needs. They express the intention to purchase a critical mass of innovative products if the industry can bring them to market with predefined price/quality requirements on a specific date where they can perform conformity testing before purchasing innovative solutions.

Third step: it is the actual procurement of innovative solutions through one of the existing public procurement procedures (e.g., open/negotiated procedure, competitive dialogue, etc.).

[6] https://digital-strategy.ec.europa.eu/en/policies/innovation-procurement

What enables public procurement of innovation (PPI)

- Provide a higher quality public service adjusted to an optimal budget.
- Address new needs.
- Modernize public services faster.
- Help the start-up, the growth of emerging companies and innovative SMEs.
- Share the risks and benefits of designing, prototyping, and testing new products and services between buyers and suppliers.
- Create optimal conditions for greater commercialization and acceptance of R+D results.
- Reduce market fragmentation, reducing costs for buyers and creating wider markets for businesses.
- Create highly qualified R+D jobs in Europe
- Act as a "test seal" for innovative companies that confirms the market potential of new emerging technological developments, thus attracting new investors.

Greater obstacles for public buyers in purchasing innovative solutions[7]

- The lack of knowledge and skills in the use of practices that favour innovation, risk management in contracting and the evolution of technology markets.
- Erroneous priorities focused on short-term costs which do not imply the assumption of the additional risks involved in the purchase of innovative solutions, even if in the medium term these lead to savings and improve efficiency.
- A mismatch with public policies and strategies that leads to treating contracting as purely administrative task.
- The lack of capacity of public administrations to identify innovative solutions
- The fragmentation of demand and the lack of critical mass due to the dispersed nature of public procurement action across borders and administrative boundaries, which makes individual procurement too small for companies to make the effort to offer innovative solutions.

European initiatives on innovative public procurement

With all the above, it is important to generate opportunities for innovation companies in Europe to gain leadership in new markets. In addition, compared to other parts of the world, the PCP and PPI are underused in Europe, so it is necessary to develop European initiatives such as:

1. The **European Assistance for Innovation Procurement (EAFIP) initiative** [8] which supports public buyers across Europe in the development and implementation of innovation procurement by promoting good practice and strengthening the evidence base on completed innovation procurement across Europe.

2. **Creation of the European network of competence centers for innovation procurement[9].** It is an organization to encourage wider use of pre-commercial procurement (PCP) and public procurement of innovation (PPI) that includes providing practical and/or financial assistance to

[7] European Commission, Directorate-General for Enterprise and Industry, *Public procurement as a driver of innovation in SMEs and public services*, Publications Office, 2015, https://data.europa.eu/doi/10.2769/40468
[8] https://eafip.eu/
[9] https://procure2innovate.eu/home/

public buyers in the preparation and/or implementation of PCPs and PPIs in all sectors of public interest.

3. **Guide to public procurement** as a driver of innovation in SMEs and public services to facilitate access to public procurement markets to boost their growth[10]

4. **Study on the professionalization of public procurement in the EU**[11]which is considered the European Competition Framework for Public Procurement Professionals (ProcurCompEU).

5. The **European Research and Innovation Area (ERAC) Committee of** [12] **the European Council.** Recommends that EU Member States: 1. Create a strategic framework for innovation procurement, together with a clear action plan; 2. Raise awareness among public buyers and establish a coordination service to offer support to buyers; 3. Develop and provide financial incentives for innovation acquisitions; 4. Set innovation recruitment targets with monitoring systems at European and national level.

6. **Strategic Plan 2016-2020 of the Directorate-General for Communications, Content and Technology Networks of the European Commission (DG CONNECT**) where [13] the necessary policies are implemented to create a Digital Single Market for greater growth and jobs, where citizens, businesses and public administrations can access and provide digital goods, content, and services in a transparent and fair manner.

7. **Enhanced EU co-financing for PCPs and PPIs in Horizon 2020[14].** The EU's research and innovation funding program for 2014-2020 Horizon 2020 has specific funding instruments for PCPs and PPIs that can be used in all areas of research and innovation.

8. **Guide for Public procurement of innovation (PPI) in the socio-sanitary field. Green paper, Procura project**[15]. Promotion of Public procurement of innovation (PPI) Policies for digital transformation and the introduction of new technologies in socio-health care in the field of active ageing and the promotion of personal autonomy" (hereinafter, PROCURA), funded by the Interreg Sudoe Programme with the aim of promoting PPI policies to implement an integrated care model for the development of social and health care in the field of active ageing It contains an online tool called ShareProCare[16].

9. The **EURIPHI project**[17] is an EU initiative that aims to support the building of a community of practice of public procurement organizations in the health and care sector across Europe that

[10] https://ec.europa.eu/info/policies/public-procurement/tools-public-buyers/innovation-procurement_en
[11] https://ec.europa.eu/info/sites/default/files/procurcompeu-study_prof_pp_en.pdf
[12] https://www.consilium.europa.eu/en/council-eu/preparatory-bodies/european-research-area-and-innovation-committee-erac/
[13] https://eufordigital.eu/wp-content/uploads/2019/10/DG-CONNECT-strategic-plan-2016-2020.pdf
[14] https://ec.europa.eu/research/participants/data/ref/h2020/mga/pcp_ppi/h2020-mga-pcp-ppi-cofund-multi_v4.0_en.pdf
[15] https://www.shareprocare.eu/ressource/ Green Paper, Public procurement of innovation (PPI)in the socio-Sanitraio. Procura Project.
[16] https:// www.procura-project.com
[17] https://www.euriphi.eu/the-project/

addresses common unmet needs and gaps in systems. of health. Information on EU innovation procurement, including EURIPHI products and case studies, is collected on the project website.

10. The **Procure4Health project**[18] is a community of European healthcare organizations interested in acquiring innovation. It contains a website with the information to join the community.

b) SURVEY ON PUBLIC PROCUREMENT OF INNOVATION (PPI) IN EUROPE

Introduction

To know the impacts of the PPI in the different countries of Europe, a survey has been developed where all the key stakeholders in the course of the PPI procedure are present: public administrations and SMEs.

Methodology

For the design of this survey, the need to deepen the situation of public procurement of innovation (PPI) in European countries and identify what facilitates and hinders the PPI has been taken into account together with the usual problems of developers.

The survey has been sent to the collaborating partners of IN-4-AHA, to the Spanish public administration and to the database of SMEs of the Cluster Saúde Galicia (CSG), via email, using a form. A period of one week has been established to provide the answers where twenty-two participants have responded.

The survey begins by asking what is the role of the respondent, being a) public administration, b) innovative project or SME or c) investor. In addition, the entity that the person represents and the country from which the survey will be carried out are also requested. A series of questions related to the interests of all parties involved in the ICC are asked. The completed survey is attached.

Results

The survey on Public Purchase of Innovation (PPI) has received twenty-two responses where nine participants represent the public administration (41%), six participants represent an innovative project or SME related to the health or aging sector (27%), four participants are researchers (18%) and three participants are academics (13.6%). We have not received responses from any investors.
Of all the responses received, a classification has been made by the country of origin of the participant, so that ten participants are from Spain (45%), three participants are from Italy (13.6%), three participants are from Estonia (13 .6%), two participants are from Ireland (9%), two participants are from Slovenia (9%), one participant is from the Netherlands (4.5%) and one participant is from Finland (4.5%).

To the question, **what policies has your country or region developed to support innovative public procurement?** they have answered:
The responses of the ten Spanish participants have considered that there was an increase in the budget (4.5%) and a greater diffusion among the media (13.6%). Six Spanish participants have answered that both

[18] https://procure4health.eu/

responses, that is, an increase in the budget and greater media coverage (27%). They have also added that they have developed a public procurement plan for innovation in Spain[19].
The responses of the three Italian participants is a greater dissemination in the media and in addition, a specific National Agency for the promotion of the PPI (AgID - Agenzi per l'Italia Digitale / Agency for Digital Italy[20]) has been created.
The two participants from Estonia considered that there was an increase in the budget for the PPI and an increase in media coverage.
The two participants from Ireland considered that there was an increase in the budget for the PPI and an increase in media coverage. In addition, an HSE Digital Transformation Unit and Health Innovation Hub Ireland has been set [21] up to support innovation.
One of the participants from Slovenia commented that the ZJN-3 project has been carried out[22] following the guidelines of Europe and the other participant comments that no policy has been carried out.
Finland has opted for an increase in the budget for the PPI and greater dissemination in the media along with the creation of a specific website[23].
The participant from the Netherlands has not answered the question.

To the question **"For what purpose is public procurement made in innovation?",** the option has been given to mark all the answers considered by the participant. Of the twenty-two participants, seventeen have responded to address emerging needs (77%), fifteen have responded to drive economic recovery and digital transition (68%), fifteen have also responded to contribute to advancing markets towards innovation (68%), fourteen have responded to deliver a higher quality public service adjusted to an optimal budget (63.6%), Fourteen have also responded to modernise public services (63.6%) and ten have responded to help start-up and grow start-ups and innovative SMEs (45.4%). One person has pointed out that the purpose of public procurement of innovation (PPI) is only for the confirmation of the policy itself.

To the question**: What makes the PCP (pre-commercial procurement) interesting for public buyers in your country?** has been given the option to mark all the answers that the participant considers resulting in:
Of the ten participants from Spain, nine have responded that it contributes to shaping industry developers to better adapt to public needs (90%), seven have responded that the desired degree of interoperability is achieved from the beginning (70%) and also that development risks are shared with suppliers: Unlicensed use for buyers (70%). Six have responded that research and development risk is shared with other buyers through pooling of resources (60%), Five have responded that the risk of errors in follow-up tenders for large-scale deployment is reduced (50%), three have responded that better quality products are available at lower prices (30%) and two have responded that external financial investors can be attracted to SMEs, which reduces the risk for the buyer to buy from innovative companies.
The three participants from Italy have responded that it contributes to shaping industry developers to better adapt to public needs (100%) and shares the risk of research and development with other buyers through the pooling of resources (100%). Two have responded that the desired degree of interoperability is achieved from the outset (66%) and the risk of errors in follow-up tenders for large-scale deployment (66%) is reduced. One has responded that vendor dependency and unforeseen custom development

[19] https://www.isciii.es/QueHacemos/Innovacion/Paginas/Compra-Publica-Innovadora-del-MCIU.aspx
[20] https://www.agid.gov.it/en
[21] https://www.hsedigitaltransformation.ie/collaborators/health-innovation-hub
[22] http://www.pisrs.si/Pis.web/pregledPredpisa?id=ZAKO7086
[23] https://www.businessfinland.fi/en/for-finnish-customers/services/funding/research-and-development/innovative-public-procurement

expenses are reduced, and another has responded that development risks are shared with vendors: unlicensed use for buyers.
Of the three participants from Estonia, two of them have responded that external financial investors can be attracted to companies, which reduces the risk for the buyer to buy from innovative companies, one has responded that better quality products are obtained at a lower price. One also replied that the desired degree of interoperability was achieved from the outset, and another replied that research and development risk was shared with other buyers through pooling of resources.
The two participants from Ireland responded that it helps shape industry developers to better adapt to public needs and that research and development risk is shared with other buyers through pooling of resources. It has had a response that better quality products are achieved at a lower price, that the desired degree of interoperability is achieved from the beginning, that the risk of errors in follow-up tenders for large-scale deployment is reduced, that vendor dependency and unforeseen customized development costs are reduced, and that external financial investors can be attracted. We are for companies, which reduces the risk for the buyer to buy from innovative companies.
The two participants from Slovenia have responded that better quality products are available at a lower price. It has had a response that helps shape industry developers to better adapt to public needs, that the desired degree of interoperability is achieved from the outset and that the risk of errors in follow-up tenders for large-scale deployment is reduced.
The participant from the Netherlands replied that the risk of errors in follow-up tenders for large-scale deployment is reduced and that dependence on suppliers and unforeseen personal development costs are reduced.
The participant from Finland replied that better quality products are available at a lower price, that it helps to shape industry developers to better adapt to public needs and that the desired interoperability rate is achieved from the outset.

To the question, **why is it interesting for SMEs to participate in PCPs (pre-commercial** procurement**) in their country?** has been given the option to mark all the answers that the participant considers resulting in:
Of the ten participants from Spain, nine have responded because it generates an opportunity to grow globally (90%), five have responded because it is an opportunity to leave the traditional role of subcontractor (50%) and because it generates a path of gradual financial growth (50%).
The three participants from Italy have responded because it is an opportunity to get out of the role of subcontractor (100%). The reason why disproportionate qualification or financial guarantee requirements are not necessary (10%), because it generates a path or financial growth (10%) and because it generates an opportunity to grow globally (10%) has obtained an answer.
Of the three participants from Estonia, two have responded because it generates a path of gradual financial growth, because it is an opportunity to leave the traditional role of subcontractor and because it generates an opportunity to grow globally. The reason why disproportionate qualification or financial security requirements are not necessary has been answered.
The two participants from Ireland have responded because there is no need for disproportionate qualification or financial guarantee requirements. The reason why it generates a path of gradual financial growth because it is an opportunity to leave the traditional role of subcontractor and because it generates an opportunity to grow globally has obtained an answer.
The two participants from Slovenia have responded because it creates a path of gradual financial growth. You have received a response because it is an opportunity to get out of the additional role of subcontractor.
The participant from Netherlands comments that only large companies are interested.
The participant from Finland has responded because it generates a path of gradual financial growth and for the development cooperation of R&D.

To the question, **what can the PCP (pre-commercial** procurement**) do for citizens in your country?** The option has been given to mark all the answers considered by the participant resulting in:
Of the ten participants from Spain, eight have responded that it improves the quality and efficiency of public services and strengthens the climate of innovation, creating qualified employment. In addition, three have responded to a more efficient use of taxpayers' money, optimizing public spending on R+D.
Of the three participants from Italy, all have responded that it improves the quality and efficiency of public services. An answer has been obtained by the option that strengthens the climate of innovation, creating qualified employment and a more efficient use of taxpayers' money, optimizing public spending on R&D.
The three participants from Estonia have responded for the improvement and efficiency of public services and a more efficient use of taxpayers' money, optimizing public spending on R+D. Two participants responded that it fosters the climate of innovation, creating skilled employment.
The two participants from Ireland responded that it improves the quality and efficiency of public services and strengthens the climate of innovation, creating skilled employment.
The two participants from Slovenia replied that it improves the quality and efficiency of public services, strengthens the climate of innovation, creating qualified employment and a more efficient use of taxpayers' money, optimizing public spending on R&D.
The participant from the Netherlands also replied that it improves the quality and efficiency of public services, strengthens the climate of innovation, creating qualified employment and a more efficient use of taxpayers' money, optimizing public spending on R&D.
The participant from Finland replied that it improves the quality and efficiency of public services.

To the question**: What are the main obstacles preventing the acquisition of innovation through the PPI in your country?** The option has been given to mark all the answers considered by the participant resulting in:
The ten participants from Spain have answered the lack of knowledge on how to optimize the risk-benefit balance of the acquisition of research and development, both for buyers and suppliers (100%). Four participants responded to the lack of clarity on how to procure R&D in accordance with the legal framework (40%) and three responded to the fragmentation of public demand in Europe (30%).
Of the three participants from Italy, two answered the lack of knowledge on how to optimize the risk-benefit balance of R&D procurement, for both buyers and suppliers. The option of lack of clarity on how to contract R&D in accordance with the legal framework has received a response in addition, a participant has proposed one more obstacle such as costs to develop solutions.
The three participants from Estonia answered the knowledge on how to optimize the risk-benefit balance of research and development procurement for both buyers and suppliers (100%). Two participants responded to the lack of clarity on how R&D is procured in accordance with the legal framework.
The two participants from Ireland have responded to the lack of knowledge on how to optimize the risk-benefit balance of the acquisition of research and development, both for buyers and suppliers and also the lack of clarity on how to procure R&D in accordance with the legal framework. In addition, one participant has proposed as an obstacle interoperability, cybersecurity, and lack of digital training.
Of the two participants from Slovenia, one has responded to the lack of knowledge on how to optimize the risk-benefit balance of the procurement of research and development, both for buyers and suppliers and the other to the lack of clarity on how to conduct R&D in accordance with the legal framework.
The participant from the Netherlands has responded to the lack of knowledge on how to optimize the risk-benefit balance of research and development procurement, both for buyers and suppliers, the lack of clarity on how to carry out research and development in accordance with the legal framework and the fragmentation of public demand in Europe.

The participant from Finland has responded to the lack of knowledge on how to optimize the risk-benefit balance of research and development acquisitions, both for buyers and suppliers and proposes as an obstacle negative publicity for failed PPI projects.

To the question**: What kind of problems do innovative projects encounter when participating in a PPI process?** The option has been given to mark all the answers considered by the participant resulting in:
Of the twenty-two participants, seventeen have responded to the lack of training /ignorance on the part of professionals about the procedures to be followed (77%), fifteen have responded to actions subject to dense bureaucratic procedures (68%), thirteen have answered the difficulties in drafting the specifications (59%), eleven have responded the difficulties with the definition of the conditions of transfer of results (50%), ten have responded to short deadlines and slow administrative procedures (45.5%), eight have responded to the forecasting and planning of the purchase (36%) and four have responded to the little information or changing information by the control body (18%). They have also added the existence of consortia made by large entities that prevent the entry of new SMEs.
To the question: Have the results of your experience with PPI been satisfactory? The following replies have been obtained:
Of the twenty-two participants, eight answered that they had a satisfactory experience, eight answered that they had not yet had an experience with PPI, four answered that they had a negative experience, and two answered that their experience was neither good nor bad.

To the question **"Do you know the European platform for innovation procurement[24]?",** eleven participants (50%) have replied that they do know the platform and eleven other participants (50%) do not.

To the question **"Are you aware** of the **European Assistance for Innovation Procurement (EAFIP[25]) initiative to support public buyers across Europe?",** fifteen participants do not know about the initiative and seven participants do.

c) CONCLUSIONS ON THE CULTURE OF CROSS-BORDER IMPACT INVESTING THROUGH INNOVATION PROCUREMENT

In recent years, there has been a greater tendency to develop policies to support public procurement of innovation (PPI) through increased budget for the PPI, greater media outreach, and the creation of national agencies, innovation hubs or PPI-specific digital transformation units.

The PPI aims to address new needs, to boost economic recovery and the digital transition, and to deliver a higher quality public service.

Public buyers have an interest in acquiring PPI to help shape industry developers to better adapt to public needs and share development risk, as well as to achieve better quality products at lower prices.

[24] https://innovation-procurement.org/
[25] https://eafip.eu/

SMEs are interested in participating in PPI because it generates a path of gradual financial growth and the opportunity to grow globally. In addition, it is an opportunity to get out of the traditional role of subcontractor.

Citizens benefit through the PPI from an improvement in the quality of life and efficiency of public services and from a more efficient use of taxpayers' money.

The main obstacles impeding the PPI are the lack of knowledge on how to optimize the risk-benefit balance of procurement research and development for both buyers and suppliers along with a lack of clarity on how to procure R&D in accordance with the legal framework. Also relevant is the fragmentation of public demand in Europe.

The problems encountered by innovative projects when participating in a PPI process are the lack of training or ignorance on the part of professionals about the procedures to be followed. Also, a problem are actions subject to dense bureaucratic procedures, difficulties in drafting the specifications and in defining the conditions for transferring results.

The initiatives proposed from Europe to support public procurement (EAFIP, procurement platforms, etc.) need to be better known to stakeholders such as public administrations, SMEs, and investors.

d) RECOMMENDATIONS FOR A BETTER EXPERIENCE IN INNOVATIVE PUBLIC PROCUREMENT

One of the keys is to involve all key stakeholders in the course of the PPI procedure, citizens, public administrations, and SMEs. In this way, the understanding of the main challenges, motivations, expectations, assessments, etc. is improved, especially from a perspective of person-centered attention, assuming the main guarantee that the public procurement of innovation (PPI) project comes to fruition. It is important to consult the market before starting the process or bidding or even that the market proposes creative and innovative solutions.

When making the specifications, it is necessary to identify suppliers and contractors with sufficient capacity to develop the products and / or services required and seeks to find the best value for money, not the lowest price. To facilitate and simplify the transnational PPI process, it is recommended to establish a single buyer.

In contracting, it is recommended to develop and implement a monitoring and evaluation plan for the contract, decide on management, risk sharing and include contractual clauses that promote innovation. It is important to take advantage of existing technologies.

It is recommended to ensure that all the profiles of the team are covered from a multidisciplinary perspective (technical area, project management, innovation, legal and contracting) and to detect as accurately as possible the real training needs through questionnaires to different experts.

It is also recommended the preparation of a "PPI Supplier Manual" shared with all organizations that are dedicated to the accompaniment of companies in the integral PPI process where the transfer of knowledge is specified for the detection of opportunities in the application of the methodology and for the discussion of doubts.

In addition to the content of this document, there has been a recording of a webinar on PPI (IN-4-AHA - Public Procurement in Innovation (PPI): the Galician example) carried out by the General Secretary of Health of the Galician Ministry of Health in the that explains the Galician experience while commenting on the PPI of the health sector in other European countries. The link to view the presentation at https://innovation4ageing.tehnopol.ee/wpcontent/uploads/2022/12/IN4AHA_Webinar_WP6.3_PPI_SLIDES_ENG.pdf

3. PARTICIPATION OF INVESTORS IN THE VALUATION OF THE LONG-TERM INVESTMENT STRATEGY

To encourage investors to participate in the activities of the IN-4-AHA project, a summary of the deliverable D6.2 Long-term investment strategy[26] has been made and they have been invited to make contributions.

The summary of the long-term investment strategy was shared among regional, national, and international investors. We have received responses from service providers (3), investors (3), innovation agencies (1) and service consultants (2). In general, the evaluation was positive considering it a fairly complete document, intuitive to read, although most of those consulted highlight the high theoretical content of the document and the lack of success stories that support the theory. In addition, they consider that the CE classifications that are not mentioned as 2a, 2b and 3 are missing and highlight the importance of digital and technological solutions that clearly demonstrate a clinical advantage with a strong $p<0.05$ statistic.

Some more concrete comments on some of the aspects of the deliverable are:

- **Regulatory sandboxes for the testing of medical devices**: When evaluating health projects, sometimes it is frightening when they tell you that they are talking to a health service because of how difficult it is to move something in this environment. In the report you talk about living-labs as a way to test solutions early, but I think you should also work on creating appropriate regulatory environments for this type of technology and that do not depend so much on how well you manage with public administration. An example can be the sandboxes, such as the one that has been tested in Spain for Fintech, and that somehow establish fewer regulatory barriers to test technologies (in this case Fintech) without having to adopt all the regulation that applies to a bank. This would also make it possible to harmonize at national/European level the requirements for testing new technologies in a controlled environment.

- **Living labs and research centers**: In addition to living labs, it is important to collect who are the patient providers for clinical trials. Here it will depend on the country, in Spain the way to mount a clinical study is through a hospital / institute of health research. That start-ups have access to these patients is essential to be able to perform clinical validation. There are national or international networks of clinical studies/trials that could serve as a one-stop shop.

[26] https://innovation4ageing.tehnopol.ee/wp-content/uploads/2022/09/D6.2_Long-term-investment-plan_v1-1.pdf

- **VC** Investment Phase: As for the phases, I think there are very few funds that invest in the Development phase. In general, we do not finance R+D unless justified by the nature of the business (for example a drug development with several years of clinical phases), and those of us who enter very early phases are more specialized vehicles in science or health. I would talk about VCs specialized in the Stage Commitment, Public Funds such or tech transfer (such as Unirisco) and more classic investors in the Traction phase. Most funds, even if they are specialized in health, do not invest without traction (sales, customers, pilots, etc.). From this phase onwards, it would include family offices, which, although they are of considerable size, can invest from initial phases.

4. INFORM BUSINESS COMMUNITIES ABOUT SUCCESS STORIES IN AHA SOLUTIONS

The following is a reference to the events in the active and healthy ageing sector with representation of business entities in which it has participated to inform about the success stories of the IN-4-AHA project:

- **SLUSH 2021**. As part of the test and scale up program for 5 pilot companies of IN-4-AHA, a study visit to the SLUSH event in Finland was organized on December 1st. 3, 2021. The study visit included the SLUSH event program, 3 workshops, coaching by investors and experts, meetings with other companies in the sector (partners, suppliers, customers) and benchmarking and testing of the business idea of the company in a global environment. Workshops organized in relation to Slush: How 5G/6G will change our lives in post-covid technology and market conditions (1 December 2021), Introduction to Nordic markets in healthcare and toolkit IN4AHA for the participatory design process in the health and care sector.

- **Reference Network awards ceremony on [27] 10 October 2022 in Brussels.** To celebrate and recognize the success of the AHA reference site regions, an award ceremony was organized on 10 October 2022 in Brussels. The event provided an opportunity for AHA reference site regions to meet, develop relationships and reinvigorate peer learning and knowledge sharing. The Cluster Saúde Galicia (CSG - Galician Health Cluster) had the opportunity to participate and comment on the IN-4-AHA project and the ITGALL network.

- **European Week for Active and Healthy Ageing** event **[28] in Poland from 18 to 20 October in 2022**. The event brought together collaborating partners from industry and academia to care providers and older people themselves. The Cluster Saúde Galicia, CSG has been invited to participate as a speaker in the event dedicated to strengthening collaborative relationships between European social and health ecosystems. The aim is to be a European platform of exchange networks to support innovation and interdisciplinary cooperation for active and healthy ageing. In addition, the IN-4-AHA project has had significant visibility together with the ITGALL network.

- **Matchmaking and networking event EXOPORPYMES**[29] **in A Coruña (Spain) to 25 October in 2022.** The event had the objective of creating a space for the networking of local companies with

[27] https://ec.europa.eu/newsroom/livingdigiworld/items/762308/en
[28] https://ageing-well-week.eu/
[29] https://www.palexco.com/evento/ix-exporpymes-2022/

international companies in the health ecosystem. Participating companies had the opportunity to present and comment on relevant actions of their company (what projects, services, or outstanding products they are working on, and what they need for). It has been an event closed to 40 participants and where the European project IN-4-AHA has been discussed with the participation of Myontec, one of the companies selected to carry out the WP4 tests of IN-4-AHA.

The international companies that participated are:

- Ireland: Wellola, Empeal, Healtcare Analytics
- Finland: Myontec, Fibion
- Estonia: SpeakTX

A LEX delegation from Northern Ireland and Ireland consisting of the Medicine Optimisation Innovation Centre (MOIC) and Health Innovation Hub Ireland (HIHI) also participated.
The local companies that participated: Saraiva & Activiza, BiG Team, Atendo, Ozoaqua, RCFil, SIAD24 and Dilemma Solutions.

- **RIES Forum[30] of the Cluster Saúde Galicia (CSG) in Santiago de Compostela (Spain) on October 26 and 27, in 2022**. RIES was the reference forum to address the challenges and opportunities of the health ecosystem among the main actors of the health and socio-health sectors of the public and private sectors. The objective was to address cutting-edge health, with the innovative solutions that have been developed for an improvement in care and the challenge of matching this progress with an impact on care models. In addition, the prizes that are awarded each year to relevant projects are presented. The event was attended by more than 100 people and had a showroom where the IN-4-AHA project and the ITGALL network were presented.

- **Online event Senior Eco-nect[31]: Scoping Emergence & Interconnectivity in Silver Economy Ecosystems on November 7 in 2022.**
The event aimed to support and encourage the emergence of diverse entrepreneurial sectors and how we can interconnect silver economy ecosystems to meet the needs of older people. There were working rooms to establish and share existing knowledge on good practices and barriers to the emergence and interconnection of the silver sector. The participants were companies from the silver economy sector, entrepreneurs, and representatives of public administrations.

- **Intercluster meeting of healthcare clusters of Spain on 17 November in 2022, Madrid** (Spain) #ClustersSaludEspaña have met to reactivate their collaboration, after the pandemic, in an annual coordination meeting in which they have designed their strategy to boost the activity of companies in the sector. The services offered to the business community are the integral management of R + D + I aid, the management of "Living Labs", the introduction of biotechnology in the production chain of other industrial sectors, the reconversion of employment to attract it to the sector, training in the regulatory framework, the relationship with entrepreneurship, the accelerator of new projects and coordination with the public sector for the development of new initiatives.

[30] https://forumries.com/
[31] https://www.senior-eco-nect.com/

- **Senior innovation lab event [32] in Santiago de Compostela (Spain) on December 2nd in 2022.** It is an event in the aging sector with innovative students from the University of Santiago de Compostela. The event focused on the presentation of innovative ideas from students to relevant companies in the active and relevant ageing sector such as DomusVi, Red Cross, Saraiva, Ategal which belong to the ITGALL network managed by CSG. In addition, the Cluster Saúde Galicia (CSG) participated, where mention was made of the IN-4-AHA project and the ITGALL methodology as a success story among companies in the aging sector. The event has had a participation of 60 people.

5. UNDERSTANDING THE POTENTIAL OF INVESTMENTS IN THE SILVER ECONOMY

a) RAISING AWARENESS IN SOCIETY IN GENERAL ABOUT THE IMPORTANCE OF THE SILVER ECONOMY

The European Commission has developed a Silver economy strategy for Europe with the aim of fostering economic growth in Europe by focusing on technological and labour markets relevant to population ageing to address the societal challenge of demographic change.

According to the Silver **Economy Strategy**, the [33]definition of Silver Economy is the sum of all economic activity that meets the needs of people aged 50 and over, including the products and services they buy directly and the additional economic activity that this expense generates. Thus, Silver Economy isa unique cross-section of economic activities related to the production, consumption and trade of goods and services relevant to older people, both public and private, and includes direct and indirect effects.

In the European Union there are about 199 million people aged 50 and over in 2015 (39% of the total population). In total, this age group consumed €3.7 trillion worth of goods and services in 2015. Most (just under 90%) of this spending was privately funded by Silver Economy members, using their income, savings, and government transfer payments. The rest was paid directly by the public sector. The Silver Economy plays a vital role in supporting activity in a wide range of sectors across the EU. In 2015, this economy maintained more than 4.2 trillion euros of GDP and more than 78 million jobs.

These figures illustrate that **the EU's Silver Economy is of considerable importance even in a global macroeconomic context.** For example, if ranked among sovereign nations, the Silver Economy would be the third largest economy in the world, behind only the U.S. and China.

In addition, due to the globalized nature of modern supply chains, the spending habits of the Silver Economy also create opportunities and business for companies outside the EU. In 2015, revenues of €780

[32] https://www.usc.es/gl/servizos/sepiu/sc104/formacion/senior_innovation_lab_2022.html

[33] European Commission, Directorate General for Communication Networks, Content and Technologies, Worthington, H., Simmonds, P., Farla, K., et al., The silver economy: final report, Publications Office, 2018, https://data.europa.eu/doi/10.2759/685036

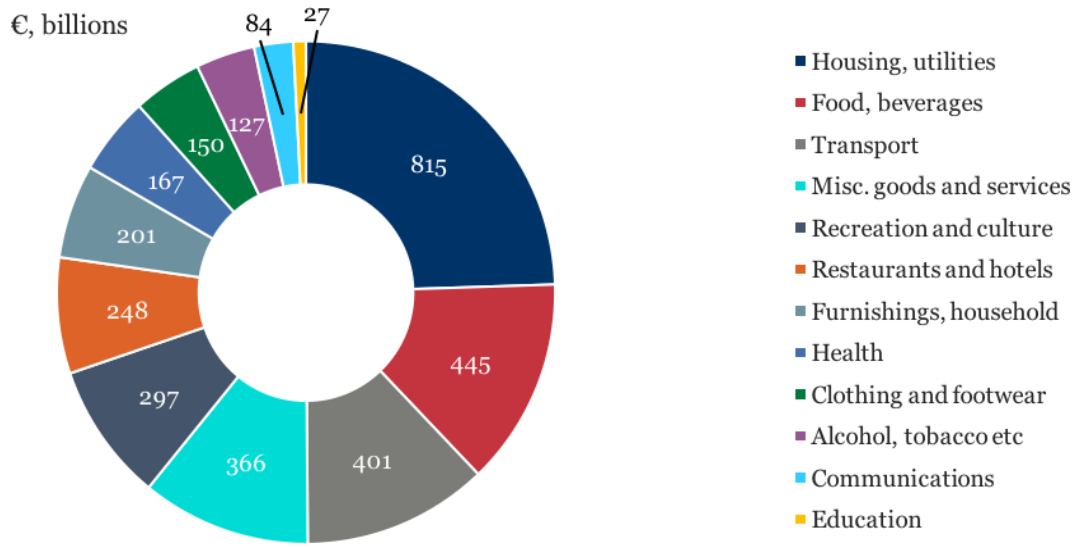
billion were generated for companies in the rest of the world, or 18.6% of Silver Economy GDP. This figure is slightly higher than the EU average (15.1%), how this evolves in the future will depend fundamentally on how EU companies can position themselves as suppliers of the kind of products demanded by this increasingly influential consumer group.

Compared to younger segments of the population, the Silver Economy consumes a disproportionate share of health services, while also spending more on recreation and culture (reflecting more leisure time available) and on furniture and household goods (reflecting higher rates of homeownership).

Looking ahead, the expected ageing of the population should make the Silver Economy increasingly influential as a source of demand across the EU. The reference forecast is that the total consumption of the Silver Economy will grow by approximately 5% per year until 2025, reaching 5.7 billion euros.

In turn, this will drive a substantial increase in the level of economic activity sustained by spending in this type of economy. **By 2025 it is estimated that 6.4 trillion euros of GDP and 88 million jobs will be reached.** This would be equivalent to 31.5% of EU GDP and 37.8% of EU employment.

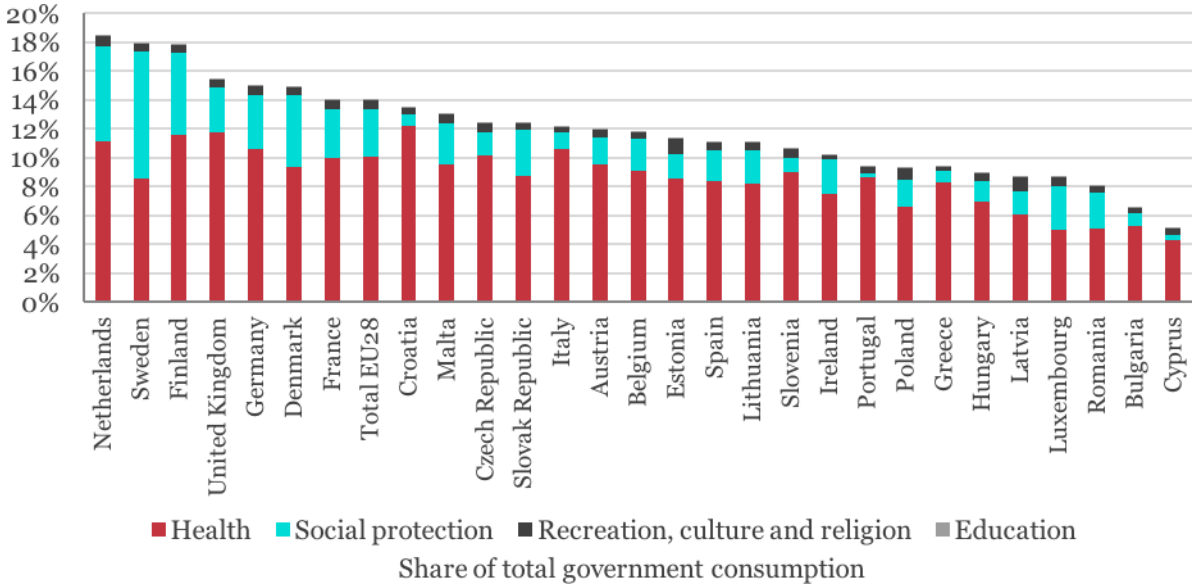
Distribution of private consumption expenditure in 2015



Source: European Commission, Directorate-General for Communications Networks, Content and Technology, Worthington, H., Simmonds, P., Farla, K., et al., *The silver economy: final report*, Publications Office, 2018.

In 2015, public spending in the Silver economy reveals that health spending is predominantly by people over 50. The next most significant public expenditure is spending on social protection.

Breakdown of public expenditure by category and European country



Source: European Commission, Directorate-General for Communications Networks, Content and Technology, Worthington, H., Simmonds, P., Farla, K., et al., *The silver economy: final report*, Publications Office, 2018.

Challenges and opportunities:

One of the biggest challenges we face is the **increase** in life expectancy across the EU where life expectancy at birth is now 78 years for men and close to 84 years for women. However, life expectancy at the age of 65 for men is 18 years and for women it is 22 years, with 8.6 years of healthy life expected for both (Eurostat, 2014). This means that, on average, at age 65 older people can only expect to live less than half of the remaining years in good health. In other words, life expectancy has increased relatively rapidly, in contrast, healthy life years largely stagnated in Europe[34]. As an opportunity, the emergence of initiatives that promote active and healthy ageing along with the role of food and diseases.

A **decline in**[35] short-term memory abilities is common with aging. A specific challenge for old age is dementia and almost 6% of the EU population over 60 suffers from dementia. Alzheimer's disease is the most common disorder that causes dementia, accounting for 60 to 65% of all cases. The number of people with dementia is estimated to increase from 10 million in 2015 to 13 million in 2030 and 19 million in 2050. As an opportunity, there is a market for cognitive training games, a market for personalized medicine, and the market for embedded or wearable technology that collects health information.

The mobility of the elderly is sometimes impaired, leading to isolation and deprivation. Fewer and fewer seniors are using transportation services and most homes are not accessible. As an opportunity arises the introduction of driverless or autonomous cars, as well as adaptable and intelligent home solutions for homes.

The average employment rate for people aged 55-64 in the OECD is 58.5%18, substantially lower than the

[34] http://ec.europa.eu/eurostat/statistics-explained/index.php/Healthy_life_years_statistics

[35] 10 http://www.apa.org/pi/aging/resources/guides/older.aspx

average employment rate for 25–49-year-olds in the OECD of 76%.[36] Isolation is a particular challenge in old age, with retirement being only one of the causes. As an opportunity arise education and training for seniors along with increased socialization and interaction with the community.

The untapped potential of the labour market for older people where a significant proportion of the +50 group ends up leaving years before their official retirement age. There is also a shortage of highly skilled workers in many sectors. The increase in the number of older entrepreneurs offers opportunities to solve multiple problems faced by people in the 50+ age group as public administrations and large companies delay retirement to achieve efficiency targets.[37]

Solutions for the growth of the Silver Economy:

A number of potential solutions have been identified that can contribute to the growth of Silver Economy markets[38]:

- Connected Health: To develop the market for mobile health devices, such as neurological, cardiac, and sleep and apnea monitors, and the mobile health services market that addresses, among others, prevention, diagnosis, monitoring and well-being, with a view to better diagnosis, better prescription of medications, and decrease adverse drug reactions and other health needs of the elderly population.
- Robotics and games: developing the robotics market to help offload caregiver jobs and help the elderly and frail population and integrate robotics with the gaming sector, to enable the 50+ to interact with robotics in a fun and interactive way.
- Silver tourism: improving the EU's tourism offer to the needs of the 50+ population, offering more complete tourist packages, for example including mHealth and promoting off-season tourism.
- Integrated care services and enhanced connectivity: spreading the diffusion and integration of ICT technologies for health care monitoring in private homes that are easy for seniors to use, help overcome isolation and improve efficiency in the care sector
- Developing an age-friendly built environment, including smart home solutions: supporting innovation and smarter home environments of new construction and modernization, in order to empower an ageing population to live more meaningful, independent, and connected lives with dignity and autonomy.
- Knowledge for an active and healthy lifestyle: support the development of integrated tools/applications for data analysis that support a healthy and active lifestyle and promote the development of globally competitive products, including wearable technologies,

[36] https://data.oecd.org/emp/employment-rate-by-age-group.htm#indicator-chart

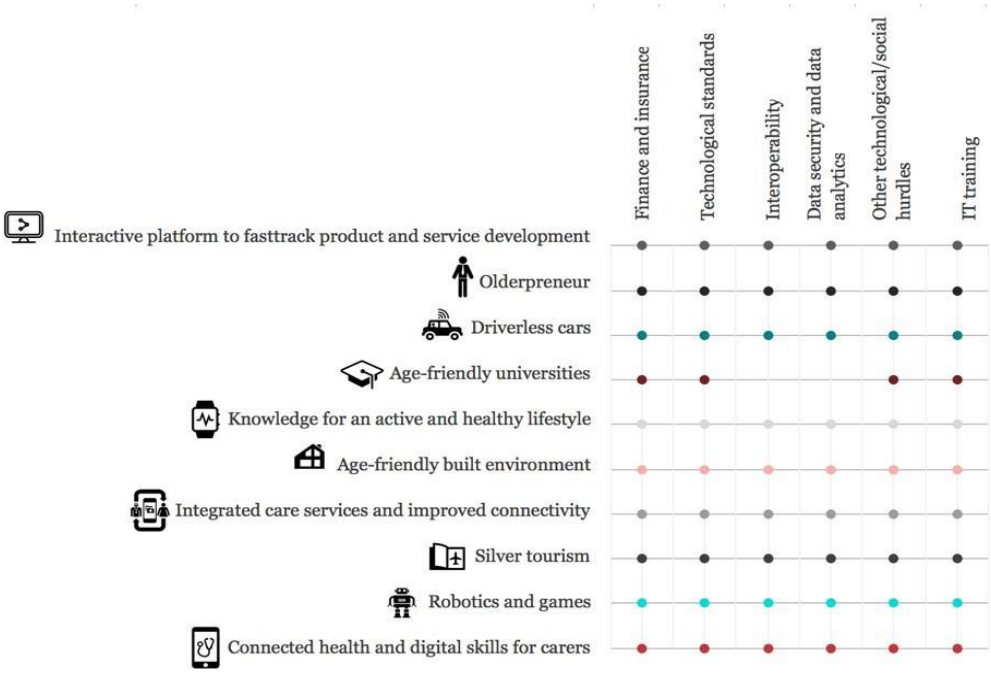
[37] Eurofound (2016) https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1629en.pdf

[38] European Commission, Directorate General for Communication Networks, Content and Technologies, Worthington, H., Simmonds, P., Farla, K., et al., The silver economy: final report, Publications Office, 2018, https://data.europa.eu/doi/10.2759/685036

functional foods and personalized nutrition and preventive medicine.

- Universities adapted to the elderly: promote universities adapted to the elderly and complementary education adapted to the elderly with the aim of increasing the employability of adults or through professional retraining, increase the supply of universities, contribute to employment and population growth.
- Driverless vehicles: supporting actions to bring driverless cars and public transport to market which can help increase the mobility of older people who tend to travel less frequently and are more socially isolated.
- Senior entrepreneurs: supporting actions for older people to establish viable businesses with the aim of keeping older people active and engaged with society, providing older people with the opportunity to earn income later in life, increasing employment and growth by supporting new business developments and increasing opportunities for older people to work on product and service solutions tailored to the needs of older people
- Interactive platform to accelerate product and service development: Develop an interactive platform that connects people working on developing new solutions with seniors who want to support and/or invest in business development and share experiences with the younger generation or participate in testbed activities.

Overview of challenges for market development



Source: European Commission, Directorate-General for Communications Networks, Content and Technology, Worthington, H., Simmonds, P., Farla, K., et al., *The silver economy: final report*, Publications Office, 2018.

Recommendations:

Key recommendations on how to grow the Silver Economy while addressing the societal challenge of an ageing population are set out below[39]:

1. Supporting the technological and digital revolution in the health and care sector
2. Supporting healthy ageing across the European Union
3. Increase focus on solutions to improve mobility for seniors
4. Increasing the active participation of older women in the labour market
5. Increase innovation in products and services aimed at the independent living of older people

b) CREATION OF A COMMUNICATION CAMPAIGN TO MAKE VISIBLE THE IMPORTANCE OF INVESTMENTS IN SILVER ECONOMY

In creating this campaign, the same three main objectives of any of our campaigns were followed:

1 Reduce the existing communication gap between the disseminating entity and the target community through actions designed and defined for digital media.

2 Design a digital dissemination strategy through the use of hashtag according to the needs of each project and service, aimed at attracting the largest number of interested parties in participation and the generation of a community that feels an active part.

3 Achieve maximum dissemination of operational programs and in particular, awareness and sensitization of the role played by the disseminating entity(s) in strengthening the AHA sector, as well as adequately inform managers and beneficiaries of the different actions, services, and projects.

KPIs

The marketing efforts of the communication area aimed at enhancing these projects must have a purpose and it is based on KPIs (key performance indicators) defined for such a path. With respect to this unit, the following analysis parameters were defined:

• Trafficking different digital media
• Connection of specific publications to predetermined campaigns.
• Ensure that the message published in the media has the widest possible reach
• Get ENGAGEMENT, that is, that the post can generate comments and is also shared by the AHA community

[39] European Commission, Directorate General for Communication Networks, Content and Technologies, Worthington, H., Simmonds, P., Farla, K., et al., The silver economy: final report, Publications Office, 2018.

• Make the AHA Community know that what we publish is always interesting and above all useful for the environment of the health ecosystem, national and international.

Digital Media

The choice of media is focused on achieving high participation in the scheduled events. In general, they are presented as meetings with special themes and guests that must be promoted to suitable audiences.

With the data collected in the previous section, the strategies directed to each theme have been determined, specifically to the unit of action that we will call #IN4AHA, #ITGALL, #silvereconomy, #AHA.

Based on these guidelines and in relation to the quantitative analysis of what happened, we can reach the following assessments: With respect to the use of the # mentioned above, it is observed that the conversion rate in engagement objectives exceed 30% added to the times the publications were shared through tagged profiles. It is evident that the use of # (hashtags) facilitates, in this case, the empowerment of each project, but it is even more evident, in the mention and labelling of people who are part of each experience.

Therefore, it can be said that they are powerful strategies that generate conversations on social networks about the topic we define. The tracking of the hashtags gives us the possibility to verify the traffic that we achieve and that offers us the opportunity to participate with the community of the Cluster Saúde Galicia (CSG) national and international. Likewise, it has allowed us to separate the different campaigns and evaluate it according to the type of conversation generated. This result gives us concrete information: our lead is present in the publications providing us with a high organic reach.

It is evident that the publications of greater value are those where the presence of referents of the AHA community prevails. This translates into a correct application of the strategy aimed at creating community. The organic distinction is important and is a point in favour of the behavior of digital media statistics.

Recommended next steps

It is considered necessary to develop strategies aimed at boosting potential traffic to home pages of each network, growing conversations, and building a participatory audience in the affairs of the AHA community.

It is evident that the image of the organization in digital media is not so solid, so it is recommended to continue strengthening the positioning with strategies to get organic and real followers who interact and have a voice. In this way, we ensure that as our audience grows, the more opportunities we will have to interact with the community and create unique experiences for them. There are many benefits that the AHA sector can obtain through a correct development of social media. It is important to be transparent. The organization feels and is excited as a human being, since it is made up of people and that must be

evident, even more, having as its predominant value the challenge of improving people's lives through innovation in health. Therefore, taking into account the strategic challenge of strengthening the AHA Community, we certify that openness, transparency and trust are increasingly important values to highlight, above traditional values such as power and control of information.

c) HOW TO ENGAGE AND EDUCATE THE INVESTMENT COMMUNITY ABOUT THE AHA NETWORK AND ITS BENEFITS

We present two recommendations, on the one hand the creation of new lines of work of the Health clusters, and on the other, the participation in online events where to publicize the relevance of investment in *Silver Economy*.

Strategic alliance of the Health clusters of Spain

A proposal to involve the investment community on the AHA network is a strategic alliance of inter-clusters such as the #ClustersSaludEspaña for the association of the health industry sector and for the need to establish innovative ecosystems that generate new investments and attract talent of the new profiles demanded.

The alliance #ClustersSaludEspaña met in Madrid on November 17,2022 to reactivate their collaboration after the pandemic in an annual coordination meeting in which they have designed their strategy to boost the activity of companies in the sector.

#ClustersSaludEspaña is formed by the groups Arahealth (from Aragon), Basque Health Cluster (from the Basque Country), Bioga (from Galicia), Bioval (from the Valencian Community), CSG - Cluster Saúde de Galicia (from Galicia), CSM - Clúster de Salud Mental de Cataluña (from Catalonia) and Cluster of Innovative Solutions for Independent Living (SIVI Cluster, from Castilla y León). The seven clusters have a total of 600 members, whose companies add employment of 219,000 people and a turnover of 39,000 million people.

The health crisis generated by the pandemic forced these clusters to reduce their face-to-face collaborative activity, although remote actions were maintained. Among the most outstanding services that these groups provide to their associated companies highlights the integral management of R&I aid both nationally and internationally, the management of "living labs", the introduction of biotechnology in the production chain of other industrial sectors, the reconversion of employment for Attract it to the sector, training in the regulatory framework, the relationship with entrepreneurship and the acceleration of new projects, as well as coordination with the public sector for the development of new initiatives.

The meeting has also served to address proposals to face the most relevant challenges faced by companies in the health sector such as the aging of the population (especially in dispersed rural environments), identified as a vector of innovation for the creation of specific services that allow promoting social innovation, long-term care and coping with unwanted loneliness with the support of technology that promotes both the promotion of autonomy and social inclusion.

Another important challenge is the reference needed to the EC regulation, given the implementation of quality, certifications and regulatory systems required by the drug and medical products agencies of the European Union.

The seven clusters have renewed their collaboration agreement on training activities which will allow any of the partner companies to participate in the training activities organized by any of the seven groups. They have also agreed to expand the scope of their collaboration to value their relational capital and their role of representation. Some of the actions that will be implemented are the preparation of a register of health technology companies willing to collaborate in international projects, exchange of information on business opportunities for the sector at regional level and sharing of services and events of interest to the industry. In addition, good practices have been revealed to combine collaborations between clusters and regions in relation to the demand for talent towards the sector.

For her part, Gisela Garcia-Alvarez, manager of CSG – Cluster Saúde de Galicia, has insisted on the relevance of this type of inter-cluster initiatives that "help to address common challenges in a more effective way and to enhance the capacities of this type of sectoral entities" as well as propose a new line of work: **involve and educate the investment community about the AHA network and its benefits.** In order to carry out this new line of work, a study has been carried out on the most relevant private investment funds in Europe[40]. These include:

1. Index Ventures
2. Sequoia
3. Entrée Capital
4. DST Global
5. Lakestar
6. Accel
7. Aleph
8. Northzone
9. Creandum
10. LocalGlobe
11. Point nine capital
12. Seedcamp
13. Felix Capital Partners
14. Angular Ventures
15. Mosaic ventures
16. DN Capital
17. Atomic

The next steps will be to look for ways of collaboration to value the investment in the AHA network.

Online event Senior Eco-nect: Scoping Emergence & Interconnectivity in Silver Economy Ecosystems on November 7,2022. [41]

The aim of the event was to explore how public policies can support the development of the Silver economy and how we can support and influence policy development. In addition, this workshop was

[40] www.forbes.com

[41] https://www.senior-eco-nect.com/

organized to explore what the current vision of the silver economy is and how we can support the development of this economy, both on the demand side and the supply side of the economy, and from a person-centered approach. It was attended by companies in the AHA sector, academics, researchers, public administration, and investors.

Helen McGuirk from the Munster University of Technology (MTU) started the webinar by giving a brief overview of the Senior Eco-Nect project. The project not only includes the health sector but also other sectors, such as tourism and sport.

As an example of interconnectivity best practice, Jane O'Flare, Program Manager at Health Innovation Hub Ireland (HIHI [42]), presented her work at HIHI. HIHI's primary goal is to connect innovation with healthcare. It was established in 2013 as an initiative of the Department of Health and the Department for Enterprise, Trade and Employment. They function as a connector between innovation providers, businesses, and the healthcare system and drive collaboration to accelerate the delivery of new healthcare technologies. The services they provide at HIHI start with identifying people's priority needs with key stakeholders. Then an idea is generated that will solve the need. This idea is assessed and verified against identified Irish and international priorities, which is followed by a feasibility study to validate and prototype the idea with key health opinion leaders and focus groups. If the idea has gone through the feasibility study successfully, the idea will be tested and demonstrated in a pilot study at a clinical site. The final step on the road is the adoption of innovation.

The topics under discussion were:

How do we know that a silver sector is emerging in our region and what types of policies can support and maximize the benefits of a diverse silver economy?

In conclusion, for an emerging sector, we will see an increase in population, an increase in the retirement age and AHA projects. These increases will lead to greater interconnectivity between sectors.

It is necessary to raise awareness about the benefits of this longer-lived and healthier society instead of expecting older people to be " retired" and the knowledge that resides in older people should be valued more and should be part of the ecosystem.
In relation to policies, they must be flexible and overcome the stigmas associated with old age and with specific labour legislation and policy.

-*What are the current problems to interconnect the ecosystems of older people outside of health in the silver economy and what policies can best support the interconnectivity of the silver economic sector?*

Among the opinions gathered, it is recommended to develop learnings from the proposals of examples of good practice (such as HIHI) that can be applied to generate public interest in the wider silver economic sectors.
There is also a need to move away from aging as a "problem" and understand the opportunity this represents and focus more on the other areas of the silver economy. In addition, the Silver Ecosystem sectors are seen as spending rather than investment and some countries have a low research and development base from which to work to develop interconnectivity.

[42] https://hih.ie/engage/femtech/

The use of technology should be considered as older people are becoming more tech-savvy and if the focus shifts from health to a wellness perspective, other sectors may also have an impact here. Moreover, academics should focus on an evidence base that drives policy decisions to expand the silver economy.

ANNEXES

Questionnaire on Public procurement of innovation (PPI)sent to the entire IN-4-AHA community, CSG and CSG collaborators (>500 pax):

1. What policies has your country developed to support innovative public procurement?
    a. Increasing the budget for public procurement of innovation (PPI)(IPC)
    b. Media coverage
    c. Other:

2. For what purpose is public procurement made in innovation? (Marque as many as you need)
    a. To boost economic recovery and digital transition
    b. To provide a higher quality public service adjusted to an optimal budget
    c. To address emerging needs
    d. To modernize public services
    e. To help start-up and grow start-ups and innovative SMEs
    f. To contribute to the advancement of markets towards innovation
    g. Other:

3. In your country, what makes PCP (pre-commercial procurement) interesting for public buyers? (Check as many as you need)
    a. Get better quality products at a lower price
    b. Helps shape industry developers to better adapt to public needs
    c. Achieve the desired degree of interoperability from the start
    d. Reduces the risk of errors in follow-up tenders for large-scale deployment
    e. Reduces vendor lock-in and unforeseen custom development expenses
    f. Share development risks with suppliers: unlicensed use for buyers
    g. Share research and development risk with other buyers through pooling of resources
    h. It can attract external financial investors for companies, reducing the risk for the buyer to buy from innovative companies
    i. Other:

4. In your country, why is it interesting for SMEs to participate in PCPs (pre-commercial procurement)? (Check as many as you need)
    a. Because disproportionate qualification or financial security requirements are not necessary
    b. Because it generates a path of gradual financial growth
    c. Because it's an opportunity to get out of the traditional subcontractor role

d. Because it creates an opportunity to grow globally
e. Other

5. In your country, what can the PCP (pre-commercial procurement) do for citizens? (Check as many as you need)
    a. Improves the quality and efficiency of public services
    b. Strengthens the climate of innovation, creating qualified employment
    c. More efficient use of taxpayers' money, optimizing public spending on R+D
    d. Other:

6. What are the main obstacles to the acquisition of innovation through the PPI in your country? (Check as many as you need)
    a. The lack of knowledge on how to optimize the risk-benefit balance of research and development procurement for both buyers and suppliers.
    b. Lack of clarity on how to procure R&D in accordance with the legal framework.
    c. The fragmentation of public demand in Europe.
    d. Other.....

7. What kind of problems do innovative projects encounter when participating in a PPI process? (Check as many as you need)
    a. Short deadlines vs slow administrative procedures
    b. Little or changing information from the supervisory body
    c. Actions subject to dense bureaucratic procedures
    d. Lack of training/lack of knowledge on the part of professionals about the procedures to be followed
    e. Forecasting and planning of the purchase
    f. Difficulties with defining the conditions for the transfer of results
    g. Difficulties in the drafting of the specifications
    h. Other: .....

8. Have the results of your experience on PPI been satisfactory? (Justify your reply)
    a. Yes
    b. No

9. Do you know the European Platform for Innovation Procurement (https://innovation-procurement.org/)?
    a. Yes
    b. No

10. Are you aware of the European Assistance for Innovation Procurement (EAFIP) initiative that supports public buyers across Europe?
    a. Yes
    b. No

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