



Madrid, December 2018

# Policy Analysis of the European Innovation Partnership on Active and Healthy Ageing and its impact in Spain. Achievements and recommendations for the 2016-2020 period.

**Health Technology Evaluation Agency  
Institute of Health Carlos III  
Ministry of Science, Innovation and Universities**

Monforte de Lemos, 5 - Pabellón 4  
28029 MADRID (SPAIN)  
Tel.: 91 822 20 05  
Fax: 91 387 78 41

General catalogue of official publications:

<http://publicaciones.administracion.es>

To access this report free on the internet (PDF format):

<http://publicaciones.isciii.es/>



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Edited by: INSTITUTE OF HEALTH CARLOS III  
Ministry of Science, Innovation and Universities

Publication included in the editorial program of the suppressed Ministry of Economy, Industry and Competitiveness and edited by the Ministry of Science, Innovation and Universities, in accordance with the ministerial restructuring established by Royal Decree 355/2018, of June 6.

NIPO EPUB: 06218024X

NIPO PDF: 062180234

I.S.B.N.: No (Free online version)

This document is a technical report prepared by the Health Technology Assessment Agency (AETS), Institute of Health Carlos III.

## Authors

Francisca García Lizana

## External Collaborators

Marta Castro Rodríguez; Esteban de Manuel; Giuseppe Ficco, Leucadio Rodríguez Mañas, Elena Carantoña Álvarez, Beatriz Martínez-Lozano Aranaga, Ana Carriazo, Andreu Català, Mireia Ferri Sanz, Javier Gámez Payá, Vicente Traver Salcedo, Jordi Piera.

## Acknowledgements

To Roberto Zuffada and José Ángel Martínez for the use of some information from the PROEIPAHHA Project.

To Ana Ruiz and Celia Casillas from the Quality and Evaluation Agency (AEVAL) for their guidance in applying the AEVAL methodology.

## To cite this report:

García Lizana F, Castro Rodríguez M, De Manuel E et al. **Policy Analysis of the European Innovation Partnership on Active and Healthy Ageing and its impact in Spain. Achievements and recommendations for the 2016-2020 period.** IPE /16. Madrid; Institute of Health Carlos III, Health Technology Assessment Agency (AETS): 2018.

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## TABLE OF CONTENTS

<b>ACRONYMS</b>	<b>7</b>
<b>EXECUTIVE SUMMARY</b>	<b>8</b>
<b>1. INTRODUCTION</b>	<b>9</b>
<b>2. FOUNDATION AND HYPOTHESIS OF THE STUDY</b>	<b>13</b>
<b>3. OBJECTIVES</b>	<b>14</b>
<b>4. MATERIAL AND METHODS</b>	<b>15</b>
4.1 Evaluation of the EIPonAHA 2011-2015	15
4.1.1. Literature review and analysis	16
4.1.2. Survey of experts' opinions on the EIPonAHA	18
4.2 Mechanisms for improving efficiency in the implementation of the EIPonAHA during the 2016-2020 period	18
4.3 Improvement in the impact in Spain	19
<b>5. RESULTS</b>	<b>20</b>
5.1 Evaluation and analysis of the EIPonAHA	20
5.1.1 Analysis of the logic behind the intervention	20
5.1.2 Analysis and summary of the information	27
5.1.3 Survey of opinions	31
5.2. Identification of policy drivers	33
5.3 Analysis and improvement of the impact in Spain	35
5.3.1 Results from the survey	35
5.3.2 SWOT Analysis	37
<b>6. DISCUSSION</b>	<b>39</b>
<b>LIMITATIONS</b>	<b>41</b>
<b>CONCLUSIONS</b>	<b>42</b>
<b>BIBLIOGRAPHY</b>	<b>43</b>
<b>ANNEX 1: SPANISH REFERENCE SITES 2016</b>	<b>47</b>
Reference site of Andalusia (reaccreditation)	47
Reference site of Aragon: sector sanitario de Barbastro	49
Reference site of Asturias	50
Reference site of Balearic Islands	51
Reference site of Basque Country (reaccreditation)	53
Reference site "Catalonia" (reaccreditation)	56
Reference site of city of Badalona	58
Reference site of the province of Barcelona: Association for Independent Life (AVI)	60
Reference site of Terrasa city council: Healthcare Living Lab Catalonia	62
Reference site of Galicia (reaccreditation)	64
Reference site of Madrid region, Servicio Madrileño de Salud-Hospital Universitario de Getafe	66
Reference site region of Murcia	68
Reference site of Valencia region	70

<b>ANNEX 2: RESULTS OF THE EVALUATION OF THE EIPonAHA</b>	<b>73</b>
2.1 Evaluation Matrix	73
2.2 Results table for the Action Groups	76
2.3 Results of the analysis of the Scalability Strategy	78

## ACRONYMS

AG: Action Group

AHA: Active and Healthy Ageing

AP: Action Plan

DG: Directorate-General

EC: European Commission

EIP: European Innovation Partnership

EIPonAHA: European Innovation Partnership on Active and Healthy Ageing

EU: European Union

MS: Member State

NGO: Non-Governmental Organisation

NHS: National Health System

RS: Reference Site

SIP: Strategic Implementation Plan

WHO: World Health Organisation

## EXECUTIVE SUMMARY

The European Innovation Partnership on Active and Healthy Ageing (EIPonAHA) is the European Commission's most ambitious initiative to support the transformation of health and care and for economic growth through innovation of this decade. The Strategic Implementation Plan describes the strategy to be carried out by different Action Groups (AG), Reference Sites and Health and Research Authorities. The strategy includes a Scalability Roadmap based on the replicability of innovative practices. Though the midterm evaluation recognises the strategy's value, improvements in implementation and the development of synergies have been recommended.

### Objectives

The general objective is to improve EIPonAHA implementation in Spain, ensuring the triple win. This overall objective is to be achieved through three specific objectives:

1. Policy analysis and evaluation of the 2011 – 2015 period.
2. Improvement in efficiency and coordination amongst AGs of EIPonAHA partners, avoiding redundant work and potentially disparate outcomes.
3. Policy analysis of the EIPonAHA's impact in Spain.

### Methodology

The analysis and evaluation in this report was conducted using the AEVAL methodology by means of:

1. A literature review and policy analysis of the European policy framework.
2. A survey sent to EIPonAHA experts.

Finally, a SWOT analysis was conducted to provide support for the policy recommendations.

### Results

The results of this report emphasise the necessity and importance of the EIPonAHA and its achievements, mobilising a strong critical mass of stakeholders committed to implement innovations. Spain can learn from these lessons, but should also take note of its weaknesses and threats to success.

### Conclusion

Better coordination and communication on the national level, particularly regarding Spanish Reference Sites, could be an effective tool to help to achieve the triple win. Implementing a scaling up strategy on the national level and replicating innovative practices from one region in others are also essential. Lastly, ensuring knowledge transfer and evidence-based Health and Care transformation is critical.

### Key words

Active and Healthy Ageing, Innovation, Scaling up, Health and Care Transformation, Sustainability of Healthcare System, European Innovation Partnership on Active and Healthy Ageing.

## 1. INTRODUCTION

Demographic changes are putting pressure on our current welfare system. The economic consequences of ageing are already straining healthcare services and if no changes are made to institutions and implemented policies, it is expected that demographic trends will significantly transform our society. This would affect solidarity between generations and impose new demands on future ones. These trends will have a significant impact on growth potential and will lead to intense pressure for increasing in public spending, not only on pensions and healthcare, but also on infrastructure, housing and education<sup>1,2</sup>.

It is evident that European Union (EU) countries need to adapt to the challenges of demographic transition. A comprehensive approach to public healthcare and the provision of health and care services will need to be adopted. Systems must be transformed so that they can respond to the new characteristics and needs of the population<sup>1,5</sup> and so that active and healthy ageing forms part of the action framework on health<sup>3,6</sup>. Likewise, the system needs to be able to adopt innovative technological developments.

In 2010, in response to the severe economic recession in Europe, the European Commission (EC) proposed a transformation of Member States' (MS) economies. Under the title *Europe 2020*<sup>7</sup>, a strategy for growth that was smart (based on knowledge and innovation), sustainable (more efficient, green and competitive) and inclusive (with a high degree of social and territorial cohesion) was launched. The objectives of the *Europe 2020* strategy are expressed in the *Digital Agenda for Europe*<sup>8</sup> and the *Innovation Union*<sup>9</sup>.

The *Innovation Union*<sup>9</sup> adopted a new strategic focus in regards to innovation. It aims to improve the conditions for innovation throughout all stages of innovation and development as well as to guarantee that innovative ideas are able to be converted into products and services that generate growth, employment and social progress in the EU.

The first pilot initiative of these collaborations is the *European Innovation Partnership on Active and Healthy Ageing* (EIPonAHA)<sup>9-12</sup>.

The initiative or programme pursues a strategic objective of increasing, by 2020, the number of healthy life years of European citizens by two years along with three specific objectives: improve the quality of life and health of European citizens, improve the sustainability of the national health systems (NHS) and improve the competitiveness of European industry. These three objectives are known colloquially as the “triple win.”

The programme maintained the same strategic focus and key principles of *Innovation Union* and developed a Strategic Implementation Plan<sup>10-12</sup> (SIP) in cooperation with all stakeholders, working together collaboratively through Action Groups (AG).

The strategy is based on mobilising all stakeholders involved, including health authorities, to work towards achieving the aforementioned objectives and to promote an innovative transformation of healthcare services, ensuring they are capable of facing new technological and demographic challenges.

The programme is structured in several implementation periods: the first from 2012 – 2015 and the second from 2016 – 2018. A third period is also foreseen for 2018 – 2020. During each period, each AG was asked to develop an Action Plan (AP).

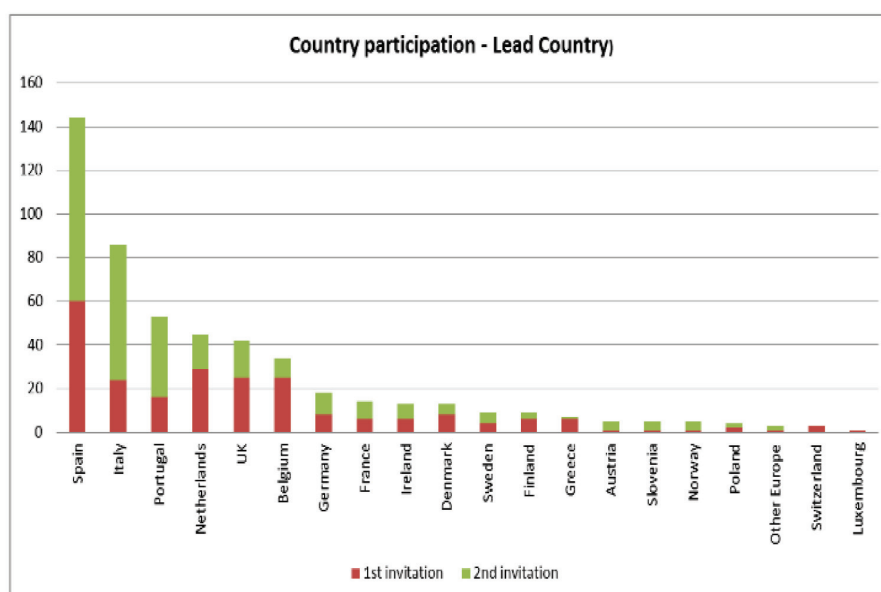
The strategy has had a significant impact in recent years. Nevertheless, after evaluating the EIPs in general, some reports from experts<sup>13</sup>, recognised that whilst the EIPs responded

to priority needs and were able to facilitate economic growth and well-being in Europe, it seemed that there was a lack of consistency in carrying out actions. This group of experts recommended improvements in execution and a second round of actions based on new goals and activities. Likewise, they recommended that synergies be created between the tasks and activities carried out. In response to this, at the end of 2015, during the preparation of the new APs, the EC proposed the creation of a Task Force<sup>14</sup> to identify synergies. The Task Force defined synergies as “collaborative work of transversal interest and relevance to various AGs.” In turn, each synergy developed an AP. At that time, the various Action Groups (AG) were also called on to develop an Action Plan for the 2016 – 2018 period. These plans formed the basis of the new Call for Commitments in 2016.

Spain’s population is one of the most elderly in the world. It is to be expected that the problems described above will have a considerable impact on the Spanish NHS. Consequently, since the beginning, the impact that the EIPonAHA has had on our organisations has been significant. The importance of the programme in Spain can be clearly seen in the level of participation and the number of commitments from Spanish organisations. Indeed, Spain has the highest percentage of commitments of all EU members.

In the 2012 – 2013 Call, 25% of the commitments were made by Spanish organisations. This means that 25% of the collaborative work on the EIPonAHA, either in the AGs or by individual actors, is being carried out by Spanish organisations. This is not only evidence of the importance of the programme, but also of the work being carried out on the national level and the number of experiences and activities that have been carried out in this field. Figure 1 compares participation among EU countries.

Figure 1: Commitments per country in the 2012 – 2013 Calls<sup>15</sup>



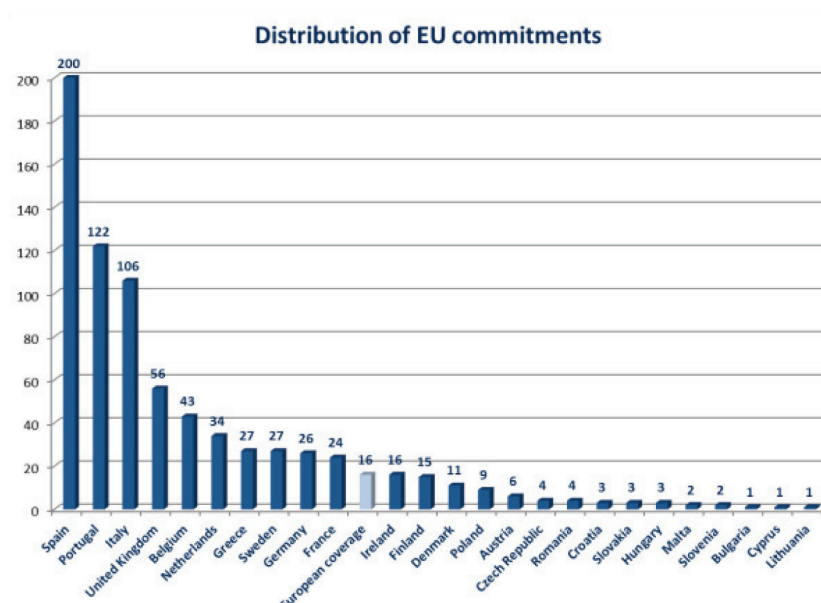
Spain continues to be the European country with the highest level of participation in the 2016 Call. Of a total of 776 commitments, 26% were once again made by Spanish organisations (see Table 1).

Table 1: Commitments submitted by Spanish organisations per Call (information provided by PROEIPAHA)

Call	AG A1 EU/SP	AG A2 EU/SP	AG A3 EU/SP	AG B3 EU/SP	AG C2 EU/SP	AG D4 EU/SP	Total EU/SP
2012-2013	69/16	69/48	158/37	136/34	61/14	69/23	562/138
2016*	103/33	80/13	182/53	193/50	95/27	123/24	776/200

\*The call is permanently open. This information is as of June 2016.

Figure 2: Commitments per country in the 2016 Call.



In 2012, Spain was also the European country with most **Reference Sites (RS)** recognised. This lends greater political visibility to the health authorities, greater involvement and greater importance placed on the implementation of the programme. The number of RS which have received awards has increased, making Spain the country with the greatest number of regions which have received awards (see Figure 3 and Table 2). Annex 1 provides summaries of the Spanish RS from 2016. Table 3 shows the number of awards received.

Table 2: EIPonAHA Reference Sites per Call

Calls	Total RS in the EU/RS in Spain	Numbers of MS	Numbers of Regions
2012	32/7	12	6
2016	74/13	20	10

Figure 3: Number of Reference Sites per country

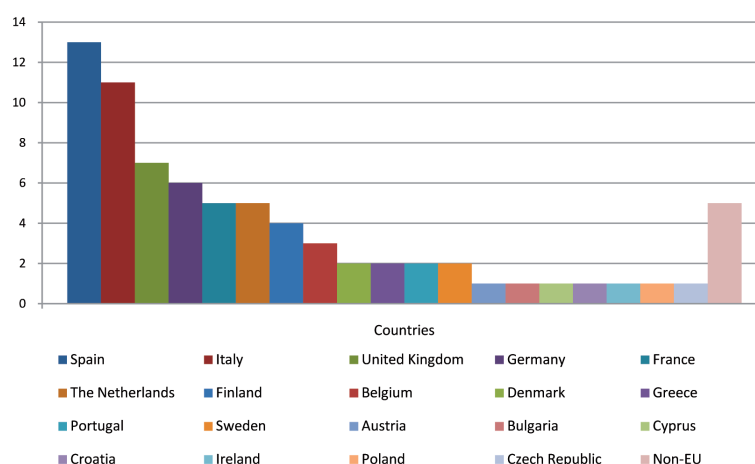















Table 3: Region and cities which received Reference Site awards in 2016

Reference Sites	Awards	Reference Sites	Awards
Andalusia		Aragon	
Asturias		Balearic Islands	
Catalonia		City of Badalona	
City of Terrassa		Province of Barcelona	
Valencian Community		Galicia	
Madrid		Murcia	
Basque Country			

What's more, the Spanish Strategy for Science, Technology and Innovation 2013-2020<sup>16</sup>, the Spanish National Plan for Scientific and Technical Research and Innovation<sup>17</sup>, the National Strategy for Chronic Diseases<sup>18</sup>, the Association Agreement<sup>19</sup> and the Research and Innovation Strategies for Smart Specialisation<sup>202</sup> provide evidence of efforts made to address the impact of demographic change and innovation.

This report seeks to explain the key elements of the programme design and its implementation in detail. It is intended to be a paper for reflection, analysis and discussion of the EIPonAHA, with a particular emphasis on its positioning and impact in Spain, in order to help improve the programme's implementation and ensure that it meets its fundamental objectives.

## 2. FOUNDATION AND HYPOTHESIS OF THE STUDY

The EIPonAHA seeks to transform the health and care systems of MS of the EU so that they are able to face demographic changes through two basic premises: large-scale implementation of innovation and cooperation amongst all stakeholders as fundamental tools for sustainable development. The strategy and grounds for the EIPonAHA seem to be based on a solid foundation of needs that are important for society. However, the complexity of the programme and its interventions in all their aspects, though strategic and well-designed, can on many occasions be redundant or disjointed and difficult to follow for those who do not have in-depth knowledge of the programme. Likewise, the objectives are necessary, yet very ambitious, given the established timeframe. Furthermore, there is some degree of uncertainty regarding the final results, given the complexity of the sector.

In conclusion, despite the enormous effort, the multisectoral and multidisciplinary involvement, the resources committed on all levels and the prevailing impression given by the 2014 achievements reports<sup>21</sup> that the programme is making progress in the right direction, it can be deduced that going from the strategic level to the operational level seems not to have been carried out satisfactorily and that, at a minimum, it will difficult to demonstrate the expected impact.

As the programme is currently in an intermediate phase and a new period has opened, it is necessary to carry out an evaluation and analysis of the strategy that identifies strengths and weaknesses. Actions for improvement which include reforms and recommendations for the next period must be proposed in order to ensure the impact desired by 2020.

Furthermore, considering that the impact of this European policy on Spanish society has been significant in terms of number of Spanish organisations involved and their representation, it is essential to recognise and promote the effort made and to value the achievements and the important role that Spanish partners play. It is also important to determine if it is possible to improve the positioning and repeated participation of Spanish organisations in the EIPonAHA. Therefore, the second working hypothesis is that the EIPonAHA could be considered an opportunity and a source of lessons learnt regarding the implementation of innovation on the national level. In addition, its analysis and evaluation could improve the homogeneous implementation of healthcare innovation in Spain, respecting the Spanish NHS' principles of equality and universality.

### 3. OBJECTIVES

The **primary objective** of this report is to improve the implementation of the EIPonAHA in Spain, to ensure that strategic objectives are met and to bring about social and health transformation through innovation.

The secondary objectives include:

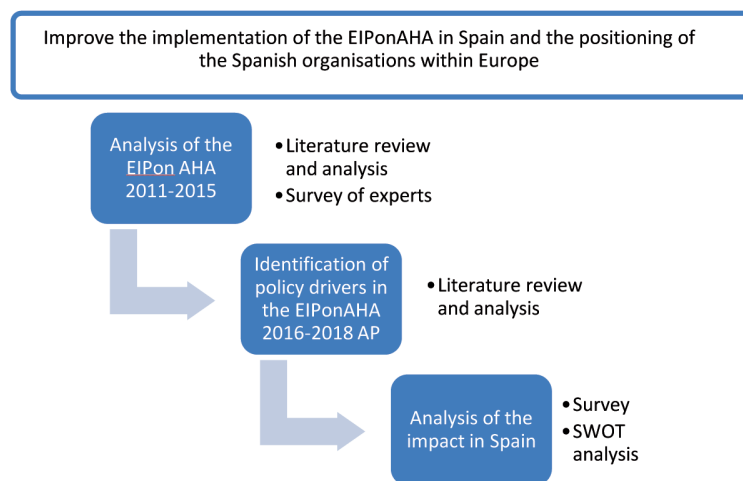
1. Analyse and assess the first phase of the EIPonAHA (2011-2015).
2. Analyse and look for synergies and mechanisms to improve efficiency in the implementation of AG activities for the 2016-2018 period.
3. Analyse and value the achievements of the EIPonAHA strategy and its impact on Spain as well as the potential for its implementation in Spain.

The achievement of these objectives is a sequential task which occurs in successive phases, each of which is enriched by and grows out of previous phases.

## 4. MATERIAL AND METHODS

This monograph has been structured by designing a methodology for each of its objectives, as can be seen in Figure 4.

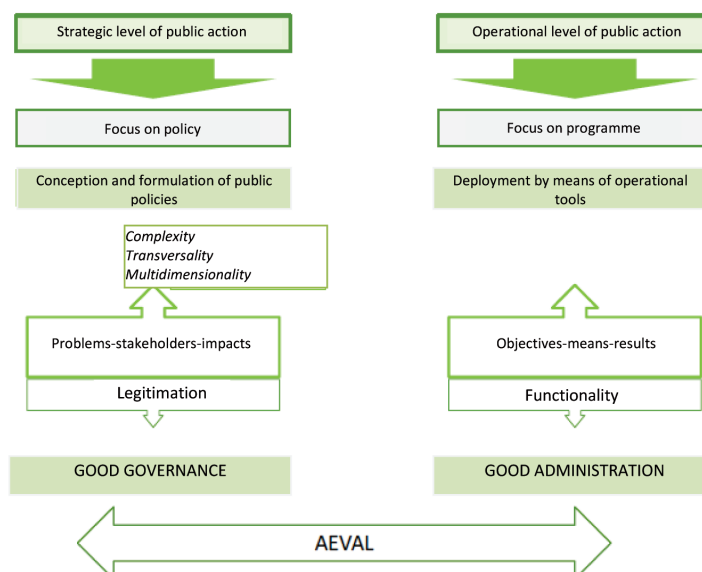
**Figure 4: Structure of the monograph**



### 4.1 EVALUATION OF THE EIPONAHA 2011-2015

In regards to the first objective, an evaluation of the programme was carried out using the public policy evaluation methodology proposed by AEVAL, the Quality and Evaluation Agency. The AEVAL approach stresses political facets of public action as well as a method to understand complex policy<sup>24</sup>. That's to say, it integrates analysis of the political-strategic level of policies with analysis of operational aspects of its deployment. As such, in addition to assessing the efficacy and efficiency of public policy, it also takes a stance on its capacity to generate value for society.

**Figure 5: AEVAL approach: integration of strategic and operational aspects in the evaluation of public policy<sup>22</sup>**



The evaluation consisted of an analysis of the context, processes, results and effects of the implementation of the EIPonAHA in the EU. It aimed, therefore, to identify factors that could have an impact on the justification, design and implementation of the programme as well as an analysis of the programme itself.

Next, it continued with an analysis of the intervention and its mission as well as a reconstruction of the programme's internal line of argument. It identified the problem and the causes, objectives, strategic lines carried out and tools used. It also identified the degree of implementation and deployment of interventions and, lastly, their effects during the term of the study, which was established as being from 2010 to August 2016.

**Tools used:**

- A systematic, well-reasoned literature review and analysis of public legal and technical documents on the planning, execution and implementation of the intervention, using EC computer databases.
- An opinion survey for Spanish partners who were significantly involved in the programme (coordinators of the AGs and technicians who were responsible for or involved in the RS).

#### 4.1.1. Literature review and analysis

The analysis was structured in two phases:

1. Systematic analysis and reconstruction of the logic behind the intervention. To do so, a procedure with the following sub-phases was designed:
  - b) Analysis of European socio-political context, scope of application, complexity of the programme and stakeholders involved.
  - c) Identification and definition of the problem, its causes and its effects.
  - d) Identification of public intervention tools for solving the problem.
  - e) Deployment of the intervention
    - Design
    - Degree of implementation
    - Monitoring and evaluation mechanisms that form part of the intervention's design
2. Evaluation of the programme itself: Analysis and summary of the data

Once the logical framework underpinning the action had been reconstructed, an analysis of the programme as a whole was carried out as systematically as possible. Given that the programme's final impact objectives are to be completed by 2020 and that there was a delay in defining the evaluation framework, the analysis of the programme focused mainly on the design, with a more superficial approach to the implementation analysis (up until 2015). The evaluation of the impact and outcomes was thus partial and limited to information from documents on achievements available on the programme website<sup>23,24</sup>.

An **evaluation matrix** (Annex 2) was created. It included the design and degree of implementation of interventions. In accordance with the approach and objectives established in the reconstruction of the programme's logic, the matrix included a series of questions for each evaluation criterion along with the corresponding indicators and sources to verify the information. The degree of compliance with the criteria was determined according to

the ability to provide evidence that gave an objective response to the research question posed (Table 4). In the case of outcome indicators, the only information that was taken into account was that which included sources through which the quality, methodology or origin of the information were able to be corroborated.

The criteria used in the evaluation of the programme were:

- **Relevance:** determines the relevance of the measures in the broadest framework of the policy. In other words, if the interventions and their activities as a whole are in line with the needs that have been posed. It is implicitly associated with the mobilisation of resources.
- **Pertinence:** the degree to which the set of measures are aimed at addressing needs or solving problems. In particular, verification that defined objectives are set and an assessment of the quality of their formulation. In other words, to what extent the objectives of the programme constitute an answer to the problem posed.
- **Complementarity:** the degree of coordination or alignment between two policies that intervene in solving a problem.
- **Fairness:** the degree to which the interventions are in accordance with distributive, equitable and non-discriminatory criteria.
- **Internal coherence:** the degree of interaction and balance between the objectives posed and the strategies designed to achieve them.
- **Coordination:** the comparison of the coordination of different actions. In other words, the degree of connection between the actions carried out by the different actors within each of the interventions as well as the degree of overlap between the activities designed to achieve the various specific objectives with a particular emphasis on the AGs. Furthermore, whether or not tools had been used to avoid these overlaps was also analysed.
- **Participation:** once the actors involved in the programme had been determined, the involvement of these actors -in terms of numbers, affiliation and their level of participation and contribution in the different phases of planning and implementation- was measured.
- **Implementation:** the degree of progress of specific actions included in the plan and the mechanisms used to ensure implementation. It determines to what extent the foreseen actions have been implemented in order to achieve the proposed objectives.
- **Evaluability:** based on the design of the programme and the scope of application, it explores the ease and probability of success of a final programme evaluation as well as the profitability and resources necessary to do it.

Table 4: Definition of the degrees of compliance with the evaluation criteria

I	It can be fully proven in all aspects
II	It can be proven, however, there are some conflicting elements in some areas
III	Limited capacity for it to be proven. There is some weak evidence related to some areas or there are a lot of conflicting elements
IV	It cannot be proven, there is no evidence or only some ideas

#### 4.1.2. Survey of experts' opinions on the EIPonAHA

This survey forms part of the process of analysis and evaluation of the EIPonAHA through the AEVAL approach<sup>22</sup>. The survey was developed to explore the same evaluation criteria that were explored in the matrix, particularly those for which the indicators were weaker or more qualitative.

The specific objectives of the survey are:

1. Analyse the design, implementation and estimation of achievement of results in the medium-term.
2. Verify the importance and impact of the EIPonAHA on Spanish society.
3. Explore the needs of Spanish participants within the European and national framework.
4. Explore activities and strategies to improve implementation and scalability of the interventions on the national level and the achievement of the triple win.

The full version of the survey is published in the Spanish version of this report<sup>25</sup>.

#### 4.2 MECHANISMS FOR IMPROVING EFFICIENCY IN THE IMPLEMENTATION OF THE EIPONAHA DURING THE 2016-2020 PERIOD

The second objective of this report is the search for mechanisms that improve efficiency in the implementation of the programme. To do so, it seeks to identify synergies and potential redundancies that may occur during the 2016-2020 period and which are included in the new APs. The work methodology involves a literature analysis and is supported by the weaknesses and threats detected whilst addressing objective one.

This analysis was not aimed at redefining objectives or priorities that are different to those included in the new APs, but rather identifying potential redundancies between them whilst prioritising issues or areas that affect and have an impact on implementing new policies on innovation. These issues are truly the drivers that accelerate and allow for the implementation and deployment of innovation. In this regard, the work carried out in this report does not overlap with the objectives defined by the Task Force or with their work methodology or recruitment activities, but rather it attempts to identify transversal issues and activities carried out by all AGs. The Task Force defined synergies as “collaborative work of transversal interest and relevance to various AGs.” What this report does try to identify are transversal issues and activities carried out by **all** AGs that, given their importance, could benefit from greater coordination or a joint approach.

To do so, an analytical literature review process on the renewed APs and synergies plan was carried out in two phases. In the first phase, potential redundancies in the work were noted. In the second, the alignment of these policy driver synergies or redundancies with the EU political framework in the field of innovation were identified<sup>7-12,26-29</sup>.

The definition of drivers is in agreement with the criteria defined in the SIP<sup>12</sup>:

1. Maximum probability of contributing to the objectives of the EIPonAHA.
2. Probability of being of benefit to the collaboration framework.
3. Significant probability of contributing to breaking down key barriers to innovation.
4. Facilitation of innovation where European industry has or can develop competitive advantages.

#### **4.3 IMPROVEMENT IN THE IMPACT IN SPAIN**

The analysis of the impact in Spain was based on the results and literature reviews of objectives one and two together with the section dedicated to the impact in Spain in the survey of experts<sup>25</sup>. With this information, a SWOT analysis was created to highlight key elements to address and/or strengthen.

## 5. RESULTS

### 5.1 EVALUATION AND ANALYSIS OF THE EIPONAHA

#### 5.1.1 Analysis of the logic behind the intervention

##### *Analysis of the European socio-political context, scope of application and complexity of the programme*

The EIPonAHA is a tremendously complex programme: it is multisectoral and multilevel in addition to the fact that addresses complex public health challenges in which multiple stakeholders that often have disparate interests interact. The true impact of each factor of the design, implementation or results of the programme will be difficult to assess. Some of the elements that have been analysed are listed in Table 5.

**Table 5: Socio-political and healthcare context of the EIPonAHA**

European socio-economic context	An economic crisis that varies between the different MS and a need to stimulate the economy. Demographic challenges.
Scope of application	Highly complex: health and social care, innovation
Place of application	The EU. This therefore affects the decision-making processes in this area. Based on consensus and participation of the MS (27 states) and their three bodies: the EC, the Council of the European Union and the European Parliament. In addition, the EC does not have competence in healthcare issues, as this corresponds to the MS. Furthermore, as in the case of Spain, this competence is transferred to the regions or even to the municipalities.
Baseline state	The health and innovation systems of the various MS are very different and there are great variations regarding health results <sup>30-32</sup> .

Whilst the programme is eminently health related, it also has an important impact on other sectors such as industry, employment, research, public health and more. Three Directorate-Generals (DGs) were involved in its development: the DG of Communications Networks, Content and Technology (CNECT), the DG of Health and Food Safety (SANTE) and the DG Research and Innovation (RTD).

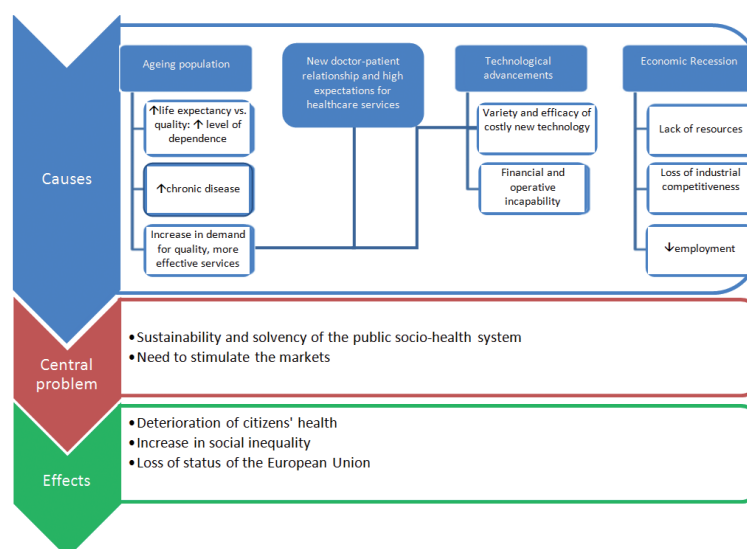
The programme respects and contributes to the safeguarding the EU's values and ethical principles regarding health issues: universality, consensus and quality, amongst others<sup>33</sup>. This means that the design of the programme is carried out based on multidisciplinary and multisectoral participation by means of public consultations, participation of MS representatives and a technical SHERPA group<sup>34</sup> that worked across sectors to develop the SIP.

##### *Identification of the problem and its causes and effects*

Figure 6 shows the series of causes that give rise to the underlying problem and its effects. The main problem is the view that the current welfare state and the NHS lack solvency due to the demographic changes associated with ageing and their effects

on healthcare and the care system. It has been possible to increase life expectancy, but much of the time this comes at the expense of quality of life. The rapid speed at which innovation in the health sector develops and the rising costs of products are, in and of themselves, a problem for incorporating them into the system. Furthermore, the economic crisis has created a need to stimulate the economy through mechanisms that lead to better management of innovation and greater yields from investments in research.

**Figure 6: Main causes and problems that justify the programme**



### **Public intervention tools to solve the problem**

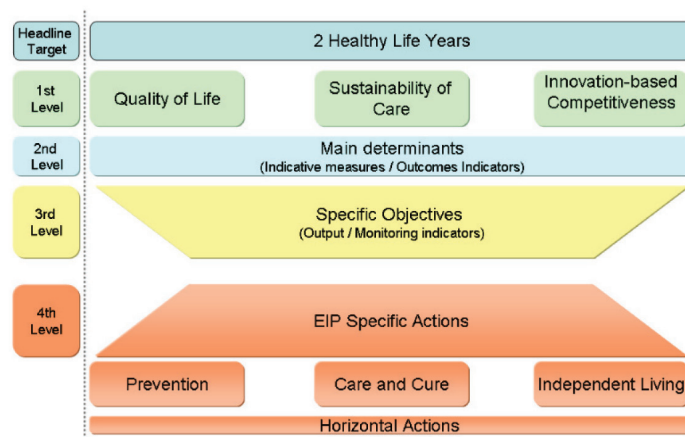
**Theory underlying the intervention:** There is sufficient evidence<sup>1-5</sup> to support the claim that the current welfare system is under pressure due to demographic change. Likewise, an increase in life expectancy is also evident, though this is not accompanied by an increase in quality of life. This generates an increase in the demand for care. On the other hand, there is evidence that interventions using new technology can improve the quality of life and decrease citizens' use of healthcare resources<sup>35,36</sup>.

**Hypothesis of the intervention:** innovation and multisectoral collaboration are fundamental methods for ending the recession in Europe and addressing social challenges. A joint, coordinated, structured intervention that demonstrates the benefits of innovation and that pursues large-scale implementation of innovative healthcare service models for active and healthy ageing will lead to a transformational change of the current social and health care system. These changes will lead to an increase in the quality and efficiency of the system and, consequently, to sustainability and improvement in citizens' quality of life<sup>10-12</sup>. This change will be made by breaking down the barriers to innovation and sharing and disseminating changes that come from the "champions" of innovation to other, less innovative areas. The EIPonAHA is aimed at working on existing initiatives for healthy ageing, maximising the use of existing knowledge and best practices. The EIP works by connecting and involving stakeholders. Though it does not make legislative changes, it can help the process of creating policy aimed at common objectives.

**Levels of government:** The EIPonAHA is a European programme that involves national governments who have the competences in matters related to healthcare and who have competences related to the decision-making process on the European level. In many MS, the regions or local administrations hold these competencies.

On an operational level, a model has been developed according to the monitoring levels that correspond to the administrative levels responsible for achieving the objectives.

Figure 7: Operational and monitoring levels<sup>11</sup>



**Legal or regulatory level:** the programme does not include directives or regulatory instruments. However, the strategic levels and the legitimacy of the actions are agreed upon and adopted by means of communications from the EC to the European Council or the European Parliament<sup>12</sup>.

**Funding:** It should be highlighted that the programme does not have its own funding. However, the SIP<sup>12</sup> justifies this with the EIPonAHA's alignment with other programmes and funding instruments.

## Deployment of the intervention

The design:

**General objectives:** Triple Win: Increase the number of healthy life years of the European population by two years, improve the sustainability of the healthcare system and improve the competitiveness of European industry.

**Specific objectives:** Identify and remove barriers to social and health innovation by means of an interdisciplinary and intersectoral intervention to address society's challenges.

### Strategic Implementation Plan (SIP)<sup>12</sup>:

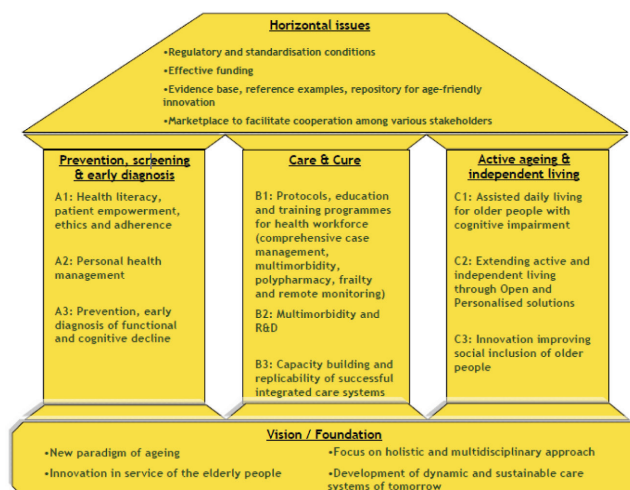
In terms of design, the programme has a top-down approach designed by the EC and the MS for implementation on the regional level whereas the strategy itself has a bottom-up approach, moving from local projects to the scaling and expansion of interventions. Thus, it is a multilevel programme with different decision-making levels at different strategic and operational levels. Involvement of the local and regional administrations is fundamental (Figure 8).

The priority actions that each of the pillars of the EIPonAHA should include were decided upon following a public consultation<sup>37</sup> of stakeholders and participating MS. The interest groups then formed the AGs, with different lines of action and activities.

Objectives were defined through the three pillars which, in turn, identified 14 priority areas. Out of all the objectives that were identified, the deployment of the six interventions was proposed and the AGs were formed: A1, A2, A3, B3 and C2 (Figure 8).

Additionally, AG D4 was created from the horizontal elements. Its aim is to generate innovation so that the cities and surroundings are adapted to the elderly population<sup>10</sup>. Furthermore, each AG defined specific objectives and goals that are to be achieved through the particular activities specified in an AP for the 2012-2015 period<sup>38-43</sup>.

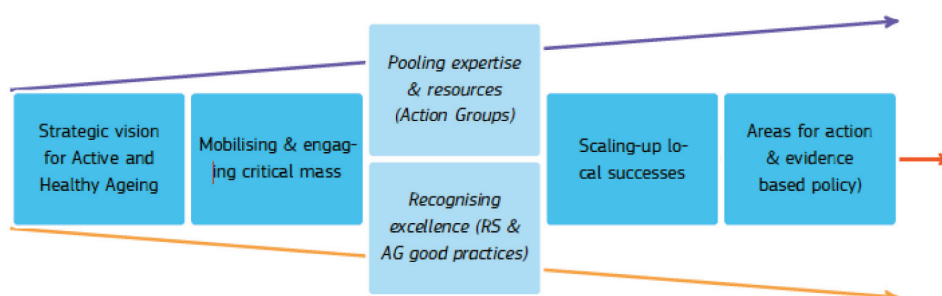
Figure 8: EIPonAHA Structure<sup>10,11</sup>



In addition to the AGs, a call was launched in 2012 to identify **RS**<sup>44-46</sup>. These are successful experiences and highly-inspiring innovation ecosystems that have created solutions which improve the lives of citizens. The RS can serve as a point of reference for other areas, which can duplicate and replicate these innovative practices throughout the EU. To do so, they have to provide robust evidence of their impact in line with the indicators proposed in the programme. This activity aims to contribute substantially to achieving the ambitious programme objectives. In the RS, the regional and national authorities, in alliance with other stakeholders, are committed to scaling up and implementing their innovative practices and, therefore, to funding innovative solutions for ageing in their regions or in others. The RS should establish communication and networks through an RS Network<sup>57</sup> that allows them to share their experiences and build collaborations between different MS.

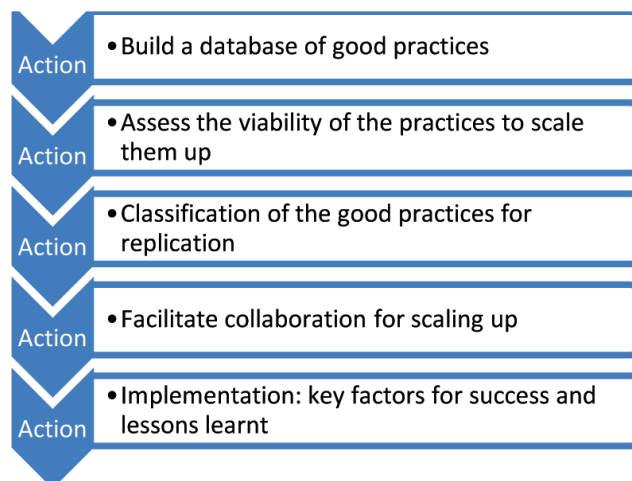
Lastly, the programme's design includes a **Scalability Strategy**<sup>48</sup>, agreed upon in December 2014 and developed by the network together with the EC. It establishes a strategic plan and specific actions for achieving the implementation of large-scale sustainable innovation. It is, without a doubt, the intervention with the biggest potential to transform the system and achieve the programme's strategic objectives.

Figure 9: Phases of implementation of the EIPonAHA (Scaling up)



In this sense, the EC, along with the RS collaboration network, has developed a work plan. It can be seen in Figure 9 as a strategic vision and in Figure 10 as operational actions.

Figure 10: Strategic steps for European scalability



### Expected results and impacts

The expected impact is the efficient transformation of socio-sanitary care towards patient-centred models with sustainable investments in innovation.

In addition, the programme aims to drive the healthcare technology markets, improving the competitiveness of European industry.

### Level of implementation

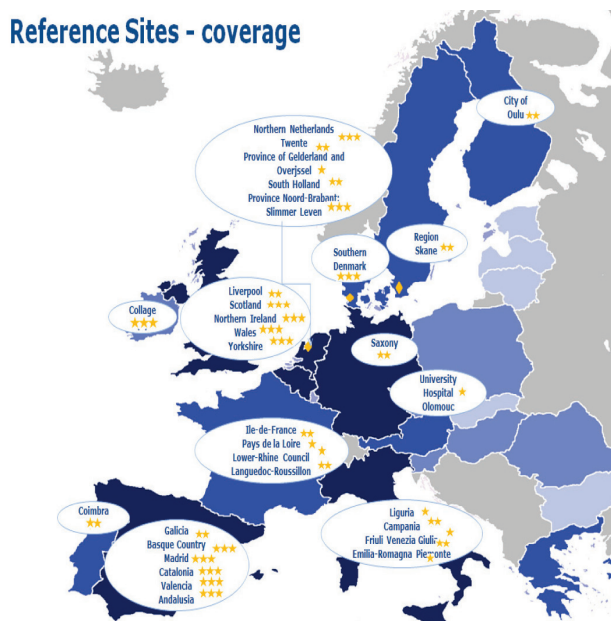
In theory, the implementation of the EIPonAHA started once the SIP<sup>10-12</sup> had been adopted and once the AGs started to meet and work together (in 2012). However, important strategies or tools that have a direct impact on implementation have been and will continue to be developed during the implementation process.

- **Implementation structures:** The EIPonAHA has designed organisational structures to support the deployment of the strategy and has acted along the following lines.
  - The Executive Group proposed that all stakeholders should work together to achieve the proposed objectives with the aim of reaching a sufficient critical mass. The first **Call for Commitments** took place in 2012, with a second call held in January 2013. The commitments were made openly so that all the stakeholders, particularly the AGs, could adhere to the strategy according to some general principles:
    - » *Commitment*: endorse the objectives and criteria of the partnership
    - » *Inclusivity*: open to all actors and institutions
    - » *Critical mass*: with the capacity to mobilise sufficient resources
    - » *Cooperation*: work together with other parties
    - » *Contributions*: produce results
    - » *Support*: serve as inspiration and provide political support for all participants

The managers and coordinators of the AGs who would coordinate and monitor the collaborative activities were designated. In turn, each committed partner would be in charge of implementing the strategy on the local level.

- In 2012, a call for RS<sup>44-46</sup> was made and the successful candidates were selected and granted Reference Site status (Table 2). The selection was based on the following criteria: innovation, scalability and results. The RS Network was established and a coordinator was designated. A repository of good practices was built and a scalability strategy was developed.
  - Logistical support resources: From the beginning, the EC has provided support structures and assistance in disseminating the work carried out to both the AGs and to the RS. In this area, funding of the CSA PROEIPAHA project<sup>56</sup> stands out.
  - Events and consensus meetings: The annual Partners Conference for showcasing achievements has been held each year and is part of governance.
- **Degree of implementation** of the measures adopted in the interventions.
- Each **AG** developed an AP<sup>38-43</sup> with medium-term objectives and collaborative work began. The degree of achievement and implementation of the activities has varied amongst the different AGs. Annex 2 shows the results of the activity of the AGs in relation to their objectives and goals as described in their APs. In general, the AGs have been very active, compiling good practices and making progress their different fields of activity<sup>49-55</sup>. Nevertheless, the documentation reviewed did not identify unique, homogenous outcome indicators which included sources and which were supported by assessable and replicable methodologies.
  - The evaluation and recognition of the 32 **RS**<sup>44-46</sup> was carried out in 2012, building the map that is shown in the Figure 11. Therefore, the achievements of this intervention during this period include the creation of the network, the scalability strategy and the publication of their innovative practices. Although the strategy has been adopted more recently (December 2014)<sup>48</sup>, an initial assessment of the plan for the scalability strategy can be found in Annex 2.

Figure 11: 2012 European Reference Sites



## Monitoring and evaluation mechanisms included in the programme design

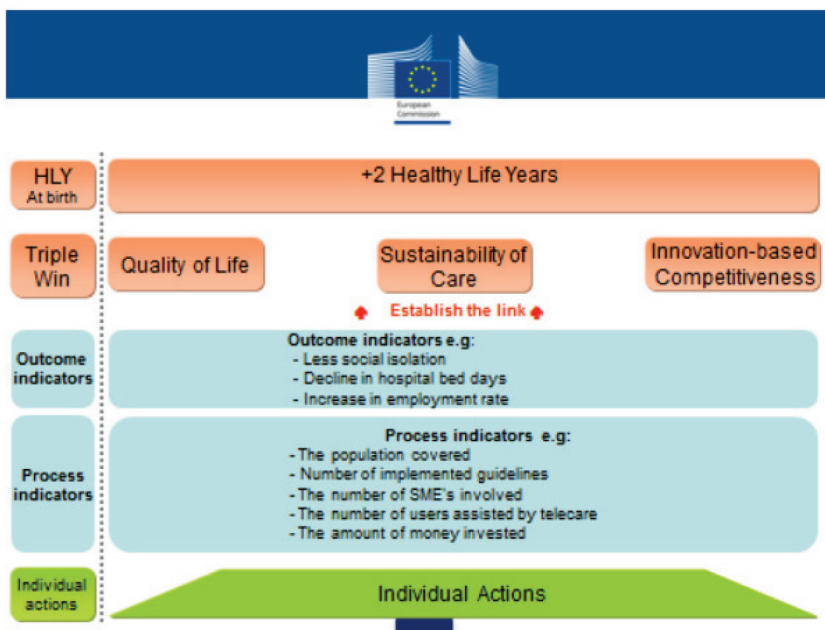
The SIP<sup>10-12</sup> identified the EC's Institute for Prospective Technological Studies (IPTS) and the Joint Research Centre in collaboration with experts and two members of each AG as those in charge of the monitoring and tracking the programme's progress by means of measuring the results of the EIPonAHA. The progress made by the programme will be measured individually for each AG, placing an emphasis on the involvement of multiple stakeholders, the creation of synergies, the transfer of knowledge, the innovation adopted by healthcare systems and the added value that participating organisations have gained<sup>31-43</sup>.

The measurement of results should be the same for the six AGs and should serve to monitor the overall achievement of the final EIPonAHA objectives, which is measured in Healthy Life Years (HLY)<sup>57</sup>, a structural European indicator periodically calculated by Eurostat. HLY measures mortality and morbidity amongst the general population. However, the other objectives of the programme should also be measurable through indicators of the efficiency of the healthcare system and knowledge transfer, industrial competitiveness and employment.

The monitoring and assessment framework, therefore, is based on a pluridimensional approach, with different levels and multiple indicators, goals or specific objectives. The evaluation framework is very complex. This complexity is necessary given that it aims to monitor such a broad, multi-faceted programme. The first of its complexities is how to report or estimate — from the specific interventions and projects which form the basis of the strategy and which are normally measured in quality-adjusted life-years (QALY) — the HLY, a population indicator that is less sensitive and specific than that which is normally used in local research projects. This, along with the results of the projects, the lack of mutually agreed-upon methodologies to evaluate innovation and the need for large-scale results to make decisions on health-related issues<sup>58,59</sup> have, since its beginnings, put pressure on the programme to seek out evaluation models that facilitate this work and that identify specific indicators<sup>26</sup>.

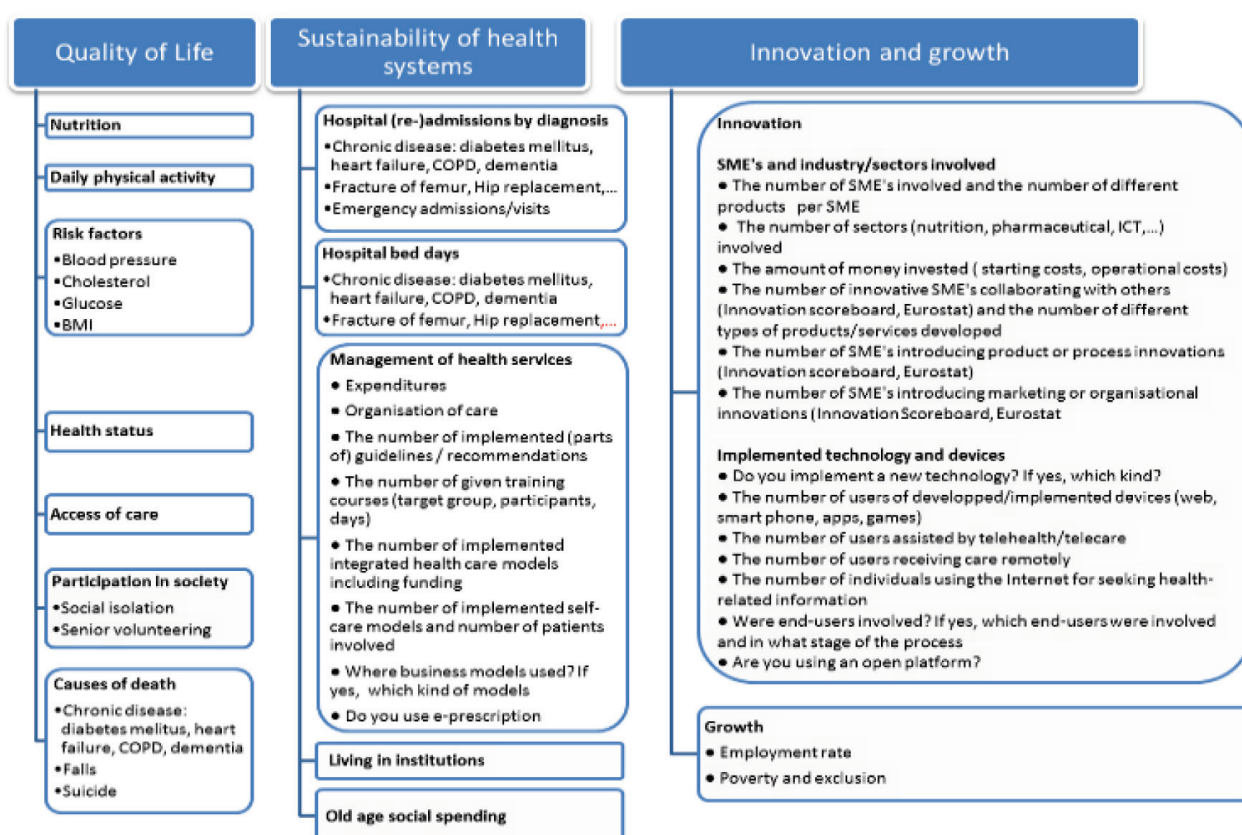
Using a general outline that can be seen in Figure 12, a series of indicators was provisionally defined (Figure 13). They are to be used as a reference point for progress. In their AP, each AG adopted some of these indicators, according to their objectives.

Figure 12: Preliminary outline of the evaluation strategy



Efforts have focused on reaching a consensus on designing a model for monitoring EIPonAHA which serves to objectively measure the programme's progress. This tool is the Monitoring and Assessment Framework for EIP (MAFEIP)<sup>15,60,61</sup>. The EC is considering implementing this tool in 2017. The instrument allows for an incremental analysis of the impact of the innovation: that's to say, an interactive assessment of the cost-effectiveness in several stages of the development process before it is clinically tested. MAFEIP provides an early assessment of the probability of making an impact and, therefore, affects decision making on future designs, developments or evaluations as well as market potential. The tool allows the user to estimate health-related results and the impact of care services. Nevertheless, according to its developers, the tool does not allow the user to compare different innovations on the basis of their cost-effectiveness in a common care scenario.

Figure 13: Initial indicators provisionally proposed by the EIPonAHA monitoring framework (Nov 2012)<sup>15</sup>



Only a review of the APs of all of the interventions, the implementation of the MAFEIP and a structured planning of the indicator report will allow for a certain degree of evaluation to be carried out.

### 5.1.2 Analysis and summary of the information

The evaluation matrix, which includes the research questions taken into account, their indicators and sources for verification can be found in Annex 2. In general, it was difficult to find numerical indicators of results for the goals and objectives. This could stem from the delay in the development and subsequent implementation of the MAFEIP.

The evaluation of the programme has been complex due to the number of parties involved and due to the issues and aspects that affect it. The links between all these factors and their impact on the results is difficult to discern. Even the exploration of the different criteria can lead to different answers depending on how the criteria on certain aspects are viewed.

**Regarding pertinence, relevance and complementarity:**

The analysis of the scientific documentation and literature shows that the programme is based on sufficient evidence and that it aims to solve a very important social and political problem.

As evidence of this, the EC has brought together all its R&D&I, healthcare and social policy that involve healthy ageing. It has directly involved three DGs by granting them a more relevant role in the strategy and it has activated the EU's decision-making mechanisms and prioritised the actions. All important actions have been adopted through public legal documents (communications).

In general, the programme is pertinent on a strategic level and has been designed in a structured way. However, the breadth and the global nature of the problem it addresses seem to indicate that more interventions are necessary to achieve the general objectives. This is particularly true if the programme aims to take action on the healthcare system, both in regards to the system's vision and to the provision of services. Furthermore, if it aims to break down barriers to innovation in key mechanisms, it should at least address the interventions and priority areas included in the SIP. Regarding this point, no indication was found of plans aimed at expanding the interventions into other priority areas which have become practically inexistent, such as primary prevention and community medicine.

The programme's relevance contrasts with the lack of internal funding and budget allocation from the classic project-funding programmes (H2020, FP7, etc.), where any researcher, whether they are involved in the programme or not, can receive funding. Whilst the EIPonAHA is a political instrument and is used to define priorities, its dependence on competitive funding awards for even basic logistical support to maintain the activities, the use of volunteers, or even the use of its own funds decreases its relevance and puts the programme at risk.

Another aspect that makes the programme less relevant is the governance system. This system seems weak and, in fact, was initially defined as provisional. In addition, even though the EC activated the European decision-making mechanisms, there is a notable lack of presence and prominence of the MS. At a minimum, there is a certain lack of internal coherence with regards to the representativity and involvement of the MS. The EIPonAHA is an initiative that directly mobilises regions, but the European decision-making model is fundamentally based on decisions made along with MS. In Spain, despite the fact that healthcare-related competences correspond to the regions, the national government has the role of ensuring cohesion between the regions, maintaining relations with the EU, transposing regulations, and more. These tasks are fundamental for the implementation of innovation and the transformation of the NHS.

There is sufficient information available regarding the complementarity of the various EC programmes, not only from the point of view of funding instruments but also from the point of view of the development of policies, which ensures the strategy is of a global nature.

## Regarding internal coherence and coordination

In general, the SIP has been structured in a coherent and pertinent manner. It has implemented an AP that is appropriate for achieving its objectives. The interventions submitted are directly related to the objectives and each intervention has designed activities that are in line with the specific objectives. However, some interventions have too many activities defined.

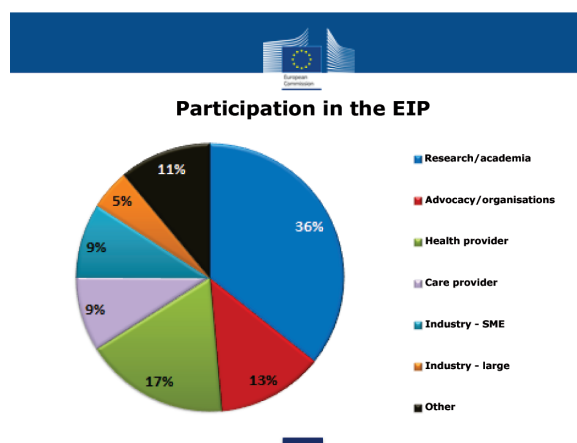
There is a structured correlation between the series of causes and effects and the fundamental problem that gave rise to the programme and its general objectives. These final objectives are clear and consistent. The implementation of the programme is focused on achieving the aforementioned objectives as indicators for evaluation and reference points for the framework. The challenges that the programme focuses on are priorities in the political agenda, but do not appear to affect stakeholders or cause political or socioeconomic changes in the short term. The partial goals (number of implemented interventions in a number of regions, for example) can be considered more as structural or process indicators than result-orientated objectives. The APs of the various AGs include a provisional list of indicators that are not always exactly aligned with their objectives. The introduction and adaptation of the MAFEIP is a matter that will be addressed in the following period. However, the causal decision theory that determines the specific objectives in some interventions is not always perfectly developed in the documentation that has been analysed.

Nevertheless, the EIPonAHA has designed degrees of coordination which are consolidated at each level and which ensure the work performed by groups. However, there is no figure other than the EC that coordinates the different interventions or even a coordinator of all the AGs who would prevent redundancy in activities and who would reinforce and prioritise the guidelines for achieving the objectives. The creation of the Task Force was a transitory attempt that was aimed only at defining new, synergistic collaborative work.

## Participation criteria

Since the design phase of the EIPonAHA, the EC has activated a variety of mechanisms: public consultations, lines of communication with MS, forums in order to involve stakeholders. Available data suggests that the consultation was carried out properly and with sufficient time so that all could express their opinion and participate. Patients and citizens, through their associations, are an active part of the programme<sup>34,38-43</sup>. Since 2012, more than 3,000 partners (300 organisations) signed on to participation agreements. They include all stakeholders from approximately 1,000 regions and municipalities from all EU countries<sup>48</sup>. In Figure 14, information from the 2012 Call is shown.

Figure 14: Stakeholders involved in the EIPonAHA in 2012



Nevertheless, the sector with the most representation is the research sector whereas the care provider sector, which is responsible for the implementation and transformation of the sector, is the least represented. This indicates a lack of internal coherence and lack of foresight in implementation.

### **Implementation and Effectiveness criteria**

The evaluation of these criteria is laborious and difficult because, as discussed previously, even though the EIPonAHA started its implementation process in 2012, in reality, this period included the definition and design of new relevant, fundamental strategies for the implementation of the EIPonAHA. In this sense, if the design of the scalability strategy<sup>48</sup> and the development of the MAFEIP<sup>60,61</sup> are considered as part of the implementation criteria, it could be said that the information reported by the different AGs, the experiences of the RS and good practices have helped to create a large critical mass of information and multidisciplinary participation. Therefore, there is not enough proof to say that the progress is evident.

Nevertheless, it is not clear that the mobilisation and the implementation that has taken place thus far has produced a significant, homogenous change in the health systems of the MS and their regions that assures progress towards achieving and demonstrating the strategic objectives. Therefore, although there is information on the implementation and transformation in the documentation analysed, there is no objective information on the changes further afield than the commitments agreed to by the RS.

There are differences between the number of implemented interventions and activities in comparison to those that were planned. There are AGs that have a high degree of implementation and others that have a lesser degree. With respect to the individual commitments of each partner, there is also information which demonstrates that advances have been made. What is difficult to analyse is the degree of progress, given that homogeneous measuring instruments have not been used.

On the other hand, if we consider the analysis of the programme in the medium term as a whole (e.g. the complete global strategy) in addition to the delay in implementation of MAFEIP and the scalability plan, these criteria could be assessed negatively. This is mainly because the activities that have been carried out up until now do not lead to evidence of achievement of the 2020 strategic objectives.

Regarding the resources provided for logistical support systems, they seem appropriate, though their use varies amongst the different partners.

### **Regarding the evaluability criteria**

For all of the aforementioned reasons, it will be hard to evaluate the final impact of the EIPonAHA, even with the availability of a large budget.

The breadth of the strategy, the multisectoral participation, the sequential design of key elements, the European framework and its underlying unequal status and other factors make monitoring tasks difficult and, consequently, very expensive. A real, in-depth evaluation of the impact and the effectiveness of the programme throughout Europe will be difficult. A certain degree of estimation or approximation is possible so long as the MAFEIP is implemented urgently and uniformly. At any rate, it must be taken into account that the authors of the MAFEIP admit that the framework proposes estimating results on health and on the impact. It isn't a true analysis, nor does it allow for benchmarking of the different interventions.

For all of the above, it is important to highlight that even though it is important to evaluate the final impact of the programme, a judgment on the evaluation should be made following extensive planning and keeping in mind that it will be difficult to objectively measure the results in absolute terms.

### 5.1.3 Survey of opinions

Out of the 34 experts invited to participate, only 14 replied. The complete results of the survey can be found in the Spanish version of this report<sup>25</sup>. Of those who completed the questionnaire, 68% had already been collaborating with the EIPonAHA since 2011 and 2012. Six of the participants belong to a RS and eight to an AG. Six participants are doctors, five are engineers and two are economists. Eight come from a research organisation, five from a service provider and one from an SME. Experts from Andalusia, Asturias, Madrid, Murcia, Catalonia, Basque Country and Valencia participated.

#### **Regarding relevance, pertinence and complementarity:**

Ninety-three percent think that the strategy is based on solving important problems and 72% believe that the EC has placed importance on the strategy. Seventy-two percent think that the strategic objectives are appropriate for solving the problem posed.

Only two of those who completed the questionnaire fully agreed that the interventions are directly related to the objectives. Eleven respondents consider technological and organisational innovation to be part of the solution. Only three respondents fully agreed that the EIPonAHA is carrying out appropriate actions to break down barriers to innovation. Regarding those interventions that have already been enacted by the EIPonAHA, nine respondents think that they are necessary yet insufficient and four respondents state that none of them are necessary or sufficient. Furthermore, eight experts think that the activities implemented in each intervention are necessary but insufficient and five respondents state that they are neither necessary nor sufficient. Thirteen respondents consider that the European policies are completely or partially aligned with the EIPonAHA.

Various experts respond that the work plan and the concentration of knowledge are very positive aspects. They help to comprehensively address the socioeconomic consequences of ageing, combining the economic, well-being and innovation-related benefits to the population as well as a focus on the issue from multiple points of view: scientific, industrial, on application, organisational, political, strategic and end user. "It is therefore an opportunity to stand together against ageing with a joint strategy that allows us to compare ourselves and share/replicate successful experiences," said one. Other experts highlight the importance of the EIPonAHA as a space where people can connect, exchange information, "generate ideas," and develop alliances and networks.

Others point out that the programme ignores the allocation of competences between the different levels of European, national, regional and local governments. Likewise, some experts highlight that it deals with policies whose competences correspond mainly to the MS, which do not feel directly implicated in this initiative. Another expert comments that no attention has been paid to the "re-design" of the healthcare systems to adapt them to the elderly population and that this continues to be ignored, despite the fact it should be the "cornerstone" of these health systems.

#### **Regarding internal coherence, coordination and participation**

Only three experts fully agree that the interventions form a structured body with internal coherence. Only four experts fully agree that there is alignment between the general objectives and the specific objectives of each intervention and their activities.

Two experts totally agree that the governance and coordination structure facilitate coordination and harmony amongst all interventions. However, three fully agree and nine partially agree that there are overlaps and redundancy of tasks. Regarding the internal coordination of each intervention, eight experts partially agree that it is optimal.

Four experts fully agree and eight partially agree that all stakeholders have been able to participate in the different phases of the programme. Regarding patient and citizen participation in the design of the programme, no expert noted that they participated whilst 11 experts partially or totally disagree that they participated. This supports the following statement made by one expert, who says that “we have to bring the programme closer to the people, professionals, patients and policy makers given that, on many occasions, the EIPonAHA contacts do not have a real idea of what is going on, something that would provide solutions to problems that haven’t been adequately described, confusing causes and symptoms.”

Some experts highlight that the majority of the participants do not have any training in medicine and even less in ageing, something which has an impact on the scientific rigour of the discourse and planning. Sometimes, the exchange of knowledge and experiences is difficult due this lack of scientific rigour. It can be noted that the motivation of many partners is associated with receiving funding for projects rather than truly effecting change and transformation within the system.

For other experts, the fact that the EIPonAHA “leans on so many consultants of varying degrees of quality and capacity” along with “lassitude in the evaluation of good practices, which leads to a hodgepodge of practices that are not very motivating” are negative aspects.

### **Regarding the implementation, effectiveness and evaluability**

None of the experts fully agree that the majority of the interventions are underway, although ten partially agree with this statement. Three experts fully agree that the logistical support contributes to the progress of work and seven partially agree. In addition, two experts fully agree and nine partially agree that the structure of interventions is appropriate for making progress on the tasks. Forty-three percent agree on the importance of the Partners Conference. None of the experts fully agree that the current trend in implementation will ensure the transformation of the system and the achievement of the triple win. Three experts fully disagree with this statement and eight partially agree.

On this point, various experts highlight the perception of a progressive decline in the programme during the past 18 – 24 months and uncertainty about the near future, with the initial relevant objectives being abandoned in favour of more technological aspects. This information can be confirmed in the European Public Health and H2020 Calls. This decline has caused many of the experts who initially collaborated in the programme to leave, whilst many of those who continue to participate have limited experience in the subject.

“Resolute action is necessary to redirect its current course, returning to the programme’s origins,” said one expert. Others indicate that the space where people can connect, the “generation of ideas,” and development of alliances and networks should be translated into concrete “products” and “services”: changes in regulations, in calls, etc.

Furthermore, for other experts, the lack of direct resources is a problem and means that on many occasions, less time is dedicated to achieving the desired results than is required.

Finally, the majority of the experts see some problem in monitoring and assessment and in achieving objectives in the medium to long term.

## Conclusions from the survey

The surveys express a certain disappointment with the expectations that have been held, the results that have been achieved and, above all, in progress towards the future. For the majority of the experts, the EIPonAHA arose as an interesting, important and structured strategy. However, there are currently many areas for improvement. It is fundamental that the strategy is redirected towards a more holistic approach that is more centred on the healthcare system.

## 5.2. IDENTIFICATION OF POLICY DRIVERS

The analysis of the new APs of the different AGs<sup>62-66</sup> and synergies<sup>18</sup> revealed potential similarities amongst the various APs. During the first review, multiple similarities were detected, sometimes coinciding with the horizontal priorities taken into account by the SIP (patient empowerment, financial issues, diffusion, inclusion of stakeholders, etc.). However, many of these were not present in all of the AGs. Therefore, following a second review and having contrasted them with the European political framework, three fundamental policy drivers were selected that will have an impact on the management of the EIPonAHA. They should help to improve its implementation or, as a minimum, the programme's coordination. A common framework was established:

- Involvement, engagement, and empowerment of patients and citizens.
- Involvement, engagement, and empowerment of health professionals.
- Provision of evidence, knowledge transfer and scalability.

Table 6 shows the potential similarities of the aforementioned drivers through the objectives and sub-objectives of the new APs for each AG or synergy.

The importance of the drivers is evident throughout the European political framework<sup>11,27-30</sup>. Despite the fact that a synergy has been developed regarding patient and citizen empowerment, different aspects related to training patients in terms of technology use and education on health issues can be seen in the different AGs. It is even true that other aspects that should be taken into account in the development and implementation of technology are fundamental to the success of the interventions. All of these elements that have been developed by the different AGs should share a common foundation that should be jointly developed and agreed upon.

The majority of the AGs also address matters related to the training and participation of professionals and carers. This training and participation should have a common, standard basis. The synergy designed to train professionals by means of a Master's degree in AHA addresses this subject in detail. However, it does not include all ideas, issues, potential activities and concepts to be implemented regarding this matter. Concurrently, some of these issues could be associated with some of the objectives or sub-objectives of other AGs. It is evident that professional training is critical in all areas and these aspects should have a common foundation.

Finally, all of the AGs, in addition to the RS, are called upon to provide evidence on effectiveness. The previous section indicated that there was a clear problem with monitoring and reporting evidence that can be easily assessed and that facilitates measurement of the real impact of the EIPonAHA. It is not clear if this situation has changed in the new APs. Furthermore, the individual partner commitment forms can be a heterogeneous body of information that is difficult to use. The synergy dedicated to the

implementation of Maturity Models<sup>67</sup> only partially covers aspects regarding knowledge transfer and translation. Likewise, the scalability criteria should be disseminated homogeneously throughout the AGs.

Therefore, having analysed the 2011 – 2015 period and with a view to the new APs, the consensus on evidence reporting, the implementation of the MAFEIP and the Scalability Strategy will all help to improve coordination, implementation and execution. Furthermore, it is essential not only to evaluate the final impact of the strategy, but to also move forward with an evidence-based transformation of the social and healthcare systems. Maintaining the standard mechanisms on methodological aspects, the identification of indicators, the provision of evidence, expansion, knowledge transfer from one area to another and general scalability processes should be addressed and agreed upon jointly.

**Table 6: Potential redundancy on policy drivers in the different objectives of the new APs from the AGs of the EIPonAHA and Synergies**

AGS AND SYNERGIES	POLICY DRIVERS		
	Involvement, engagement and empowerment of patients/citizens	Involvement, engagement and empowerment of professionals	Provision of evidence, knowledge transfer and scalability
Objectives, sub-objectives or activities			
A1	3	2	2.7
A2		3.1 3.4 3.5	2.2 3
A3	2.4 2.6 4.5	4.4	1.2.2 3 4.7 3.3
B1	3.3 4.3	3.6 4.5	5
C2	6		3*
D4	A2.2 8	6.1	1.4 3 6 9
Adherence to treatment	X		x
Master's in AHA		x	
Patient and citizen empowerment	x		
Maturity Model			x
Fall prevention	x	x	X
Fragility	x	x	X
COPD	x	x	X

**In conclusion**, the analysis of the 2011-2015 period shows a lack of horizontal coordination between the different interventions which would avoid redundancy of work and disparities in the presentation of results. This makes it impossible to aggregate, analyse and benchmark the practices. Mechanisms should be established to improve internal management, at least in those essential political priorities that facilitate the transformation of healthcare. It is necessary to work aggressively on removing the barriers to innovation and on allowing for the comparison of results and decision-making based on objective and verified evidence.

## 5.3 ANALYSIS AND IMPROVEMENT OF THE IMPACT IN SPAIN

### 5.3.1 Results from the survey

The results from the survey confirm that the EIPonAHA has an important impact in Spain and that in some way lessons can be learned from this experience (12 experts totally or partially agree with this statement). Likewise, 13 of the respondents think that it is necessary to strengthen our role and our model on the European level.

Eleven participants fully agree and two participants partially agree that the coordination and promotion of innovation for healthy ageing is essential in order to pursue the scalability strategy, preserving equality in the system.

A summary of the answers provided by the experts in the open response fields can be seen below.

#### **What lessons can we draw to improve implementation in Spain? (8 answers)**

1. Centralise the interventions on the regional level. At present, there are isolated interventions but there has been no communication between them.
2. There is a need for a greater involvement of public institutions, both domestically (Spain and its AC) and abroad, increasing the institutional role of Spain in the EIPonAHA. Other countries have become a lot more involved and are controlling and directing the course of the EIP towards their national interests.
3. The Government (Central and Regional Administrations) should gather the lessons learnt and suggestions from the participants. In order to do so, the pertinent channels need to be created. These areas then need to benefit from more concrete measures (funding, regulation).
4. Political and institutional support needs to be gained. Integration between the different decision-making levels is also necessary.
5. More investment is needed in innovation and research. Carrying out innovation and research from the public sector is a bit complicated. The structural funds should be aligned with the EIPonAHA. A real market transfer strategy is required. We should not be afraid of surrounding ourselves with industry to achieve this transfer. The funding systems should be adapted to the technological changes that eHealth solutions offer. For instance, funding is given according to hospital admissions, yet our objective is to avoid unnecessary admissions.
6. Better coordination both on the RS and on the Spanish level, where the exchange of good practices can also take place.
7. Exchange of good practices – multidisciplinary communication – Dialogue with the programme/funding designers.

8. It would be a good opportunity to establish a form of communication between the initiatives in the different Spanish Regions and share experiences and programmes. It would help improve the provision of services as well as provide the possibility for collaboration between different stakeholders on the improvement of living conditions of elderly people and citizens in general.

**How do you think the positioning of and benefits to the Spanish partners could be increased? (10 answers)**

1. Firstly, by supporting Spanish researchers and innovators. Secondly, by participating much more actively in the EIP-AHA activities, backing the initiatives and achievements of the Spanish researchers. Thirdly, by participating in the design of the calls, placing more importance to topics where Spanish researchers have a capacity for leadership. Finally, by increasing the interaction between the Centre for Industrial and Technology Development and Spanish researchers who study ageing.
2. Carrying out more clustering activities that are moderated and driven on the regional level by the competent authorities.
3. Give visibility to those who truly have something to bring to the table (there are many Spanish partners who do). Carry out a pre-screening process before participating (demonstrate results in the field that is going to be debated/addressed/discussed, in our case healthy ageing, so as not to waste the time of those who do know about the subject). If the projects that are proposed are interesting, promote communication between the EU, the Ministry of Health and the regions. In order to carry out the projects, institutional support is needed for the Joint Actions that are coordinated by Spanish partners, along with institutional support for the Spanish Reference Sites so that they can export their healthcare model to all regions.
4. An indirect funding mechanism should exist through other programmes, including national ones, to cover the basic activities that EIPonAHA requires. Greater cohesion, exchange of best practices and mutual support would bring added value to the programme.
5. Improve information about the RS and disseminate it more widely throughout Europe. Establish a clear connection with the commitment related to demographics (Association Agreement, Forum of Spanish Regions with demographic challenges, a presentation in Parliament...) to strengthen both approaches and to provide coherence and importance to the strategies and actions.
6. Greater visibility of the good practices and national institutional acknowledgement.
7. Indirectly and in the medium term. It is a marathon, not a sprint, and those who last will be rewarded.
8. Better coordination amongst Spanish partners would be advisable. It isn't easy given that they range from small organisations with one commitment to regional governments. The availability of a forum would be interesting. At present, there are various Spanish RS (I think that there is a Call dedicated to this).
9. Invest more in R&D, allowing our professionals to spend less time providing care and to dedicate this time to R&D.
10. A strong commitment to all policies. We have to believe in this and invest a great deal in training and in changing the professional culture of both health-related and non health-related professions.

**Which mechanisms, interventions or activities could contribute to implementing the EIPonAHA programme in Spain and exporting it to other member states? (10 answers)**

1. Be capable of measuring local impact and transferring it to global indicators of the triple win.
2. Within Spain: dissemination and replication of the care models that have been validated and tested as being effective in the RS. In other nations, implement the joint action proposals.
3. Reinforce the participation of Spanish actors in the AG.
4. What has been discussed, plus strong development of the field of ageing in national calls. One example: the call for projects from the ISCIII does not have an Evaluation Committee in the field of ageing. This type of strategic decision would clearly promote the interest of the researchers in the area and visually demonstrates the administration's interest in this specific area.
5. Our partners insist on the need for specific lines of funding for pilot projects that are easily accessible for innovative SMEs and start-ups. They would have a great multiplying effect and would facilitate the implementation of innovations in the public health and care systems.
6. A possible solution could emerge from the coordination of efforts between partners of the diverse groups A1, A2, etc., and the RS in their same area. Up until now, this coordination has not existed.
7. Monitoring of the EIPonAHA objectives through the Inter-territorial Commission, comparing the different Regions.
8. Reduce bureaucracy and respond to the needs of all the RS and agents involved. On some occasions, each RS tries to cover their needs separately, which is very inefficient. Involve different types of personnel. Not only R&D/public health, but also those dedicated to providing patient welfare or care (in each region only one type of profile tends to go to the events and meetings. However, they do not all coincide at the same time). There are no flexible mechanisms for sharing information and creating synergies that promote a greater impact to help achieve the objectives of the H2020.
9. The Italian model could be copied, as it facilitates and promotes the participation of agents who are already involved in the EIPonAHA, taking care of transfers from one national organisation to another with a fixed line of funding. Furthermore, common elements that facilitate the success of these initiatives could be identified.
10. More information for all the actors in the system, not just for the usual suspects.

### **5.3.2 SWOT Analysis**

Considering the results of the political analysis regarding objectives 1, 2 and the opinion of the experts, a SWOT analysis was performed. Its results are summarised in Table 7. This table assesses the elements that should be taken into account in order to improve the implementation of EIPonAHA in Spain.

**Table 7: SWOT analysis of the EIPonAHA and its impact in Spain**

Weaknesses	Threats
<ul style="list-style-type: none"> <li>• Governance and lack of MS involvement</li> <li>• Lack of transversal coordination and greater leadership in the area of synergies</li> <li>• Lack of direct funding</li> <li>• Lack of implementation of other interventions included in the SIP and, above all, fundamental aspects of public health, primary prevention and community health</li> <li>• Redundancy of tasks and the possibility of different approaches to common issues</li> </ul>	<ul style="list-style-type: none"> <li>• Delay and difficulties in implementing MAFEIP and a standard monitoring model</li> <li>• Lack of more direct involvement of health authorities on all levels</li> <li>• Disparate activities, over-emphasis of some areas in detriment to others</li> <li>• Over-production of “good practices” with no clear element to aggregate or evaluate results. Consequently, difficulties can be expected in activities related to benchmarking and scaling-up</li> <li>• Lack of motivation amongst volunteers who see little reward for their contributions</li> </ul>
Strengths	Opportunities
<ul style="list-style-type: none"> <li>- Based on social and health priorities and needs</li> <li>- Global vision of the problem and the solution</li> <li>- High levels of consensus</li> <li>- Provides a global action framework in the field of ageing and innovation management</li> <li>- Mobilises all stakeholders</li> <li>- Establishes a collaboration framework</li> <li>- Provides a framework for disseminating good practices</li> <li>- The number and experiences of the Spanish RS</li> <li>- Competence and capacity of the Spanish organisations involved in the EIPonAHA</li> <li>- Scalability Strategy and possibility of replication in Spain</li> <li>- Spanish NHS organisation and the innovation system</li> <li>- Spain’s capacity to generate sufficient critical mass to make decisions, in line with the objectives, funds and human resources</li> </ul>	<ul style="list-style-type: none"> <li>- Level of awareness in society and amongst stakeholders</li> <li>- Number of commitments from the different sectors</li> <li>- The commitments of the RS</li> <li>- RIS 3 of the regions, included innovative public procurement programme</li> <li>- Spanish NHS Organisation</li> </ul>

According to this table, in order to achieve the maximum benefit from the lessons learnt from EIPonAHA, the need to improve national coordination and leadership, strengthening a global and homogenous Spanish map of innovation, is clear. It is essential to take advantage of EIPonAHA’s strengths and to work on its weakness. EIPonAHA is an appropriate framework that favours taking relevant actions in the sector so long as these actions are carried out in a structured way and, above all, with the involvement of all health and social authorities.

## 6. DISCUSSION

The results of this report stress the necessity and pertinence of the EIPonAHA. It was created as a coordinated and strategic response to the social challenges brought on by demographic change. The EIPonAHA conveyed, at least when it started, a transformational vision of the health and social system that focused on the implementation of technological and organisational innovation as the main driver of change<sup>68</sup>.

It should be recognised that the programme has mobilised a large critical mass at European level and has positioned the strategy within the expected levels of importance. This is all the more remarkable considering that the work groups are made up of volunteers who generally have quite a large workload and who have demonstrated great capacity and strong commitment to the objectives. Overall, the scientific production of each intervention is relevant, though in quantifiable terms such as results and impact indicators, it has not been possible to objectively measure it. Despite this, it has clearly been very effective in terms of promoting innovation. Another undeniable strength is the vision of the elements involved in knowledge and innovation management as a whole.

However, on the implementation level, the EIPonAHA has quite a few areas for improvement. Firstly, it is likely that the most fundamental area for improvement is internal coherence and coordination: the alignment with the European Union decision-making levels and the participation of the MS, reinforcing their commitment and their value in coordination and representativeness, seems to be necessary. Secondly, the reinforcement of transversal coordination in order to facilitate homogenisation and the diffusion of synergies should be pursued. A structured, and direct action on the drivers and facilitators of change should be promoted. Training, involvement and engagement of users are also of particular importance. Co-production of care and co-production of technology are key elements, as highlighted in the eHealth Action Plan<sup>26,27</sup>. In fact, patients' acceptance of technology is a formidable barrier to the adoption of innovation. However, disruptive innovation often provides new and different perspectives which tend to reduce complexity, favouring patient and citizen empowerment<sup>28</sup>. Therefore, it is essential to reinforce the mechanisms that seek to take action and improve the implementation of these policy drivers.

Also, it is essential that a consensus is reached on monitoring aspects. MAFEIP should be implemented throughout all levels of the programme and a method for ensuring that all content generated can be managed in an efficient and accessible way should be established. This should be mandatory for the evidence based implementation of the Scalability Strategy and the real health and care transformation.

On a similar level, given that the impact of the EIPonAHA in Spain is evident, the same threats and weaknesses on a European level are present at national level. However, it is clear that the framework provides an unprecedented opportunity to make progress and to move towards Health System Transformation, taking advantage of the benefits of innovation. If we also take into account the structure and strength of Spanish NHS in relation to other European countries; the dedication of smart specialisation in ageing in most of the regions; the budgetary allocations for demand-driven innovative public procurement programmes; and the capacity and leadership of the Spanish partners, amongst other factors, we are in the best position to structure progress on the values and many positive findings of the EIPonAHA. Thus Spain could be a reference to other MS. In order to do so, it is necessary to maximise coordination and to replicate the initiatives that have been working well in

one region to other regions. In short, it is about building on the strengths gained from the EIPonAHA, and transferring this vision of a comprehensive strategy to our real and daily context. To use a play on words in Spanish, this is talking about an EIPonAHA where the first “E” of the acronym stands for “Español” (Spanish) instead of “European”. Perhaps the best strategy to improve Spain’s position in Europe is to improve the transfer and translation of knowledge at national level and to become a consolidated, structured point of reference for innovation at a global and a European level. This is much quicker and more feasible than improving transfer and translation of knowledge on the European level, though that does not mean that it is easy.

Thus, the analysis in this study encourages better national coordination of activities associated with the EIPonAHA, both in the interest of preserving the Spanish NHS’ principle of equality and as a tool for innovation in and of itself. Nevertheless, given the problems detected on the European level, it seems necessary to establish homogeneous criteria at national level, above all, regarding innovation monitoring, in the process of implementation, deployment and scalability. The proper implementation of MAFEIP is critical. However, even more critical is the implementation of a monitoring system that responds to and complements the current national measuring systems, facilitating the provision of evidence. Improvement in execution and management of all scientific aspects to support evidence-based implementation and deployment is essential.

In order to achieve real healthcare transformation, it is fundamental to maintain inter-sectorial communication. Likewise, it is key to advocate for leadership from health authorities in strict coordination with other authorities in the field of R&D&I and other sectors related to ageing.

On the other hand, the EIPonAHA needs to have a sense of prioritisation in which the measures of progress in innovation have to generate systematic change<sup>13</sup>. It would be necessary to redefine and consider activities and interventions previously described in the SIP that have not yet been addressed but that are fundamental in the new space for care, particularly in addressing aspects of public health, primary prevention and social inclusion.

Health and care transformation is not an easy job and success is not guaranteed. However, Spain is in the best position to make progress and this is only possible by increasing communication and coordination between the RS, regions and stakeholders.

## LIMITATIONS

The limitations of this report arise mainly due to the literature analysed almost exclusively included documents from the EC's web pages. Due to a lack of time and personnel, it has not been possible to review all of the good practices that have been collected and the evidence that they contain in order to assess impact. However, this premise has been explored and it would be very difficult to summarise figures and sources in accordance with the classic criteria of Evidence-Based Medicine.

Another limitation is the number of surveys received. Though they do provide an insight into experts' opinions of the EIPonAHA, it is possible that only those experts who are most enthusiastic or most frustrated responded.

## CONCLUSIONS

1. The EIPonAHA is a European Initiative that has had a large impact in Spain. It is based on verified relevant needs and provides solutions to the problem of demographic change as well as technological progress.
2. The EIPonAHA is a framework for learning and for opportunities to improve the implementation of innovation in Spain.
3. Improvement in coordination and communication of the RS on the national level is one of the tools that would have the most impact on the implementation of the strategy.
4. In order to achieve healthcare transformation through technological and organisational innovation, it is necessary to align policies from different sectors that have an impact on AHA.
5. It is necessary to break down the barriers to the implementation of innovation with forceful, determined actions, at a minimum for those aspects related to co-production with users, patients and professionals.
6. It is essential to implement homogeneous monitoring and evaluation mechanisms to ensure knowledge transfer and the evidence-based transformation of the healthcare system.

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## ANNEX 1: SPANISH REFERENCE SITES 2016

Note: The information published in this annex has been fully provided by the Reference Sites.



### REFERENCE SITE OF ANDALUSIA (REACCREDITATION)

Andalusia (located in the south of Spain) is one of the largest regions of Europe, with a population of 8.5 million inhabitants and an area of 87,597km<sup>2</sup>. Life expectancy is 84.5 years for women and 78.72 for men. The population over 65 years exceeds 1.3 M and its growth represents both a challenge and an opportunity for our region, similar to other territories in Europe. Andalusia has a formal policy commitment that sets active and healthy ageing (AHA) as a strategic priority and as such is included in its Smart Specialization Strategy.

The Regional Government of Andalusia (Junta de Andalucía -in Spanish-) is responsible for public health and health policy as well as social welfare and social care policies. The Regional Ministry of Health and the Regional Ministry of Equality and Social Policies work together in the consolidation and maintenance of these fundamental social welfare pillars, and particularly in the field of active and healthy ageing (AHA). In addition to these public authorities and its institutions, a wide range of partners from academia, research institutions, private and voluntary sectors, as well as civil society are contributing to foster innovation to boost personal autonomy, prevent dependency, improve sustainability and efficiency of health and care services, and back entrepreneurship supporting employments in the field of AHA.

Andalusia has been actively involved in the European Innovation Partnership on AHA since its beginning and was recognized as a 3-star Reference Site in 2013 thank to its Active Ageing and eHealth Strategies. In 2016, Andalusia has been awarded as a 4-star Reference Site due to its excellence on adopting the Quadruple helix approach which seeks synergies that design knowledge ecosystems with a commitment of exchange and collaboration going beyond its borders. Some of the entities involved are the Andalusian Public Health System, Andalusian Health Service, Andalusian Agency for Social Services and Dependency, Public Universities in Andalusia (particularly University of Seville, University of Malaga, University of Granada and University of Jaen), Andalusian Council of Official Colleges of Pharmacists, Andalusian School of Public Health, local social services, pharmacies, Scientific Societies, Technology enterprises, Centres of Active Participation, among others.

Several strategies such as the Andalusian Health Plan or the Andalusian Plan for Promotion of Personal Autonomy and Prevention of Dependency, as well as several integrated plans (Care plan, Integrated care for patients with multiple chronic diseases, diabetes, oncology, palliative care,...) contribute to this recognition.

Founding member of the Reference Sites Collaborative Network (RSCN), its involvement has allowed a fruitful exchange of innovative ideas and experiences as well as building up collaborative initiatives of common interest. The EIP on AHA has positively contribute to share knowledge, keep learning and improve collaboration in this field.

Andalusia represents the RSCN in the eHealth Stakeholders Group of the European Commission, contributing to its works and discussions, facilitating the adoption of digital innovative solutions in the field of health and social care.

Working together in this innovative way helps to achieve the expected triple win of the EIP on AHA: to enable citizens to live longer and healthier; while improving the quality, efficiency and sustainability of social and health care systems, contributing at the same time to economic growth through the development of innovative and competitive products and services in Europe.

Dr Marina Álvarez, Regional Minister of Health of Andalusia

Mrs María José Sánchez Rubio, Regional Minister of Equality and Social Policies of Andalusia



## REFERENCE SITE OF ARAGON: SECTOR SANITARIO DE BARBASTRO

**Sector Sanitario de Barbastro** (SSBAR) is a sector of **SALUD** (Servicio Aragonés de Salud), public provider of healthcare services in the region of Aragon. It provides primary care, hospital specialized services, socio-sanitaire and mental health care.

On the implantation of active and healthy ageing services, SALUD follows a process of piloting, validation, assessment and deployment of the key services identified as successful experiences. SSBAR acts as a living-lab of innovative initiatives. On its path, SSBAR has built an extensive network of more than a hundred local, regional, national and European allies, comprising healthcare organizations, academy, technological sector, industry and associations of patients and citizens.

The technological infrastructure where most of these services rely on arises from the Health Optimum (eTen C046273) project that permits to build upon it a series of “vertical” applications that ease the communication among the different care levels and share information among them. These include among others: teleconsultation (synchronous and asynchronous in the same and different assistant levels), tele-advice, videoconferences and telemedicine services. Some of them have been largely deployed in the whole Aragon territory, as tele-dermatology (ability of resolution of 80%), tele-retinopathy, tele-psychiatry, tele-radiology, tele-ictus, tele-emergencies and digital electrocardiography.

In preventing care there are other programs that were large deployed, as screenings in cervix cancer (70.5% coverage), colorectal cancer (89%), breast cancer (81.1%), diabetic retinopathy screening (coverage of 73.3% in 2015), deafness in children or programs targeted to polymedicated elders.

One of the main strategic lines of the organization is the attention to elders with chronic diseases. Several programs have enriched the DREAMING-project telemonitoring business model, introducing horizontal integration among health and social stakeholders with the aim to put the patient in the center on a framework of integrated care. Projects as PITES T-Ayuda (ISCIH), RESATER and e-RESATER (INTERREG SUDOE) and, on a larger deployment scale, SMARTCARE project (7PM ICT-PSP 325158) have settled the pillars towards a sustainable model of integrated care of quality.

The promotion of healthy habits, the accessibility to the attention and the preservation of the autonomy of patients are objectives of SALUD. Examples as SUSTAINS (CIP-ICT-PSP-2011-5 297206) and CSVI (Avanza2) projects have encouraged the empowerment of citizens in the management of their health status, and have eased the access to online clinical services through digital media.

SSBAR as a public service, strains on the dissemination of knowledge through the participation of studies as SIMPHS3, knowledge networks as e-RESATER, coordinated networks projects as PITES, publications as two good practices published by the EIP-AHA B3 group and the participation in several workshops, seminars and conferences.

<http://sectorbarbastro.salud.aragon.es>



GOBIERNO DEL  
PRINCIPADO DE ASTURIAS

## REFERENCE SITE OF ASTURIAS

The partnership for innovation regarding active ageing in Asturias is formed by the Regional Government, Cruz Roja Asturias, two technological centres (CTIC and PRODINTEC), the Foundation for the Promotion in Asturias of Applied Scientific Research and Technology, FICYT; the Biomedicine and Health cluster of the University of Oviedo, Instituto Oftalmológico Fernández-Vega IOFV and the European Enterprise and Innovation Centre CEEI. The three Asturian cities with most inhabitants, Oviedo, Gijón and Avilés, have also supported the candidacy and will progressively join the work dynamics.

The candidacy was prepared after working several years on how to make best use of the European initiatives and programmes to face the socioeconomic consequences of demographic changes, in particular that of ageing population which is very notable in Asturias (more than 22% of the population is over 65 years of age).

On the one hand, health and social care innovation has been included in the Intelligent Specialisation Strategy, together with the regional dimension of ageing in the European regional investment funds up to 2020. On the other hand, Asturias has joined the European Demographic Change Regions Network (DCRN); the European *Covenant on Demographic Change*; and it is an active member of the Demography and Ageing Workgroup for the European RESOE macro-region (north and centre regions of Portugal, Galicia, Asturias, Castile and León).

Simultaneously, the University, research centres and companies have progressively come together in European programmes and research projects regarding the great research, innovation and business potential within the scope of the *silver economy*: the economy of products and services aimed at the elderly population. Added to this is the participation of the University researchers linked to the Biomedicine and Health cluster in the EIP-AHA groups, from the first call.

The interest and the will to take a significant step forward has gradually been forged in this way, having qualitative consequences on regional innovation and materialising in the candidacy to become a Reference Site and the two-star qualification.

The short-term work programme of the partnership is centred on:

- the preparation of an Asturian Active Ageing Strategy;
- the execution of innovative pilot actions, relying on the care resources of the administration and the Red Cross;
- the implementation of efficient processes for the transfer and scaling of technology and know-how. During the next three months we will hold four workshops in Asturias with experts from Ireland, the United Kingdom and Holland aiming to advance in this field. The first of these will be on the experience of the Reference Sites in this area and how to make use of all the opportunities offered; in the second workshop there will be a discussion on the MAFEIP assessment tool; and a discussion on the Groningen case in the third workshop. The workshops will come to an end with one to summarise and reach conclusions, which will have the participation of the European Commission.



## REFERENCE SITE OF BALEARIC ISLANDS

The Balearic Islands have been recognized with two stars as a reference area in active and healthy aging by the European Commission. The candidacy has been promoted by the General Directorate of Public Health and Participation (GDPHP) of the Regional Ministry of Health.

The population's aging, the high prevalence of chronic diseases and communication technologies has led to a radical change in the citizens' health demands. Traditionally, society has expected health care to assume issues affecting health and diseases. Today we know that health services are not the main factor that determines the health of the population. Individuals and their behaviors are strongly influenced by the social networks and the community where they live and the capacity of these to be able to support them. Living and working conditions, housing conditions, education received, food, access to basic services and the environment, green spaces, transport, etc., also determine our health; and all of them depend on the political, socio-economic, cultural and environmental conditions in which society grows. This comprehensive vision of health is absolutely necessary to understand and deal with the health problems that the population suffers and for those who die.

Aware of the challenge this entails, the Strategy for Addressing Chronicity and the Strategy for Health Promotion and Disease Prevention of the Ministry of Health, have both served as a reference framework. The Health Promotion service of the General Directorate of Public Health and Participation establishes its Strategy based on the essential functions of health promotion relied not only on strengthening the basic skills for the life and abilities of individuals, but also to start actions to influence the underlying social and economic conditions and the physical environments that influence health. To implement efficient actions it is essential to:

- Combine the efforts of all strategic partners.
- Promote and facilitate partnership with all stakeholders involved.
- Reduce inequalities in health by working in disadvantaged groups.
- Achieve the skills needed to succeed.

Based on proven scientific evidence interventions.

Recognize the need to innovate, investigate, evaluate and have continuity over time.

Efforts to achieve behavioral change are more effective when acting at different levels: society, institutions, organizations and interested groups. To this end, we have set up alliances with different entities, both public and private, which work in the field of aging such as local and regional administration: Palma and other municipalities, Department of Mobility and Infrastructures (Smart Cities, European Project CIVITAS- Dynamo); Consell Insular de Menorca; Consell Insular de Mallorca (Observatory of elderly people of Mallorca); Balearic Agency of Tourism; Ministry of Transport; UIB (University of the Balearic Islands); Institute of Health Sciences Research IDISBA; PREDIMED Group; CIBER-OBN; Community Nutrition and Oxidative Stress Group; Dietitians and Nutritionists Association and civil society (neighborhood associations, parents' association, NGOs, citizens ...).

## **Best practices presented:**

### **“Healthy Routes at Primary Healthcare Centers”**

Some characteristics of the urban environment can stimulate or discourage the habit of walking and thus affecting the health status of the population. In this way the concept of walkability, defined as the degree to which the urban environment promotes the habit of walking, arises. It has been shown that several aspects such as functionality (traffic, street design, etc.), safety or aesthetics, influence people's walking habits, aspects to be taken into account when establishing measures to promote daily physical activity in the population.

In 2008, the General Directorate of Public Health and Participation launched the “Healthy Routes Project at Primary Healthcare Centers” (<http://e-alvac.caib.es/es/rutas-portada.html>) following the guidelines of the European Commission (Horizon 2020) and in line with the pillars of EIP-AHA. This project is promoted in close collaboration with Primary Healthcare Centers (PHC) of the Balearic Health Service whose objectives are: 1) to design healthy routes around PHC 2) to promote physical activity in patients and the population in general, 3) to strengthen skills and capacities of individuals and communities by involving them in decision-making to improve and maintain their health and functional capacity throughout the life course and (4) to strengthen collaboration among health professionals, transport specialists, and urban planners to help introduce the health perspective into other non-health sectors (health in all policies of the strategy -HiAP-).

Through a process of community participation, the routes are designed by the community (GDPHP, PHC, citizens, patients and social nets of the area). In this way it is intended to promote community empowerment in health from projects close to its environment and that the community itself feels protagonist. As a final result, a net of routes is being woven in order to be practiced both individually and as a group to improve people's quality of life and social cohesion of neighborhoods.

So far 72% of the Primary Healthcare Centers of the Balearic Islands have joined the project. The project was recognized in 2015 as Good Practice of the National Health System (GGPP) and in 2014 was awarded the NAOS Prize to the health initiative granted by the Spanish Agency of Consumers and Food Safety AECOSAN.

At present, we are working to offer this asset to the tourism sector as a leisure activity related to tourism friendly to the elderly and promote tourism respectful according to age.



## REFERENCE SITE OF BASQUE COUNTRY (REACCREDITATION)

The Basque Country has been recognized with the highest rating (four stars) by the European Commission as a reference site in active and healthy aging. The proposal, led by the Basque Government's Health Department, includes a coalition of partners including the Basque Government (Departments of Health and Employment and Social Policies), Provincial Council of Bizkaia, Osakidetza, University of Deusto, University of the Basque Country, the Matía Foundation, TECNALIA, IK4 and the Mondragón Corporation.

To meet the challenge of chronicity, aging and dependency, the Basque Country has deployed a global approach in which all stakeholders play a significant role. The Basque care model is based on the prevention and promotion of health, the empowerment of patients and adherence to treatment and the contribution to a better integral evolution of health. The Basque Health model aims to improve patient-centered care by improving coordination and continuity of care between service levels and adapting care to patient needs.

Aging requires a sociocultural change to coincide with the care and empowerment of people, addressing issues such as aging at home, gender equality and the reconciliation of personal, family life and work life. The Basque Country has defined a framework that combines health and social care to serve the growing demand of both and achieve interoperable independent living solutions. The Basque Country has established an infrastructure for the transfer of innovative knowledge between sectors. Work is being done on opportunities at the local level to address sustainability and promote innovation in health care, the promotion of health-related technology areas where there is greater capacity for development and opportunities for economic growth and employment ("Silver economy") with the creation of new markets for products and services to live a more active and independent life profitable.

The document gathers the strategic vision of the Basque Government towards the challenge of aging, chronicity and dependence (Health Plan 2013-2020, Basque Strategy for Aging 2015-2020, Strategic Lines of the Department of Health, Digital Agenda and others) which have provided explicit support, distributed leadership and capacity building in organizations to transform the health and welfare system in the Basque Country. It also reflects the European commitment through the participation in multiple projects and European networks of collaboration in the different sectors.

The activities cover all the pillars of the European strategy reflected in the EIP AHA. In addition to evaluating the overall strategies developed in the Basque Country, three Good Practices have been presented:

### Good Practice 1: Integrated Care Strategy

Integrated care is a key aspect of the Basque health strategy, where it has been working for several years. In fact it was presented as good practice in 2013 and awarded with three stars. Since then, the Basque Country has continued to work actively and

committed in this direction, and integrated care has continued to evolve and evolve with the aim of improving the health and quality of life of patients and citizens in the Basque Country, Developing proactive interventions, encouraging the empowerment of patients and developing individual patient plans.

This strategy has created a comprehensive care model focused on people and patients capable of providing continuity of care in both health and social level. New structures, processes and tools have been implemented to meet the health needs of patients in the Basque Country, with a high degree of efficiency, efficiency and coordination among health professionals and social workers.

The key elements of this Good Practice are:

- The creation of Integral Health Organizations (OSI)
- Integration of communication systems.
- Use of risk stratification tools and care plans based on the needs of complex patients.
- Incorporation of new nursing figures
- Socio-sanitary coordination
- Empowerment of the patient and self-care plan.
- Integrated intervention plans targeting different groups / populations.

### **Good Practice 2: The Basque Country's eHealth Strategy**

The e-Health strategy supports integrated care to address aging, chronicity and dependency in the Basque Country. This strategy includes:

- Osarean, a model that provides care for people focused on prevention, monitoring and health advice.
- Osabide Global, which hosts the unified electronic medical record, a program that provides comprehensive patient information.
- Osanaia, which facilitates the management of care by nursing, and allows configuring and managing the personalized nursing care plans and modifying them as the patient needs.
- Presbide, the electronic prescription service provided by a unique system for both primary and specialized care.

### **Good Practice 3: Euskadi Lagunkoia**

Euskadi Lagunkoia is an initiative promoted by the Department of Employment and Social Policies of the Basque Government and the Provincial Council of Bizkaia, launched with the support of the Matia Foundation and the University of Deusto respectively. It aims to encourage the participation of older people and the general public to improve neighborhoods and environments in the municipalities of the Basque Country in order to achieve environment friendly for older people by reorganizing their structures and services and thus making them accessible and adapted to the Different needs and capacities of individuals.

The objectives of this initiative are:

- To take advantage of the potential that the elderly people represent in the life of the towns and cities of Euskadi as generators of well-being.
- Create and foster community participation processes.
- Create a Network of friendly initiatives in Euskadi.
- Facilitate the introduction of changes in environments in order to improve the quality of life of their citizens



Generalitat de Catalunya  
Departament de Salut



Agència de Qualitat  
i Avaluació Sanitàries de Catalunya

## REFERENCE SITE “CATALONIA” (REACCREDITATION)

The Reference Site led by AQUAS / TicSalut / HUBc (4 stars), under the coordination of AQUAS, is an alliance supported by the Government of the Generalitat of Catalonia, the main hospitals, universities, research centres and productive sectors closely linked to the technological development and innovation in the social and health fields. Its objective is to offer a patient-centred and personalized care model and to face the challenge of the progressive ageing of the population and its consequences on the health system.

The Reference Site “Catalonia” represents an integral model with the involvement of the actors to create a dynamic ecosystem that generates a multiplier effect in prevention, screening and early detection, care and treatment as well as active ageing and autonomous life.

Various health innovation strategies and policies in Catalonia (such as the RIS3CAT – the Research and innovation strategy for the Smart Specialization and the Catalan Health Plan) are aligned with the quadruple-helix paradigm to address the challenges to Regional and European level in the short and long term. In this sense, the Reference Site represents the link between government, health providers, training institutions, research and transfer institutes and ICT companies, which is an alliance of the main actors for the application of the Triple Win model in the Reference Site. The alliance is complemented by the transfer of knowledge to the productive sector, the creation of new economic activities and the improvement and consolidation of an industrial network of biotechnology, medical technology and biomedical companies.

The members of the Reference Site are very active in the areas of prevention and care of age-related pathologies: cancer, cardiovascular, neurodegenerative and metabolic diseases, mental health, prevention through diet and nutrition, atherosclerosis, problems caused by falls, among other. In particular, the initiative presents a series of good member-driven practices that have an impact on the three pillars of the European Innovation Partnership on Active and Healthy Aging, among which the following can be counted:

- AQUAS
  - » Public Procurement of Innovation in Healthcare
- Health Universitat de Barcelona Campus
  - » NEXTCARE – Personalized care of chronic patients in a digital health framework
  - » The COLONPREV Study – Programmatic Screening for Colorectal Cancer
- Institut Català de la Salut
  - » GeriatrICS project – Support to chronicity and prescription adequacy in nursing homes
- IDIAP Jordi Gol
  - » Impact of Community-based Program on Frailty Prevention and Frailty Mitigation (ICP – FPM)

- Insitut Pere Mata
  - » Mental Health Platform from Tarragona Province
- IRB Lleida
  - » ILERVAS: El Bus de la Salut
- TICSALUT
  - » AppSalut website and Digital Health Platform
  - » Integration of social and healthcare systems (IS3)
- Vall d'Hebron Institut de Recerca
  - » Ictus project
- Consorci Sanitari del Garraf
  - » ECHORD++ Innovative technology for Comprehensive Geriatric Assessment (CGA)
- Institut Guttmann
  - » GNPT Guttmann Neuro Personal Trainer®



Ajuntament de Badalona



Badalona  
Serveis  
Assistencials

## REFERENCE SITE OF CITY OF BADALONA

The city of Badalona is very well recognized within the national and international environments as a reference in the areas of health and well-being, and it is based on all aspects related to this field: health promotion, prevention, health care, social care, teaching and biomedical research.

The Can Ruti Campus concentrates top level organizations in the field of health, with brand names such as the Germans Trias i Pujol University Hospital, the Germans Trias i Pujol Health Sciences Research Institute Foundation, the Catalan Institute of Oncology, the IrsiCaixa AIDS Research Institute, the Institute for Preventive and Personalized Cancer Medicine, the Guttman Institute, the Josep Carreras Institute for Research on Leukemia and CEESCAT. More integrated in the urban environment, we find the primary care centers of the Catalan Health Institute (ICS) and those of Badalona Serveis Assistencials (BSA), the latter, a comprehensive municipal health organization that provides health and social services and covers all the continuity of care, ranging from: primary, specialized, socio-health and dependency.

One of the characteristics that has defined throughout the history in the City Council of Badalona and that continues being one of its main pillars, is its approach towards centered care. This commitment to a health-based model has been made possible by a strategy of developing neighborhood services, a model of cooperative and intersectoral work. In this way, the city currently has a good infrastructure of services to meet the health and well-being of the population and to remain a leader at the Catalan level, both in Spain and internationally in this matter. Badalona is now in the best position to take a step forward and face a new challenge: to build a model of a city oriented to active and healthy aging that will make it become a reference city in this area.

We could say that there are five great characteristics that define the specialization of Badalona and that they include: 1) Willingness to exercise local leadership of the city's health and social policies; 2) Complete coverage of the care continuum: prevention, promotion and care centered on the person and with a community and population view; 3) Orientation towards co-governance and the active role of citizens in decision-making; 4) Prioritizing action on the determinants of inequality in health, acting on the most vulnerable people to achieve more equity in health; 5) Prioritize a strategy for innovation and research based on the use of new technologies.

The territorial scope of the project mainly comprises the health region of North Barcelona, where the Socio-sanitary Center “el Carmen” reaches a reference population of 445,000 inhabitants. The municipalities included in this sanitary region are: Badalona, Santa Coloma de Gramenet, Sant Adrià, Montgat, Tiana, Alella, Teià and Masnou.

The members of the Badalona Reference Site ecosystem, ordered according to the types of actors defined in the Quadruple Helix of innovation are:

- **Government and health and social providers:** Ajuntament de Badalona, Municipal Institute for the Promotion of Employment (IMPO), Badalona Serveis Assistencials, Institut Català de la Salut (ICS), Institut Municipal de Serveis Personals, Unitat de Salut Laboral del Barcelonès Nord i Baix Maresme, BCIN, Institut Guttman, Universitat Germanis Trias i Pujol and the Institut d'Investigació in Salacid Sciences Germans Trias i Pujol;

- **Academia and research:** Universitat Oberta de Catalunya and EURECAT;
- **Industry:** TUSGSAL, Costaisa, IN2, Atraura, Concatel Vanture, IPSILON, Montserrat Bernat Farmàcia and Open Evidence;
- **Civil society:** Fundació Llegat Roca i Pi, Fundació Badalona Capaç, Creu Roja de Badalona, Càrites, Amics de la Gent Gran, Association of malalts d'Alzheimer families, Casal Pomar, Casal Can Canyadó, Casal Antoni Boada, Casal Can Mercader , Casal Congrés, Casal Nova Lloreda, Casal Pep Ventura and Associació de Veïns del Centre.



## **REFERENCE SITE OF THE PROVINCE OF BARCELONA: ASSOCIATION FOR INDEPENDENT LIFE (AVI)**

AVI, has been awarded a star by the European Commission as a Reference in active and healthy aging, in the demarcation of Barcelona. The document presented contains:

### **Presentation of the entity**

It is a non-profit association, whose main purpose is develop care work with people with dependency and disability in the field of support products (technical aids), technology and home automation from a multidisciplinary care model.

It carries out the professional training and the students of the sanitary and social scope.

In the field of research, it has a technological experimental laboratory, where the most suitable support products are developed for the collective of affected, as well as the necessary computer and domotic applications. It is the reference in research, development, innovation and validation of technical help applied to people with dependency. In 2008 created The Independent Living Center, (CVI) - Accessible Digital Living - is an assistance center where dependent people are served, evaluating the products and technology more suitable for each person to promote and improve personal autonomy and safety at home or in your usual environment and avoid overload family. CVI is based on personalized assistance, where the user is valued Taking into account various factors (up to the physical or mental state) to the more social or environmental context. CVI facilities are equipped to carry out the assessment of the person, with products of support in a real space where is made an appropriate prescription to the needs of the person and / or family. CVI has the technical helps to make the transfers, displacement, basic activities of daily living, communication, security ...

### **Coverage Population**

Population coverage of people served: 5,500 elderly people with dependency and / or with disability.

### **Entities collaborating and participating in the projects developed by the entity**

- Collaborating Private Entities: Mutual Médica, Mutuam, Colegio de Médicos de Barcelona, Fundación Alzheimer Catalunya, Fundación ICTUS, FATEC (Federation of Elderly Entities of Catalonia) ECOM Federation.
- Public entities that participate and collaborate in the projects: City Hall From Barcelona and Sanitary Consortium of Barcelona.
- Universities: Riskcenter / University of Barcelona, Faculty of Informatics of Barcelona, UPC. Research Centers: EURECAT and I2Cat.

### **Programs that the entity performs evaluated with the standards of good practices**

#### **1. Programs aimed at elderly people with dependency and / or disability**

- 1.1 Adaptive and functional program in the home. With the participation and co-financing of Barcelona City Council, aimed at people over 65 years of age in the city of Barcelona, with scarce economic resources. It is based on the installation

and training in use of Support Products and / or adaptations in the home (reforms) previous consideration of functional limitations, to improve aspects such as: habitability conditions autonomy personal and / or accessibility and security, as well as to prevent their social exclusion. CVI professionals provide training to the user and / or family on the use, management and cleaning products support. Track the interventions performed to know their satisfaction. There is no cost to the user.

- 1.2 Living at home program. People from the province of Barcelona. Carry out the valuation of the person and his home and indicates the necessary support products and / or adaptations to improve autonomy and security. Unlike the Functional Adaptation Program, the cost of support products and works are borne by users. Advising is done during the intervention and CVI professionals give training to the user on the management of the aid. Follows up the interventions made to know their satisfaction and state of improvement.

## **2. Projects for people with a disability**

- 2.1 Pilot project adapting to home. It is funded by the Municipal Institute of People with disabilities of The Barcelona City Council and with the collaboration of the Health Consortium of Barcelona. Aimed at persons under 65 year old with an acquired disability, admitted to a health center that does not have the knowledge, or products of help or adaptation of the needed to address the new situation. The person and their needs are valued in the health center and in home in order to have the support products and / or perform the adaptations necessary before he returns to home he can be autonomous. No cost to the patient.

## **3. Research Projects**

- 3.1 European AAL project - ASSAM (Germany, the Netherlands and Spain): To compensate for partial loss of physical and cognitive abilities such as unstable equilibrium, visual area reduction , or mild dementia. Three types of mobility platform are developed: a walker, a wheelchair and a tricycle, that through the incorporation of latest navigation and positioning technologies, support mobility and autonomy, improving the transfers and movements of these groups. Finished.
- 3.2 UB, Riskcenter, Barcelona City Hall and AVI. Evaluation of assistance programs that the entity develops in relation to the improvement of health and social status and cost-benefit analysis of these.
- 3.3 EURECAT and AVI. EKAURI teleassistance project with sensors in people's homes to monitor their health status.

## **4. Training**

- 4.1 To professionals in the field of health and social. Students from high school institutes of average grade and superior degree of attention to the dependence and of social integration.
- 4.2 Caregivers and families.
- 4.3 Older people and people with disabilities.

## **5. International cooperation projects**

- 5.1 Transfer of the Knowledge of the Functional Adaptation Program in the Home, to Puente Alto (Santiago de Chile).



## REFERENCE SITE OF TERRASA CITY COUNCIL: HEALTHCARE LIVING LAB CATALONIA

As an ENoLL labelled Living Lab, the *Healthcare Living Lab Catalonia* is formed by three distinguished Catalan hospitals, three universities with international campuses of excellence, diverse business organisations and clusters, a group of MedTech companies and the City Council of Terrassa (Barcelona-Spain). All these stakeholders are developing I+D projects that are market-oriented and focused in three main areas: healthy ageing, healthy lifestyles, healthcare management and disruptive technologies applied to healthcare.

Our mission is to promote the development, transfer and dissemination of scientific and technologic knowledge in the health sector applying the user/patient-centered approach. Our LL aims to respond to the global market needs and to create lasting value for partners, envisioning a sustainable development. The *Healthcare Innovation Lab Catalonia* takes as reference the North European model of applied healthcare innovation. The centralized authority of our LL coordinates and enables interaction between the different stakeholders and guarantees that the results return to the population.

At local level, *Healthcare Living Lab Catalonia* is supported by the Innovation Strategy of Terrassa City Council, who applied for FEDER funding within the RIS3 Catalonia Territorial Programme – pending of approval. The project, if funded, will respond to the societal health issues enabling the use of scalable and innovative technologies within the Public Health System in Catalonia, Spain and Europe.

At regional level, *Healthcare Living Lab Catalonia* is part of the TEC-SALUT Community. TEC-SALUT is funded also by FEDER and belongs to the Research & Innovation Smart Specialisation Strategy (RIS3) Catalonia Community Programme. The mentioned initiative kicked off in 2016 and is composed by key stakeholders in MedTec sector in Catalonia, with the aim of creating new products, services and responding to the societal and market needs in the sector through innovation actions. As a result, TEC-SALUT will boost the creation of high profile jobs. In order to meet the challenges of the health sector, the community has identified priorities areas of expertise through which action plan of TEC-SALUT is organized and defined. Four projects are being executed in the field of imported technologies and sustainable healthcare ecosystem. The projects BIÒPSIA 3D, ACADOM, NANONAFRES and DIALCAT are led by distinguished coordinators and supported by a consortium composed by community members with the objective of fulfill the plan of actions.

At European level, *Healthcare Living Lab Catalonia* is part of EIT HEALTH, one of the largest healthcare initiatives worldwide. This Knowledge Innovation Community promotes entrepreneurship and innovatives in healthy living and active ageing, providing EUROPE with new opportunities and resources. The initiative, enables citizens to lead healthier and more productive lives by delivering products, services and concepts that improve quality of life and contribute to the sustainability of healthcare across Europe. EIT HEALTH goal is to sustainably advance the foundations of healthcare and thus promote the future conditions for healthier living and well-being of people across Europe. Our LL is partner

of the EIT HEALTH Living Lab & Test Beds Project. The activity will focus on ideation and validation through the consortium's network of living labs and test-beds. It will shorten the time for start-ups and SMEs to launch products and services within EIT HEALTH's scope. The participant facilities provide an environment with actual end users in which both user ideation and validation of new products and services can be performed.



## REFERENCE SITE OF GALICIA (REACREDITATION)

Galicia has been recognized with 3 stars by the European Commission as a Reference Site in the EIP on AHA. The proposal led by the Galician Health Ministry groups together the Public Health Provider of Galicia, SERGAS, which has 14 hospitals, 493 primary care centres and 111 emergency centres and 3 health research institutes and the Health Knowledge Agency, ACIS, which has been created to become the chief element of the health knowledge and innovation ecosystem in Galicia. ACIS works to consolidate and to enhance the “quadruple helix” approach of the innovation ecosystem.

The Strategy SERGAS 2020 has been recently approved with a total budget of about 18.000 M€. This strategy has been developed according to the singularities of the population of Galicia, which is characterized by a high rate of aged and dispersed population. People above 65 years represent today 23% of total population and this ratio will reach almost 25% at the end of 2020. This Strategy is based on 4 main axis: 1) comprehensive healthcare adapted to the needs of patients, families and caregivers, 2) highly committed professionals, 3) efficient management that contributes to the sustainability of the system and 4) adequacy of infrastructure, equipment and health information systems to the needs of patients and citizens. In addition, the new healthy lifestyle model based on active ageing of population is one of three main challenges of the Galician Smart Specialization Strategy, RIS3. The Galician RIS3 will mobilize almost 550M€ to address this challenge.

The document submitted by Galicia for its candidature includes the actions and initiatives that have been put into practice in the last 3 years. These have been implemented in our health system to cope with the ageing of the Galician population and encompass all pillars of EIP on AHA. Among these actions or good practices, three of them have been underlined:

1. Innovation programmes Innova-Saúde and H2050 based on innovative public procurement practices. These projects are two strategic actions of the Galician Government. These two Health Care Innovation Plans contain, respectively, 9 and 14 strategic innovation projects, with an investment of over 90M€, co-funded by ERDF.

The summary of the impact of these projects is 317 new contracts, 145 companies benefited, 33 PPI and 1 PCP tenders.

2. Digital home: under this concept has been encapsulated innovative products and services to improve the citizens quality of life in their homes as well as in other social environments, which materialise through the implantation of intelligent information devices and systems which support the communication of health information orientated around the prevention and promotion of health, the vigilance and monitoring of pathology (especially the chronic type) or which constitute an access channel to the Health Services used by patients or citizens themselves.

The implementation of these services constitutes the primary steps in the transformation of the care model towards a new paradigm which will try to improve the efficiency of the current processes and the quality of the services delivered to the patients.

3. e-Saúde Platform: this project was developed to seek a new health model to incorporate the patient as an active subject and the backbone of the health system. This platform allows improving the information and communication between citizens and the public healthcare service.

Other projects that are being carried out this year in this field have also been mentioned, such as:

1. Código 100: innovation plan created to answer the Galician demographic changes and promote a health service more modern and ready to address the needs of a highly aged population. It has a total budget of 13M€, co-funded by ERDF.
2. EMPATTICS: its aim is to support and equip patients to become active self-managers and minimize their non-adherence. EMPATTICS will tackle the public need of supporting patients' adherence. EMPATTICS is one of the Precommercial Procurement projects of the H2020 and its total budget is 4M€.



## REFERENCE SITE OF MADRID REGION, SERVICIO MADRILEÑO DE SALUD-HOSPITAL UNIVERSITARIO DE GETAFE

The Region of Madrid has 6,436,996 inhabitants (Source: INE, January 1st 2015) with a rate of ageing of 16.7%. This means that in our region there are 1.083.776 people older than 65. Taking into account that around 8.4% of them are frail and another 41.8% are pre-frail (Data from the Toledo Study of Healthy Aging-TSHA), our reference site would have a population coverage (patients with frailty/pre-frailty) of 91,037 frail older patients plus 453,018 pre-frail older patients. In addition, among the remaining robust people, around 20-25% of them are at risk for pre-frailty and frailty, mainly in those older than 75-80 years old.

The Region de Madrid is the third region in health investments in Spain. This expenditure represents the 36 % of its total budget. In 2015 the Region de Madrid final budget for Health Care was approximately 7,6781 millions of euros, which represent 1,113.89 euros per habitant. The pharmaceutical expenditure in 2015 was around 2,113, € millions of euros. The approved health budget of Servicio Madrileño de Salud (SERMAS) for 2016 is 7,274 million of euros.

In the last years, Madrid has been making a significant budgetary effort to provide their care services with the latest Technologies for health and active and healthy aging. In Addition, although there is still some way to go, Madrid is the Spanish region with a higher number of Geriatricians, and the region where more resident geriatricians receive their training (38% of the total in Spain). The care indicators show a great performance in terms of elderly care for older people. Furthermore, Madrid has the first Centre in Europe for Clinical Research in Aging.

Among the different initiatives Developer by Consejería de Sanidad-SERMAS, in addition to the organization of clinical care to the old people according to the criteria of providing a coordinated, continued and integrated care through the usual levels of care (Acute Care Unit, Functional Recovery Units, Day Hospital, Outpatients Office, Falls and fracture Units, Memory Clinics, Community Care Units, etc) we have promoted agreements with other institutions to produce synergies in the provision of care to older people ("Tercera Edad Activa") and in the development of new technological devices for older adults (Centre of Biomedical Technology. Technological University of Madrid; Navarra Public University). Supporting this big effort, SERMAS-Hospital Universitario de Getafe is leading four EU-funded projects (**FRAILOMIC** and **MID-FRAIL**, by the 7th Health Framework Program and **FRAILCLINIC** and **FRAILTOOLS** by DG-SANCO) and participating in another 5 projects (**DECI** and **ACANTO**, funded by the H2020, **SPRINTT**, funded by IMI-1, **Vivifyfrail**, funded by Erasmus+ and **FACET**, funded by KIC-EIT Health), embracing the different areas of interest related to frailty: screening, diagnosis, treatment, training and technological support. Through these projects we are now available to provide new programs of physical exercise adapted to the physical conditions of the patients, developing new devices (an intelligent walker) for people with functional limitations, implementing new programs of psicostimulation for people with Mild Cognitive Impairment, evaluating a platform to predict, detect

and monitor frailty. All of these projects are fully focused on older people who are frail or pre-frail, as the best strategy to work against disability in older people.

As an example of scaling up from regional framework to a nation-wide one, we have made substantial contributions to the National strategy for detection and management of frailty and falls, released by the Spanish Ministry of Health in 2014 and approved by all the Spanish regions (Comunidades Autónomas), as part of the National Strategy against chronicity. We are also fully committed with several Action Groups of the EIP-AHA, with a special attention paid to A3 group (Frailty and functional decline), that we have coordinated since the beginning. As a consequence of all of these initiatives, plans and programs focused in older people to promote active and healthy aging, SERMAS-Hospital of Getafe has been chosen to lead among more than 40 partners and 28 EU countries, the Joint Action on Frailty Prevention, with the aim of build a strategic framework for preventive approach of frailty at European level.



## REFERENCE SITE REGION OF MURCIA

The Region of Murcia has been recognized as Reference Site in Active and Healthy Ageing for the commitment acquired with the care of the elderly in the framework of innovation, research and sustainability. The candidature has been promoted by the Coalition of Innovation in Active and Healthy Aging of the Region of Murcia, <http://blogs.murciasalud.es/coalicion-envejecimiento-murcia/>, headed and coordinated by the Regional Ministry of Health of Murcia. This partnership encompasses more than 40 associated entities, both public and private, working in the field of aging: <http://blogs.murciasalud.es/coalicion-envejecimiento-murcia/quienes-somos/>

- Research institutions: university, foundations, etc.
- Civil society: associations of patients, consumers and seniors, and professional associations
- Companies, mainly health technology, nutrition and senior tourism
- Regional and local administration with competences in health, social policy and economic development.

Some of the actions carried out in the Region in this framework are the following:

- **Regarding Health Care**, among others, we have the new Strategy for Attention to Chronicity that is being developed with a new perspective on patient empowerment and in which innovation plays a fundamental role, as well as the Humanization Plan for Health, or the Comprehensive Care Plan for Rare Diseases, and participation in Joint European Actions on Fragility, Chronic Diseases, Rare Tumors and Antimicrobial Resistance. Regarding the continuity of care, the phone follow-up of patients after hospital discharge has been implemented throughout the region.

We are also working on population stratification in order to know the potential risk of disease in the population that will allow to establish a map of needs for chronic patients. It is also worth mentioning the work carried out by the Commission for Socio-Health Coordination to advance the integration of care of patients with different pathologies, through the elaboration of specific protocols.

- **In relation to new technologies applied to Health**, some actions implemented are the use of electronic medical records, the extension of the electronic prescription, or the possibility for patients to consult their medical record or to contact with their doctor through the Patient Portal, as well as the request of medical appointment through the web Murciasalud, and recently through an specific application for mobile phones. In addition, the use of telemedicine has been extended for consultations between the Primary Care physician and Specialized Care physicians.
- **Related to participation in European research networks and projects targeting older people and chronic patients**, we have groups participating in European Prospective Investigation into Cancer and Nutrition (EPIC), EPIC Elderly, European Asthma Research and Innovation Partnership (EARIP), Danger ATP, MyHeart, An

European Network for the Training And Development of Public Health (PHEEDUNET), Selfcare for Long Term Conditions in Europe (EU Wise), Innovative Introduction to Integrated Care (IN3CA), Joint Action on Chronic Diseases (CHRODIS), SmartCare.

Other Technological projects are ReadForHealth or ProEmpower, as well as those in which the Region acts as a living lab such as FIChe, highlighting the role of the Innovation Unit of the Murcia Health Service and the Foundation for Health Research and Training in the Region of Murcia (FFIS) <https://www.ffis.es/>. In addition, the Region is in the process of accreditation as a Living Lab of health technologies

- **Boosting research in the field of Health** is another target. We are developing the Regional Strategy for Research and Biosanitary Innovation ERIIB 2016-2020, and the Plan of Genomic Medicine, and the Decree that regulates authorization for constitution, operation, organization and registration of the biobanks of the Region of Murcia has been recently published.
- **In addition, we also have research entities that focus their research activity on ageing**, especially in the university environment, highlighting the Research Institute on Ageing of the Murcia University.
- It should be noted the importance in the Region of Murcia of **strategic economic sectors related to the elderly**, members of the Regional Partnership, such as senior tourism, highlighting the association of medical tourism and Health Costa Cálida Cares <http://www.costacalidacares.com/>, and the development of new technology companies focused on health, many of them included in the regional cluster TICBiomed <http://www.ticbiomed.org/>, as well as the agrifood sector specializing in food for the specific needs of the elderly.
- **Other actions implemented are aimed at incorporating older people into society**, into university, to familiarize them with ICTs (Integra Foundation <http://www.f-integra.org/>, physical activity for the elderly (among others the ACTIVA program <http://www.activamurcia.com/>), intergenerational meetings, and a long etcetera, developed both by regional and municipal entities integrated in the Regional Coalition.
- Finally, we must emphasize that the regional commitment to innovation and research, is reflected in the Strategy for Research and Innovation for Intelligent Specialization of the Region of Murcia, RIS3MUR, document that includes among its strategic lines the approach to ageing through innovation and research.

[http://www.carm.es/web/pagina?IDCONTENIDO=2648&IDTIPO=140&RASTRO=c\\$m](http://www.carm.es/web/pagina?IDCONTENIDO=2648&IDTIPO=140&RASTRO=c$m)



## REFERENCE SITE OF VALENCIA REGION

### Who are we

The Valencia Region Reference Site is an open and inclusive network led by the Regional Health Ministry of Health of the Regional Government of Valencia, which includes the quadruple innovation helix of healthcare, including public health and research centres, as well as universities, various educational, professional, research or non-profit organizations, and innovative companies.

The keystone structure of this network is the Valencia Health Service (VHS), the public service depending of the Valencia Government Health Department, who is responsible for health care and public health in the Autonomous Community of Valencia. The VHS works under a scheme of universal coverage (97% of the population), and operates an extensive network of acute and long-term care hospitals, specialized outpatient and primary healthcare centres and public health centres. The VHS is organized into 24 Health Departments (geographical territories, most of them between 150,000 and 250,000 people) served by one VHS hospital that provides specialized inpatient and outpatient care to the residents in its area. Primary care is organized into local zones (between 5,000 and 25,000 people) integrated to their respective Health Department. The VHS uses a common electronic medical record, an advanced electronic prescription system, and maintains a high degree of integration in their information systems. The VHS has developed several innovative schemes for the care of chronic and multi-morbidity patients. Health and biomedical research in this network is developed by 7 public research foundations (with about 2,800 researchers) maintaining a joint network to coordinate their activities. The international activities of these foundations are coordinated by OPESVAL ([www.opesval.eu](http://www.opesval.eu)).

### Future challenges

The Reference Site of Valencia has three main challenges for the future:

- **To increase the networking**, among the Valencia Reference Site members and between other Reference Sites across Europe.
- **The alignment with the European Strategic Research Agenda**, paying especial attention to the Open Science, Open Innovation and Open to the World paradigm.
- **The Scaling up of the active and healthy ageing interventions** within the Valencia Region.

### Main partners

- **Regional Ministry of Health and clinical foundations associated** (INCLIVA, IIS La Fe, CIPF, FISABIO, FIHGUV and FHPCS)
- **Regional Ministry of equality and inclusive policies**
- **City council of Valencia**
- **Universitat Politècnica de València. ITACA**
- **Universitat de València. Polibienestar Research Centre**

## Participation in the EIP on AHA action groups

### A1. Prescription and adherence to treatment

- Adherence to treatment and related clinical outcomes in schizophrenic patients (FISABIO)

### A2. Falls Prevention

- Physical exercise as falls prevention strategy (POLIBIENESTAR)

### A3. Frailty and functional decline

- 2015-2018 APPCARE, Appropriate care paths for frail elderly patients: a comprehensive model (POLIBIENESTAR)
- Lifestyle to improve frailty, mood, cognitive decline and quality of life in women surviving cancer or with diabetes (UV- INCLIVA)
- Intervention to reduce gender profile in frailty and chronic diseases in the Chronic Ailment Reduction after Menopause (CARMEN) cohort. (UV- INCLIVA)
- Educational and advocacy activities to promote healthy nutritional habits - MOOC (UPV)
- Malnutrition assessment questionnaire and interventions to reduce that among elderly (UPV)
- Biomarkers in blood for cognitive and functional decline in patients with chronic liver disease. (CIPF-INCLIVA)
- Biomarkers of cognitive and functional decline from magnetic resonance imaging in patients with chronic liver disease (CIPF-INCLIVA)
- Development and pre-clinical evaluation of new imaging tools for early diagnosis of cognitive decline in patients with chronic liver disease and minimal hepatic encephalopathy (CIPF-INCLIVA)
- Effects of the Mediterranean diet on healthy aging- HEALTHYMEDIET (UV)
- Prevention of Frailty by Correct Nutrition and Controlled Physical Exercise- FRESHAGE (UV)
- Psychosocial And Psycobiological Approach to Prevent Age Functional Decline and Frailty-AGEWELL (UV)

### B3. Integrated Care

- Primary care-based stratification of elderly patients with chronic diseases in Valencia (POLIBIENESTAR)
- Strengthening of health and social care staff competences in assisted living technologies in Europe (POLIBIENESTAR and UPV)
- An integrated care model based on decision-making process (POLIBIENESTAR)
- Personalised Healthcare for cardiovascular disease management (UPV-LINK project)
- Promotion of Digital Health literacy skills for patients/citizens and their families (UPV).

## C2. Independent Living

- Facilitating standardization of AHA technologies through cooperation between platform initiatives (UPV itself and also through REAAL and UNIVERSAAL specific project commitments)

## D4. Innovation Age-Friendly Buildings Cities and Environments

- Age-friendly employment (POLIBIENESTAR)
- Age-friendly ICTs for promoting AHA and social inclusion (POLIBIENESTAR)
- Age-friendly tourism as strategy to promote AHA and to avoid tourism seasonality (POLIBIENESTAR)
- Smart cities in an ageing society(POLIBIENESTAR)
- AHA in the EU policy agenda(POLIBIENESTAR)
- Mapping and fostering scaling up of best practices on AHA(POLIBIENESTAR)
- Dissemination of D4 Achievements (POLIBIENESTAR)

## Contact

Email: **valenciarefsite@opesval.eu**

## ANNEX 2: RESULTS OF THE EVALUATION OF THE EIPONAHA

### 2.1 EVALUATION MATRIX

Questions	Sub question	Criteria	Indicator	Level of compliance	Source
Are the social challenges relevant needs for the development of the programme?	Has the hypothesis of the social challenges been confirmed?	Relevance/ Pertinence	Dependency rate (1:2 (by 2050) Millions of +65 year olds by 2060 (151 million) Increase in GDP (2% (by 2060)	I	COM (2009)0180 <sup>1</sup> SIP <sup>13-15</sup> eHAP <sup>27,28</sup>
Has the European Commission placed strategic importance on the programme?	Does the programme have financial resources allocated for the implementation of the activities?	Relevance	Direct Euros/year: No Indirect: YES through other programmes	I	SIP <sup>15</sup> H2020 <sup>39</sup> Together for Health <sup>40</sup> EIT <sup>43</sup> Others <sup>44,45</sup> PROEIPAH <sup>65</sup>
	How many DGs are involved in a significant way?	Relevance	Number of DGs directly involved: 3		
	Have mechanisms to reach a consensus been activated on different levels (European, National, Regional)?	Relevance/ Participation	Number of decision-making levels participating: European (European Council, Parliament), regional and local		
	Have the official communication systems for decision-making been activated (EC – European Council – Parliament)?	Relevance/ Participation	Number of documents adopted by more than two European institutions		
Is a solid governance structure in place to ensure the achievement of objectives?	Is the governance strategy aligned with the European decision-making structure and with the strategy?	Pertinence/ relevance/ Internal coherence	Permanent decision-making structure	IV	SIP <sup>15</sup>
To what extent do the measures described focus on solving the problem of ageing and the solvency of the NHS?	Are the objectives of EIPonAHA appropriate for taking on the problem at hand?	Pertinence	Number of objectives aligned with the needs	II	SIP <sup>13-15</sup> AG APs <sup>46-51</sup>
	Is technological (eHealth) and organisational innovation a factor in the efficiency of the system and can it help to solve the problem?	Pertinence	Gains in quality of life Number of re-admissions	II	Documents <sup>36-38,67</sup> SIP <sup>13-15</sup> AG APs <sup>46-51</sup> Survey
	Are there barriers to innovation that should and can be solved through the interventions deployed?	Pertinence	Number of barriers described	I	SIP <sup>13-15</sup> eHAP <sup>27,28</sup> Consultation <sup>38</sup>
	Are the interventions and activities described directly related to the objectives of the programme?	Pertinence	Number of pertinent strategies	I	SIP <sup>13-15</sup> AG APs <sup>46-51</sup> RS <sup>52-55</sup> Scaling up <sup>56</sup>
	Is the promotion and improvement of innovation management a driver of the economy and competitiveness in the market?	Pertinence	Impact of innovation on GDP	II	SIP <sup>13-15</sup>

Are the policies on healthy ageing aligned and coordinated amongst themselves?		Complementarity	Number of aligned programmes	I	SIP <sup>15</sup> H2020 <sup>39</sup> Together for Health <sup>40</sup> EIT <sup>43</sup> Others <sup>44,45</sup>
Is the design of the programme based on interventions that pursue the criteria of distribution throughout EU countries?	Does the EIPonAHA propose structural changes in the provision of healthcare services that improve equality and universality in terms of access?	Equality	Number of instruments to strengthen equality: financial, technological etc.	II	SIP <sup>15</sup> H2020 <sup>39</sup> Together for Health <sup>40</sup> EIT <sup>43</sup> Others <sup>44,45</sup>
Are all of the interventions and activities of the EIPonAHA organised in a way that allows for achieving the objectives?	Do the interventions form a set of structured strategies with internal coherence that is designed to achieve the objectives?	Internal coherence	Number of interventions with their own framework	I	SIP <sup>13-15</sup> AG APs <sup>46-51</sup> Scaling up <sup>56</sup>
	Has each intervention defined an AP in line with the SIP and which is therefore aligned with its activities and the general objectives?	Internal coherence	Number of aligned APs: 8	I	SIP <sup>13-15</sup> AG APs <sup>46-51</sup> Scaling up <sup>56</sup>
	Is there a monitoring and evaluation framework for all interventions?	Internal coherence	Number of frameworks: 1	I	MAFEIP <sup>17,69,70</sup>
	Does the intervention include an appropriate, practical system of outcome indicators to carry out monitoring and evaluation of the programme's execution and success?	Internal coherence/ implementation/ effectiveness	Number of indicators defined in the AP for each intervention per objective	II	SIP <sup>13-15</sup> AG APs <sup>46-51</sup>
Is there a structure/actor/model that ensures perfect harmony and coordination amongst all of the interventions and activities?	Is there a structure/actor/model that ensures perfect harmony and coordination amongst all of the interventions (in addition to the support provided by the EC)?	Coordination	Number of structures/procedures that ensure the coordinated progress of the entire programme on a technical level	IV	SIP <sup>13-15</sup>
	Is there a structure/actor/model that ensures perfect coordination between all of the activities?	Coordination	Number of structures/procedures of each intervention	I	AG APs <sup>46-51</sup> RS <sup>55</sup> Scaling up <sup>56</sup>
	Are there overlaps between the activities of the different AGs?	Coordination	Number of activities in more than 3 AGs with potential overlaps or dealing with common issues	I	AG APs <sup>46-51</sup> AG achievements <sup>58-64</sup>
	Do structured measures exist to avoid these overlaps?	Coordination	Number of structures/procedures to avoid redundancies in the work of the different interventions	IV	SIP <sup>13-15</sup> AG APs <sup>46-51</sup> AG achievements <sup>58-64</sup>

Have participation mechanisms for the different stakeholders been introduced in the diagnosis, design and implementation of the programme?	What mechanisms have been used?	Participation	Number of activities to involve the different interested parties: Sherpa, MS, Public consultations, Commitments	I	SIP <sup>13-15</sup> Sherpa <sup>35</sup> Consultation <sup>38</sup> Call for Commitments
	Were patients represented?	Participation	Number of patient/citizen organisations in each intervention	I	SIP <sup>13-15</sup> Sherpa <sup>35</sup> Consultation <sup>38</sup> Call for Commitments Others <sup>17,46-51, 58-64</sup>
	Have all members of the EU participated?	Participation	% of EU countries committed to the EIPonAHA	II	AG achievements <sup>58-64</sup> RS <sup>52-55</sup> Scaling up <sup>56</sup>
	Have all stakeholders participated?	Participation	Number of sectors the various interested parties belong to	I	SIP <sup>13-15</sup> Sherpa <sup>35</sup> Others <sup>17,38</sup>
	Have the agreements been reached on the basis of deliberations in different phases and levels?	Participation	Number of legal documents and agreements from the European Institutions		SIP15 H2020 <sup>39</sup> Together for Health <sup>40</sup> EIT <sup>43</sup> Others <sup>44,45</sup>
Have all the planned interventions and activities been implemented?	How many of the planned interventions and activities have been implemented?	Implementation	Number of implemented interventions and activities	II	AG achievements <sup>58-64</sup>
	Does it have a demarcated structure with people in charge of tasks and of monitoring the implementation?	Implementation	Number of coordinators	I	AG APs <sup>46-51</sup> AG achievements <sup>58-64</sup> RS <sup>55</sup>
	Does it have logistical systems available that facilitate communication and work progress (online platforms, eRoom, emailing)?	Implementation	Number of logistical systems: Web, Yammer, PROEIPAHA	I	PROEIPAHA <sup>65</sup>
	Does it have continued specific logistical support from personnel in addition to the EC?	Implementation	Number of logistical support projects or contracts	I	PROEIPAHA <sup>65</sup>
	Does the current pace of implementation ensure transformation of health and care system and achievement of the triple win by 2020?	Implementation/ Effectiveness	Number of goals or objectives achieved	IV	AG achievements <sup>58-64</sup> RS <sup>52-55</sup> Scaling up <sup>56</sup> Survey
Have the proposed objectives and goals been achieved in the medium term?	Are the monitoring and reporting mechanisms appropriate for objectively measuring the progress of interventions and measuring the results on the European level in 2020?	Effectiveness	Number of milestones achieved/milestones expected Number of implemented and reported interventions with MAFEIP	III	AG achievements <sup>58-64</sup> RS <sup>52-55</sup>
	Have the health and care results from the implemented activities been reported and are they easy to verify?	Effectiveness/ implementation	Health and care indicators Efficiency indicators for the health and care system Competitiveness indicators	III	AG achievements <sup>58-64</sup> RS <sup>52-55</sup>

## 2.2 RESULTS TABLE FOR THE ACTION GROUPS

AG	General Objective/ Goal	Number of partners/ commitments	Member States	Main indicator	Achievements of the collaborative work (production)	Achievements of the individual commitments (production)	Achievements in terms of outcome indicators
AG1	Produce tangible adherence programmes for various chronic diseases in 30 regions for 2014	63 main partners /68 commitments from 31 different countries	Germany, Belgium, Spain, Holland, Ireland, Italy, Poland, Portugal, United Kingdom and Sweden	Number of regions with programmes: II	I	36% achieved 31% in progress II	III
AG2	Ensure there are validated programmes operating for early diagnosis and fall prevention in at least 10 MS (15 regions) by 2015	22 regions	Spain, France, Holland Italy, Poland, Portugal, United Kingdom and Sweden	Number of regions with programmes: 23 I	I	III	III
AG3	Develop and implement interventions for the prevention and comprehensive management of cognitive/functional decline and fragility. Produce validated programmes to prevent functional decline and fragility amongst the elderly by means of tools, collaboration and information networks reaching at least 1,000 care providers by 2015.	166 European organisations /199 commitments	Austria, Bulgaria Czech Rep., Estonia, France, Greece, Ireland, Latvia, Luxembourg, Netherlands, Portugal, Slovenia, Spain, United Kingdom	Number of suppliers: IV	I	III	III
B3	- At least 50 regions with case management programmes for chronic diseases covering 10% of the target population - 2015-2020, scale up and replicate validated and tested cases in at least 20 regions in 15 MS	450 Participants representing 150 regions	Germany, Austria, Belgium, Denmark, Slovenia, Spain, Finland, France, Greece, Hungary, Ireland, Italy, Netherlands, Poland, Portugal, United Kingdom, Sweden	Number of regions: 44	I	III	IV

C2	<ul style="list-style-type: none"> <li>- Aim to have key overall standards and validated implementation of interoperable platforms and solutions for independent living available by 2015.</li> <li>- Aim to have evidence of return on investment for these solutions and applications based on the experience of at least 10 large suppliers, 100 SMEs and 10,000 users available by 2015.</li> </ul>	160 partners/61 commitments	Germany, Austria, Belgium, Denmark, Spain, Finland, France, Greece, Italy, Netherlands, Portugal, United Kingdom, Sweden	Key standards IV Return IV	I	III	IV
D4	- Based on the WHO Age-Friendly Cities initiative, establish a network for collaboration amongst cities, towns and regions committed to the implementation and deployment of solutions adapted to ageing by 2012.	100/ 390 Commitments	All of the MS		I	44% of the achieved commitments 12% in progress II	IV

## 2.3 RESULTS OF THE ANALYSIS OF THE SCALABILITY STRATEGY

Note: The analysis of the achievements of the Scalability Strategy is meant to be merely illustrative, as it was adopted in December 2014. As such, it has been in place for a short period of time and currently continues to be implemented.

Steps	Objectives	Organisation in charge	Indicators (Developed by the authors)	Degree of compliance	Source
Build a database of Good Practices	Develop an integrated on-line database of good practices, building on existing catalogues and repositories.	EC + Partners	Repository of innovative practices	I	Website
	Support interested parties in showcasing successful and inspiring bottom-up innovation in active and healthy ageing.	EC	Number of practices in the repository	IV	
Assess viability of good practices for scaling-up	Collect assessment tools and frameworks for innovations in active and healthy ageing.	EC + Partners	Number of tools for evaluation	I	Yammer, AGs
	Provide a set of parameters and frameworks to enable stakeholders to carry out the viability assessment of good practices.	EC + Partners	Number of feasibility indicators agreed upon	IV	
Classify good practices for replication	Provide tools for classifying good practices and identifying their transferable elements on the basis of systems' characteristics, feasibility and contextual factors.	EC + Partners	Number of Scalability evaluation tools	IV	
Facilitate partnerships for scaling-up	Facilitate collaboration through sessions dedicated to replication	EC + Partners	Number of events	I	Partners Conference
	Facilitate coaching and policy partnerships amongst regions from different European countries aimed at sharing knowledge, objectives and programmes for the deployment of innovations in their domain.	EC + Partners	Number of activities to facilitate the implementation Number of consortiums to replicate	I IV	
Implementation: key factors for success and lessons learnt	Encourage national and regional authorities to scale-up viable good practices	EC	Number of activities to facilitate implementation	I	Twinning call in 2016 RS Awards
	Encourage national and regional authorities to strengthen the viability of practices that need further improvement	EC	Number of improved practices	IV	



