# Policy Context Analysis

Project Partner 07
Servicio Aragonés de Salud - Aragón Healthcare Service - SALUD



SOCIAL

2023

*This template is meant to help partners in carrying out the Policy Context Analysis (PCA) in their region. Each section of the template is set up for to accommodate not only textual information, maps, tables, diagrams and images that align with your desired descriptions.*

*The outcomes of the analysis will not only guide you in selecting Good Practices of your interest but also in plotting your Roadmap in the 4th Semester.*

*The Policy Context Analysis (PCA) serves as a diagnostic document of the current situation of telecare and telemedicine in the different regions of the CARES partners. Its purpose is to identify the strengths and potential for the development of such services in each region and to characterize the policy areas, which are to be addressed in the project. The provided descriptions on e.g. national/regional regulations, demography, available services will be incorporated in a Final Report. The PCA will act as a stepping-stone for further work on guiding the refinement the chosen policy instrument, including the development of a Roadmap in the 4thSemester.*

1. **Policy instrument addressed in the CARES project: name and short characteristic**

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|---|
| Name: The ARAGON Digital Health Strategy 2021 – 2026 |

The Health Department advances in the digital transformation of its services, evolving towards a new paradigm of value-based medicine.

It is based on the following criteria:

▪ **Alignment** with the Aragonese Strategy for Social and Economic Recovery, and other Aragonese strategies other national and international strategies (e.g. Agenda 2030)

▪ Ability to establish **collaborative synergies with other Regions** when necessary.

▪ **Demographic perspective,** tackling depopulation through cohesion policy instruments

The strategic lines are:

▪ **"Liquid" healthcare centres:** Focusing on accessibility to the system by all users, improving accessibility to the health system, and offering information and continuous health services at citizens' homes. Data plays an important role in delivering healthcare services to all citizens on an inclusive and equal basis

▪ **Smart Healthcare Systems:** Introducing systems that enhance the problem-solving capacity of the system and data analysis using predictive models via Big Data analytical tools. Data will not only help to improve patient care but also to prevent and detect in early stages of the onset of disease

▪ **Personalized care:** Improving the adaptability of diagnostic resources and preparing the system for the new era of personalized or precision medicine in routine clinical practice in the region gearing towards a more patient-centred technology approach. Via the application of cutting-edge technologies such as AI (artificial intelligence), Big Data, IoT (Internet of Things), augmented reality, contactless services, telemonitoring, 3D printers and cloud computing, all within a seamless environment.

2. **Other policy instruments relevant to the project scope (plans, programmes, and strategies on national and regional level).**

- *Review the project's goals and objectives to ensure alignment with the policy instruments being addressed*

| Name: SPANISH National Health Strategy 2021-2026 |
| --- |
| The region´s policy instrument is aligned with both the National Health Strategy and the three thematic areas of Cares. The strategic objectives are to: <br><br> - Empower and involve citizens in their health care and disease control by promoting their participation at all levels and fostering their co-responsibility. <br> - Maximize the value of the processes for a better performance and efficiency of the public health system to ensure care continuum and reinforce the governance of organizations. <br> - Adopt data management and governance policies for interoperable and quality data and create a National Health Data Space. <br><br> Adapt the evolution of the National Health System (SNS) to the demands of today's society oriented to 5P medicine (Population, Preventive, Predictive, Personalized and Participatory). So as to achieve these the lines of action are: <br><br> - Development of digital health services aimed at citizens, organizations and health care processes <br> - Fostering of health data interoperability <br> - Promotion of data analytics and business intelligence of the SNS. <br><br> The areas of intervention are: <br><br> - Monitoring health risks and threats <br> - Promotion of active and healthy lifestyles <br> - Health care: accessibility to services, resolution capacity, personalization, care continuum and patient safety. Digital health record and diagnostic imaging <br> - Management processes in support of health performance functions and their efficient use. <br> - Data Interoperability at national and international level <br> - Strengthening the SNS digital services <br> - Development of the SNS service portfolio based on scientific evidence and cost/effectiveness criteria <br> - Organization of professionals, postgraduate studies and continued education. <br> - Creation of a National Health Data Space for data analytics processing <br> - Health information system to evaluate activity, quality, effectiveness and efficiency of the SNS. |

3. **General characteristic of your region, including its current demography, projections for future demographic changes, and the aspect of an ageing population**

   - *Basic information on your region (incl. area covered by the policy instrument), e.g. area, demography, economy*
   - *The current state of the aging population in the region and the demographic forecast*

| Description (max. 2000 characters): |
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Aragon is a region with general aging (20% +65) and dispersion problems, with a strong component of the population living in unpopulated rural areas and a significant concentration in the capital (more than half of the population), which affects territorial imbalances and guarantees of services. At the health level, it has a morbidity and mortality profile typical of developed areas with good health indicators, such as a high life expectancy and good economic indicators, a good position when compared to the rest of Spain in income or poverty risk rate. One of the most important issues in providing quality services in Aragón is the common shortage of professionals who wish to develop their careers in rural areas; this is particularly the case for health care workers.
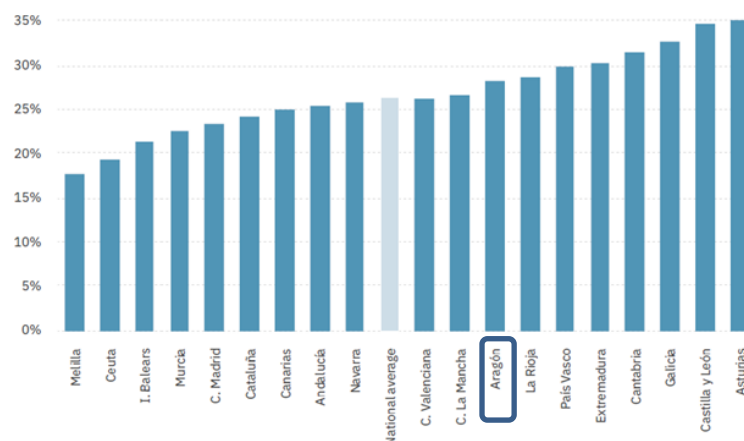
**ARAGÓN**

## Context & Ecosystem

- 1.326.261 inhabitants in Aragon (Jan-2021)
- Number of ageing people 65-79: 191.988 inhabitants (Jan-21)
- Number of ageing people 80+: 97.615 inhabitants (Jan-21)
- Number of patients 65+ with long term chronic conditions: 70% (202.722 inhabitants)
- Demographic dispersion

**Social and economic environment data**: 15% at risk of poverty. One-person households 27.77%. 32.5% higher education. Unemployment rate of 10.2%.

**Demographic aging and its impact:** Those aged 65 and over are foreseen to account for 26.0% of the total population in 2037 in Spain. [1]

*Figure 1 Projected population aged 65 and older out of the total population of Spain, 2035 (INE)*



The projection shows that the largest age group on January 1, 2037 will be 55 to 64 years old and the proportion of people 65 years and older will grow from the current 20.1% to 30.4% around 2050.

Taking into Aragón, the trend is very similar as can be shown below:

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[1] https://www.ine.es/en/prensa/pp_2022_2072_en.pdf

#### Table 1 Population at 1-jan-2022

| Age | Both genders | Male | Female |
|---|---|---|---|
| 65 to 69 | 74.444 | 36.012 | 38.432 |
| 70 to 74 | 65.183 | 30.465 | 34.718 |
| 75 to 79 | 55.926 | 25.027 | 30.898 |
| 80 to 84 | 38.884 | 16.234 | 22.649 |
| 85 to 89 | 35.235 | 13.250 | 21.985 |
| 90 to 94 | 17.733 | 5.804 | 11.929 |
| 95 & over | 5.225 | 1.352 | 3.874 |
| **Total** | **1.314.586** | **647.953** | **666.633** |

#### Table 2 Population at 1-jan-2037

| Age | Both Genders | Male | Female |
|---|---|---|---|
| 65 to 69 | 93.751 | 45.343 | 48.408 |
| 70 to 74 | 86.425 | 41.481 | 44.944 |
| 75 to 79 | 74.353 | 34.213 | 40.140 |
| 80 to 84 | 55.524 | 24.090 | 31.434 |
| 85 to 89 | 38.565 | 15.212 | 23.353 |
| 90 to 94 | 21.130 | 7.309 | 13.822 |
| 95 & over | 8.640 | 2.391 | 6.249 |
| **Total** | **1.390.910** | **681.594** | **709.316** |



Figure 2 Source Instituto Estadística de Aragón
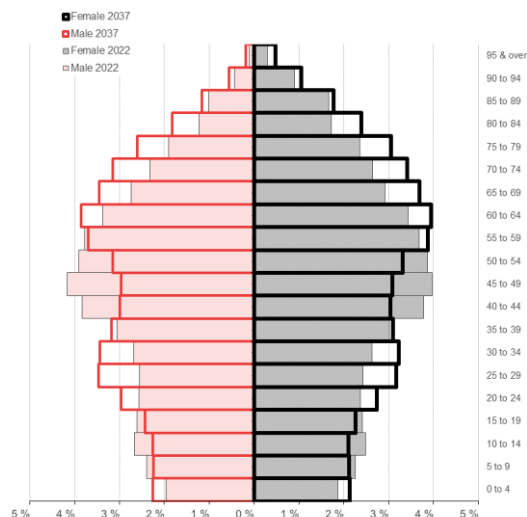
4.  **The current services and offerings for the elderly in the region, considering their adequacy and accessibility.**

- *Care services and institutional care*
- *Health and medical care*
- *Activation of seniors*
- *Access to public services for senior citizens*

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**Healthcare system**

The system in Aragón provides healthcare services in 8 sectors and 123 basic healthcare areas. There are 118 healthcare centres, 870 clinics and 17 hospitals. There is an average of 1,136 users per doctor and 1,205 users per nurse in Primary Care. In primary care, the frequentation was 5.7 visits per person for medical care and 2.6 visits per person for nursing care, with a higher frequency in rural areas. Home care accounted for 3% of medical care and 11% of nursing care. In public hospitals, the frequency was 104 discharges per 1,000 inhabitants, with an average stay of 8 days. Public health spending was €1,894 per inhabitant (6.6% of GDP)[2].

The offerings for the elderly in the region are detailed below: [3],

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[2] Figures as of 2022.

[3] INE:BASE Datos de Población. Explotación Estadística del Padrón Municipal, datos a 01/01/2022.

- Home care services based on population data for ≥65
  - ✓ telecare service (user pays per annum approx. 11% of total service cost of 142 €)

| Region | aged ≥65 | | | | aged 65 to 79 | | | | | | aged 80+ | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | | Female | | Total | | Male | | Female | | Total | | Male | | Female | |
| | Nº | Nº | % | Nº | % | Nº | % of total aged ≥65 | Nº | % | Nº | % | Nº | % of total aged ≥65 | Nº | % | Nº | % |
| Aragón | 21.655 | 4.769 | 22,0% | 16.886 | 78,0% | 4.928 | 22,8% | 1.127 | 22,9% | 3.801 | 77,1% | 16.727 | 77,2% | 3.642 | 21,8% | 13.085 | 78,2% |

  - ✓ home help service (58,4 % domestic help, 41,6 % care services; the user pays approx. 1,63 € per hora)

| Region | aged ≥65 | | | | aged 65 to 79 | | | | | | aged 80+ | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Male | | Female | | Total | | Male | | Female | | Total | | Male | | Female | |
| | Nº | Nº | % | Nº | % | Nº | % of total aged ≥65 | Nº | % | Nº | % | Nº | % of total aged ≥65 | Nº | % | Nº | % |
| Aragón | 18.373 | 5.852 | 31,9% | 12.521 | 68,1% | 5.577 | 30,4% | 1.994 | 35,8% | 3.583 | 64,2% | 12.796 | 69,6% | 3.858 | 30,2% | 8.938 | 69,8% |

- Social participation services (senior centres)

| Region | Centres | | |
|---|---|---|---|
| | Total | Public | Private |
| Aragón | 59 | 45 | 14 |

| Region | Senior centre members | | | | |
|---|---|---|---|---|---|
| | Total | Male | | Female | |
| | | Nº | % | Nº | % |
| Aragón | 105.251 | 45.130 | 42,9% | 60.121 | 57,1% |

- Day care services

| Region | aged ≥65 | Centres | Places | Coverage Index (num. places /population aged ≥65 )*100 |
|---|---|---|---|---|
| Aragón | 292.893 | 37 | 3.403 | 1,16 |

| Region | Day Care Centres | | | Centre size (Average num. places per centre) |
|---|---|---|---|---|
| | Number of Centres | | | |
| | Total | Public | Private | Total |
| Aragón | 37 | 12 | 25 | 92,0 |

- Residential Care Home Services. Of the total number of centres, 72 are public and 197 are private.

| Region | aged ≥65 | Centres | | | Num.places of residential Care Home | | | Coverage index (num. places /population aged ≥65 )*100 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Total | Residential Care Home centres | Housing for elderly | Total | Residential Care Home Centre | Vivienda para mayores | Total | Residential Home Care Centre | Housing for elderly |
| Aragón (num. | 292.893 | 272 | 272 | 0 | 19.144 | 19.144 | 0 | 6,54 | 6,54 | 0,00 |

5. **The legal regulation of telecare and telemedicine at national and regional, local levels**
   - *Current legislation and guidelines*
   - *Alignment with policy instruments addressed in the project*

Description (max. 3000 characters):

The following rules apply to admissions to residential care homes for:[4]

- **The elderly**: Decision of 26 August 1987 of the Directorate-General of the National Social Services Institute(Spanish Official Gazette of 1October 1987);

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[4] https://administracion.gob.es/pag_Home/en/Tu-espacio-europeo/derechos-obligaciones/ciudadanos/asistencia-sanitaria/centros-atencion-sociosanitaria.html

- **Dependent people with special needs**: Law 39/2006 of 14 December 2006 promoting the personal independence and care of people in a dependent state (Spanish Official Gazette of 15 December 2006).
- General Health Law 14/1986 of 25 April
- Law 16/2003 of 28 May on the cohesion and quality of the National Health System
- General Public Health Law 33/2011 of 4 October

Spain does not have a national telehealth policy or strategy, except for the Royal Decree 81/2014 (transposing Directive 2011/24/UE) on the application of patients' rights in cross-border healthcare which provides rules for facilitating the access to safe and high-quality healthcare between countries (including telemedicine) and promoting cooperation on healthcare within Member States.[5]

Spain does not have specific legislation relating to digital health, but the following schemes apply:[6]
- Royal Legislative Decree 1/2015, approving the revised text of Law 29/2006 on Guarantees and the Rational Use of Medicines and Medical Devices.
- Regulation (EU) 2017/745 on medical devices and Regulation (EU) 2017/746 on in vitro diagnostic medical devices.
- Royal Decree 1591/2009 on medical devices; Royal Decree 1616/2009 on active implantable medical devices; Royal Decree 1662/2000 on in vitro diagnostic medical devices (currently all of these are under review to adapt them to the above EU Regulations).
- Code of Ethics of the Spanish Board of Medical Associations (OMC).

The following regulatory schemes apply to digital health in Spain:
- The General Data Protection Regulation (EU) 2016/679 (GDPR).
- Organic Law 3/2018 of 5 December on Data Protection and Guarantee of Digital Rights.
- Law 34/2002 on Information society services and electronic commerce.
- Royal Decree 3/2010 regulating the National Security Framework in the field of e-government.

The following regulatory schemes apply to consumer healthcare devices/software in Spain:
- Royal Legislative Decree 1/2007 approving the revised text of the general law for the protection of consumers and users (GLPCU).
- Royal Decree 1801/2003 on general product safety.

Home Help and Telecare Services lack specific regional regulation in Aragon and it is the local corporations that have proceeded to regulate them in their respective area, demanding from the Regional Administration the harmonization and homogenization of basic minimums. ORDER of April 29, 2013, of the Department of Health, Social Welfare and Family, Development of the Home Help Service and the Telecare Service [7] provides a framework to regulate these services.

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[5] https://www.dlapiperintelligence.com/telehealth/countries/index.html?t=02-regulation-of-telehealth&c=ES

[6] https://iclg.com/practice-areas/digital-health-laws-and-regulations/spain

[7] https://www.boa.aragon.es/cgi-bin/EBOA/BRSCGI?CMD=VERDOC&BASE=BOLE&PIECE=BOLE&DOCS=1-39&DOCR=3&SEC=FIRMA&RNG=200&SEPARADOR=&&PUBL=20130607

Even though there is an absence of a telemedicine regulation, this service is catered for within the The Aragón Digital Health Strategy 2021 – 2026, where several services are already in place and others are being rolled out in an effort to enhance the region's healthcare telemedicine portfolio.

Even though there is no telemedicine regulation in place, in Aragón we have developed and implemented the Aragón Health Plan 2030[8] and the Chronic Patient Care Strategy[9] both at Regional levels:
- Proceso de atención a los pacientes crónicos complejos[10]
- Programa de Atención a Enfermos Crónicos Dependientes[11],and

National level:

- Estrategia de abordaje dela cronicidad en el Sistema Nacional de Salud 2012[12]
- Plan de cuidados de Enfermería en el paciente crónico complejo[13]

6. **Characteristic of telemedicine and telecare services at local, regional and national levels, focusing on their availability and effectiveness**
   - *Services for the elderly and people with limitations also from peripheral areas*
   - *Systemic solutions and experimental actions/pilot projects already implemented (numbers, technologies)*
   - *Link to Good Practices*

Description (max. 3000 characters):

At Healthcare level, we have implemented telemedicine services, such as Teleictus, Teledermatology in all the 8 healthcare sectors. In addition, a virtual interconsultation for all Healthcare services is in place in Aragón, allowing for communication amongst all the professionals. Moreover, **telemonitoring pilots** for chronic patients (both for independent and dependent patients) in rural areas are in place. This is both for preventive and therapeutic environments (early discharge, home hospitalisations, etc. solutions).

Another good practice is the PPR (Rehabilitation Personal Plans) for patients with severe mental disorder[14]. Integrated social and health care for mental health under the thematic area increased institutional capacity and educated medical staff for new and improved care and medical services.

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[8] http://plansaludaragon.es/

[9] https://www.aragon.es/-/estrategia-de-abordaje-a-la-cronicidad

[10] https://www.aragon.es/documents/20127/674325/Proceso_aten_pacientes_cros_compl.pdf/282762c3-7e7f-89ef-fb2f-c2478f5754f8
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https://www.aragon.es/documents/20127/674325/LIBRO%20Programa%20de%20Atencion%20a%20Enfermos%20Cronicos%20Dependientes.pdf/f3fb7d4b-3db9-cc72-16fe-d7c5017c6795

[12] https://www.aragon.es/documents/20127/674325/ESTRATEGIA_ABORDAJE_CRONICIDAD_SNS_2012.pdf/d56e821e-caa1-4620-5ed9-6a02273b0701

[13] https://www.aragon.es/documents/20127/47371291/Plan_enfe_cron_comp.pdf/9112ba3d-bda0-5738-c662-7c6cb4a2e69f?t=1615372596779

[14] https://www.aragon.es/-/estrategia-de-salud-mental

As of dec-22 the number of services users benefiting from this good practice focussed on patients with severe mental disorders, of any age were 1803 patients with a waiting list of 65 patients.

A pilot already implemented and linked to one of the good practices under the thematic areas (1) increasing the availability of tele-care and tele-medicine services for elderly, dependent people, including those with limitations (from peripheral and hard-to-reach areas) and (2) widespread use of innovative digital tools (ICT), enabling effective monitoring and medical diagnosis of the elderly, is the **SirCovid VC telemonitoring in nursing home environments**. With SirCovid, 414 social centres were included, that have on average 18,182 elderly users and 13,299 workers –almost 99% coverage-. As many as 913 users, of whom 346 were nurses, doctors, occupational therapists or residence physiotherapists, accessed this platform.

Furthermore, *Instituto Aragonés de Servicios Sociales (IASS)* provides the following services for the elderly and dependant:

- **Day and night centre service** that offers comprehensive care to people in a situation of dependency, with the aim of improving or maintaining the best possible level of personal autonomy and supporting families or caregivers. It is regulated by the ORDER CDS/533/2016, of May 25, which regulates the regime of access and allocation of care day stay service places, occupational day stay and accommodation, offered by the Government of Aragon.
- **Home help service,** which is the set of actions, carried out in the homes of people in a situation of dependency in order to meet their daily life needs. The services included are taking care of household needs and personal care.
- **Telecare** that facilitates assistance using communication technologies, allowing an immediate response to emergencies or situations of insecurity, loneliness or isolation.
- **Dependency Prevention Service,** a service that aims to prevent dependency situations in older people to increase and/or maintain physical, mental and social well-being. It is aimed at older people who have a fragile state of health or a high risk of dependency but who are not yet suffering from it, being autonomous in their daily lives.
- **Personal Autonomy Promotion Service (PAP)** whose purpose is to develop and maintain the personal capacity to control, cope and make decisions about how to live in accordance with one's own norms and preferences and facilitate the execution of the basic activities of daily life.  Services included are enabling and occupational therapy, cognitive stimulation, promotion, maintenance and recovery of functional autonomy, training in support technologies and home adaptations. Other complementary services are training in care and self-care aimed at people in a situation of dependency and their caregivers (Caregiver Training Service) and sociotherapeutics care aimed at people in situations of dependency and their caregivers (CuidArte Program)

All the above services are offered in the *Hogares del IASS* that are social centres for the elderly and dependents. There a seven centres in the province of Huesca, four in the province of Teruel and eleven in the province of Zaragoza. Of the total, only five are urban and the rest are located in rural areas.

7. **Current challenges and needs regarding the availability and implementation of telemedicine and telecare services for older people at local and regional levels**
    - *SWOT analysis to identify areas of improvement, potential opportunities, and threats to the implementation of telemedicine and telecare services*

- *Areas to be developed*
- *Relevance of the policy instrument*

| Strengths | Weaknesses |
|---|---|
| <ul><li>eHR unique and accessible by all professional in Aragon, integrating all patient data. Same solution for all care levels (PC, Specialized care and mental health)</li><li>Integration of videoconferencing services eHR, both in Primary and Specialized Care bringing health care closer to citizens in all Aragón, avoiding unnecessary trips if the consultation does not require it, facilitating communication between professionals and with their patients, and improving diagnostic and therapeutic decision-making between professionals</li><li>Extensive experience in implementing telemedicine services such as Tele-dermatology, tele-ictus, tele-retinograph</li></ul> | <ul><li>Change management that in cases affects the organisational structure</li><li>Deployment strategies taking into regard "shaded areas" (rural areas) so that all citizens can take advantage of all services</li><li>Reliable Internet coverage</li><li>Full ICT literacy for professionals and citizens</li></ul> |
| Opportunities | Threats |
| <ul><li>New funding programs at National and European level to undertake telemedicine programmes</li><li>Change Impact Analysis that should compare the current state and future state to identify the areas of the organisation most impacted by the change as well as to identify the stakeholders most impacted by this change.</li><li>On the one hand, during these past two years COVID-19 pandemic paralysed Active Ageing initiatives to focus on protecting the elderly, population segment hardest hit by the pandemic. On the other hand, the pandemic has arisen awareness among the elderly on the need to become digitally literate. A nexus between 2030 Health Plan and Elderly- change Management Plan (Health-Social) is not clearly perceived. A cross-reference in each plan in its writing is advisable. A good example is the CuidARTE</li><li>Improve visualisation of all these assets from the different departments providing social and healthcare services via a unique access entry to help create joint synergies</li></ul> | <ul><li>Lack of technical professionals to manage all new projects and implement telemedicine projects</li><li>Change management- Non-acceptance to embrace digital transformation by the organisation, professionals and/or citizens.</li></ul> |

| | |
|---|---|
| for complementing each other's programmes. | |

In order to develop services in both rural and urban areas it is key is to establish strategic lines for the digital transformation of healthcare services and communicate these in a coherent and clear manner not only to healthcare and social care professionals, but also to other stakeholders, such as patient associations, citizens, industry and academia.

The Policy instrument addressed in Aragón, Digital Health Strategy 2021 – 2026, focusses on the roadmap of services to develop and implement to evolve towards a new paradigm of value-based medicine.

Aragón has full competences in defining telehealth and telemonitoring strategies and instruments for chronicity management provided by Servicio Aragonés de Salud. The innovation unit encompassed under the General Directorate of Digital Health and Infrastructures has been working on European and national projects since 2003, achieving many good practices in this field.

For this purpose, there are programs funded at national and European level to undertake ICT developments for new telemedicine services able to reach out to all in Aragón's commitment to active and healthy ageing innovation initiatives.

8. **Characteristics of the local Stakeholder Group**
   - *Composition, purpose, tasks performed, possible influence on the policy instrument to ensure they are effectively contributing to the project's objectives.*

Aragón Health Department is the leader of a Quadruple Helix in the territory, bringing together stakeholders from Academia, Industry, civil society, social organisations and government entities, at local, regional, national and European Level.
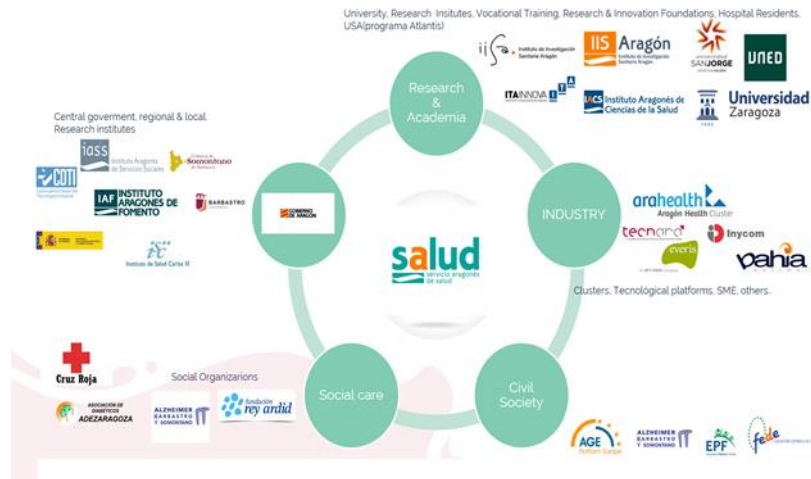


The site engages with the Quadruple Helix stakeholders through different means:
1) active weekly participation in the working groups of the Spanish National Health System Inter-territorial Council (CISNS) which is the entity for Regional health services cooperation and intercommunication with each other and with the State administration to provide cohesion to the system and guarantee citizen rights throughout the country through design, development and implementation of cooperation projects;
2) close cooperation in projects with the National Research Institute Carlos III (ISCIII) is a Public Research Organization (OPI) of the Government responsible for funding and executing national biomedical research;
3) via patient associations at regional, national and European levels;
4) European Funded cooperation projects;
5) close collaboration with industry in designing, developing and implementing healthcare solutions, and
6) close cooperation with academia from both Vocational Training Schools and Universities.

SALUD within its innovation strategy has always opted in bringing together all quadruple helix stakeholders in an effort understand the unmet needs of patients and professionals, achieve a state-of-the-art in current and future evolution of technology, new medicine, and services. In this respect, workshops have proven to be key in defining both functional and technical characteristics of new services to be piloted and evaluated for future implementation. This way of proceeding helps to bring together all stakeholders to a common understanding.

In sum, those contributing the project objectives are 4H stakeholders.