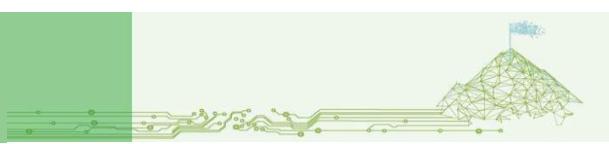


D1.1.2 Report on the Needs and Challenges of the Health and Care System in the Alpine Region

Final report

Version 1

05 2025



Document control

Document Summary	
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1. Executive Summary

1.1. Project Overview

HACK-IT-NET aims to design, pilot and expand a multi-actor, social innovation-based user acceptance FRAMEWORK (TOOLKIT, NETWORK & APPROACH) to 1) enhance Alpine Space health and care actors' capacity to uptake innovation, and 2) create a healthier, digital and green Alpine Space, with work on UN Sustainable Development Goals (e.g. No.3 Health/Wellbeing).

HACK-IT-NET improves Alpine Space health and care delivery conditions by improving innovation transfer between Eco-System Innovation Actors and Healthcare Actors (doctors, nurses, policymakers, system administrators, end-users and citizens) powered by novel methods and digital tools. PPs design a transnational toolkit (O1.1) and operating model (O1.2) with Letter of Commitment enabling the APPROACH to address common OUTCOMES. PPs pilot the APPROACH (O2.1) in 3 Transnational Innovation Sandboxes (with 9 test zones and 9 extension zones). PPs take lessons and derive long-term solutions (O3.1) and policy brief (O3.2) to enable FRAMEWORK's lasting use, via Lighthouse projects and transfer to Advisory Board and other Alpine Space / EU-territories with Memorandum of Understanding and Capitalization Plan.

The innovative system reflects specific Alpine needs, ensuring coordinated exploitation and unique Consortium-mix (policy, business support organizations, and hospitals) goes beyond existing initiatives in the sector and area.

1.2. Scope of Document & Summary

This document provides a summary of all the tasks that project partners completed to deliver a comprehensive health and care ecosystem analysis. It gathers insights from over 90 stakeholder interviews, highlights key takeaways from direct engagement with multi-stakeholder groups during 18 Town Halls and 9 Focus Group workshops, and summarizes the H&C OUTCOMES, which were further refined based on stakeholder feedback to address the challenges identified during the interviews.

The report is structured to summarize the key takeaways from the above-mentioned activities and present the results related to challenges, needs, and potential solutions within the health and care ecosystem. As such, it provides the following benefits to PPs:

- Builds a common understanding of the key insights from the H&C ecosystem analysis and presents the main results;
- Describes the process of conducting 90+ interviews with key H&C stakeholders, analyzing the main challenges they face, and outlining the findings;



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- Details the full process of refining the H&C OUTCOMES (advancing green and e-hospitals, boosting customized technology transfer, and improving system-level service provision) based on stakeholder challenges. This included co-creation sessions with the consortium, inputs from 9 Focus Group workshops, and ensuring the OUTCOMES' transnational and regional relevance. The final results were compiled into a comprehensive list, with key takeaways from each phase;
- Summarizes key insights from the 18 Town Halls (2/PP), which aimed to introduce the project to stakeholders, foster engagement, identify challenges and potential solutions, raise awareness of the H&C OUTCOMES, and gather input for the pilots PPs plan to implement.

1.3. Audience

This document is directed at all project partnership members, because all members of the partnership should participate in WP1 ideation and implementation, more specifically A1.1 through this report. It should be considered an internal document, and the appropriate status should be reflected in the "Dissemination Level" table.

1.4. Change Control Procedure & Structure

PP3/NÖ LGA created this report, and it is under standard project change control, whereby PPs are requested to give feedback on the stated definition or tools in writing to the deliverable responsible (here PP3/ NÖ LGA) in a timely manner (within 10 working days). As per normal procedure, at any time partners believe a project methodology should change, the request should be brought to the work package or work stream leader (in this case PP4/CUAS) and Lead Partner (in this case LP1/ProMIS), to consolidate feedback from other partners, and integrate and disseminate the final agreed changes. A new version of the document should be created, and recorded in the document's "Document History" table.



Table of Contents

1. Executive Summary	2
1.1. Project Overview	2
1.2. Scope of Document & Summary	2
1.3. Audience	3
1.4. Change Control Procedure & Structure	3
2. Acronym List.....	11
3. Introduction.....	12
3.1. Background and Project's context	12
3.2. Mission Statement and Objective of D1.1.2	15
3.3. Further use of D1.1.2.....	15
3.4. Definitions	16
4. Health and Care Ecosystem Needs & Challenges Analysis	17
4.1. Methodology.....	17
4.1.1. Interview Questionnaire Design.....	17
4.1.2. Target Groups	18
4.1.3. Data Collection Process	20
4.1.4. Data Analysis Methods.....	24
4.1.4.1. Summary of Findings and Presentation of the Results	24
4.1.4.2. Building a Discussion Section	25
4.1.4.3. Research Limitations.....	25
4.2. Results.....	26
4.2.1. Transnational Level.....	26
4.2.1.1. General Challenges.....	26



Workforce Challenges	29
Accessibility and Infrastructure Challenges	31
Demographic Challenges	33
Digitalization and Innovation Challenges	34
Economic Sustainability and Policy Challenges	35
Specialization and Decentralization Challenges	37
Prevention and Health Promotion Challenges	38
4.2.1.2. Sectoral Challenges	40
H&C Service Providers	40
H&C Administration Workers	43
Policymakers	49
Associations representing citizens/patients	54
Comparison per Target Group	59
4.2.2. National level	60
4.2.2.1. Austria	60
4.2.2.2. Germany	63
4.2.2.3. Italy	66
4.2.2.4. France	69
4.2.2.5. Slovenia	72
4.2.2.6. Switzerland	75
4.2.2.7. Comparison of challenges per country	78
4.3. Discussion	79
5. Health and Care OUTCOMES Refinement	84
5.1. Co-creation Session in Klagenfurt	86
5.2. First Draft of the H&C OUTCOMES	87
5.2.1. Advancing Green and E-hospitals	87
5.2.2. Boosting customized technology transfer	90



5.2.3. Improving system-level service provision	92
5.3. Focus Group Workshop	95
5.3.1. General information about the event	96
5.3.2. Stakeholders' Feedback	98
5.4. Final version of the H&C OUTCOMES	100
5.4.1. Advancing green & e-hospitals	100
5.4.2. Boosting customized technology transfer	102
5.4.3. Improving system-level service provision	104
6. Town Halls	106
6.1. First Town Hall	107
6.1.1. General Overview of the First Town Hall	107
6.1.1.1. The main objective	107
6.1.1.2. Target groups	107
6.1.1.3. The process	108
6.1.1.4. Data collection and analysis process	108
6.1.2. Key takeaways from the first Town Hall	109
6.1.2.1. Event organization	109
Target Groups	109
Event format	110
Event objectives	110
6.1.2.2. General feedback from key stakeholders	111
Overall Feedback	111
H&C Challenges	112
Identified Solutions	114
6.1.2.3. Summary of key takeaways for organizing future events	116
6.2. Second Town Hall	118
6.2.1. General Overview of the Second Town Hall	118



6.2.1.1. The main objective	118
6.2.1.2. Target groups	118
6.2.1.3. The process	119
6.2.1.4. Data collection and analysis process	119
6.2.2. Key takeaways from the second Town Hall	120
6.2.2.1. Event organization	120
Target Groups.....	120
Event format	121
Event objectives	121
6.2.2.2. General feedback from key stakeholders	122
Overall Feedback	122
CAREavan	124
STEMlab	125
PolicyParley	126
6.2.3. Steps after organizing the Second Town Hall.....	127
7. Conclusion and Next Steps	128
7.1. Conclusion	128
7.2. Next Steps	128
8. Annex	129
8.1. Annex 1 - Stakeholder Mapping.....	129
8.2. Annex 2 - Interview Questionnaires - First round.....	130
8.3. Annex 3 - Interview templates - Second round	140
8.4. Annex 4 - Focus Group Reporting Template	151
8.5. Annex 5 - Town Halls Reporting Templates.....	153



Table of Figures

Figure 1 Project Deliverables and main Outputs (source: Project Generated, 2024).....	13
Figure 2 WP1 Deliverables and Outputs (source: Project Generated, 2024).....	14
Figure 3 Percentage of stakeholders interviewed per TG (source: Author generated, 2025)	19
Figure 4 Interviews per country in % (source: Author generated, 2025).....	19
Figure 5 Interviews per region type in % (source: Author generated, 2025)	20
Figure 6 Data collection process (source: Project generated, 2024)	22
Figure 7 Main challenges in the H&C sector at transnational level (source: Author generated, 2025).....	28
Figure 8 Workforce Challenges (source: Author generated, 2025)	30
Figure 9 Accessibility and Infrastructure Challenges (source: Author generated, 2025)	32
Figure 10 Demographic Challenges (source: Author generated, 2025)	34
Figure 11 Digitalization and Innovation Challenges (source: Author generated, 2025).....	35
Figure 12 Economic Sustainability and Policy Challenges (source: Author generated, 2025).....	36
Figure 13 Specialization and Decentralization Challenges (source: Author generated, 2025)	38
Figure 14 Prevention and Health Promotion Challenges (source: Author generated, 2025)	39
Figure 15 Challenges H&C Service Providers are facing (source: Author generated, 2025).....	40
Figure 16 Sustainability and Digitalization Practices - H&C service providers (source: Author generated, 2025)	42
Figure 17 Inadequate health care facilities - H&C service providers (source: Author generated, 2025).....	43
Figure 18 Challenges H&C Administration Workers are facing (source: Author generated, 2025)	44
Figure 19 Planning and governance initiatives - H&C administration workers (source: Author generated, 2025)	46
Figure 20 Inadequate health care facilities - H&C administration workers (source: Author generated, 2025)	46
Figure 21 Strategy for recruiting and retaining qualified workforce - H&C administration workers (source: Author generated, 2025)	47
Figure 22 Sustainability and Digitalization Practices - H&C administration workers (source: Author generated, 2025).....	48
Figure 23 Challenges Policymakers are facing (source: Author generated, 2025)	49
Figure 24 Inadequate health care facilities - Policymakers (source: Author generated, 2025).....	51
Figure 25 Planning and governance initiatives - Policymakers (source: Author generated, 2025)	52
Figure 26 Sustainability and Digitalization Practices - Policymakers (source: Author generated, 2025)	52
Figure 27 Challenges Citizens/Patients are facing (source: Author generated, 2025)	54
Figure 28 Accessibility and Service Provision - Associations representing citizens/patients (source: Author generated, 2025)	56
Figure 29 Sustainability and Digitalization Practices - Associations representing citizens/patients (source: Author generated, 2025)	57
Figure 30 Biggest health and care challenges in Austria (source: Author generated, 2025)	62



HACK-IT-NET

Figure 31 Biggest health and care challenges in Germany (source: Author generated, 2025)	65
Figure 32 Biggest health and care challenges in Italy (source: Author generated, 2025)	68
Figure 33 Biggest health and care challenges in France (source: Author generated, 2025)	71
Figure 34 Biggest challenges in Slovenia (source: Author generated, 2025)	74
Figure 35 Biggest health and care challenges in Switzerland (source: Author generated, 2025)	76
Figure 36 The overview of the health and care challenges (source: Author generated, 2025)	79
Figure 37 The link between H&C Challenges, H&C OUTCOMES and three project APPROACHES (source: Project generated, 2025)	84
Figure 38 H&C OUTCOMES validation process (source: Project generated, 2024)	85
Figure 39 Stakeholders engaged per PP (source: Author generated, 2025)	96
Figure 40 Target Group Overview (source: Author generated, 2025)	97
Figure 42 The process for organizing the first Town Hall (source: Project generated, 2024)	108
Figure 43 Number of stakeholders reached per PP (source: Author generated, 2025)	109
Figure 44 Stakeholder overview (source: Author generated, 2025)	110
Figure 46 Process for organizing the second Town Hall (source: Project generated, 2024)	119
Figure 47 Number of stakeholders reached per PP (source: Author generated, 2025)	120
Figure 48 Stakeholder overview (source: Author generated, 2025)	121



Table of Tables

Table 1 Planned timeline for completing the interviews (source: Project generated, 2024).....	21
Table 2 Timeline for the delivery of the final report (source: Project generated, 2024).....	21
Table 3 Overview of the interviewed stakeholders (source: Author generated, 2025)	23
Table 4 Challenge Comparison per Target Group (source: Author generated, 2025)	59
Table 5 Demographic and Socioeconomic Factors in Austria (source: OECD, 2023, Austria: Country Health Profile 2023, State of Health in the EU).....	61
Table 6 Demographic and Socioeconomic Factors in Germany (source: OECD, 2023, Germany: Country Health Profile 2023, State of Health in the EU)	64
Table 7 Demographic and Socioeconomic Factors in Italy (source: OECD, 2023, Italy: Country Health Profile 2023, State of Health in the EU)	67
Table 8 Demographic and Socioeconomic Factors in France (source: OECD, 2023, France: Country Health Profile 2023, State of Health in the EU).....	70
Table 9 Demographic and Socioeconomic Factors in Slovenia (source: OECD, 2023, Slovenia: Country Health Profile 2023, State of Health in the EU)	73
Table 10 Demographic and Socioeconomic Factors in Switzerland (source: WHO, 2024, Health statistics: Switzerland).....	76
Table 11 Comparison of challenges per country (source: Author generated, 2025)	78
Table 12 Timeline for refining the H&C OUTCOMES and organizing 9 Focus Group workshops (source: Project generated, 2024)	85
Table 13 Relevant inputs for H&C OUTCOMES development - Advancing green and e-hospitals (source: Project generated, 2025)	88
Table 14 Relevant inputs for H&C OUTCOMES development - Boosting customized technology transfer (source: Project generated, 2025)	90
Table 15 Relevant inputs for H&C OUTCOMES development – Improving system-level service provision (source: Project generated, 2025)	92



2. Acronym List

Acronym	Word/Phrase
AB	Advisory Board
AF	Application Form
AS	Alpine Space
BSO	Business Support Organization
H&C	Health & Care
LP	Lead Partner
LPA	Local Public Authority
OECD	Organization for Economic Co-operation and Development
PP	Project Partner
RACI	Responsible, Accountable, Consulted, Informed
RPA	Regional Public Authority
RTO	Research and Technology Organization
TG	Target Group
WHO	World Health Organization
WP	Work Package
WS	Work Stream



3. Introduction

The goal of this document is to share the main overview of the A.1.1 activities, summarizing inputs from 90+ interviews with health and care stakeholders from the Alpine Space region, presenting key takeaways from 18 Regional multi-actor Town Halls and 9 Focus Groups. It should be noted, that this report is a useful “pre-requisite” read, to understand the current state of the health and care ecosystem in the Alpine space region. It should be remembered that all HACK-IT-NET activities are interlinked, it should constantly be considered when completing all objectives.

3.1. Background and Project's context

HACK-IT-NET aims to design, pilot and expand an innovation transfer FRAMEWORK (NETWORK, TOOLKIT and APPROACH) to: 1) enhance Alpine Space Health and Care Actors' (doctors, nurses, administration staff, policymakers, end-users) capacity to take up innovation (research, technology, know-how) and link to Innovation Actors (RTOs/BSOs/Enterprises), and 2) create a healthier, digital and green Alpine Space, boosting delivery conditions by addressing key Alpine Space and SDG Health and Care OUTCOMES (advancing green and e-hospitals, improving system-level service provision and boosting customized technology transfer, etc.).

The activities that guide project partners toward achieving the project goals are structured under three work packages:

- **WP1 Focus on Design, Develop & Co-Create** - Co-creates a capacity building Toolkit (O1.1) and Network (O1.2) that identifies and promotes advanced Health and Care OUTCOMES via a Social Approach to enhance links, transfer and uptake between EU / Alpine Space innovation suppliers and Alpine Space Health and Care Ecosystem Actors.
- **WP2 Focus on Pilot, Test & Transfer** - Innovation transfer path enhancing pilot (3 transnational sandboxes, 9 Alpine Space test zones + 9 expansion zones) to support Alpine Space Health and Care OUTCOMES (advancing green and e-hospitals, improving system-level service provision and boosting customized technology transfer) in 3 Actor Arenas (e.g. health and care workers, policymakers/administration and end-users).
- **WP3 Focus on Policy & Solution Expansion** - Exploit pilot results to a sustainable solution, link HACK-IT-NET's Innovation Transfer Tools and Approach to policy activities and enable conditions (policy/operational) for ongoing transfer of Alpine Space relevant innovation to Health and Care Ecosystem Actors.



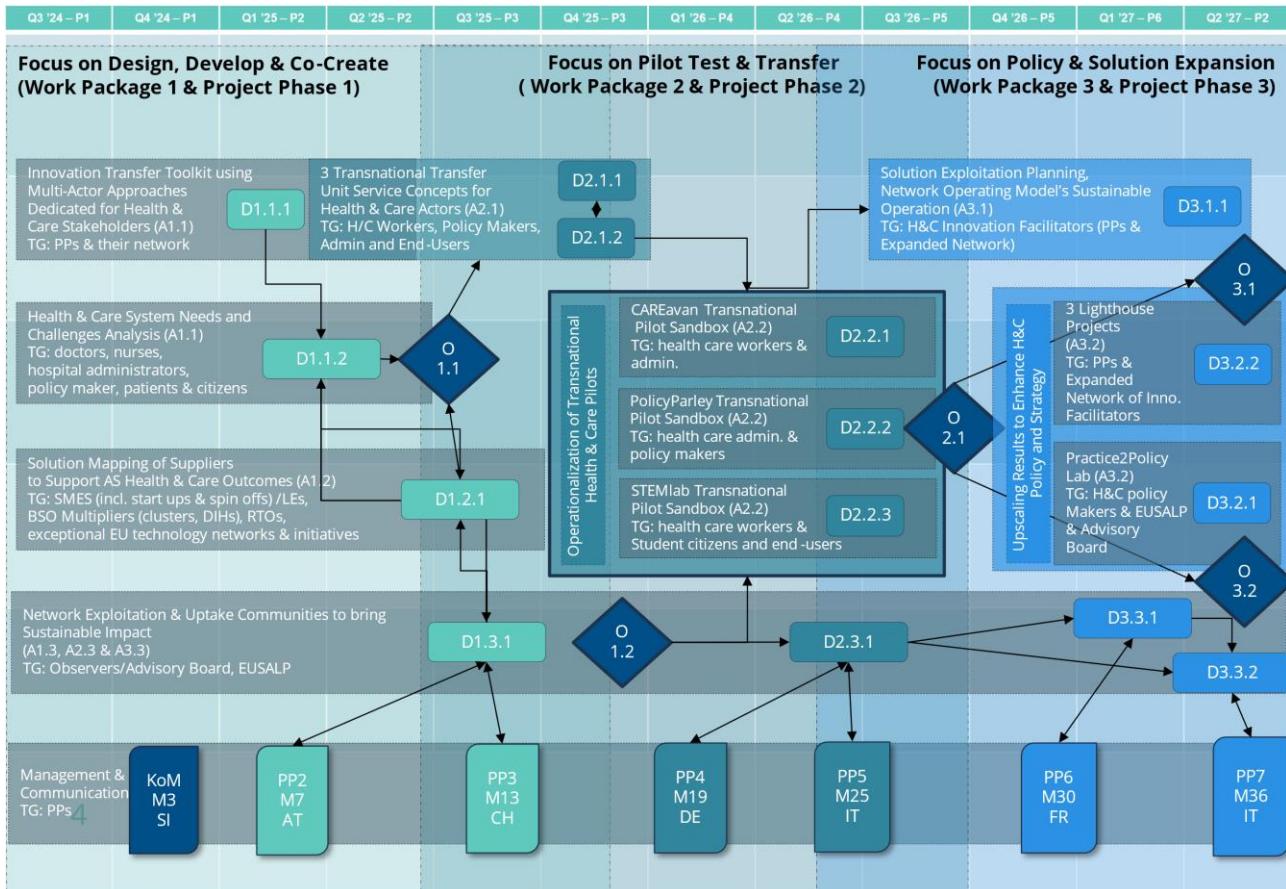


Figure 1 Project Deliverables and main Outputs (source: Project Generated, 2024)

The purpose of the Work Package 1 is to:

- **A1.1:** Co-create capacity building through hybrid Co-Creation Camps to promote the exchange of innovation transfer methodologies for improved user acceptance with health and care actors. Develop a multi-actor approach transfer toolkit for health and care actor engagement by designing tool portfolios for CAREavan, STEMlab, and PolicyParley. Conduct Alpine Space Health and Care Ecosystem Needs Gathering and Analysis by conducting over 90 interviews, organizing 18 Town Halls, and 9 Focus Groups to identify key Health and Care Outcomes (e.g., advancing green and e-hospitals, improving system-level service provision, and boosting customized technology transfer).
- **A1.2:** Solution mapping of research, innovation, knowledge, technology, and suppliers relevant to supporting enhanced Alpine Space Health and Care Outcomes (e.g., advancing green and e-hospitals, improving system-level service provision, and boosting customized technology transfer).
- **A1.3:** Establishment of the HACK-IT-NET network operating model (via online workshops), including EUSALP and Advisory Board feedback loop outreach via 9 regional and 3 inter-regional Exploitation/Uptake Communities. A Communication, Dissemination, and

Alpine Space

HACK-IT-NET

Exploitation Toolkit is established to help push outcomes to the network via the derived model.

Two outputs emerge from WP1:

- **Output 1.1:** Creation of the Capacity Building Toolkit, which includes the Social Innovation (Sol) Multi-Actor Approach (MAA) Methodological Framework, AS Health Need Outcomes, and Solution Use Cases.
- **Output 1.2:** Establishment of the Network Operating Model, including a Letter of Commitment (LoC) and the first Outreach and Uptake Events (HACK-ITathons) for anchoring.

The illustration below showcases the interconnections between activities and deliverables in WP1, as well as the two main outputs:

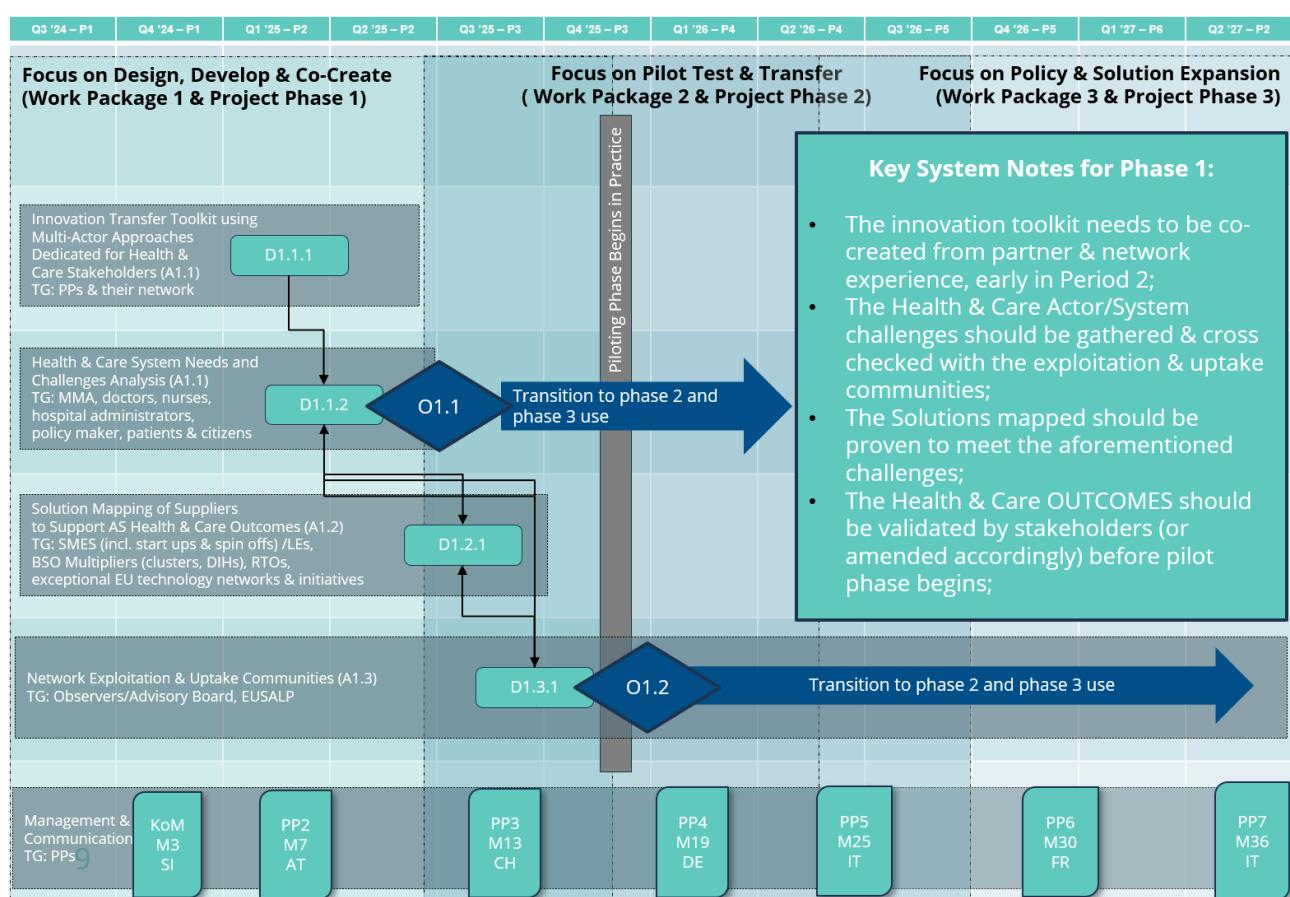


Figure 2 WP1 Deliverables and Outputs (source: Project Generated, 2024)



3.2. Mission Statement and Objective of D1.1.2

D1.1.2 is a *Report on outcomes of Health & Care System analysis* (90+ interviews, 18 Regional multi-actor town halls & 9 Focus Groups) + videos & infographic showing needs & link to known OUTCOME topics.

The aim of this deliverable is to summarize the key findings from the health and care sector ecosystem analysis and present the main results that have emerged. The deliverable outlines the process of conducting interviews with 90 stakeholders from the Alpine Space health and care sector, focusing on identifying their challenges and needs.

The report showcases the refining process of H&C OUTCOMES outlined in the application form by engaging various stakeholders in the validation process and testing the refined outcomes at both the transnational level (by PPs) and the regional level (through feedback from Focus Groups and Advisory Board members).

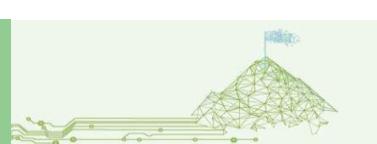
Additionally, the report presents the final version of the H&C OUTCOMES. It also outlines the organization of 18 Town Halls, summarizing the key takeaways from the two Town Halls organized by each partner.

3.3. Further use of D1.1.2

As showcased in the figure above, D1.1.2 directly feeds into A1.2 *Solution Mapping of Research, Innovation, Knowledge, Technology, and Suppliers relevant for supporting enhanced AS H&C OUTCOMES (Green, Custom Tech Transfer, and System Service)*. Activity A1.2 builds upon the H&C OUTCOMES (e.g., advancing green and e-hospitals, improving system-level service provision, and boosting customized technology transfer) defined and validated by different stakeholders within Activity 1.1, using them as a baseline for mapping existing supplier solutions (Research, Innovation, Knowledge, and Technologies emerging from EU - DEP, Horizon, and other public-private initiatives via EHTEL, Vanguard, etc.). This process is based on real Alpine Space relevant use cases related to validated H&C OUTCOME topics, ultimately resulting in an interactive catalog with over 90 Alpine Space relevant Health and Care Technology use cases summarized in D1.2.1 *Digital Interactive Use-Case Catalogue on suppliers and solutions supporting AS Health and Care*.

The challenges and needs identified in D.1.1.2 activities should be a red-line of purpose for each Partner when it comes to onward identification of potential Pilot activities (Phase 2 Operations in the project).

Finally, the challenges can be used to formulate the task for the HACK-ITathons that each PP should organize within the framework of A1.3.



3.4. Definitions

APPROACH: The APPROACH is a ‘branded’ name for the methodological framework which HACK-IT-NET develops to promote social-innovation oriented exchange in a multi-actor context to improve how innovation is transferred to the health & care sector – namely the CAREavan, the PolicyParley and the STEMlab. However, the broader APPROACH definition also includes the network operating model which sets the network-agreed exchange which promotes the ongoing knowledge, innovation, transfer exchange towards the social innovation contexts directly with H&C actors.

OUTCOMES: The OUTCOMES is a branded name for the specific, need-driven targeted improvements that the HACK-IT-NET consortium fosters through the APPROACH. All of the OUTCOMES were predetermined at the time of project writing, but should be adjusted to the territorial needs of the Alpine regions involved in the project. This adjustment occurs within the stakeholder interaction formulated as part of the project’s Phase 1.

SOCIAL INNOVATION: Novel approaches (products, services, or models) that: (1) meet social needs related to large societal challenges such as demographic change, migration, and climate change; and (2) are being created and implemented not in a traditional for-profit setting but in collaborations and networks of the public, private and third sector and – more and more often – citizens and users of services.



4. Health and Care Ecosystem Needs & Challenges Analysis

This chapter provides insights into the analysis of the health and care ecosystem and discusses the challenges faced by key target groups in the healthcare sector. It is divided into three parts:

- **Methodology:** A reflection on the data-gathering process, the key target groups, and the methods used for the analysis.
- **Results:** Presentation of the findings on the key needs and challenges within the health and care ecosystem, highlighting both general and sector-specific challenges at the transnational level, as well as national challenges for each country.
- **Discussion:** A reflection on the connections between the challenges and their underlying causes.

4.1. Methodology

The methodology section provides an overview of the process that was followed to collect and analyze data in order to generate D.1.1.2 Health and Care Ecosystem Needs and Challenges Analysis.

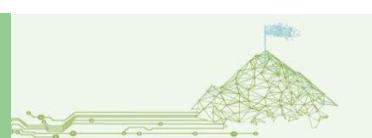
4.1.1. Interview Questionnaire Design

The interview questionnaires were developed to help project partners gain insights from key target groups in their regions and to identify and better understand the main challenges in the Alpine Space health and care sector. The questionnaires were specifically designed for each target group (four in total) to align with the unique characteristics and roles of each group.

The questionnaires consist of four sections:

1. **General Information** about the interviewee.
2. **Open-ended questions** that allow interviewees to express the needs and challenges they face in the H&C sector.
3. **Closed-ended questions** using a Likert scale, where specific challenges identified in the Application Form are further elaborated and presented as statements for interviewees to agree or disagree with. This approach helps uncover challenges that may not be immediately obvious to a particular target group but are highlighted in various research studies, aiding in the confirmation or rejection of the hypothesis.
4. **A Feedback Loop** for the open-ended questions on needs and challenges, providing interviewees the opportunity to add more challenges that may have been inspired by the closed-ended questions/statements.

Interview questionnaires were designed prior to the project partners' meeting in Maribor and distributed to them for review. During the meeting, partners were engaged in a brainstorming session, where they were tasked with putting themselves in the shoes of the four target groups to identify potential challenges and needs based on their experiences. Following this exercise, an open



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feedback session on the interview questionnaires was conducted, allowing partners to suggest improvements. After the Maribor meeting, the suggested changes were incorporated and the [interview questionnaires \(version 2\)](#) were ready for use (Section 8, Annex 2).

PPs used this version of the questionnaire during the first round of interviews, **from November 1st until December 10th, 2024**. Following this, PPAs had the chance to provide feedback on the interview questionnaires after testing them with their stakeholders and to suggest improvements. A Mural board was used to gather the feedback from PPAs. After receiving the feedback, PP3/ NÖ LGA integrated the key suggestions and uploaded the new version of the [interview questionnaire \(version 3\)](#) on **December 16th**. Since then, the new version has been used during the second round of interviews. The changes were minor, and all questions remained in the questionnaire. The changes made were aimed at improving the clarity of each question. The final version of the questionnaire can be found in Section 8, Annex 3.

4.1.2. Target Groups

The primary goal of the interview series was to identify the challenges and needs within the health and care sector in the Alpine Space region. As the health and care sector is quite broad and affects various types of stakeholders, the challenges faced by different groups can vary. To fully understand the differences in challenges faced by key target groups, four questionnaires were created and tailored for the following target groups: Health and Care Service Providers, Health and Care Administration Staff, Policymakers, and Associations Representing Citizens and Patients. Each partner (PP) was required to conduct a minimum of ten interviews, including at least two stakeholders from each target group. This approach ensured that all target groups were equally represented across all territories.

To gain a broad perspective, the survey was conducted at an international level, involving stakeholders from **six countries**: Italy, Austria, Slovenia, France, Germany, and Switzerland. It gathered insights from stakeholders representing or working in rural and urban areas, or both, to better understand the challenges faced by stakeholders from different area types.

In total, **101 stakeholders were interviewed**: 25 Health and Care Service Providers, 29 Health and Care Administration Workers, 18 Policymakers, and 29 Associations Representing Citizens and Patients.

Figure 3 provides an overview of the **percentage of stakeholders interviewed** from each target group.



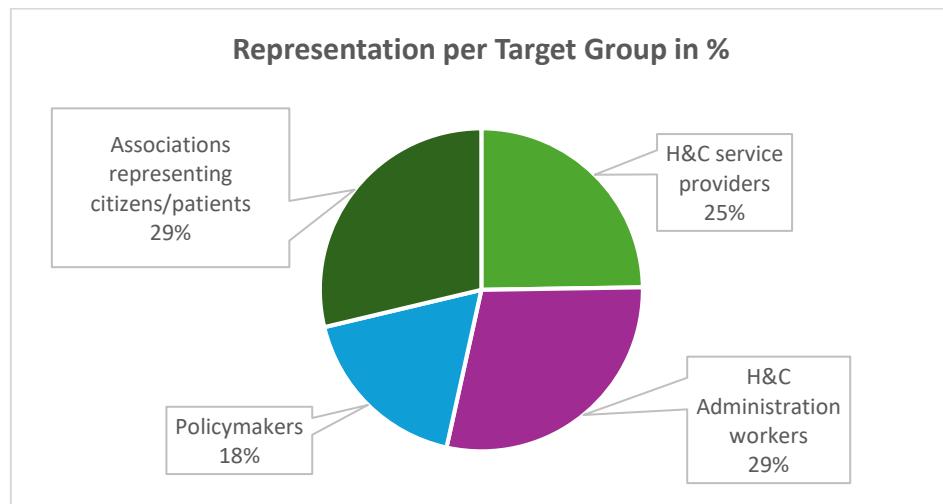


Figure 3 Percentage of stakeholders interviewed per TG (source: Author generated, 2025)

We can conclude that there is an almost even distribution between the different target groups, with policy makers being slightly less represented compared to the other TGs.

Figure 4 illustrates **the percentage** of interviewed stakeholders from **each country**.

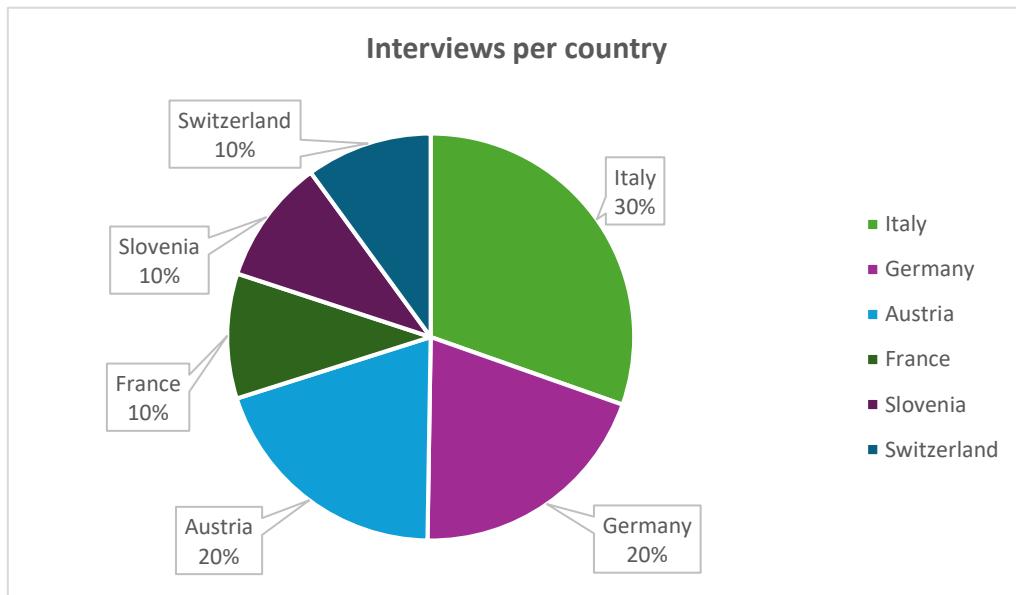


Figure 4 Interviews per country in % (source: Author generated, 2025)

The representation per country corresponds to the number of PPs from each country, thus ensuring an equal representation of interviewees per country/region. The number of stakeholders interviewed per partner is shown in Table 3 (Section 4.1.3).

Figure 5 showcases **the areas** the interviewed stakeholders were **representing or operating in rural, urban, or mixed**.

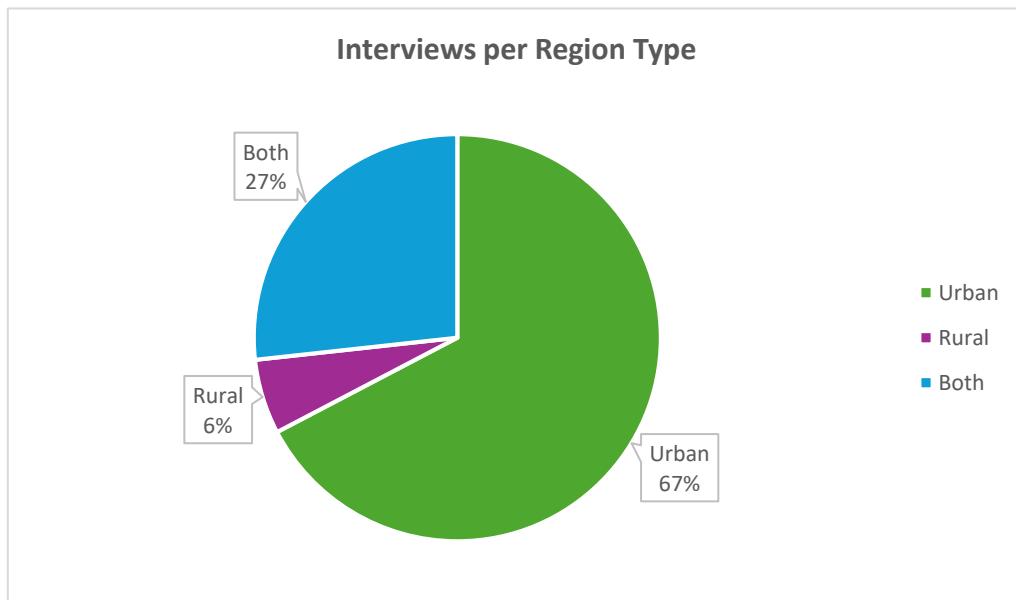


Figure 5 Interviews per region type in % (source: Author generated, 2025)

We can conclude that the majority of interviewees (67%) represented the urban area and shared their perspectives on the challenges faced in this environment. Additionally, 27% of the interviewees represented or considered both rural and urban areas and had a regional perspective.

And only 6% of respondents presented only rural areas. The challenges faced in rural areas are still taken into account, even though the main results will show more challenges in urban areas.

4.1.3. Data Collection Process

The data collection process was a collaborative effort among all partners. Each partner was tasked with conducting interviews with 10 stakeholders from the health and care sector, with minimum two stakeholders from each TG: Health and Care Service Providers, Health and Care Administration Staff, Policymakers, and Associations Representing Citizens and Patients.

Partners used the interview questionnaires provided in the [D1.1.2 Implementation paper](#).

Table 1 shows the planned timeline for completing the interviews:

Table 1 Planned timeline for completing the interviews (source: Project generated, 2024)

Task to achieve	Deadline	Responsibilities (RACI methodology)
Final feedback on the initial version of the interview questionnaire	31 October 2024	R: All PPs; A: PP3/NÖ LGA
The initial version of the interview questionnaire is ready for use	1 November 2024	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs
Completing the Excel sheet with potential interviewees + contacting a minimum of five stakeholders	11 November 2024	R: All PPs; A: PP3/NÖ LGA
Contacting the remaining stakeholders (minimum 5) to confirm their participation in the interviews	30 November 2024	R: All PPs; A: PP3/NÖ LGA
Questionnaire feedback loop based on the interviewee's insights	10 December 2024	R: All PPs; A: PP3/NÖ LGA
Completing a minimum of 5 Interviews		
Upgraded questionnaire ready for use	16 December 2024	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs
Conducting the second round of Interviews (minimum 5) Selecting minimum 5 (max 8) stakeholders per PP to be part of the Focus Groups	21 January 2025	R: All PPs; A: PP3/NÖ LGA

The results of the analysis were used to refine the health and care OUTCOMES.

The table below shows the timeline for delivery of the final report:

Table 2 Timeline for the delivery of the final report (source: Project generated, 2024)

Task to achieve	Deadline	Responsibilities (RACI methodology)
Draft version of the report	18 April 2025	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs
PPs review draft version of the report	25 April 2025	R: All PPs; A: PP3/NÖ LGA
Final version of the report	30 April 2025	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs



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The data collection process was as follows:

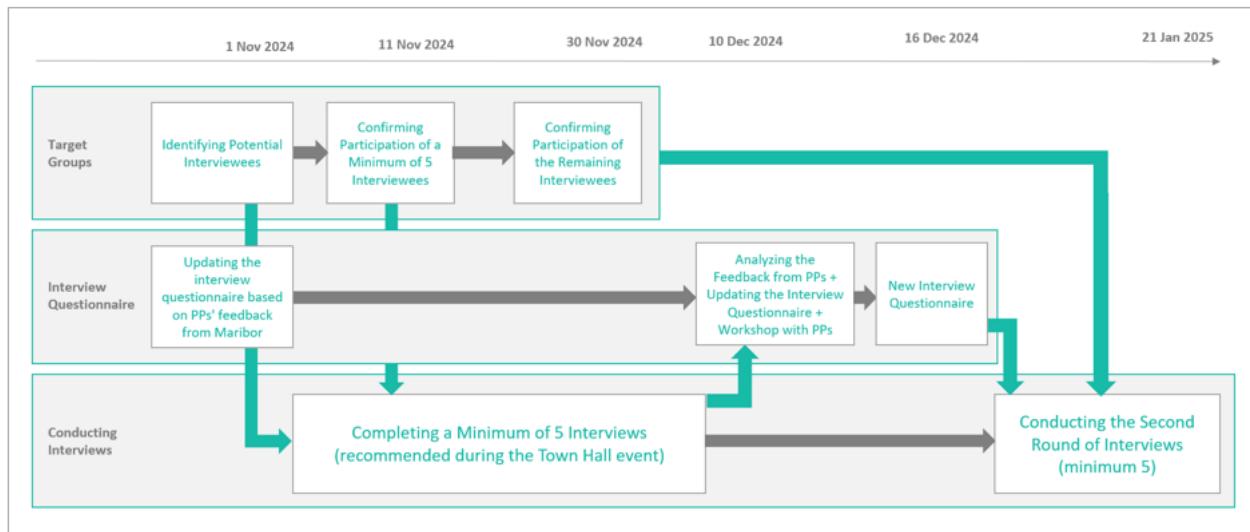


Figure 6 Data collection process (source: Project generated, 2024)

Each partner was tasked with identifying a pool of potential health and care stakeholders (with a minimum of two representatives from each TG) from their ecosystems and reaching out to them, aiming to assess their interest in participating in interview series and other project activities, establishing long-term collaboration with key actors, and bringing them insights from the analysis of key challenges in the health and care sector. Key stakeholders could continue their participation in other project activities, allowing them an opportunity to work together with PPs on ideating potential solutions and ways to address the challenges identified, which would also give them valuable inputs and direction to improve the situation within their ecosystem.

To initiate cooperation with key health and care stakeholders, partners reached out to them and scheduled interviews. These interviews were conducted online or in person, in either English or the native language, depending on agreements between PPs and the interviewees. Following the interviews, partners transcribed them and uploaded them to the shared Google Drive. If the interviews were conducted in the native language, partners translated the content into English.

After submitting the first versions of the interviews, the interviews were reviewed by PP3/NÖ LGA to address any misunderstandings or inequalities in the answers. Feedback was provided, and PPs made necessary additions or corrections before submitting the final version. The table below offers an overview of the number of stakeholders and from which TG (health and care service providers, health and care administration workers, policymakers, and associations representing patients/citizens) interviewed by each partner:

Table 3 Overview of the interviewed stakeholders (source: Author generated, 2025)

PP	No. of Interviews	H&C service providers	H&C administration workers	Policymakers	Associations representing citizens/patients
LP1/ProMIS	20	6	8	2	4
PP2/PAT	10	2	5	1	2
PP3/NÖ LGA	11	2	4	1	4
PP4/CUAS	9	3	2	0	4
PP5/UKCM	10	3	2	2	3
PP6/BVF	10	2	2	4	2
PP7/BIOPRO	9	2	2	3	2
PP8/BI	11	2	4	1	4
PP9/HSLU	11	3	0	4	4

The consortium managed to meet the requirement of interviewing more than 90 stakeholders from the Alpine Space health and care ecosystem, reflecting on the challenges they face. Almost all PPs managed to reach the target of interviewing at least 10 stakeholders, with PP4/CUAS and PP7/BIOPRO remaining at 9 due to the limited availability of stakeholders from their ecosystem during the period of the interviews. In terms of TG representation, the main aim was to have different perspectives on the challenges faced by different actors, from service providers (doctors and nurses), service users (patients and citizens), stakeholders responsible for the management of hospitals (administrative staff, managers and hospital directors), as well as stakeholders responsible for higher-level governance (policymakers). Most of the PPs managed to meet the basic requirement of interviewing at least two representatives of each target group, although there were also some challenges in reaching some of them due to the difficulty of the interview period.



4.1.4. Data Analysis Methods

This section describes the process of data analysis which created the baseline for interpretation of the findings and discussion in the Results and Discussion sections.

4.1.4.1. Summary of Findings and Presentation of the Results

To complete this report, **101 interview questionnaires** were analyzed. Information from key stakeholders in the health and care sector, representing four target groups relevant to the project (health and care service providers, health and care administration workers, policymakers, and associations representing citizens/patients), was collected using the interview questionnaires described above.

Each question was analyzed independently, and general conclusions were drawn at the end. The analysis was conducted anonymously, excluding stakeholders' names and positions to ensure data privacy and result validity. The interview questionnaires comprised both open-ended and closed-ended questions (Likert scale), resulting in a combination of unstructured and structured data. Stakeholders faced no limitations regarding the types of challenges, solutions, and novel methods or tools they could identify. The open-ended questions in the first part of the questionnaire aimed to capture a comprehensive picture and the initial impressions of the interviewees while discussing regional and local challenges, implementing sustainable practices, introducing novel methods, etc. This method allowed interviewees significant freedom but also posed the risk of skipping certain aspects, even if they were relevant. To address this, the Likert scale questions were designed to highlight key challenges identified in various healthcare reports and studies, enabling a comparison of these challenges with the interviewees' perspectives. Additionally, the Likert scale questions aimed to motivate the interviewees to consider topics they might have overlooked and to provide opportunities for reflection and feedback.

Finally, interviewees were encouraged to add additional comments or identify further challenges inspired by the Likert scale examples. As a result, both quantitative and qualitative methods were applied during the analysis.

The process began by consolidating and organizing the data into a single Excel spreadsheet. After cleaning the data, we performed an exploratory data analysis to gain a deeper understanding of the context and relationships between variables. Subsequently, we employed thematic analysis for the open-ended questions and quantitative analysis for the Likert scale to derive the results. This involved developing thematic codes, which we organized into themes. Utilizing Excel spreadsheets, we quantified the findings by assigning numerical values and illustrated key insights through various charts.



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4.1.4.2. Building a Discussion Section

To construct the Discussion Section, we drew on key findings from the Results section and looked for synergies, aiming to identify connections between different categories and whether there are causal links between them. By summarizing the various challenges and their direct or indirect impacts on different stakeholders, we provide a broader understanding of the challenges and their underlying causes. Additionally, we examined each country's level of development, along with socioeconomic and demographic factors, to better understand the challenges they face and how certain issues emerge as a result of different healthcare systems and governance structures.

4.1.4.3. Research Limitations

During the generation of this report, certain limitations have been encountered. Firstly, the data was collected from a single person representing one of the four target groups, which may be influenced by their personal understanding, knowledge and experiences. Additionally, each stakeholder selectively provided information, withholding some data that could impact their privacy.

Secondly, the interview process introduces another layer of potential bias. Each stakeholder was interviewed by the PP, who then interpreted the responses and provided insights.

Finally, there is the inherent limitation of the researcher's subjective interpretation during the analysis, which may be influenced by their own understanding of the information provided.

On the other hand, efforts to minimize bias were introduced by comparing the results obtained with the Country Health Profile (OECD, 2023) reports of each country on challenges in the health and care sector, as well as at the Alpine Space level, aiming to align insights and reduce bias.



4.2. Results

The results are presented at two different levels. The transnational level provides a comprehensive overview of the challenges faced by all H&C stakeholders, as well as the challenges specific to each TG. The challenges are then analyzed on a country-by-country basis, showing the difficulties faced by H&C stakeholders in different countries of the Alpine Space.

The section is divided as follows:

1. Transnational Level

- General Challenges - summarizing the challenges faced by all H&C stakeholders interviewed, reflecting on the three biggest challenges in the H&C sector highlighted by each interviewee.
- Sectoral Challenges - understanding all the challenges faced by the different target groups in the H&C sector, as each TG has a different role in the system and different needs.

2. **National Level** – Understand the challenges faced by each country and compare different countries on the basis of the problems they face, bearing in mind that each system is different and that the challenges vary according to overall governance, the level of development of the country and many other factors.

4.2.1. Transnational Level

This section reflects on the challenges faced by all the stakeholders interviewed at transnational level. The main aim is to identify the inefficiencies and barriers affecting the Alpine Space, to understand the needs of the H&C sector and the direction that should be taken at European level.

4.2.1.1. General Challenges

This section reflects on the general challenges faced by **101 stakeholder** from the H&C sector in the Alpine Space, representing the views of H&C service providers, H&C administration workers, policymakers and associations representing citizens/patients from 6 countries represented by the consortium partners (Italy, Austria, Slovenia, France, Germany and Switzerland). The results show the main challenges (in percentages), as well as a more detailed explanation of each challenge category and the share (the percentage) of each sub-category in the main category.

By understanding the current challenges in the Alpine Space health and care sector, the thematic goals of the project (here called OUTCOMES, presented in section 5) will be refined and adapted to the real needs of the key stakeholders, ensuring project's relevance and contributing to the improvement of the health and care ecosystem through innovative solutions.



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The health and care ecosystem is a complex system involving diverse roles and responsibilities, with numerous factors influencing its effectiveness, efficiency, and service delivery—political, demographic, infrastructural, technological, etc. To better understand the complexity and impact of these various influences, and how best to address them, the challenges have been grouped into the following categories:

1. **Workforce challenges (32%)** relate to the availability and capacity of the workforce to deliver services, and they are influenced by a range of internal and external factors. These challenges pose the greatest burden on the health and care ecosystem and include: shortages of health workers; difficulties with recruitment and retention; workforce migration to urban areas or other countries; an aging workforce; insufficient entry of young talent into the field; high workloads, stress, and burnout; dissatisfaction with working conditions; excessive administrative and bureaucratic burdens; limited access to training and education; leadership and motivation issues; inadequate staff incentives; and language barriers among non-native workers.
2. **Accessibility and infrastructure challenges (22%)** are the challenges posed by inadequate infrastructure solutions and lack of connectivity, which limit easy access to health and care services for all. These include: urban-rural disparities in access to health and care, long distances and poor transport in remote areas, gaps in needs-based service delivery, long waiting times, equity concerns in access to services, community resistance to change, coordination between hospitals, care homes and communities, and reduced quality of inpatient/outpatient care.
3. **Demographic challenges (17%)** are challenges associated with demographic shifts—such as an aging population driven by declining birth rates and a shrinking proportion of young people—are placing increasing pressure on the health and care ecosystem. These include rising demand for elderly care and geriatric services, greater prevalence of chronic and terminal illnesses, heightened social isolation and family caregiving burdens, more age-related health issues, and widening urban–rural disparities in population distribution.
4. **Digitalization and innovation challenges (13%)** are challenges related to the implementation of innovative solutions based on advanced technologies that could help make the H&C ecosystem more efficient and accessible. These challenges include: technology adoption and resistance to technological advancement; training gaps for health workers; challenges in implementing new technological systems; poor digital infrastructure, especially in rural areas; technology mismatch between doctors and patients; and ethics behind advanced technologies.
5. **Economic sustainability and policy challenges (8%)** are the challenges posed by lack of funding and financial support, as well as policies that burden innovation and require increased administrative burden. These challenges include: limited financial resources and financial support in public health systems; budget deficits and regulatory constraints; high



health and care costs and resource constraints; inequities in insurance and health care coverage; and administrative and political burdens.

6. **Standardization and decentralization challenges (4%)** are less represented challenges and relate to the governance of the health care ecosystem, including the shift from generalists to highly specialised professionals, the reliance on hospitals for primary care, and the fragmentation of the health and care system.
7. **Prevention and health promotion challenges (4%)** are also less represented challenges and reflect the lack of health promotion and prevention initiatives, including insufficient investment in preventive care, gaps in health promotion and prevention initiatives, and limited patient education and awareness.

The Figure 7 showcases the biggest H&C challenges in the Alpine Space:

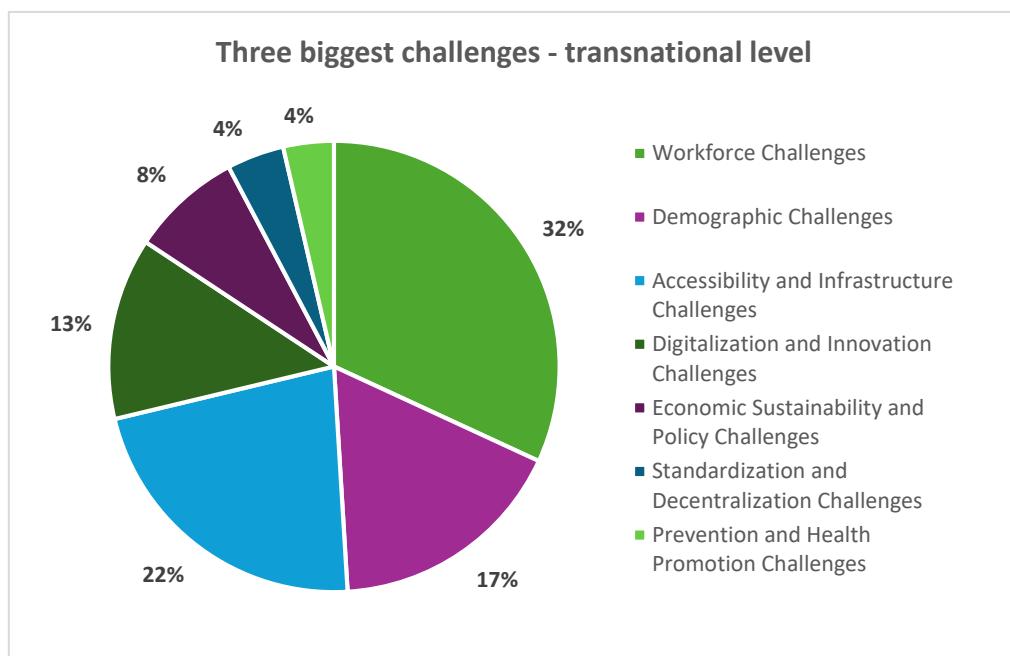


Figure 7 Main challenges in the H&C sector at transnational level (source: Author generated, 2025)

It is clear that the key challenges in health and care are driven by different factors, but that they are also interrelated and influence each other. Addressing these challenges requires a better understanding of the root causes of each challenge, as well as an understanding of the linkages between challenges and the impact they have on each other. In order to create a unique model and potential solutions to address these challenges, presented in the form of the project's Health and Care OUTCOMES (Section 5), each challenge category was further analyzed.

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Workforce Challenges

Workforce challenges relate to the availability and capacity of the healthcare workers to deliver services, and they are influenced by a range of internal and external factors. To better understand the types of the workforce challenges as well as what causes them and who is impacted, they have been divided into following sub-categories:

1. **Shortage of healthcare personnel (42%)** – Represents one of the biggest challenges facing the H&C ecosystem across all Alpine Space countries, highlighting an insufficient number of trained medical professionals, such as doctors, nurses, and support staff, to meet the population's healthcare needs.
2. **Retention and recruitment issues (13.6%)** – Difficulties in attracting and retaining workers are due to low investment in this field and limited budgets, challenges in recruiting specialized staff for more demanding positions, low attractiveness for medical professionals to settle in rural areas, smaller cities, and underdeveloped neighborhoods, as well as a lack of initiatives and structures to support proper recruitment and staff development, provide incentives, and ensure adequate working conditions and environments.
3. **High workload, stress, burnout (7.6%)** – Due to workforce shortages, the existing staff face an increased workload, along with greater stress and responsibilities, as demand for healthcare services continues to rise. This leads to the current workforce becoming overwhelmed and pushed further toward burnout.
4. **Migration of workers (7.6%)** – Due to increased mobility between regions and countries, more workers are changing workplaces—moving from rural areas to urban centers, from smaller cities to larger ones, or even migrating across countries in search of better job opportunities, working conditions, and benefits. This trend has led to higher migration of workers and has contributed to shortages of healthcare professionals in certain fields.
5. **Working conditions related dissatisfaction (6.8%)** - This includes issues such as full-time vs. part-time positions, low salaries, and financial disincentives for healthcare workers. Career growth opportunities are limited, with few chances for professional advancement. While the proportion of women in medical personnel is just under two-thirds (and continues to rise), leadership positions remain predominantly occupied by men. The absence of family-friendly work time models further exacerbates staff shortages. There is a clear need for employers to adapt and reinvent their approaches, prioritizing flexible work models to enhance work-life balance.
6. **Administrative and bureaucratic burdens (5.3%)** - Workers spend too much time on bureaucratic activities, which reduces the time available for patient care and, consequently, affects the accessibility of healthcare services. In some countries, administrative procedures are still not fully digitalized, leading to longer completion times for required tasks. One interviewee even cited studies showing that doctors spend up to 40% of their working time on administration and bureaucracy.



7. **Lack of young talents entering the field (4.5%)** – Contributing to the workforce shortage, fewer young people are entering the sector due to stress, burnout, high workloads and limited opportunities for growth and work-life balance, making the sector less attractive to young professionals.
8. **Limited training and education opportunities (3.8%)** – Lack of training and education initiatives due to the high workload and lack of time, as well as lack of initiatives, resulting in the reduced motivation of workers as well as less opportunities for professional development.
9. **Challenges with Leadership, Staff Motivation, and Incentives (3%)** – Lack of staff recognition, with insufficient acknowledgment and promotion of employees' contributions. Additionally, there are inadequate incentives and reward mechanisms, along with weak leadership, which impacts effective staff motivation and recognition.
10. **Aging Workforce (3%)** – As the demographic structure shifts, the aging population is affecting the workforce. A significant percentage of doctors are set to retire in the next five years, but there aren't enough young talents entering the field to replace them.
11. **Language Barriers with Non-Native Workers (2.3%)** – Due to recent migrations and efforts to address workforce shortages by attracting staff from other countries, language barriers are becoming an increasing challenge, especially with non-native specialists.

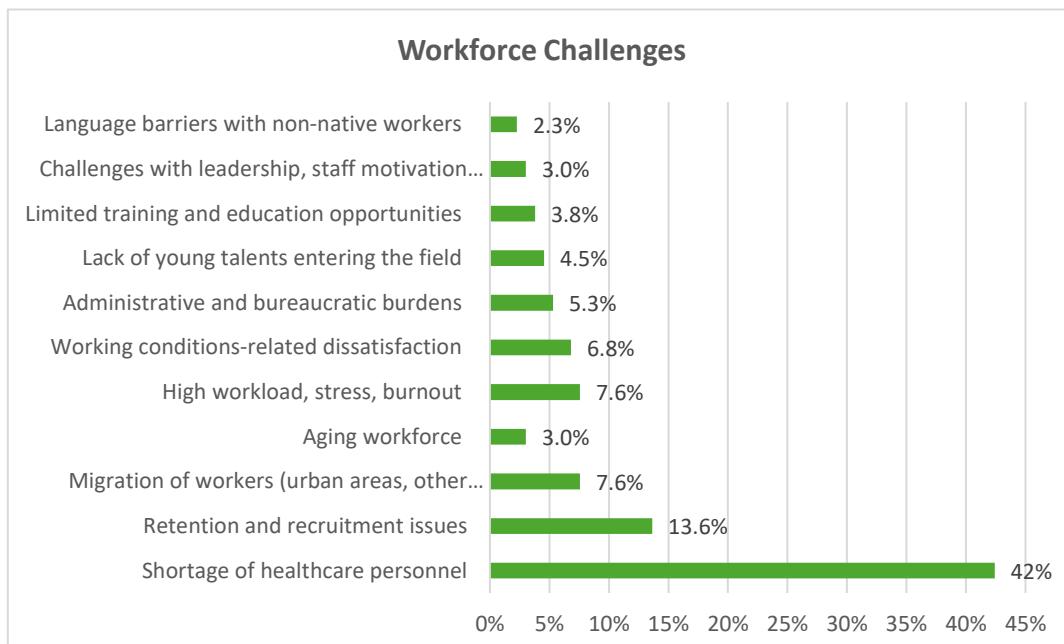


Figure 8 Workforce Challenges (source: Author generated, 2025)

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As shown in Figure 8, the top three challenges from this category are shortage of health workers (42%), retention and recruitment issues (13.6%), high workload, stress and burnout (7.6%), and migration of workers (7.6%) - tied for third place. It is clear that all the challenges identified are interrelated and have a strong impact on each other, as well as on the challenges in the other categories. This illustrates the complexity of the health and care system and the need to consider all aspects and drivers of the challenges in order to address them. This allows for a holistic approach and systematic problem solving.

Accessibility and Infrastructure Challenges

Accessibility and infrastructure challenges are posed by inadequate infrastructure solutions and lack of connectivity, which limit easy access to health and care services for all. To better understand the types of the accessibility and infrastructure challenges, as well as what causes them and who is impacted, they have been divided into following sub-categories:

- 1. Urban-rural disparities in health and care access (28%)** – This reflects the lack of accessibility to certain services in rural areas, due to insufficient healthcare facilities, limited availability of healthcare professionals, limited technological infrastructure, and practices that would enable easier access for patients in these areas. Additionally, long distances to healthcare facilities deepen the problem, especially in the Alpine region where the roads can be quite challenging. In contrast, urban areas offer greater accessibility to healthcare services, with a wider range of specialists available, creating a significant disparity between urban and rural regions.
- 2. Equity concerns in access to services (18%)** – Unequal access to health and care services remains between urban and rural populations and between different social groups. Timely access in mountainous and structurally disadvantaged regions, including border and rural areas, is essential but still not available. The focus on hospitals rather than community-based health facilities deepens the problem of inequitable access to services. Patients have difficulty understanding where and how to access appropriate health services, especially when juggling mandatory insurance, private insurance and family needs.
- 3. Long waiting times (15%)** – Due to increased demand for health and care services, combined with high workloads and staff shortages, patients face long waiting times to receive necessary care.
- 4. Long distances and poor transportation in remote areas (15%)** - Due to the lack of local healthcare services, limited digital solutions like telemedicine, and poor transport options in remote areas—driven by inadequate infrastructure, irregular public transit, and difficult road conditions, especially in Alpine regions—rural residents face long travel distances to access health and care services.



5. **Reduced quality of inpatient/outpatient care (10%)** – Refers to the reduced quality of care provided to patients in both inpatient (hospital) and outpatient settings, due to increased workloads, long waiting times, and shortages of healthcare professionals. This can lead to more medical errors, lower patient satisfaction, and patients not receiving adequate care.
6. **Gaps in needs-based service delivery (9%)** – Refers to the lack of doctors in certain areas to provide specialized services, requiring patients to travel to other facilities to receive the care they need—making access to necessary specialized services more challenging.
7. **Coordination between hospitals, care homes, and communities (3%)** – Refers to the lack of organisation of territorial services that could, on the one hand, provide immediate responses to the needs of patients and, on the other hand, act as an effective filter to ensure that only the most serious and complex cases are referred to hospitals. Services are often not adequately coordinated with each other, creating difficulties in accessing timely care and ensuring continuity of care. There is also a lack of coordination between hospital services and community or home care services.

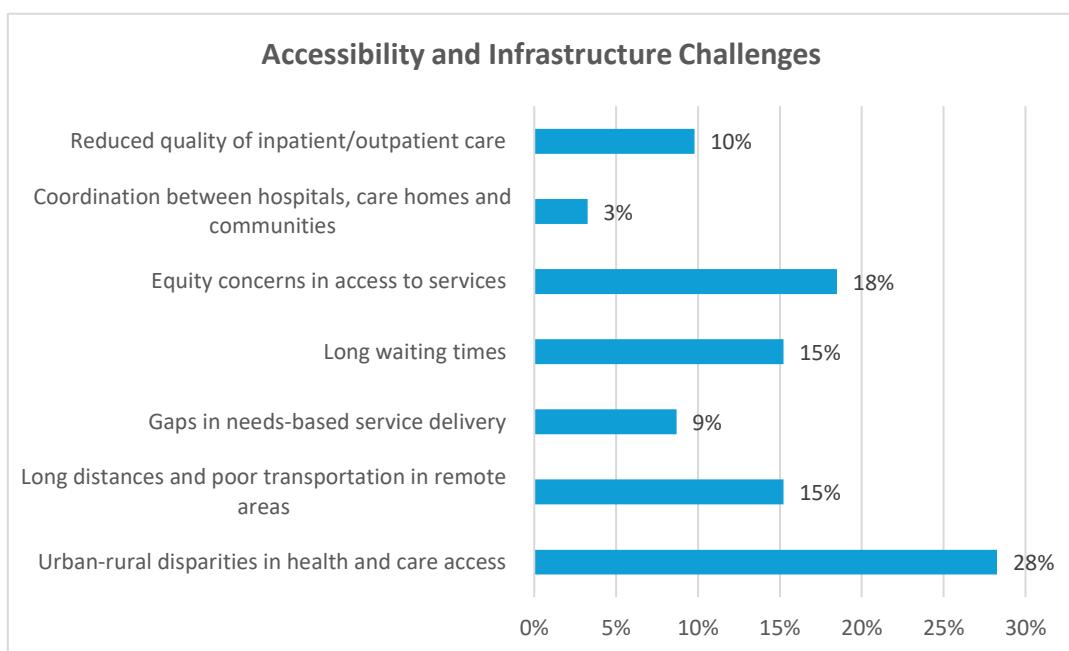


Figure 9 Accessibility and Infrastructure Challenges (source: Author generated, 2025)

As shown in the Figure 9, top three challenges from this sub-category are the urban-rural disparities in health and care access (28%), equity concerns in access to services (18%), long waiting times and long distances and poor transportation in remote areas - tied for third place. It is clear that some of these challenges are directly affected by the workforce shortages, resulting in longer waiting times, reduced quality of inpatient/outpatient care and gaps in needs-based service provision, as well as by the challenges of regional national governance, such as long distances and poor transport, coordination between hospitals, care homes and communities, and equity concerns in access to services.

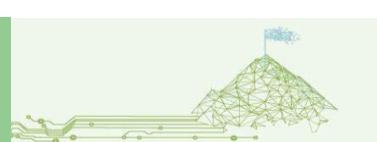


Demographic Challenges

Demographic challenges are challenges associated with demographic shifts—such as an aging population driven by declining birth rates and a shrinking proportion of young people—are placing increasing pressure on the health and care ecosystem. To better understand the types of the demographic challenges, as well as what causes them and who is impacted, they have been divided into following sub-categories:

- 1. Aging population and rising age-related health issues (39.4%)** - Refers to the demographic trend of a growing proportion of elderly individuals within the population, which leads to an increase in chronic illnesses, mobility limitations, and complex care needs. This shift places greater demand on health and care systems for long-term care, geriatric services, and specialized support, while also straining existing resources due to a decreasing ratio of working-age individuals to support the growing care burden.
- 2. Increased demand for elderly care and geriatric services (35.2%)** – Due to demographic changes and the increasing proportion of elderly individuals in the overall population, there is a higher demand for health and care services. This results in overbooked elderly care homes, overwhelmed staff, long waiting times for services, and a strain on the entire system
- 3. Prevalence of chronic and terminal illnesses (9.9%)** - Increase in the number of chronically ill patients and the prevalence of chronic and terminal illnesses.
- 4. Social isolation and family care pressure (8.5%)** - The lack of adequate support services for family carers, such as psychological counselling, home care resources and caregiver support, as well as the financial burden. In addition, there is an increased social isolation of older people, especially in remote areas, due to a lack of social inclusion initiatives and activities.
- 5. Urban-rural disparities in population distribution (7%)** – The aging population is growing in rural areas, while more young people are moving to cities, leading to a shortage of services in these areas. This also increases social isolation as rural communities become more depopulated.

As showcased in the Figure 10 below, the top three challenges from this sub-category are aging population and rising age-related health issues (39.4%), increased demand for elderly care and geriatric services (35.2%) and prevalence of chronic and terminal illnesses (9.9%). It can be concluded that the demographic shift significantly impacts the entire health and care system, contributing to increased healthcare needs, placing pressure on insurance systems, and requiring higher healthcare spending. At the same time, the lower proportion of young people in the population creates challenges in securing more taxpayers, which is essential for the system's sustainability. Additionally, family members face increased responsibilities in caring for the elderly, doctors experience an increased workload, and elderly struggle with more limited access to health and care services, as well as social isolation.



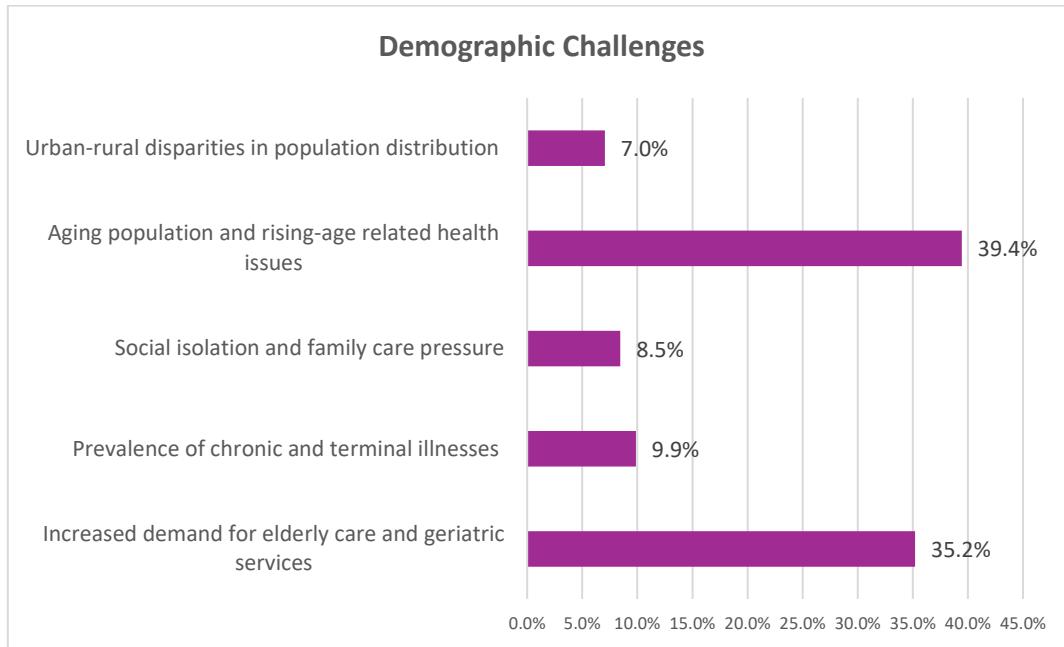


Figure 10 Demographic Challenges (source: Author generated, 2025)

Digitalization and Innovation Challenges

Digitalization and innovation challenges are challenges related to the implementation of innovative solutions based on advanced technologies that could help make the H&C ecosystem more efficient and accessible. To better understand the types of the digitalization and innovation challenges, as well as what causes them and who is impacted, they have been divided into following sub-categories:

- 1. Technology implementation challenges (38%)** – Refers to the lack of guidance in implementing new systems, insufficient knowledge for introducing new technologies, staff resistance, limited investment opportunities, and the complexity and time required to implement new systems and train staff. It also includes varying levels of acceptance from end-users, such as patients, and the lack of necessary infrastructure.
- 2. Technology adoption and resistance to technological advancements (29%)** – This is reflected in the low acceptance and reluctance of medical staff to use new technologies, the varying levels of digital literacy of different stakeholders, the reluctance of patients to use new systems and leave their data, and the reluctance of health and care administrators to invest in new technological systems and solutions due to the high costs.
- 3. Training gaps for healthcare staff (15%)** - Lack of training initiatives for healthcare staff to enable the usage of new technologies and better understand the potential and benefits of implementing these systems.
- 4. Poor digital infrastructure (10%)** – Some health centers and hospitals, especially in rural areas, don't have a fully developed infrastructure to implement advanced technologies. Additional investment would be needed to provide the basic environment for the implementation of advanced technologies.



5. **Security and ethics behind advanced technologies (8%)** – The challenge lies in securing the data, meeting ethical standards and ensuring that patient data is used as intended.

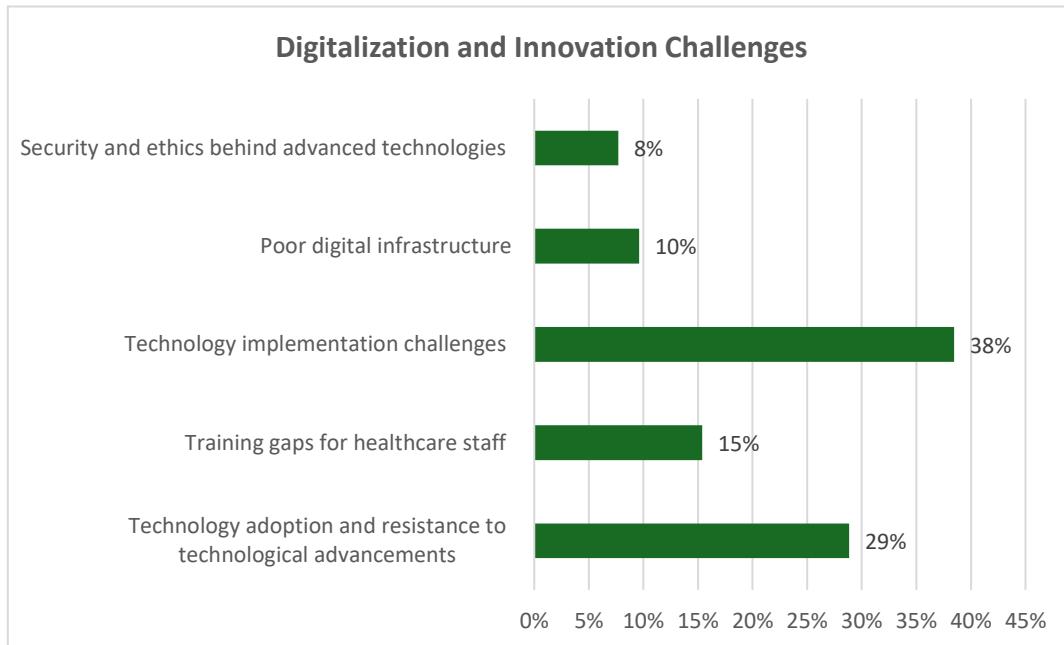


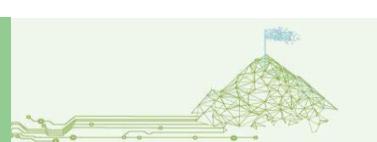
Figure 11 Digitalization and Innovation Challenges (source: Author generated, 2025)

As showcased in the Figure 11, the top three challenges in this sub-category are related to technology implementation (38%), technology adoption and resistance to technological advancements (29%) and training gaps for healthcare staff (15%). Technology implementation challenges emerge from a lack of knowledge and training, underdeveloped infrastructure, and high investment costs. These are often accompanied by resistance to new technologies, which may result from limited digital literacy or concerns about the security and ethical implications of advanced technologies. Additionally, training gaps among healthcare staff further hinder the adoption of new technological solutions.

Economic Sustainability and Policy Challenges

Economic sustainability and policy challenges are the challenges posed by lack of funding and financial support, as well as policies that burden innovation and require increased administrative burden. To better understand the types of the economic sustainability and policy challenges, as well as what causes them and who is impacted, they have been divided into following sub-categories:

1. **Limited financial resources and funding support in public health systems (42%)** – This refers to chronic underfunding and inadequate financial investment in public health infrastructure, services and programmes. It includes constraints on core budget allocations, limited access to flexible and sustainable financing, and over-reliance on short-term or emergency funding. These constraints affect the ability of public health systems to plan proactively, build a resilient and adequately staffed workforce, invest in health promotion and disease prevention, and maintain critical infrastructure and information systems.



2. **High health and care costs and resource shortages (18%)** – Refers to the rising health and care costs and the pressure on the system due to increasing demand for services, demographic changes and the growing complexity of care needs, particularly in long-term and chronic care. At the same time, health systems face persistent shortages of skilled human resources, underinvestment in facilities and limited access to essential medicines and technologies.
3. **Inequities in insurance and healthcare coverage (15%)** - Refers to persistent inequalities in access to affordable and comprehensive health insurance and care that disproportionately affect vulnerable and low-income populations. Gaps in coverage, high out-of-pocket costs and fragmented insurance systems limit people's ability to access needed services, leading to delayed care, and poorer health outcomes.
4. **Budget deficit and regulatory constraints (12%)** - Refers to the structural and institutional barriers that hinder the effective allocation and use of public health budgets. Chronic budget deficits—often resulting from rigid fiscal rules, political priorities, or fragmented governance—limit the flexibility of health systems to respond to emerging needs.
5. **Administrative and Policy Burdens (12%)** – Refers to complex regulatory environments, bureaucratic burdens, and administrative inefficiencies that slow down decision-making, delay investments, and discourage innovation across the healthcare sector.

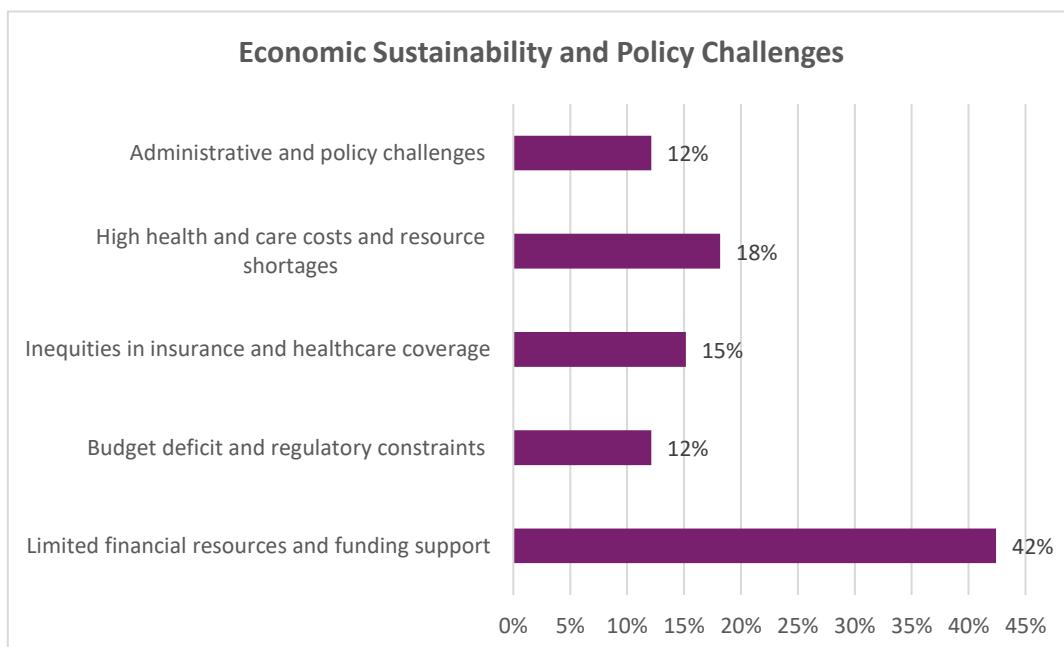


Figure 12 Economic Sustainability and Policy Challenges (source: Author generated, 2025)



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As shown in the Figure 12, top three challenges in this sub-category are limited financial resources (42%), high health and care costs and resource shortages (18%) and inequities in insurance and health coverage. It is evident that administrative and policy barriers, together with budget deficits and regulatory constraints, have a significant impact on the health system by limiting financial resources and support. This, in turn, deepens inequalities in health care and places greater pressure on the system. In addition, rising health care costs - driven by increasing health needs and a shortage of qualified staff - combined with a lack of financial incentives and financing options, further strain the system. These challenges limit equitable access to quality care, strain existing services and reduce the system's capacity to respond effectively and sustainably to current and future health needs.

Specialization and Decentralization Challenges

Standardization and decentralization challenges are less represented challenges and relate to the governance of the health care ecosystem. To better understand the types of the specialization and decentralization challenges, as well as what causes them and who is impacted, they have been divided into following sub-categories:

- 1. Dependency on hospitals for primary care service (41%)** – Refers to an over-reliance on hospital-based care due to the inadequate development and accessibility of territorial and community-based services. Primary care often lacks the resources and coordination to respond effectively to patients' needs, particularly in rural areas. This results in hospitals taking cases that could otherwise be managed at the community level, putting further pressure on emergency departments and specialist units.
- 2. Fragmentation of health and care system (41%)** – Health and social care services often operate in silos, leading to poor coordination, duplicated efforts, and gaps in care continuity. Patients—especially those with chronic, degenerative, or mental health conditions—face difficulties navigating between different services and levels of care. Fragmentation is especially problematic for families and caregivers, who lack integrated support.
- 3. Shift from generalists to highly specialized professionals (18%)** – Represents an increasing trend towards specialisation in health care, which limits the availability of generalists who are crucial for the management of chronic diseases and primary care. This shift reduces the flexibility of the system to respond to patients' needs and increases dependence on hospital-based specialists. The shortage of general practitioners and family doctors is particularly high in rural and peripheral areas.



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This challenge category was affecting only 4% of all interviews, suggesting that these issues are not easily recognized and that other factors have a greater impact on respondents. However, despite being less visible, these challenges have a significant impact on the overall healthcare system and can trigger additional problems. Reliance on hospitals for primary care is often the result of fragmented territorial services. Without well-coordinated community care, patients turn to hospitals for even basic needs, overloading the system and reducing access - especially in rural areas. The shift towards specialisation reduces the availability of generalists, limiting entry into the system, increasing hospital dependency and deepening the problem of workforce shortages. Together, these factors create a cycle: fragmentation drives hospital dependency, specialisation weakens generalist care, and hospital overuse further widens gaps in care.

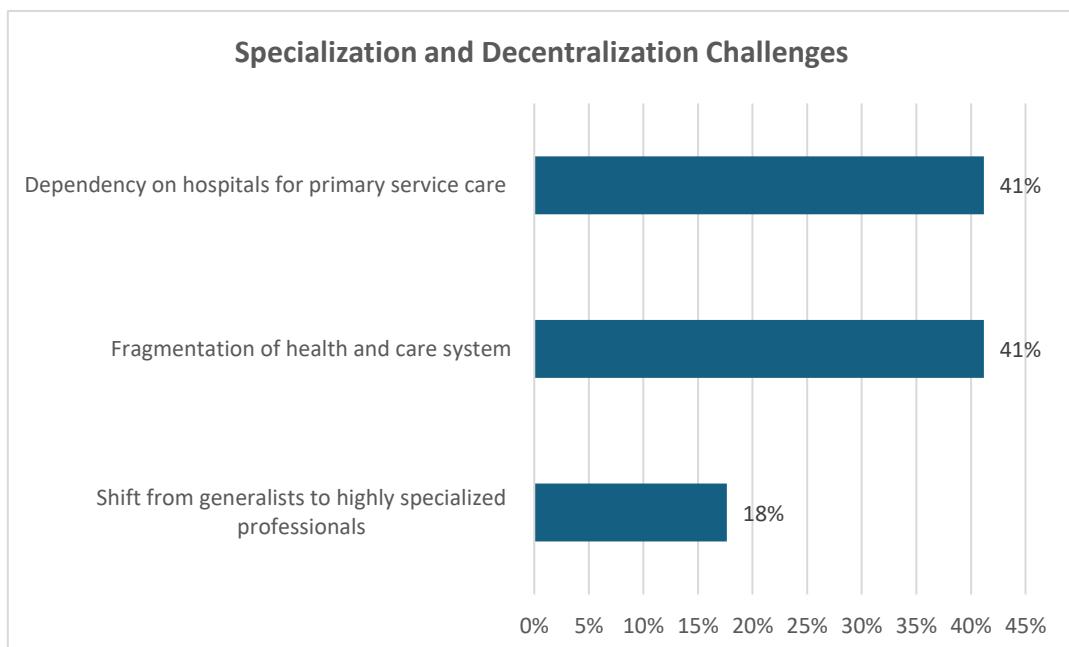


Figure 13 Specialization and Decentralization Challenges (source: Author generated, 2025)

Prevention and Health Promotion Challenges

Prevention and health promotion challenges are also less represented challenges and reflect the lack of health promotion and prevention initiatives. To better understand the types of the prevention and health promotion challenges, as well as what causes them and who is impacted, they have been divided into following sub-categories:

- 1. Gaps in health promotion and prevention initiatives (47%)** – Refers to the lack of health promotion and prevention initiatives, both at the policy and hospital levels. The healthcare system should prioritize a proactive mindset, encouraging regular check-ups and prevention activities that help identify and address health problems early on, preventing the need for more complex treatments. However, these initiatives are often overlooked, contributing to higher healthcare demands and an overburdened system.



- 2. Insufficient investment in preventive care (33%)** – A key barrier to effective preventive care is the inadequate financial resources allocated to health promotion and prevention activities. Without proper funding and incentives from policymakers, public awareness remains low, and patients lack access to opportunities for regular check-ups. As a result, individuals typically seek medical attention only when they experience more severe symptoms, further burdening the healthcare system.
- 3. Limited patient education and awareness raising (20%)** – There is a clear lack of collective awareness of the importance of preventive healthcare, including regular check-ups. Many people do not understand the benefits of early detection and intervention. A lack of effective patient education and awareness campaigns contributes to underutilisation of preventive services, leaving patients vulnerable to preventable conditions that could be managed more effectively with early intervention.

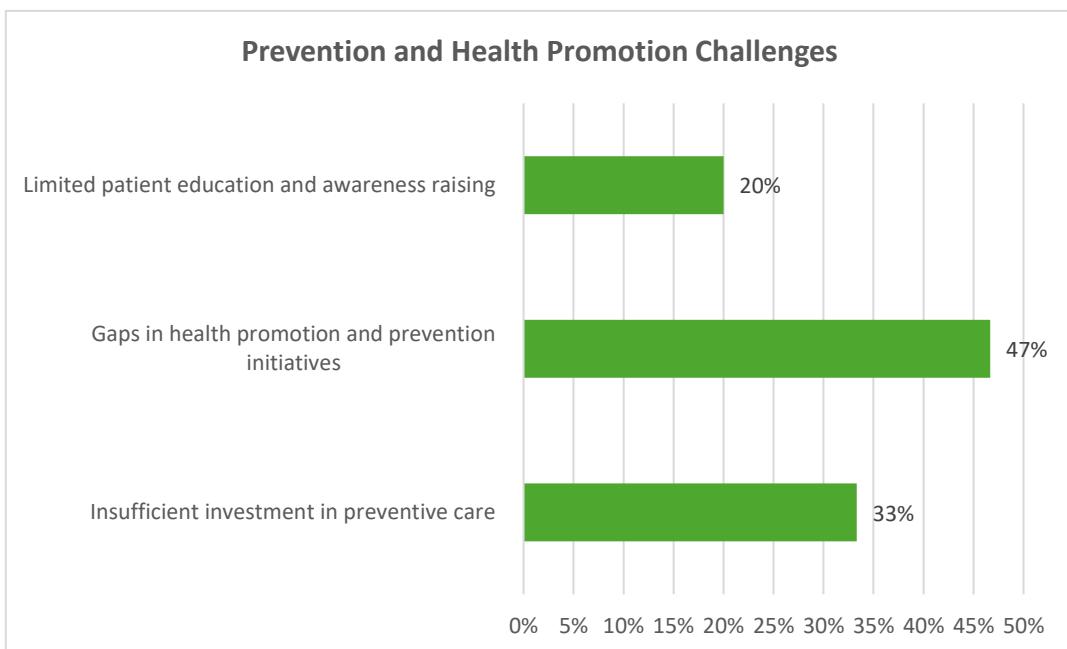


Figure 14 Prevention and Health Promotion Challenges (source: Author generated, 2025)

Similarly to the previous category, only 4% of interviewees identified this as a challenge, indicating that prevention initiatives still lack significant visibility. It is evident that these initiatives could benefit the healthcare system by enabling earlier detection of health problems and reducing the need for more complex treatments, which would ease the burden on doctors and the healthcare system as a whole. However, due to the lack of investment in promotional initiatives, they remain underemphasized and less common, further hindering awareness of prevention and health promotion among patients and the general public.



4.2.1.2. Sectoral Challenges

Having understood the overall challenges facing the health and care system in the Alpine Space as whole, it is important to understand which challenges affect different target groups. Due to the different roles and responsibilities in the system, each actor has a unique position and perspective, with challenges that affect them more than the other groups. This allows for a better understanding of the challenges from all sides, as well as the causes of these challenges and the links between them. That's why the challenges faced by each target group (H&C service providers, H&C administration workers, policymakers and associations representing citizens/patients) will be presented and analysed, trying to understand the perspective and position of each target group. Finally, all results will be compared to provide an overview of the main priorities, similarities and differences for each target group.

H&C Service Providers

This section outlines the challenges faced by doctors, nurses and all other health and care service providers. As seen in the overall analysis, it is clear that there is a lot of pressure on H&C service providers due to the various factors and system inefficiencies. The same categories of challenges were analyzed, but an attempt was made to capture the perspective of H&C service providers and the impact of these challenges on them. The analysis also discusses whether these challenges have a direct or indirect impact on the target group.

Target group representatives were asked to identify the top three challenges currently facing their organisations. As shown in Figure 15, the top three challenges are workforce challenges (41%), digitalisation and innovation challenges (15%) and economic sustainability and policy challenges (13%). Compared to the overall distribution of challenges, it is clear that workforce-related issues are significantly more important to these players. In addition, digitalization and innovation challenges appear to have a greater impact on the workforce than in the broader context of health system challenges.

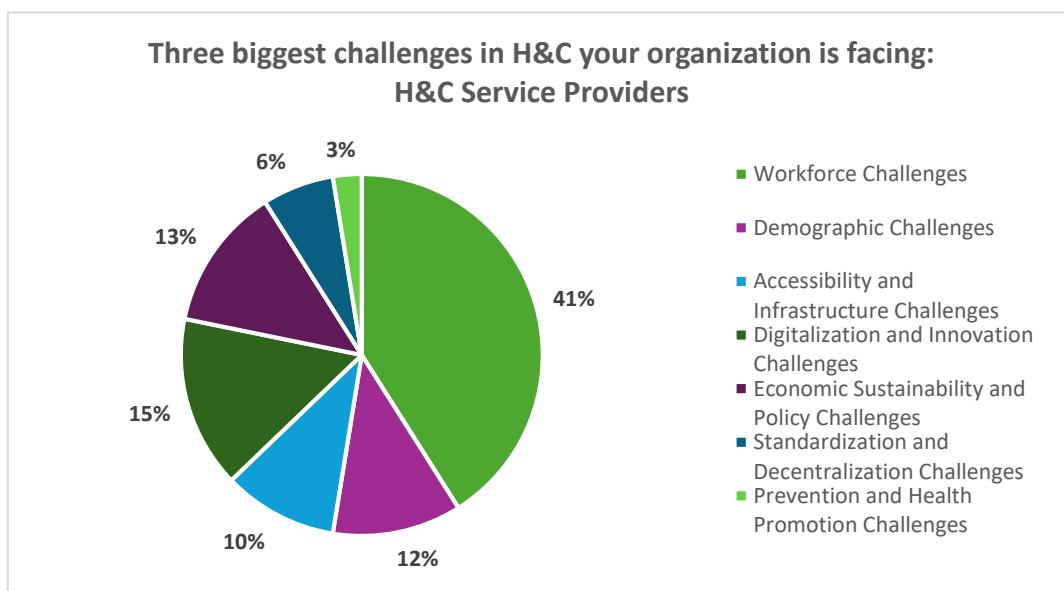


Figure 15 Challenges H&C Service Providers are facing (source: Author generated, 2025)



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As the analysis of the general challenges highlighted the overall understanding of each category and sub-category, this section focuses on the direct impact of these challenges on the specific target group.

It is clear that **workforce challenges (41%)** have the greatest impact on H&C service providers, as they directly affect day-to-day operations and work dynamics. A shortage of qualified staff leads to increased workloads, resulting in higher stress levels and, in some cases, burnout. In such an environment, the likelihood of errors or misdiagnoses increases, directly affecting the quality of care. In addition, many workers struggle to maintain a healthy work-life balance due to high workload demands, further contributing to stress and job dissatisfaction. The lack of adequate incentives, motivation and leadership makes the profession less attractive to younger generations. This is a growing concern given the aging of the healthcare workforce and the increasing number of upcoming retirements without sufficient numbers of young professionals to fill the gap. As a result of these conditions, healthcare workers often migrate between cities or countries, creating labour shortages in some regions and potential language barriers in others.

Digitalization and innovation challenges (15%) also play a key role, in particular the limited implementation of innovative solutions and advanced technologies such as telemedicine and AI. These technologies could significantly reduce the workload of H&C service providers by improving patient access in rural areas, optimizing processes and reducing administrative burdens. However, the uptake of such technologies remains low due to barriers such as insufficient training, bureaucratic obstacles and high implementation costs. There is a clear need for smarter use of data and inclusive innovation pathways that involve health workers and ensure equitable access to digital tools to avoid digital exclusion.

These two categories have a direct impact on H&C service providers and the day-to-day work they have to do.

In contrast, other categories, such as economic sustainability and policy challenges (13%), demographic change (12%), accessibility and infrastructure (10%), standardisation and decentralisation (6%), and prevention and health promotion (3%), affect H&C service providers more indirectly. These challenges are more systematic and often manifest themselves through issues such as limited funding for innovation, inadequate infrastructure, insufficient investment in technology and poor working conditions. System fragmentation, lack of coordination and over-reliance on hospitals - rather than strengthening local care services - contribute to inefficiencies. In addition, the lack of prevention initiatives means that patients only seek care when their condition has worsened, increasing the workload on health workers. A greater focus on prevention, regular screening and early detection of disease would help reduce this burden and improve overall care.



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In addition to the top three challenges faced by H&C service providers, their perspective on the sustainability and digitalization practices implemented by their organization was analyzed, with the aim of finding out whether their organizations have implemented any practices and whether the workforce is aware of them. The method used was a Likert scale, which attempted to assess the respondents' opinion on different aspects of these topics.

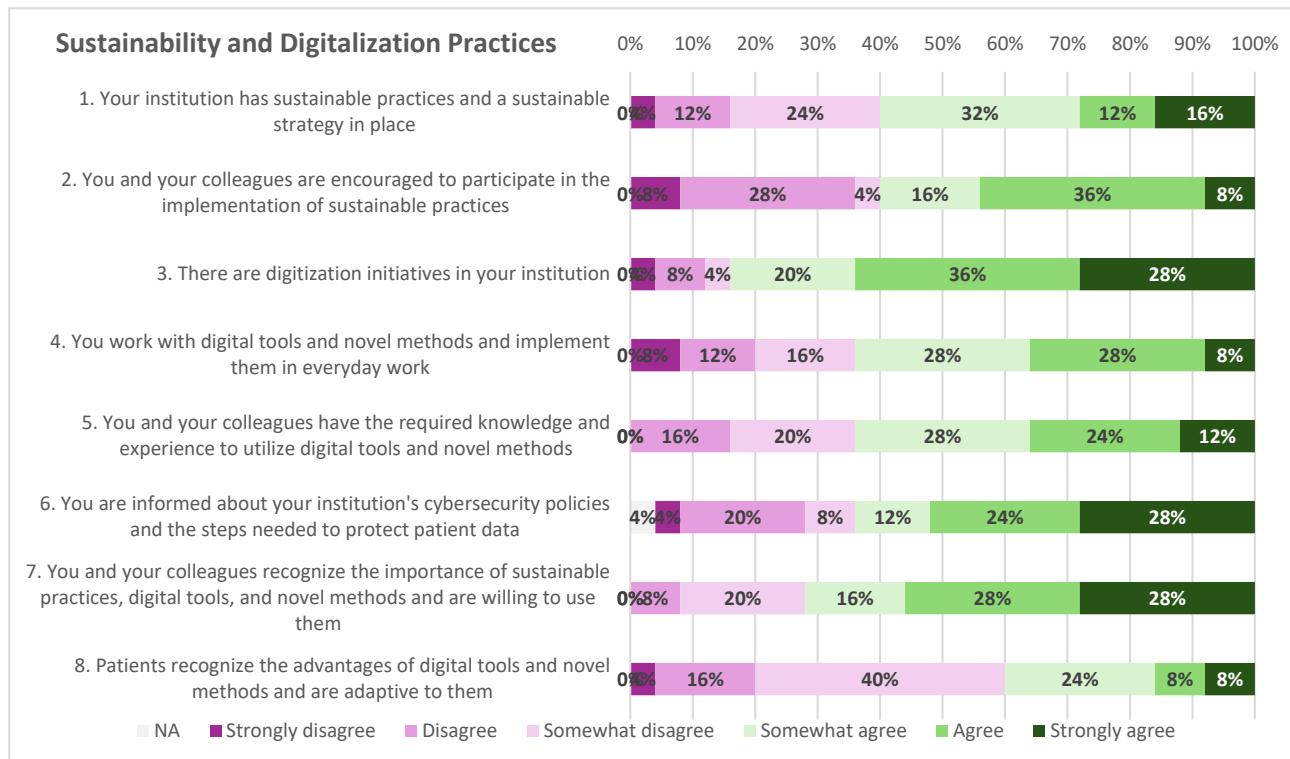


Figure 16 Sustainability and Digitalization Practices - H&C service providers (source: Author generated, 2025)

We can conclude that across all questions, the level of positive agreement ranges from 60% to 84% of interviewees, who responded with *somewhat agree, agree, or strongly agree*. Specifically, **60%** of interviewees agree to some extent that their organization has **sustainable practices and strategies in place**, and that **workers are encouraged to** participate in the implementation of sustainability-related initiatives. When it comes to the topic of digitalization, **80%** of respondents acknowledged the presence of **digitalization initiatives** within their organization. Furthermore, 64% of interviewees reported that they **use digital tools and novel methods** in their daily work, believe that **staff have the necessary knowledge and experience** to use these tools effectively, and are informed about their institution's **cybersecurity and data protection policies**. Additionally, **72%** of respondents believe that **workers recognize the importance of sustainable practices and digital tools**, and are willing to use them. In contrast, only **40%** of interviewees agree that **patients recognize the advantages of digital tools and methods**, and are adaptable to them.

It is evident that greater emphasis is needed on raising awareness among patients, providing training for workers, and actively disseminating information on sustainability practices, while also engaging employees in open discussions on these topics.



Another challenge highlighted in the closed-ended Likert scale questions relates to the condition of the facilities and institutions in which H&C service providers operate, particularly in terms of infrastructure and modernity of equipment. As shown in Figure 17, **52%** of respondents agree to some extent that **there are still outdated or inadequate facilities** in their region that do not meet modern standards of patient care.

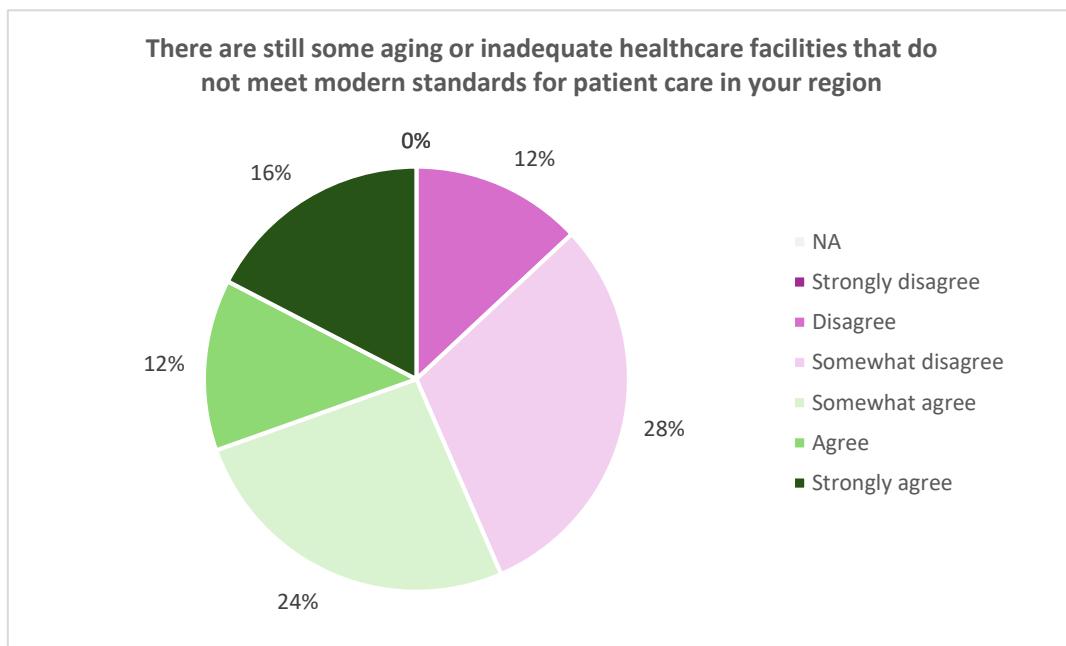


Figure 17 Inadequate health care facilities - H&C service providers (source: Author generated, 2025)

This further hinders access to healthcare services and the quality of service provision due to poor infrastructure and the lack of modern equipment, placing an additional burden on the work of H&C service providers.

H&C Administration Workers

This section outlines the challenges faced by hospital management staff, including directors and other leadership structures. As reflected in both the overall analysis and the specific challenges reported by H&C service providers, significant problems remain related to staff shortages, lack of incentives, leadership and motivation gaps, as well as outdated facilities and insufficient digitalisation initiatives.

Given that management structures within the health and care system are responsible for fostering supportive working environments and ensuring access to the tools and technologies needed for effective service delivery, it is crucial to understand both the challenges they face and what causes them. This analysis also considers whether these challenges have a direct or indirect impact on this target group.



As indicated in the Figure 18, top three challenges affecting H&C administration workers are workforce challenges (35%), accessibility and infrastructure challenges (24%) and demographic challenges (14%).

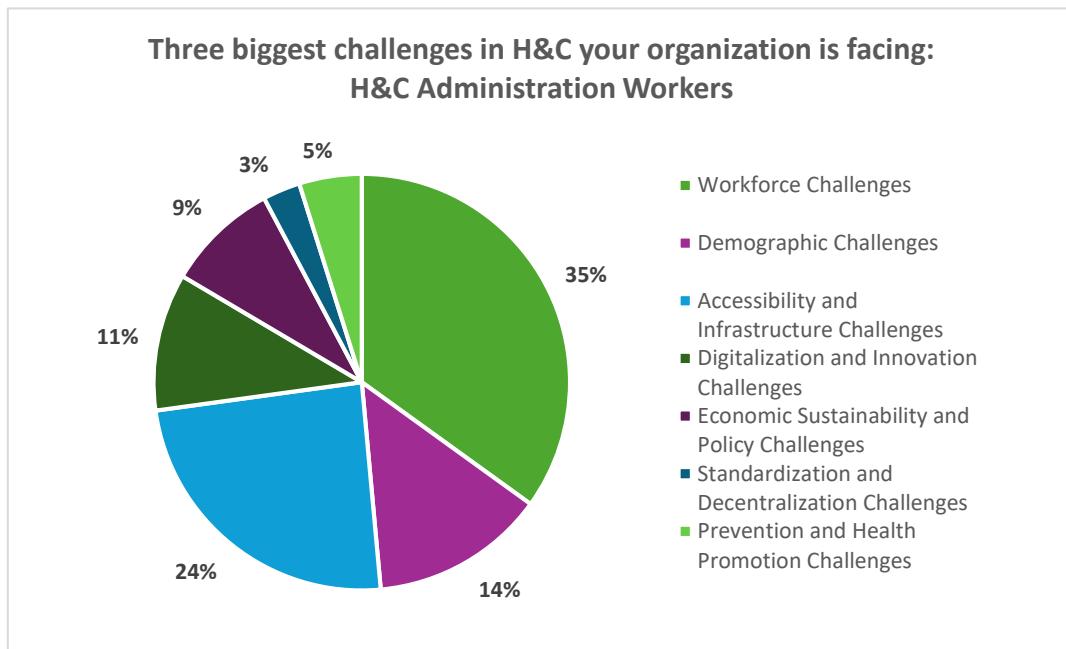


Figure 18 Challenges H&C Administration Workers are facing (source: Author generated, 2025)

For health and care administration workers, **workforce challenges (35%)** remain a key barrier, but from a different perspective. High staff turnover makes it difficult to plan and coordinate activities. They must invest considerable effort in recruitment and retention, often at the expense of other important activities. Rising costs and the lack of resources are difficult to manage within tight budgets, making it challenging to provide sufficient incentives for staff. In addition, the continuing migration of workers requires further efforts to integrate and overcome language barriers, which can be time-consuming. Tackling stress and excessive workloads also requires time and resources that are not always available. Long-term workforce planning becomes difficult in the face of constant staff turnover and shortages of specialised skills.

These challenges are followed by **accessibility and infrastructure issues (24%)**, which place additional burdens on H&C administration workers. Many facilities lack the infrastructure to implement advanced technologies or innovative solutions. Investments are required to drive improvements, but H&C administration workers face limited resources - often insufficient to meet the needs of patients and staff or to improve service quality. Growing demand for health and care services, combined with limited resources, leads to longer waiting times, placing additional pressure on H&C administration workers who are expected to plan efficiently within high staff turnover and financial constraints.



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Another barrier directly affecting this target group is the **economic sustainability and policy challenges (9%)**. While not always seen as a top priority, financial constraints, complex regulations and bureaucratic burdens are making it more difficult for H&C administrators to access the resources they need. Rising costs for staff, energy, and equipment must be managed within shrinking or fixed budgets. This constant trade-off between cutting costs and maintaining service quality can lead to a decline in standards of care.

All of these challenges have a direct or indirect impact on the work of H&C administration workers, significantly increasing the complexity and demands of their roles.

In addition to these challenges, H&C administration staff face factors that indirectly impact their work such as demographic challenges (14%), digitalization and innovation challenges (11%), prevention and health promotion challenges (5%), and standardization and decentralization challenges (3%). Fragmented governance and inconsistent standards hinder coordination, while decentralization leads to duplicated efforts and delays in reforms, requiring a balance between local autonomy and system-wide alignment. Prevention and health promotion remain underfunded, with limited programs and trained staff. Digital transformation adds complexity, requiring infrastructure, training, and navigating increased documentation and privacy regulations. Demographic shifts, such as an aging population and declining density, demand more chronic and geriatric care, putting pressure on resources and forcing institutions to take on tasks once handled by families.

H&C Administration Workers – Likert scale

In addition to the top three challenges faced by the key target group, respondents had to answer the closed-ended questions using the Likert scale.

One of the questions focused on whether there were **any planning and governance initiatives** in place in the interviewee's region to address workforce challenges, accessibility in remote areas, etc. The main aim of this question was to ask whether there are any incentives and solutions at a higher level - regional or national - to address the key challenges that affect the whole Alpine Space area and which need to be addressed in a systematic way rather than by individual actions of each H&C institution.

As presented in Figure 19, **69%** of respondents agree to some extent that **there are some planning and governance initiatives to address the key challenges**, with only 7% of respondents strongly agreeing with this statement. It is clear that more initiatives are needed from higher levels of health and care governance, as well as better communication and awareness raising on existing opportunities and initiatives.



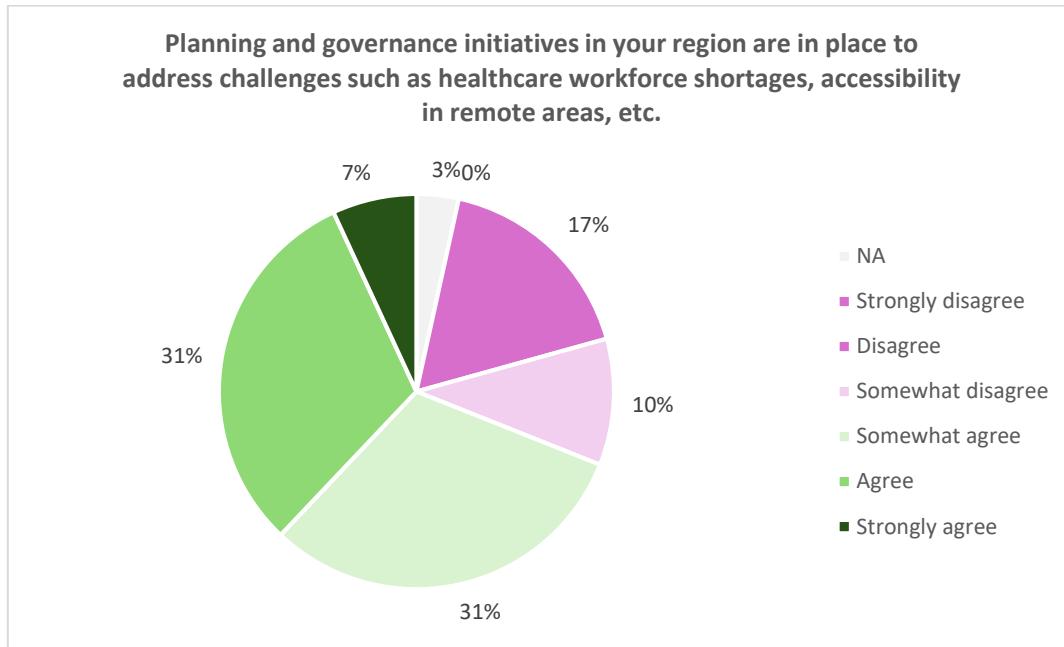


Figure 19 Planning and governance initiatives - H&C administration workers
(source: Author generated, 2025)

Another question addressed the condition of healthcare facilities and whether they meet modern standards for patient care in the region. Similar to H&C service providers, H&C administration workers agree to a greater extent that **there are still some outdated or inadequate healthcare facilities** in their region. As shown in Figure 20, **76%** of respondents agree to some extent with this statement, further highlighting the infrastructure challenges.

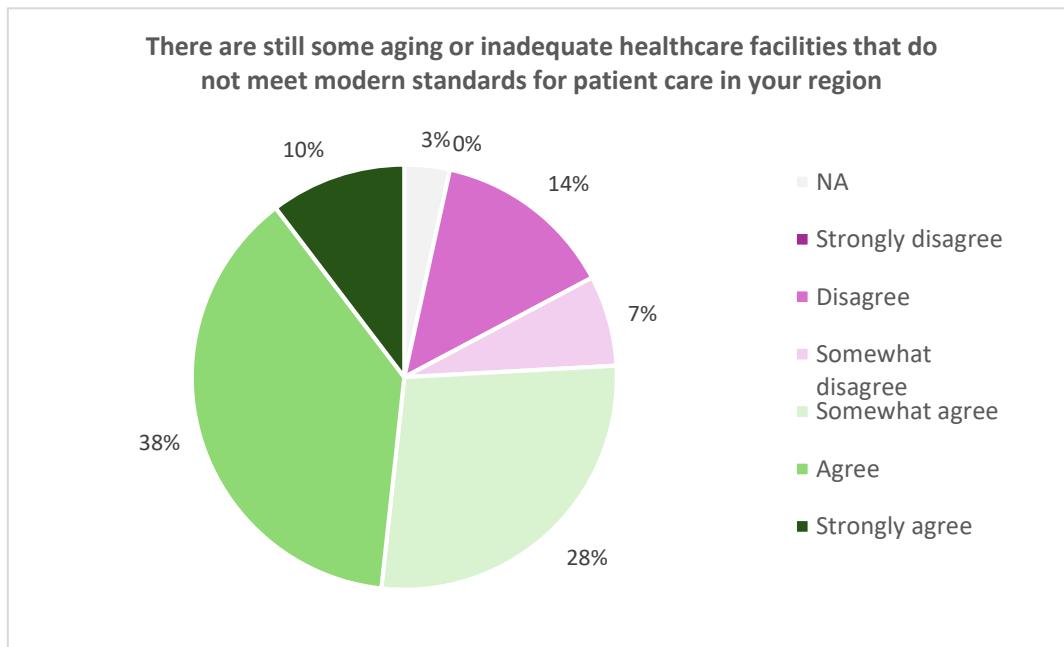


Figure 20 Inadequate health care facilities - H&C administration workers (source: Author generated, 2025)

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The following question aimed to explore whether H&C administration workers already have a **strategy in place for recruiting and retaining qualified workforce**. As this is the biggest challenge of the health and care sector that triggers many other issues, it is important to ensure that there are also appropriate initiatives at the level of the health and care institutions and governance bodies to address this issue.

As shown in the figure below, **93%** of respondents agree to some extent that their institution has a strategy to address this challenge.

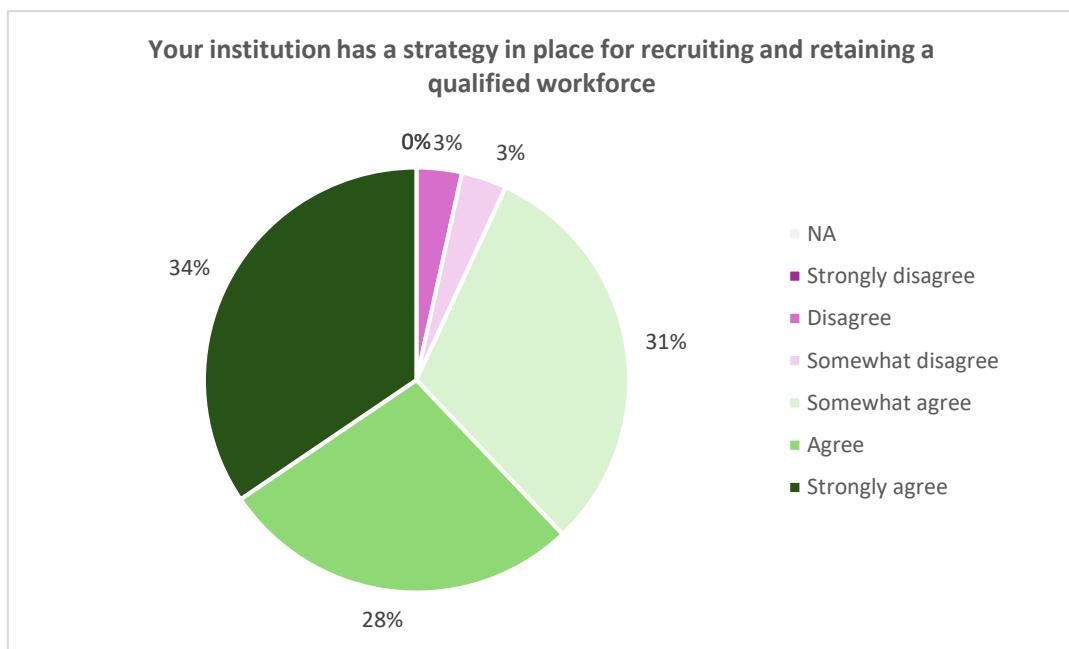


Figure 21 Strategy for recruiting and retaining qualified workforce - H&C administration workers
(source: Author generated, 2025)

In addition to the top three challenges faced by H&C administration workers, their perspective on the sustainability and digitalization practices implemented by their organization was analyzed, with the aim of finding out whether their organizations have implemented any practices and whether the workforce and patients are aware of them.



The Figure 22 showcases the interviewees' answers in more detail:

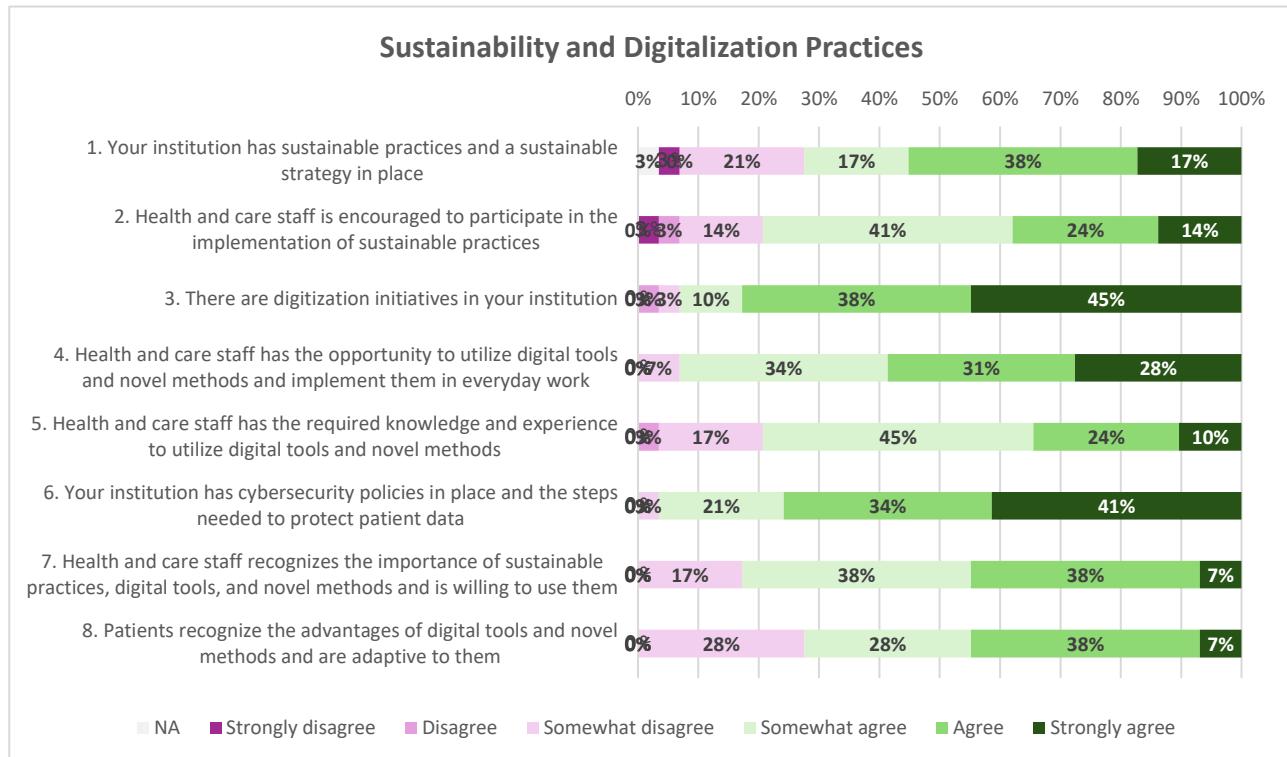


Figure 22 Sustainability and Digitalization Practices - H&C administration workers (source: Author generated, 2025)

We can conclude that across all questions, the level of positive agreement ranges from 72% to 97% of interviewees, who responded with *somewhat agree, agree, or strongly agree*. Specifically, **72%** of interviewees agree to some extent that their organization has **sustainable practices and strategies in place**, and that **patients recognize the advantages of digital tools and novel methods** and are adaptive to them. Additionally **79%** of respondents believe that **workers are encouraged to participate in the implementation of sustainability-related initiatives**, and that they have required **knowledge and experience to utilize digital tools and novel methods**. Furthermore, **83%** of respondents agree that **H&C staff recognizes the importance of sustainable practices, digital tools, and novel methods** and is willing to use them. When it comes to the topic of digitalization, **93%** of respondents acknowledged the **presence of digitalization initiatives** within their organization and believe that **H&C staff have the opportunity to utilize digital tools and novel methods** and implement them in everyday work. Finally, **97%** of respondents agree that their institutions have **cybersecurity and data protection policies in place**.



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It is evident that there are some differences in the perspectives of H&C administrators and H&C service providers. For example, 64% of H&C service providers agree that they use new technologies and innovative methods in their daily work, in contrast to 93% of H&C administration workers. In addition, 64% of the H&C service providers interviewed believe that they have the necessary knowledge and experience to use digital tools and innovative methods. On the contrary, 79% of H&C administration workers believe that H&C staff hold this knowledge and experience. It is evident that there are some gaps in the perspectives of H&C service providers and H&C administration workers, which means that there is a need for better dissemination of information on sustainable practices and digital tools, awareness raising on the initiatives implemented, as well as more training opportunities for H&C service providers.

Policymakers

This section outlines the challenges faced by health and care governance structures, highlighting the key issues in their regions and the roles policymakers play. It also identifies the areas where incentives and actions are needed to ensure the effective functioning of the healthcare system. As policymakers are responsible for overseeing the health and care ecosystem at a higher level, providing incentives, initiatives, and funding to drive progress and innovation, it is essential to understand both the challenges they face and what causes them.

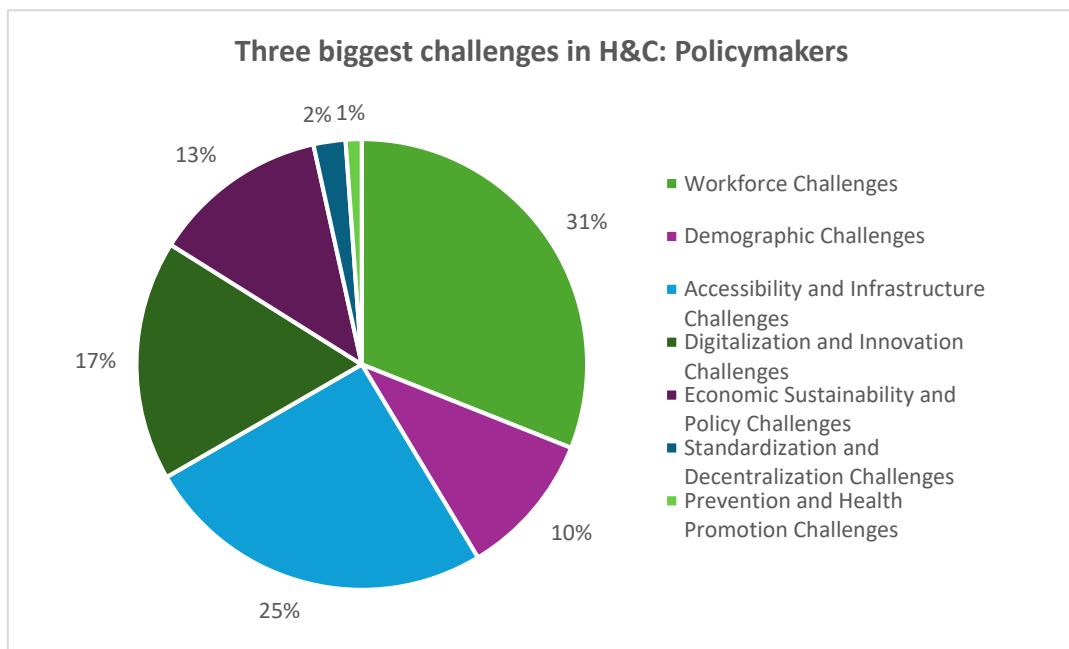


Figure 23 Challenges Policymakers are facing (source: Author generated, 2025)

As showcased in the Figure 23, top three challenges perceived by policymakers are workforce challenges (31%), accessibility and infrastructure challenges (25%) and digitalization and innovation challenges (17%).



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It is evident that at the regional level, as perceived by policymakers, **workforce challenges (31%)** remain the primary problem. The shortage of qualified professionals makes it more difficult to ensure the availability of health and care services, which further hinders the functioning of the wider ecosystem. Of particular concern is the shortage of doctors, especially general practitioners, which makes it difficult for patients to receive appropriate care and contributes to increasing waiting times. This can ultimately reduce the quality of patient care. In addition to workforce shortages, **accessibility and infrastructure (25%)** issues further burden the system, particularly due to urban-rural disparities. Citizens in rural areas often struggle to access the services they need. This challenge is deepened by limited transport to larger health centers and the migration of health workers from rural and less populated regions to more urbanized areas. The lack of decentralized and local health services, alongside a high reliance on hospital care, leads to inequitable service access.

Demographic changes (10%) and growing demand for health and care services are putting further pressure on family carers, H&C staff, and contributing to social isolation in rural areas, triggered by poor infrastructure and population out-migration. Inadequate infrastructure also limits the ability to implement **innovative and advanced technological (17%)** solutions. Outdated infrastructure, combined with insufficient funding, and training for H&C staff hinders the adoption of new technologies, particularly in rural areas. This blocks potential solutions such as telemedicine, which could address connectivity and access issues. The health and care system is further strained by a lack of **financial and human resources (13%)**, leading to disruptions and preventing long-term sustainability. Administrative burdens and excessive bureaucracy compound these challenges. Inequalities in coverage and access to care are also increasing. Governance issues include a lack of **standardization** and persistent **decentralization challenges (2%)**. Fragmentation within the system makes it difficult to collaborate, share knowledge and exchange professionals. The system's reliance on hospitals puts additional strain on the health workforce, rather than moving towards more community-based care. Finally, there is insufficient emphasis on **prevention and health promotion (1%)**. A lack of incentives and public awareness campaigns means that patients are less likely to engage in regular screening and preventive care, focusing instead on treatment when problems arise. A shift towards a collective mindset with a stronger focus on prevention could significantly reduce the pressure on the health care system.

Addressing these challenges requires coordinated action at higher levels of health governance. This includes enabling training programs, initiatives to reduce disparities between urban and rural areas, ensuring sufficient funding and support for infrastructure, encouraging the adoption of digital solutions, promoting prevention and health awareness, and developing strategies to attract and retain talent in the health sector.



Policymakers – Likert scale

In addition to the top three challenges faced by the key target group, respondents had to answer the closed-ended questions using the Likert scale.

One of the questions focused on the condition of healthcare facilities and whether they meet modern standards for patient care in the region. Similar to H&C service providers and H&C administration workers, policymakers agree to a greater extent that **there are still some outdated or inadequate healthcare facilities** in their region. As shown in Figure 24, **66%** of respondents agree to some extent with this statement, further highlighting the infrastructure challenges, with none of them strongly agreeing with the statement.

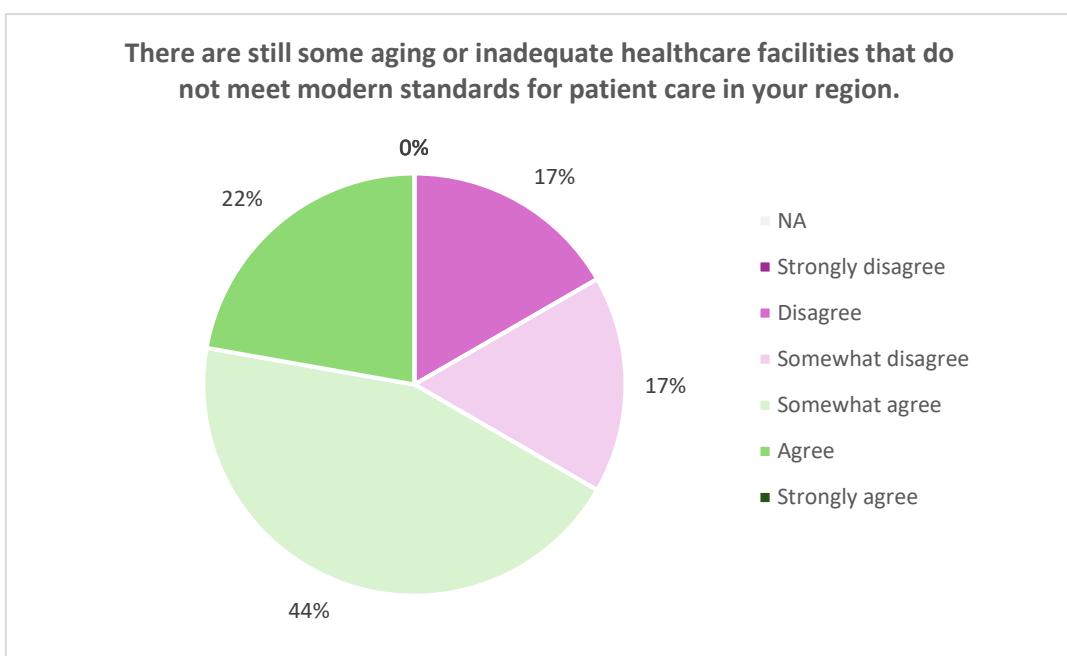


Figure 24 Inadequate health care facilities - Policymakers (source: Author generated, 2025)

Another question focused on whether there were **any planning and governance initiatives** in place in the interviewee's region to address workforce challenges, accessibility in remote areas, etc. The main aim of this question was to ask whether there are any incentives and solutions at a higher level - regional or national - to address the key challenges that affect the whole Alpine Space area and which need to be addressed in a systematic way.

As shown in Figure 25, **89% of respondents agree** to some extent that planning and governance initiatives exist to address key challenges. However, only 69% of H&C administration workers share this view, highlighting a gap in awareness at the regional level. This suggests a need for stronger policy action to improve the dissemination of information, enhance communication, and raise awareness about existing incentives and initiatives.



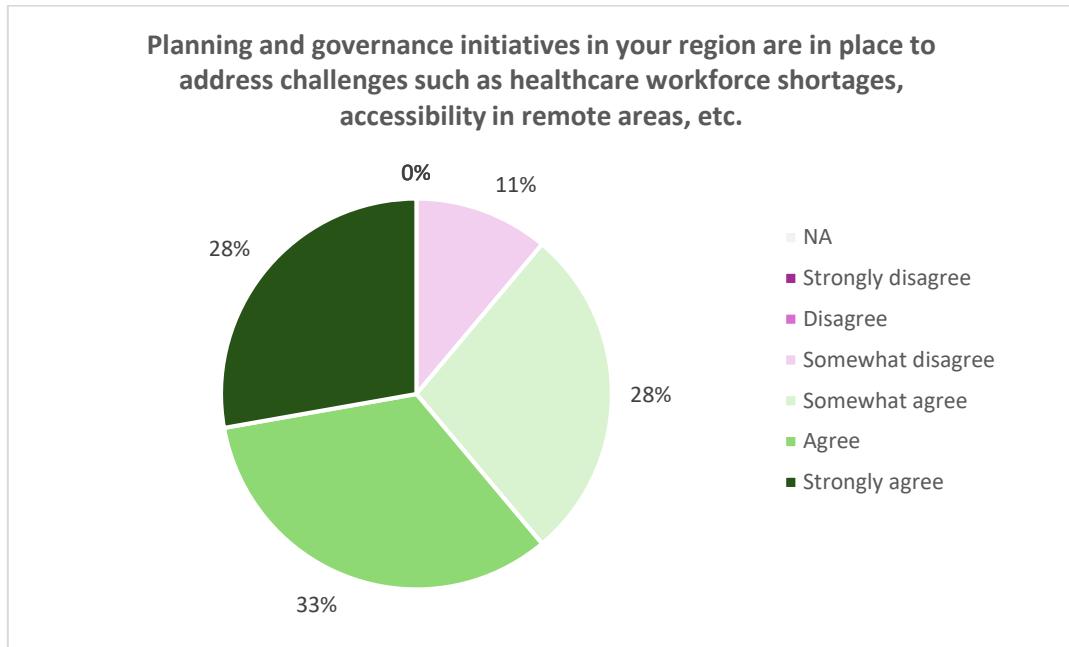


Figure 25 Planning and governance initiatives - Policymakers (source: Author generated, 2025)

In addition to the top three challenges identified by policymakers, their perspective on the sustainability and digitalization practices implemented in their regions was analyzed, with the aim of finding out whether the organizations in the region have implemented any practices and whether the H&C administrators are aware of the existing incentives and initiatives.

The Figure 26 showcases the interviewees' answers in more detail:

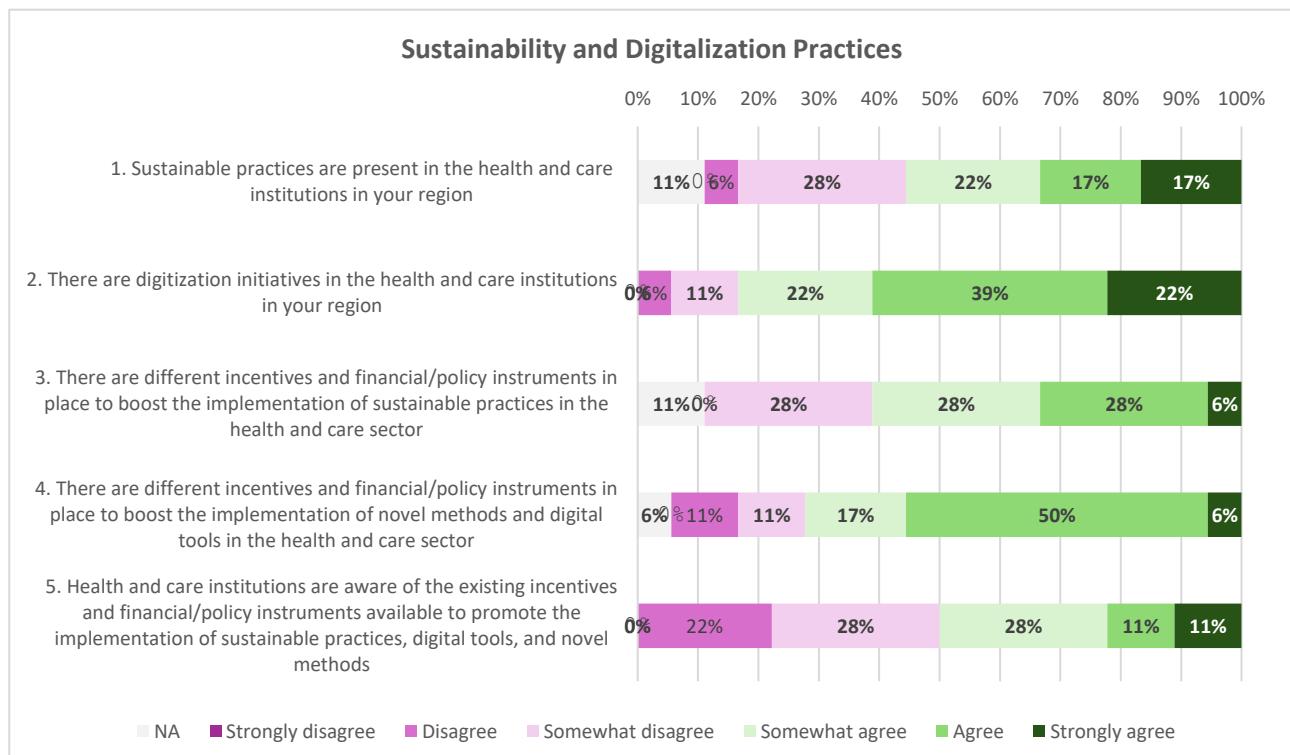


Figure 26 Sustainability and Digitalization Practices - Policymakers (source: Author generated, 2025)



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It can be concluded that across all questions, the level of positive agreement ranges from 50% to 83% of interviewees, who responded with *somewhat agree*, *agree*, or *strongly agree*. **Only 56%** of interviewees believe that **sustainable practices are present in health and care institutions** in their regions. In contrast, a significantly higher number, **83%** of interviewees, agree that **there are digitalization initiatives in health and care institutions** in their regions. Additionally, **61%** of interviewees agree that **there are various incentives and financial or policy instruments** in place to support the implementation of sustainable practices in the health and care sector, while a slightly higher number, **72%** of interviewees, agree that similar **incentives exist to support the implementation of novel methods and digital tools**. Finally, **only 50%** of stakeholders believe that **health and care institutions are aware of the existing incentives and financial or policy instruments** available to promote the implementation of sustainable practices, digital tools, and novel methods.

Based on these findings, there is a strong need for increased awareness and clearer communication about the available initiatives and incentives supporting the implementation of sustainable practices, digital tools, and innovative methods. There should also be a greater emphasis on integrating sustainable practices in health and care institutions, supported by financial and other forms of support.



Associations representing citizens/patients

This section outlines the challenges faced by users of health and care services - patients - through interviews with citizens and patient representative associations, with the aim of understanding broader perspectives on the challenges they face. The challenges faced by patients are largely influenced by the challenges faced by all three other groups, creating system inefficiencies that directly affect the end-user. The main objective is to identify the main challenges faced by patients and to try to understand the cause and link with the challenges faced by other target groups and the impact they have on patients.

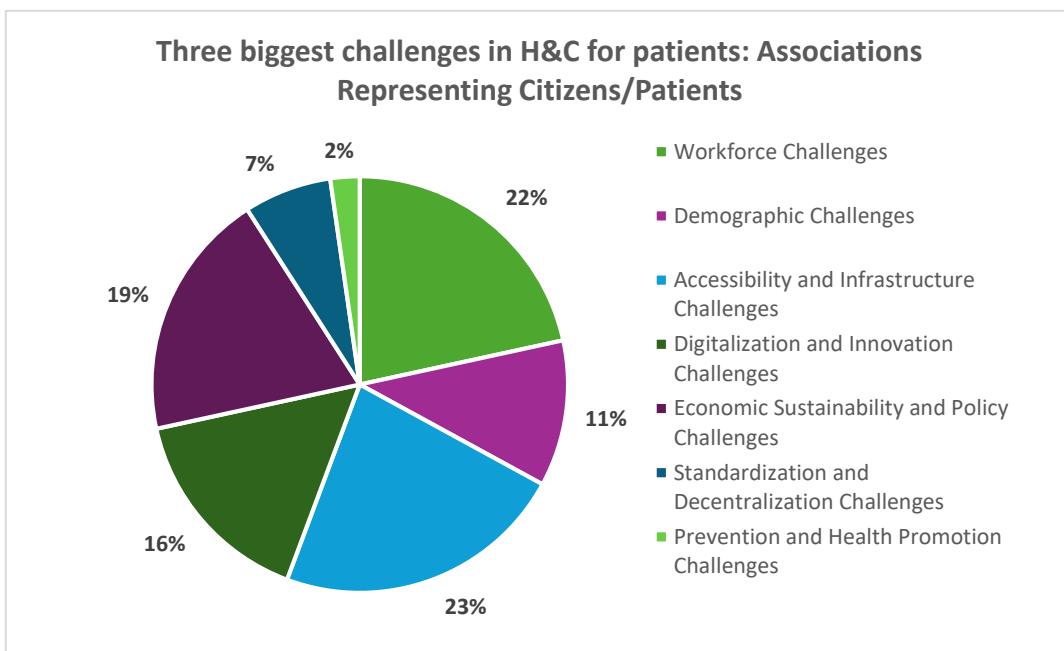


Figure 27 Challenges Citizens/Patients are facing (source: Author generated, 2025)

As showcased in the Figure 27, top three challenges that patients/citizens are facing are accessibility and infrastructure challenges (23%), workforce challenges (22%) and economic sustainability and policy challenges (19%).

It is evident that challenges related to **accessibility and infrastructure** (23%) pose the greatest difficulties for patients and citizens, as they have a direct impact on their ability to receive care. Long waiting times, long travel distances, poor connectivity in rural areas, fewer available services in less populated regions, and gaps in needs-based service delivery—mainly due to a shortage of workforce and general practitioners—make accessing healthcare services more difficult for patients. In addition, personnel shortages and other **workforce challenges** (22%), such as the migration of healthcare workers, an aging workforce, and language barriers with non-native speakers, further hinder service delivery and negatively affect patient care. High workloads and stress among doctors can lead to misdiagnoses or limited time spent with each patient, making doctor-patient relationships feel less personal and friendly. When it comes to **economic and financial sustainability** (19%), patients are directly affected by inequalities in insurance and healthcare coverage. High costs and inadequate coverage make it difficult for certain groups to afford necessary services. Long



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waiting times often push patients to seek private healthcare, increasing out-of-pocket expenses. This issue is further deepened by the growing number of doctors moving into private practice, which makes public systems even more overwhelmed and healthcare services more costly.

Other challenges such as digitalization and innovation, demographic changes, specialization and decentralization, and limited focus on preventive and promotive care impact the entire health and care ecosystem, and indirectly affect patients and citizens.

Demographic shifts (11%) are increasing the demand for healthcare services, putting additional pressure on already overwhelmed systems and making it harder for patients to receive timely and adequate care. Social isolation and growing pressure on families also contribute to financial and emotional burdens. While **digitalization and innovation (16%)** offer potential solutions such as improving elderly care and enhancing access in rural areas with AI and telemedicine, these options are often underused due to high investment costs, system complexity, and varying levels of patient openness to adopting advanced technologies. Furthermore, the shift from generalists to specialists has made it more difficult for patients to access general practitioners.

A lack of **system coordination (7%)** adds to this problem, leaving patients confused and uncertain about where and how to access the right services. Many patients rely on hospitals for primary care, even when their needs are not urgent. This results in long waiting times and unnecessary travel, instead of offering more accessible, community-based healthcare centers.

Finally, there has been limited emphasis on **preventive and promotive health and care (2%)**, highlighting a lack of awareness in this area. Initiatives that aim to shift patient mindsets and behaviors, encouraging regular check-ups and raising awareness about the importance of prevention, can help ease the burden on the healthcare system and lead to better long-term outcomes.

Likert scale – Associations representing citizens/patients

In addition to the top three challenges faced by the key target group, respondents had to answer the closed-ended questions using the Likert scale.

One of the questions focused on accessibility and service provision, aiming to explore various aspects of these challenges with interviewees. Closed-ended questions were used to ensure all relevant factors were considered, especially if they had not been addressed in the open-ended question series by the interviewees. As these questions were answered by the associations representing citizens/patients, a broader systematic framework was provided, as these stakeholders have a holistic view of the challenges facing the health and care system.



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The Figure 28 showcases the interviewees' answers in more detail:

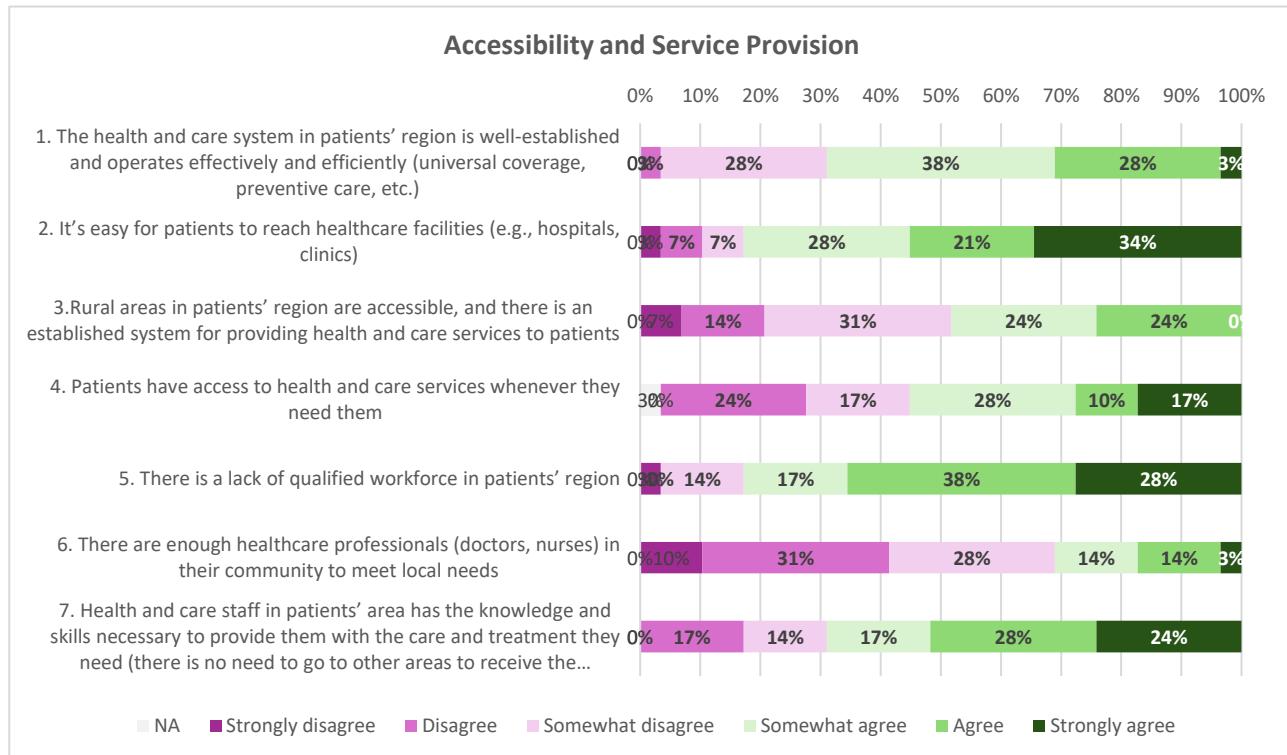


Figure 28 Accessibility and Service Provision - Associations representing citizens/patients (source: Author generated, 2025)

It can be concluded that across all questions, the level of positive agreement—responses of *somewhat agree, agree, or strongly agree*—ranges from 31% to 83% of interviewees. This paints a slightly different picture compared to other target groups, where the majority expressed positive agreement. In this case, however, negative responses were more prevalent.

Regarding the overall perception of the health and care system in the region, **69%** of interviewees believe the **system is well-established and operates effectively** (including universal health coverage, preventive care, etc.), and **83%** believe **it is easy for patients to reach healthcare facilities**. In contrast, only **48%** of interviewees agreed that **rural areas in their regions are accessible and have an established system for providing health and care services**. None of the respondents strongly agreed with this statement, highlighting significant rural-urban disparities in access to healthcare.

Furthermore, **55%** of interviewees agreed that **patients generally have access to healthcare services when needed**, indicating that timely access remains a challenge, with waiting times still present. On top of that, **83%** agreed there is **a lack of qualified healthcare workers** in their region, directly affecting the availability of services for patients.

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Only **31%** of respondents agreed that **there are enough healthcare professionals** in local **communities**, indicating low local service availability and the need for patients to travel to larger centers to receive care. Finally, **69%** agreed that the available **health and care workforce in their regions possesses the knowledge and skills required** to meet patients' needs, suggesting that patients don't have to seek services elsewhere.

Based on these findings, stronger emphasis should be placed on strengthening local health and care services to ensure patients can access basic care within their own communities. Additionally, the significant urban-rural disparities, especially in the availability of healthcare, should be addressed. Tackling these two key issues would enable more timely access to care for all patients and improve service accessibility in rural areas.

Another set of questions aimed at understanding the interviewees' perspective on the digitalization practices implemented in their regions, with the aim of finding out whether patients/citizens are aware of the digital practices implemented in the healthcare facilities they visit. Figure 29 shows the respondents' answers in more detail:

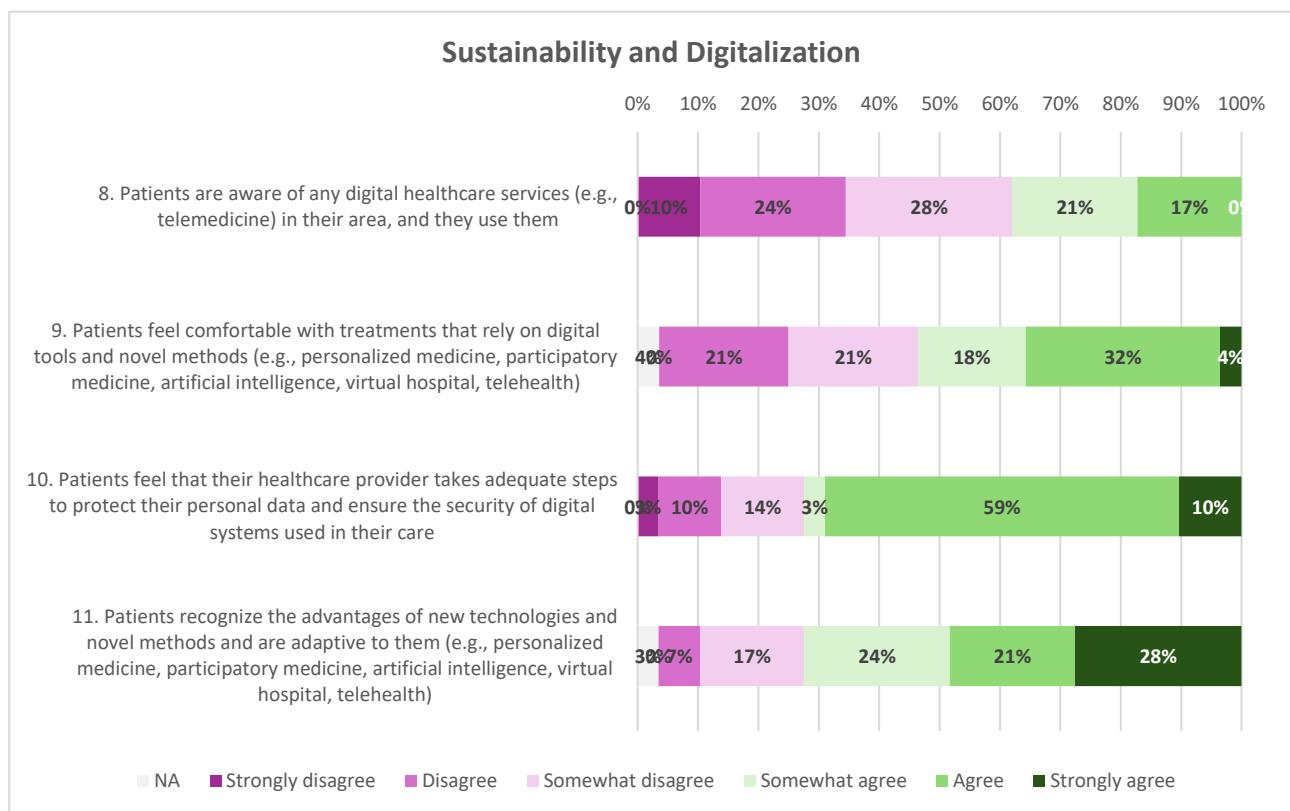


Figure 29 Sustainability and Digitalization Practices - Associations representing citizens/patients (source: Author generated, 2025)



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It can be concluded that across all questions, the level of positive agreement—responses of *somewhat agree, agree, or strongly agree*—ranges from 38% to 72% of interviewees. We can again see a lean towards more negative agreement.

Specifically, only **38%** of interviewees believe that **patients are aware of any digital healthcare services** (e.g., telemedicine) available in their area and actually use them. A slightly higher percentage, **54%**, believe that **patients feel comfortable with treatments that rely on digital tools and novel methods**, such as personalized medicine, participatory medicine, artificial intelligence, virtual hospitals, or telehealth. Additionally, **72%** of interviewees believe that patients feel their healthcare providers take adequate steps to **protect personal data and ensure the security** of digital systems used in their care. Finally, **72%** agree that patients **recognize the advantages of new technologies and novel methods** and are generally open and adaptive to them.

In conclusion, although patients appear open to new technologies and express trust in data protection measures, awareness of available digital healthcare services remains low, and usage is limited. Moreover, a considerable portion of patients may still feel hesitant or uncomfortable using these tools in actual treatment. This suggests a clear need to raise awareness about the availability and benefits of digital healthcare solutions. Technology showcase and initiatives that bring these technologies closer to patients could help build familiarity and increase adoption.



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Comparison per Target Group

It is evident that all target groups face similar challenges, but the effects vary. It is undeniable that these challenges are interlinked, and a holistic approach is needed to effectively address them. The priority and intensity of specific challenges differ depending on the target group. Some challenges have a direct impact on certain groups, while for others the impact is indirect. In some cases, target groups may not even be aware of certain challenges or may perceive them differently.

To better understand how each challenge¹ affects different target groups, a comparison is provided in the table below:

Table 4 Challenge Comparison per Target Group (source: Author generated, 2025)

Ranking	General	H&C Service Providers	H&C Administration Staff	Policymakers	Associations Representing Citizens/Patients
1	WFC (32%)	WFC (41%)	WFC (35%)	WFC (31%)	AIC (23%)
2	AIC (22%)	DIC (15%)	AIC (24%)	AIC (25%)	WFC (22%)
3	DC (17%)	ECSP (13%)	DC (14%)	DIC (17%)	ESPC (19%)
4	DIC (13%)	DC (12%)	DIC (11%)	ESPC (13%)	DC (16%)
5	ESPC (8%)	AIC (10%)	ESPC (9%)	DC (10%)	DC (11%)
6	SDC (4%)	SDC (6%)	PHC (5%)	SDC (2%)	SDC (7%)
7	PHC (4%)	PHC (3%)	SDC (3%)	PHC (1%)	PHC (2%)

¹ Legend: **WFC** – workforce challenges; **DIC** – digitalization and innovation challenges; **DC** – demographic challenges; **AIC** – accessibility and infrastructure challenges; **ESPC** – economic sustainability and policy challenges; **SDC** – standardization and decentralization challenges; **PHC** – prevention and health promotion challenges



4.2.2. National level

This section reflects on the challenges faced by stakeholders interviewed in each country. Since each country has its own practices, laws, regulations, and healthcare system structure, the challenges can vary significantly. Therefore, the challenges identified by stakeholders from each country are first analyzed individually. These findings are then compared with the Alpine Space average to better understand the relative development of each country's healthcare system and to identify key areas for improvement.

Before analyzing the key challenges identified, a basic overview of each country's healthcare system will be provided. This includes information from the OECD Country Health Profiles, offering demographic and socioeconomic context, an overview of the system's effectiveness and accessibility, and a closer look at healthcare system issues such as costs, fragmentation, and the situation regarding healthcare workforce.

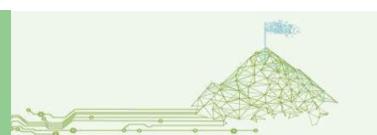
4.2.2.1. Austria

A total of 20 interviews were analysed to gain a better understanding of the challenges facing Austria, particularly in the regions of Lower Austria and Carinthia. These interviews represent the perspectives of different target groups and help identify the main challenges they face.

Before looking at these challenges, it is important to provide a broader context for the Austrian health system, based on the *Country Health Profile* report².

- Austria has a low level of unmet medical needs. Social health insurance coverage is almost universal, with only about 0.1% of the population uninsured.
- In 2019, the burden of mental illness in Austria is estimated to be slightly higher than the EU average. This is driven by a higher prevalence of anxiety, depressive and alcohol and drug-use disorders.
- Inequalities in life expectancy exist not only by gender, but also by socioeconomic status. In 2019, Austrian men aged 30 with the highest level of education could expect to live 5.6 years longer than those with the lowest level of education. For women, the difference is 3.8 years.
- The Austrian health system is structurally and financially fragmented. Governance responsibilities are shared between the federal and provincial governments and corporatist stakeholders.
- Austria continues to spend the largest share of health expenditure - and more than the EU average - on inpatient care (30% of total expenditure in 2021 compared to the EU average of 28%).

² OECD/European Observatory on Health Systems and Policies (2023), *Austria: Country Health Profile 2023*, State of Health in the EU, OECD Publishing, Paris, <https://doi.org/10.1787/0f110d90-en>



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- In 2021, health expenditure per capita (adjusted for purchasing power) reached EUR 4 663, compared to the EU average of EUR 4 028. This was the second highest level in the EU after Germany. Health expenditure accounted for 12.1% of GDP in 2021.
- The density of physicians in Austria is high compared to other countries, although there are significant regional and sectoral differences.
- Out-of-pocket spending is mainly on outpatient medical care, outpatient pharmaceuticals and long-term care.
- The number of medical and nursing graduates in Austria has declined since 2010, although the decline in medical graduates has stabilised in recent years.
- Austria adopted the Health Promotion Strategy in 2014, which was renewed in 2016. This strategy is in line with the "Austrian Health Goals" - the overarching long-term goals of national health policy. It defines strategic objectives for prevention and health promotion, supported by additional funding, including the establishment of prevention funds at the national level.

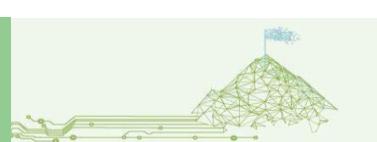
To fully understand the current situation in Austria, it is also important to understand the country's demographic and socioeconomic context. Key factors are presented in the table below.

Table 5 Demographic and Socioeconomic Factors in Austria (source: OECD, 2023, Austria: Country Health Profile 2023, State of Health in the EU)

Demographic factors	Population size	8 978 929
	Share of population over age 65 (%)	19.4
	Fertility rate (2021)	1.5
Socioeconomic factors	GDP per capita (EUR PPP)	44 065
	Relative poverty rate	14.8
	Unemployment rate (%)	4.8

After providing a broader context and understanding of the Austrian health and care system, including its main characteristics, strengths and benefits, the main challenges as perceived by Austrian representatives - including H&C service providers, H&C administration workers, policymakers and associations representing citizens/patients (see Table 3 for more detailed breakdown per TG) - are presented. This section will reflect the perspectives and understandings of key respondents on the current situation of the health and care system. By analyzing the insights of the interviewees, it is possible to see whether their understanding and the challenges they face in their respective regions match the official reports that reflect the situation at national level.

As showcased in the Figure 30, top three challenges that Austrian health and care stakeholders are facing are workforce challenges (32%), accessibility and infrastructure challenges (25%) and demographic challenges (18%).



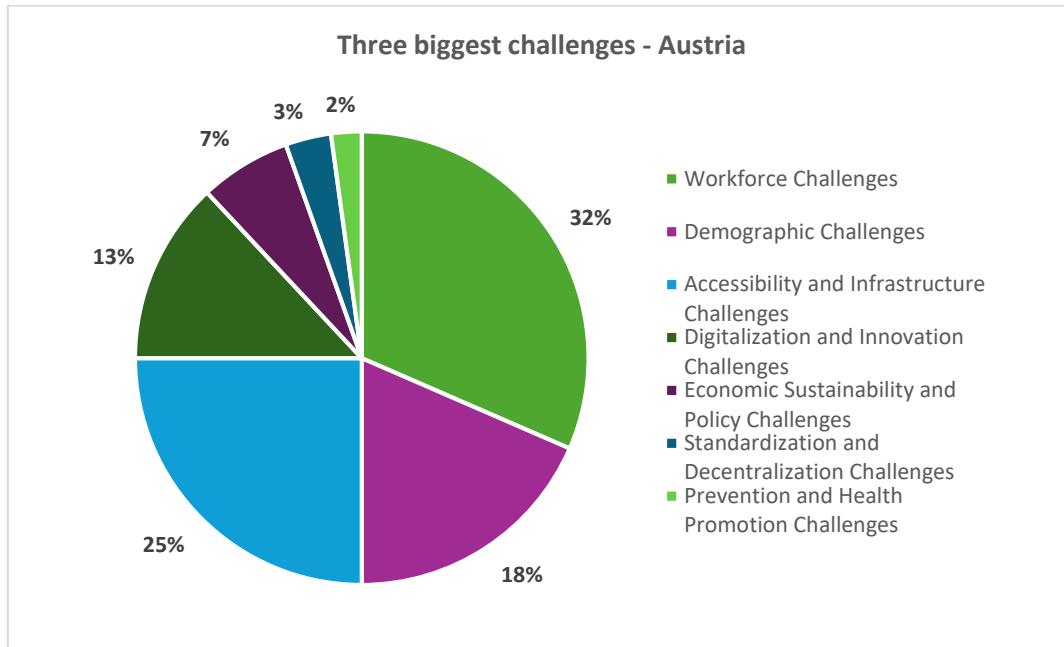


Figure 30 Biggest health and care challenges in Austria (source: Author generated, 2025)

The subcategories of each challenge that have emerged from the analysis are showcased below:

1. **Workforce challenges** - Austria faces significant healthcare workforce challenges, including a shortage of healthcare workers (38%), deepened by retention and recruitment problems (17.2%). Migration of workers (13.8%) and high workload, stress and burnout (10.3%) also contribute to the difficulties. Other factors include dissatisfaction with working conditions (10.3%), a lack of young talent entering the sector (3.4%), limited training opportunities (3.4%) and language barriers with non-native workers (3.4%).
2. **Demographic challenges** - Demographic challenges in Austria are mainly due to an aging population and related health issues (47.1%). This leads to an increased demand for elderly care and geriatric services (23.5%) and increases urban-rural disparities in population distribution (11.8%). Social isolation and family care pressures (11.8%) are also notable, as is the increasing prevalence of chronic and terminal illnesses (5.9%).
3. **Accessibility and infrastructure challenges** - Accessibility to health services is another major issue, with urban-rural disparities in access to health and care (43%) a key concern. Equitable access to services (26%) and long distances and poor transport in remote areas (17%) are also barriers to access. Poor quality of inpatient and outpatient care (9%) and gaps in needs-based service provision (4%) also contribute to access challenges.
4. **Digitalization and innovation challenges** - In the area of digitalisation, resistance to technological advances (42%) is a notable barrier. There are also training gaps for healthcare staff (17%) and challenges in implementing new technologies (17%). A technological mismatch between doctors and patients (8%), concerns about the safety and ethics of advanced technologies (8%), and poor digital infrastructure (8%) are also barriers to progress.



5. **Economic sustainability and policy challenges** - Economic sustainability in healthcare is affected by limited financial resources and financial support (33%), as well as budget deficits and regulatory constraints (33%). High health and care costs and resource shortages (17%) further strain the system, while inequities in insurance and health coverage (17%) contribute to financial and policy challenges.
6. **Specialization and decentralization challenges** - The healthcare system faces challenges in the shift from generalists to highly specialised professionals (33%), and the reliance on hospitals for primary care (33%) contributes to inefficiencies. In addition, the fragmentation of the health and care system (33%) makes it difficult to deliver and coordinate services.
7. **Prevention and health promotion challenges** - Prevention and health promotion are key areas of concern, with significant gaps in health promotion and prevention initiatives (50%) and limited patient education and awareness (50%).

4.2.2.2. Germany

A total of 20 interviews were analysed to gain a better understanding of the challenges facing Germany, particularly in the regions of Bavaria and Baden-Württemberg. These interviews represent the perspectives of different target groups and help identify the main challenges they face.

Before looking at these challenges, it is important to provide a broader context for the German health system, based on the *Country Health Profile* report³:

- Rates of reported unmet needs due to costs, waiting times or travel distance in Germany were among the lowest in the EU in 2022. There was no difference between the lowest and the highest income quintiles, and cost does not appear to be a barrier to receiving care.
- In 2019, 18% of the German population experienced a mental health condition, which is slightly higher than the EU average. Anxiety and depression were the most common mental health issues.
- More elderly people in Germany report having chronic conditions than the EU average.
- Germany has a statutory health insurance (SHI) system, and it is mandatory for people to have health insurance. Although coverage is universal for all legal residents, and only 0.1% of the population do not have health insurance, financial and administrative barriers still lead to some gaps in coverage.
- Germany spent 12.9% of its GDP on health in 2021, which is almost 2 percentage points higher than the EU average (11.0%).
- In 2021, the country devoted EUR 5 159 per capita (adjusted for differences in purchasing power) to health, which is the highest amount among EU countries.

³ OECD/European Observatory on Health Systems and Policies (2023), *Germany: Country Health Profile 2023*, State of Health in the EU, OECD Publishing, Paris, <https://doi.org/10.1787/21dd4679-en>.



- Combined, more than half of total health spending in Germany was on inpatient (26%) and outpatient care (25%) in 2021.
- Compared to the EU average, Germany has a relatively high number of doctors per capita. The density of physicians increased steadily from 3.3 per 1 000 population in 2000 to 4.5 per 1 000 in 2021. On the contrary, there are not enough nurses in the health and care sector.
- At 12% in 2021, out-of-pocket payments in Germany rank among the lowest in the EU. Payments for long-term care and pharmaceuticals account for the majority of out-of-pocket spending.
- The number of medical graduates in Germany is below the EU average.

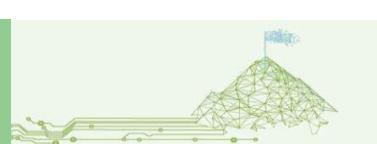
To fully understand the current situation in Germany, it is also important to understand the country's demographic and socioeconomic context. Key factors are presented in the table below.

Table 6 Demographic and Socioeconomic Factors in Germany (source: OECD, 2023, Germany: Country Health Profile 2023, State of Health in the EU)

Demographic factors	Population size	88 237 124
	Share of population over age 65 (%)	22.1
	Fertility rate (2021)	1.6
Socioeconomic factors	GDP per capita (EUR PPP)	41 246
	Relative poverty rate	14.7
	Unemployment rate (%)	3.1

After providing a broader context and understanding of the German health and care system, including its main characteristics, strengths and benefits, the main challenges as perceived by German representatives - including H&C service providers, H&C administration workers, policymakers and associations representing citizens/patients (see Table 3 for more detailed breakdown per TG) - are presented. This section will reflect the perspectives and understandings of key respondents on the current situation of the health and care system. By analyzing the insights of the interviewees, it is possible to see whether their understanding and the challenges they face in their respective regions match the official reports that reflect the situation at national level.

As showcased in the Figure 31, top three challenges that German health and care stakeholders are facing are workforce challenges (39%), accessibility and infrastructure challenges (20%) and digitalization and innovation challenges (15%).



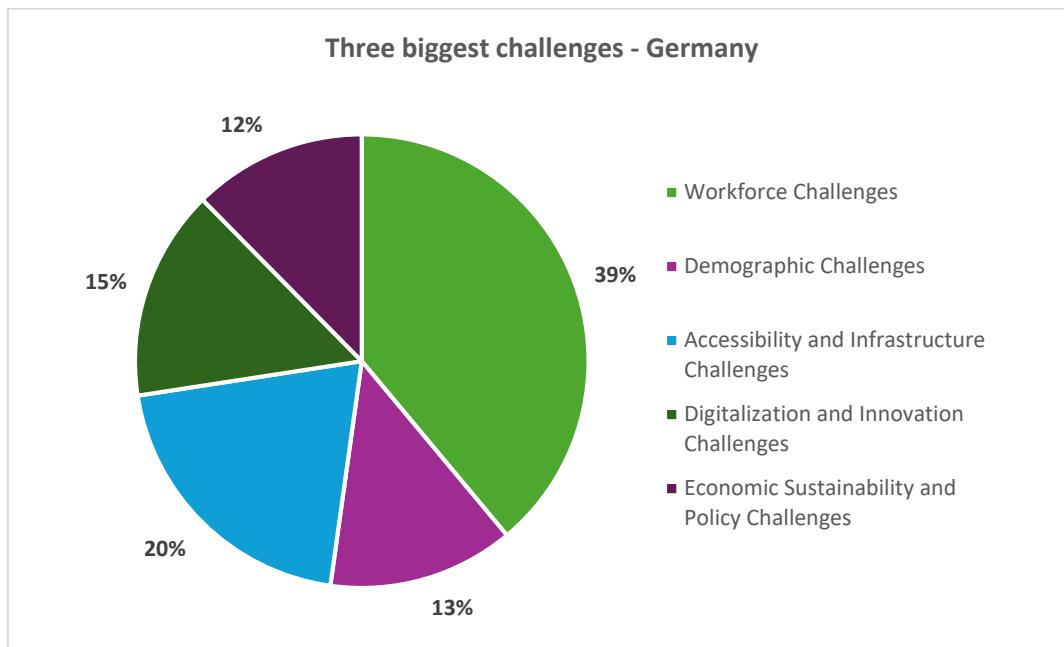


Figure 31 Biggest health and care challenges in Germany (source: Author generated, 2025)

The subcategories of each challenge that have emerged from the analysis are showcased below:

1. **Workforce challenges** - This remains a key issue in Germany, with the biggest concern being the shortage of healthcare professionals (36%). This is followed by retention and recruitment issues (11.4%) and the impact of workload, stress and burnout (11.4%). Dissatisfaction with working conditions (9.1%) and an aging workforce (6.8%) also put pressure on the system. Other challenges include the migration of workers (4.5%), administrative and bureaucratic burdens (4.5%), limited training and education opportunities (4.5%), leadership and motivation issues (4.5%), language barriers with non-native workers (4.5%), and a lack of young talent entering the sector (2.3%).
2. **Accessibility and infrastructure challenges** - Access to health and care services remains uneven, with urban-rural disparities being highlighted by 30% of interviewees. Long distances and poor transport in remote areas (17%), gaps in needs-based service provision (17%) and reduced quality of inpatient and outpatient care (17%) all contribute to accessibility problems. Long waiting times (9%) and equity concerns in access to services (9%) further complicate the delivery of timely and equitable care.
3. **Digitalization and innovation challenges** - Technology implementation challenges are the most commonly mentioned (29%), followed by resistance to technological change and slow adoption (24%). Inadequate digital infrastructure (24%) and training gaps for healthcare staff (18%) hinder the effective use of technology. Ethical and security concerns related to advanced technologies (6%) also remain important considerations.



4. **Demographic challenges** - Increased demand for elderly care and geriatric services emerged as the main concern (60%). Aging population and aging related health issues account for 26.7%, while urban-rural disparities in population distribution contribute an additional 13.3% to the challenge landscape.
5. **Economic sustainability and policy challenges** - Economic and policy issues are significant, with limited financial resources and funding support outlined by 43% of stakeholders. High healthcare costs and resource constraints (29%) put additional pressure on the system. Other concerns include inequities in insurance and healthcare coverage (14%), administrative and political burdens (7%), and the impact of budget deficits and regulatory constraints (7%).

4.2.2.3. Italy

A total of 30 interviews were analysed to gain a better understanding of the challenges facing Italy, particularly in the regions of Trento and Veneto. These interviews represent the perspectives of different target groups and help identify the main challenges they face.

Before looking at these challenges, it is important to provide a broader context for the Italian health system, based on the *Country Health Profile* report⁴.

- In 2022, 1.8 % of Italians reported experiencing unmet needs for medical care – a lower share than the EU average and in line with Italy's rate of unmet medical needs prior to the pandemic. Among individuals in the lowest income quintile, 3.3% reported unmet medical care needs, compared to less than 1% of individuals in the highest quintile.
- About one in six Italians were estimated to have had a mental health disorder in 2019 – a share equal to the EU average. Anxiety disorders were the most common, affecting over 6 % of the population, followed by depressive disorders.
- The proportion of the population aged 65 and older rose from 18 % in 2000 to 23% in 2021 – slightly surpassing the EU average of 21%. This share is projected to increase to 34% by 2050 – one of the highest in the EU.
- A wide range of preventive, primary and community healthcare services is provided through local health authorities, with general practitioners (GPs) acting as gatekeepers to specialist and hospital care. Hospital and specialist ambulatory care are provided by a mix of public and accredited private providers, with significant variation across regions
- In 2021, Italy's health expenditure accounted for 9.4% of GDP, a lower proportion than the EU average of 11%. When measured per capita, Italy's spending on health stood at EUR 2 792 in 2021 – an amount nearly one third lower than the EU average.

⁴ OECD/European Observatory on Health Systems and Policies (2023), *Italy: Country Health Profile 2023*, State of Health in the EU, OECD Publishing, Paris, <https://doi.org/10.1787/633496ec-en>



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- The proportion of health expenditure financed through private sources – of which 90% consisted of out-of-pocket spending by households – fell from 26.3% in 2019 to 24.5% in 2021, but is still higher than the EU average of 18.9%
- In 2021, outpatient care constituted nearly a third of Italy's health expenditure – a marginally higher proportion than both the EU average and inpatient care (29%).
- In 2021, Italy's expenditure on prevention reached an unprecedented 6.8% of total health spending.
- At the national level, general practice stands out as one of the specialties with the most pressing shortages, which are further compounded by the uneven distribution of GPs across regions and the age distribution of Italian GPs, that is highly concentrated in the older age groups.
- The number of medical graduates in Italy is not sufficient to compensate for the large number of doctors approaching retirement.

To fully understand the current situation in Italy, it is also important to understand the country's demographic and socioeconomic context. Key factors are presented in the table below.

Table 7 Demographic and Socioeconomic Factors in Italy (source: OECD, 2023, Italy: Country Health Profile 2023, State of Health in the EU)

Demographic factors	Population size	59 030 133
	Share of population over age 65 (%)	23.8
	Fertility rate (2021)	1.3
Socioeconomic factors	GDP per capita (EUR PPP)	33 688
	Relative poverty rate	20.1
	Unemployment rate (%)	8.1

After providing a broader context and understanding of the Italian health and care system, including its main characteristics, strengths and benefits, the main challenges as perceived by Italian representatives - including H&C service providers, H&C administration workers, policymakers and associations representing citizens/patients (see Table 3 for more detailed breakdown per TG) - are presented. This section will reflect the perspectives and understandings of key respondents on the current situation of the health and care system. By analyzing the insights of the interviewees, it is possible to see whether their understanding and the challenges they face in their respective regions match the official reports that reflect the situation at national level.



As showcased in the Figure 32, top three challenges that Italian health and care stakeholders are facing are workforce challenges (30%), accessibility and infrastructure challenges (23%) and demographic challenges (19%).

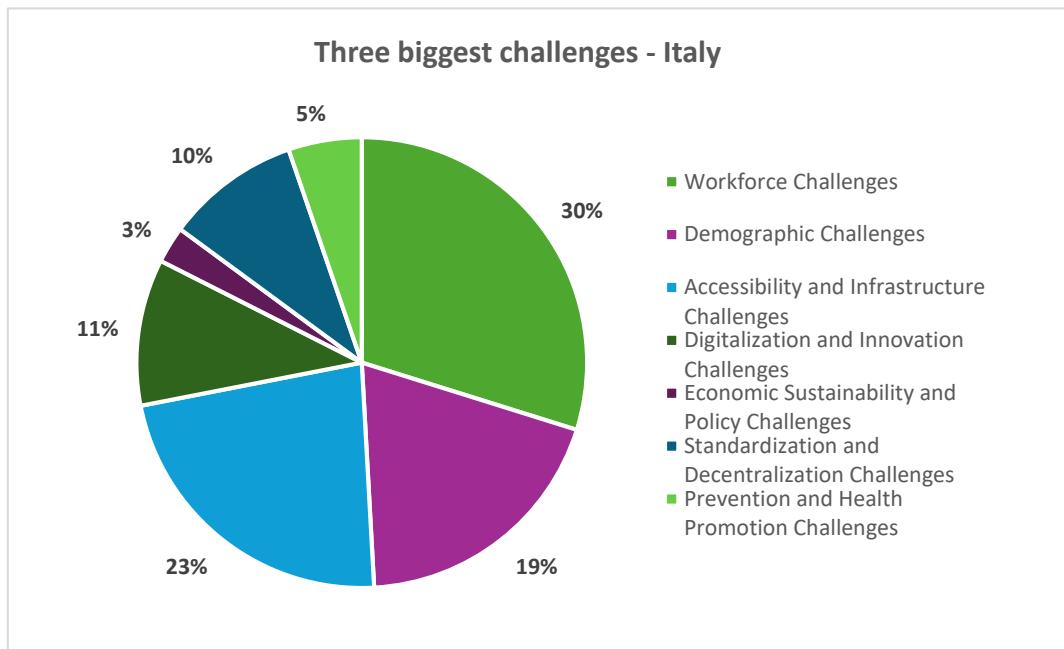


Figure 32 Biggest health and care challenges in Italy (source: Author generated, 2025)

The subcategories of each challenge that have emerged from the analysis are showcased below:

- Workforce challenges** - Workforce-related issues are also present in Italy, with a significant shortage of healthcare personnel (53%) being the biggest problem. Retention and recruitment challenges follow (11.8%), alongside dissatisfaction with working conditions (5.9%), worker migration (5.9%), and administrative and bureaucratic burdens (5.9%). Other concerns include limited training and education opportunities (5.9%), issues with leadership, staff motivation, and incentives (5.9%), as well as high workload, stress, and burnout (2.9%), and an aging workforce (2.9%).
- Accessibility and infrastructure challenges** - Long waiting times (27%) are the most frequently mentioned problem, followed by equity concerns in access to services (23%) and urban-rural disparities in healthcare access (19%). Further challenges include poor coordination between hospitals, care homes, and communities (12%), long distances and limited transport in remote areas (8%), gaps in needs-based service delivery (8%), and reduced quality of inpatient and outpatient care (4%).
- Demographic challenges** - The aging population and associated health issues account for 45.5% of the concerns, with increasing demand for elderly and geriatric care (22.7%) and the prevalence of chronic and terminal illnesses (18.2%) also playing a significant role. Social isolation and the pressure on family caregivers (9.1%) and regional population imbalances (4.5%) further exacerbate the challenge.



4. **Digitalization and innovation challenges** - Italy's healthcare system is undergoing digital transformation, but faces a certain level of resistance, with 50% of stakeholders highlighting issues with technology adoption. Training gaps for healthcare staff (25%) and technology implementation challenges (17%) further hinder progress, followed by a technological mismatch between healthcare professionals and patients (8%).
5. **Specialization and decentralization challenges** - Structural challenges include a strong dependency on hospitals for primary care services (45%) and significant fragmentation within the health and care system (36%). The ongoing shift from generalists to highly specialized professionals (18%) also raises concerns about continuity and accessibility in primary care.
6. **Prevention and health promotion challenges** – Half of the respondents highlighted lack of health promotion and prevention initiatives (50%), while a lack of investment in preventive care (33%) and limited patient education and awareness-raising (17%) pose an additional challenge.
7. **Economic sustainability and policy challenges** – Stakeholders highlighted the impact of administrative and policy burdens (67%), as well as high healthcare costs and persistent resource shortages (33%).

4.2.2.4. France

A total of 10 interviews were analysed to gain a better understanding of the challenges facing France, particularly in the region of Grand Est. These interviews represent the perspectives of different target groups and help identify the main challenges they face.

Before looking at these challenges, it is important to provide a broader context for the French health system, based on the *Country Health Profile* report⁵.

- Mortality from preventable and treatable causes was lower in France than across the EU. However, France lagged behind some EU countries (including Sweden and Italy) on preventable mortality, suggesting that more could be done to save lives by reducing risk factors for cancer and other leading causes of death.
- Access to healthcare is generally good, though shortages of general practitioners in underserved areas hinder access to primary care. Unmet needs are also greater for services that are less covered by public insurance, like dental care, although public coverage for dental care has improved since 2021.
- The burden of mental ill-health is estimated to be slightly higher in France than the EU average. Depression is among the most common mental health issues, and women and people on lower incomes are more likely to report depression.

⁵ OECD/European Observatory on Health Systems and Policies (2023), *France: Country Health Profile 2023*, State of Health in the EU, OECD Publishing, Paris, <https://doi.org/10.1787/07c48f9f-en>



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- More elderly people in France report having chronic conditions than the EU average.
- The French health system is centralized, with some responsibilities devolved to regions.
- Health spending in France accounted for 12.3% of GDP in 2021, which was the second highest share in the EU after Germany and above the EU average of 11.0%.
- In 2021, French health spending per capita was the fifth highest across the EU, at EUR 4 202 (adjusted for differences in purchasing power) compared to the EU average of EUR 4 030.
- Outpatient care (including primary care, specialist and dental care) and inpatient care are the two largest categories of health spending, accounting for 28% and 27% of the total in 2021.
- Spending on prevention increased greatly during the pandemic and accounted for 5.5% of all health expenditure in 2021. It fell in 2022, although it remained above the usual level of about 3% before the pandemic.
- The density of doctors is below the EU average, while the density of nurses is close to average. There are also wide disparities in the density of general practitioners across regions.
- France reports the lowest share of out-of-pocket payments for health among all EU countries (9% compared to a 15% EU average) because most of the population have private health insurance to cover cost sharing imposed by the public scheme.

To fully understand the current situation in France, it is also important to understand the country's demographic and socioeconomic context. Key factors are presented in the table below.

Table 8 Demographic and Socioeconomic Factors in France (source: OECD, 2023, France: Country Health Profile 2023, State of Health in the EU)

Demographic factors	Population size	67 871 925
	Share of population over age 65 (%)	21
	Fertility rate (2021)	1.8
Socioeconomic factors	GDP per capita (EUR PPP)	35 769
	Relative poverty rate	15.6
	Unemployment rate (%)	7.3

After providing a broader context and understanding of the French health and care system, including its main characteristics, strengths and benefits, the main challenges as perceived by French representatives - including H&C service providers, H&C administration workers, policymakers and associations representing citizens/patients (see Table 3 for more detailed breakdown per TG) - are presented. This section will reflect the perspectives and understandings of key respondents on the current situation of the health and care system. By analyzing the insights of the interviewees, it is possible to see whether their understanding and the challenges they face in their respective regions match the official reports that reflect the situation at national level.



As showcased in the Figure 33, top three challenges that French health and care stakeholders are facing are workforce challenges (27%), demographic challenges (19%), and accessibility and infrastructure challenges (16%).

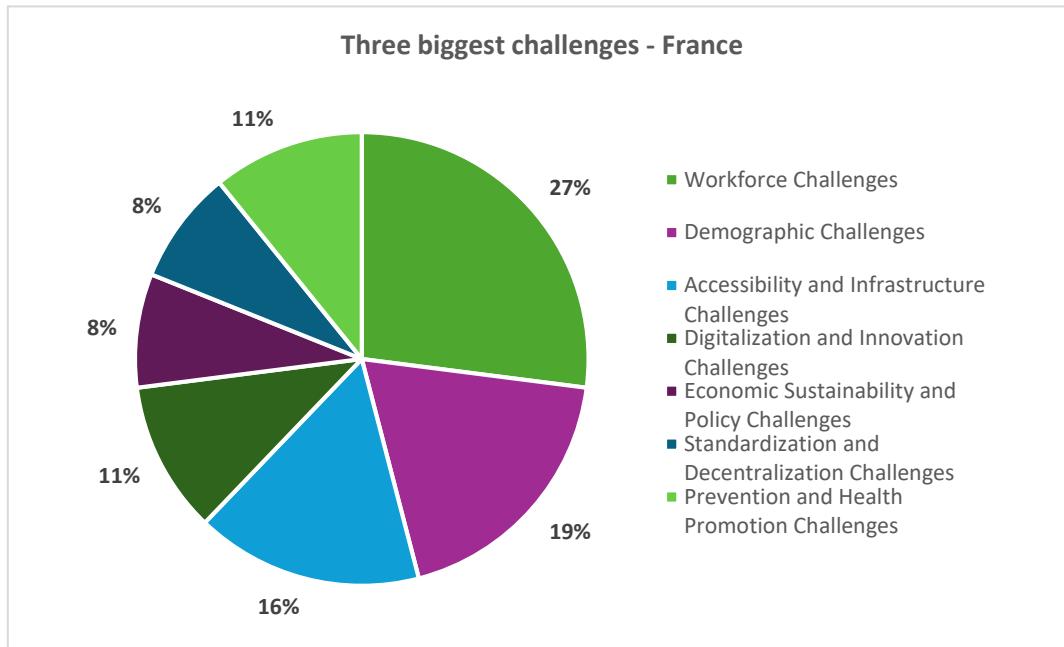


Figure 33 Biggest health and care challenges in France (source: Author generated, 2025)

The subcategories of each challenge that have emerged from the analysis are showcased below:

1. **Workforce challenges** - France's healthcare sector faces persistent workforce issues, primarily around retention and recruitment (30%) and the lack of young talent entering the field (30%). The migration of healthcare workers (20%) and a general shortage of personnel (20%) further burdens the system.
2. **Demographic challenges** - The biggest concern is the increased need for elderly and geriatric care services (57.1%), followed by the broader implications of an aging population and age-related health conditions (28.6%). Additionally, the rising prevalence of chronic and terminal illnesses (14.3%) adds further burden to the health and care system.
3. **Accessibility and infrastructure challenges** - Accessibility challenges are evenly distributed across several key areas: urban-rural disparities in healthcare access (33%), equity concerns in service provision (33%), and long distances coupled with inadequate transportation in remote areas (33%).
4. **Digitalization and innovation challenges** - A significant 75% of the challenges relate to the implementation of new technologies, while concerns over the security and ethical implications of advanced technologies account for the remaining 25%.
5. **Prevention and health promotion challenges** - Half of the concerns (50%) focus on insufficient investment in preventive care, while gaps in health promotion initiatives (25%) and limited patient education and awareness-raising (25%) follow.



6. **Economic sustainability and policy challenges** – Stakeholders highlighted the impact of limited financial resources and funding support (67%), as well as administrative and policy burdens (33%).
7. **Specialization and decentralization challenges** - Fragmentation within the French health and care system emerges as the most significant challenge in this area (67%), alongside an over-reliance on hospitals for the delivery of primary care services (33%).

4.2.2.5. Slovenia

A total of 10 interviews were analysed to gain a better understanding of the challenges facing Slovenia, particularly in the region of Eastern Slovenia. These interviews represent the perspectives of different target groups and help identify the main challenges they face.

Before looking at these challenges, it is important to provide a broader context for the Slovenian health system, based on the *Country Health Profile* report⁶.

- Driven by lung cancer, alcohol-related diseases and COVID-19 deaths, preventable mortality in Slovenia in 2020 was higher than the EU average.
- Reported unmet medical needs decreased to 3.7% in 2022, and the gaps with the EU average (2.2%) and between income groups were reduced compared to the previous two years during the pandemic. Waiting times for specialist care are a key barrier to timely access to care.
- In 2019, 7.9% of Slovenian adults reported having depression. As across the EU, women and individuals on lower incomes report depression more frequently.
- The share of the population in Slovenia aged 65 and over grew from 13.9% in 2000 to 20.2% in 2020, and is projected to increase to 31% by 2050.
- Slovenia's health system is relatively centralized, and statutory employment-based social health insurance (SHI) covers more than 99% of permanent residents.
- Primary care is mainly delivered by municipal community health centers and hospital care mostly by state-owned facilities.
- Health expenditure grew to 9.5% of GDP in 2021, which is lower than the EU average (11.0%). Per capita health expenditure also increased, driven by injections from Slovenia's pandemic response, reaching EUR 2 665 (adjusted for differences in purchasing power) in 2021. Slovenia's health spending is about two thirds of the EU average (EUR 4 028 per capita in 2021).
- Out-of-pocket payments are among the lowest in the EU.

⁶ OECD/European Observatory on Health Systems and Policies (2023), *Slovenia: Country Health Profile 2023*, State of Health in the EU, OECD Publishing, Paris, <https://doi.org/10.1787/0eb17a30-en>



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- Slovenia spent more on outpatient care (33%) than the EU average (29%), while inpatient care spending (27%) was slightly below the EU average (28%). Spending on prevention was 5.3% in 2021, which is on a par with the EU average (6.0%).
- At 3.3 practising doctors per 1 000 population, Slovenia's physician density in 2021 was below the EU average of 4.1 per 1 000.

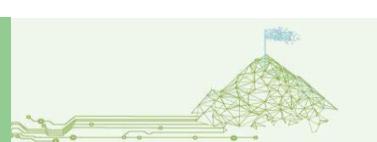
To fully understand the current situation in Slovenia, it is also important to understand the country's demographic and socioeconomic context. Key factors are presented in the table below.

Table 9 Demographic and Socioeconomic Factors in Slovenia (source: OECD, 2023, Slovenia: Country Health Profile 2023, State of Health in the EU)

Demographic factors	Population size	2 107 180
	Share of population over age 65 (%)	21.1
	Fertility rate (2021)	1.6
Socioeconomic factors	GDP per capita (EUR PPP)	32 546
	Relative poverty rate	12.1
	Unemployment rate (%)	4

After providing a broader context and understanding of the Slovenian health and care system, including its main characteristics, strengths and benefits, the main challenges as perceived by Slovenian representatives - including H&C service providers, H&C administration workers, policymakers and associations representing citizens/patients (see Table 3 for more detailed breakdown per TG) - are presented. This section will reflect the perspectives and understandings of key respondents on the current situation of the health and care system. By analyzing the insights of the interviewees, it is possible to see whether their understanding and the challenges they face in their respective regions match the official reports that reflect the situation at national level.

As showcased in the Figure 34, top three challenges that Slovenian health and care stakeholders are facing are workforce challenges (33%), digitalization and innovation challenges (29%), and accessibility and infrastructure challenges (13%).



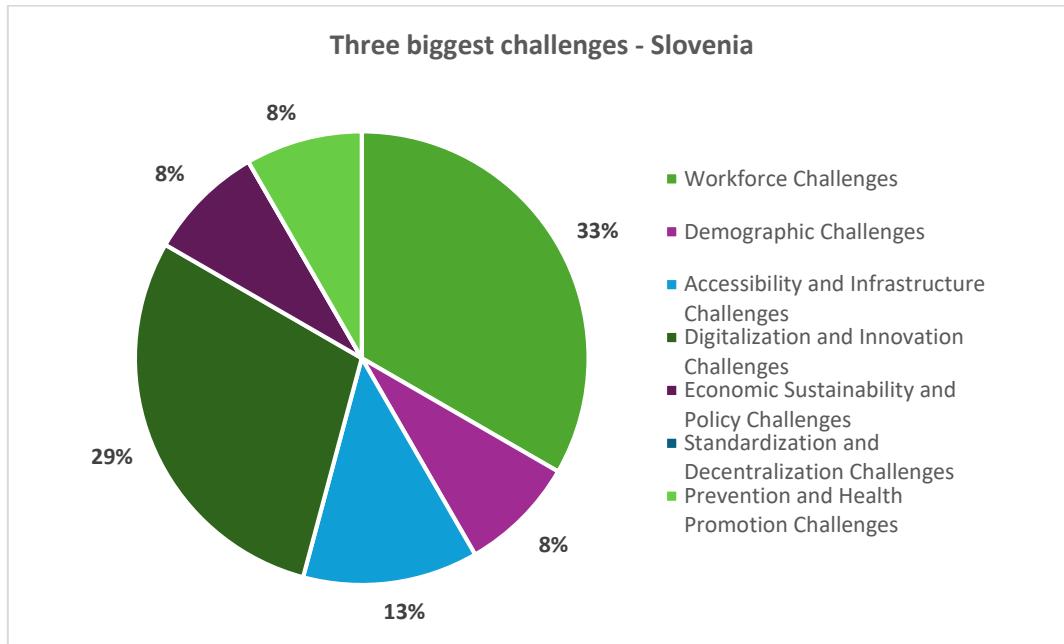


Figure 34 Biggest challenges in Slovenia (source: Author generated, 2025)

The subcategories of each challenge that have emerged from the analysis are showcased below:

1. **Workforce challenges** - Slovenia's healthcare system is heavily affected by workforce-related issues, with a significant 63% of stakeholders pointing to a shortage of healthcare personnel. High levels of stress, burnout, and workload (12.5%) further strain the system, while administrative and bureaucratic burdens (25%) reduce efficiency and morale among professionals.
2. **Digitalization and Innovation Challenges** – Technology implementation challenges (100%) remain a notable barrier in Slovenia. Barriers in adopting digital tools and integrating innovative solutions hinder progress toward a more efficient and digitalized healthcare system.
3. **Accessibility and Infrastructure Challenges** – Long waiting times (100%) stand out as a key issue in Slovenia, reflecting systemic inefficiencies and limited capacity to meet growing healthcare demands in a timely manner.
4. **Demographic Challenges** – Slovenia is facing growing demographic pressure, particularly with the increased demand for elderly care and geriatric services (100%).
5. **Economic Sustainability and Policy Challenges** – Stakeholders highlight limited funding and support (50%), as well as ongoing budget deficits and regulatory obstacles (50%), which complicate long-term planning and reform efforts.
6. **Prevention and Health Promotion Challenges** – There are persistent gaps in health prevention and promotion initiatives (100%) in Slovenia, highlighting the necessity for putting more emphasis on this field.



4.2.2.6. Switzerland

A total of 11 interviews were analysed to gain a better understanding of the challenges facing Switzerland, particularly in the Central and Northern Switzerland areas. These interviews represent the perspectives of different target groups and help identify the main challenges they face.

Before examining these challenges, it is important to provide a broader context for the Swiss health system, based on *Health at a Glance 2023 – OECD Indicators*⁷ and *World Health Organization Health Statistics*⁸:

- Unmet medical needs are generally low. The proportion of the population reporting unmet medical needs has remained stable and is significantly lower than the OECD average.
- Switzerland experiences a relatively low prevalence of mental health issues when compared to the OECD average. However, mental health concerns, such as depression and anxiety, are still present in the country.
- Life expectancy disparities exist across different income groups, with those in the highest income brackets generally experiencing longer lifespans. There is a measurable gap in life expectancy, with higher-income individuals living several years longer than those with lower incomes.
- Health system is characterized by a combination of private and public elements. The system is predominantly decentralized, with health services provided by private providers and managed through a combination of federal and cantonal governance.
- In 2021, Switzerland's health expenditure reached 11.5% of GDP, which is slightly above the OECD average. Per capita health spending (adjusted for purchasing power) was among the highest in the OECD, reflecting the high cost of healthcare services in the country. The expenditure breakdown shows that Switzerland allocates a significant share of its healthcare spending to inpatient care and long-term care services.
- Switzerland has a relatively high density of healthcare professionals. There are approximately 4.4 practicing doctors per 1,000 population, which is above the OECD average of 3.7 per 1,000 population.
- Out-of-pocket spending in Switzerland is higher than the OECD average, making up about 22% of total health expenditure. The primary out-of-pocket expenditures are for outpatient care, pharmaceuticals, and long-term care services, reflecting the country's system of mandatory health insurance combined with private sector involvement in service provision.

To fully understand the current situation in Switzerland, it is also important to understand the country's demographic and socioeconomic context. Key factors are presented in the table below.

⁷ OECD (2023), *Health at a Glance 2023: OECD Indicators*, OECD Publishing, Paris, <https://doi.org/10.1787/7a7afb35-en>.

⁸ World Health Organization. (2024). *Health statistics: Switzerland*. <https://data.who.int/countries/756>



Table 10 Demographic and Socioeconomic Factors in Switzerland (source: WHO, 2024, Health statistics: Switzerland)

Demographic factors	Population size	8 870 561
	Share of population over age 65 (%)	21.6
	Fertility rate (2021)	1.5
Socioeconomic factors	GDP per capita (EUR PPP)	77 870 ⁹
	Relative poverty rate	8.2
	Unemployment rate (%)	4.3

After providing a broader context and understanding of the Swiss health and care system, including its main characteristics, strengths and benefits, the main challenges as perceived by Swiss representatives - including H&C service providers, H&C administration workers, policymakers and associations representing citizens/patients (see Table 3 for more detailed breakdown per TG) - are presented. This section will reflect the perspectives and understandings of key respondents on the current situation of the health and care system. By analyzing the insights of the interviewees, it is possible to see whether their understanding and the challenges they face in their respective regions match the official reports that reflect the situation at national level.

As showcased in the Figure 35, top three challenges that Swiss health and care stakeholders are facing are accessibility and infrastructure challenges (29%), demographic challenges (24%), and workforce challenges (21%).

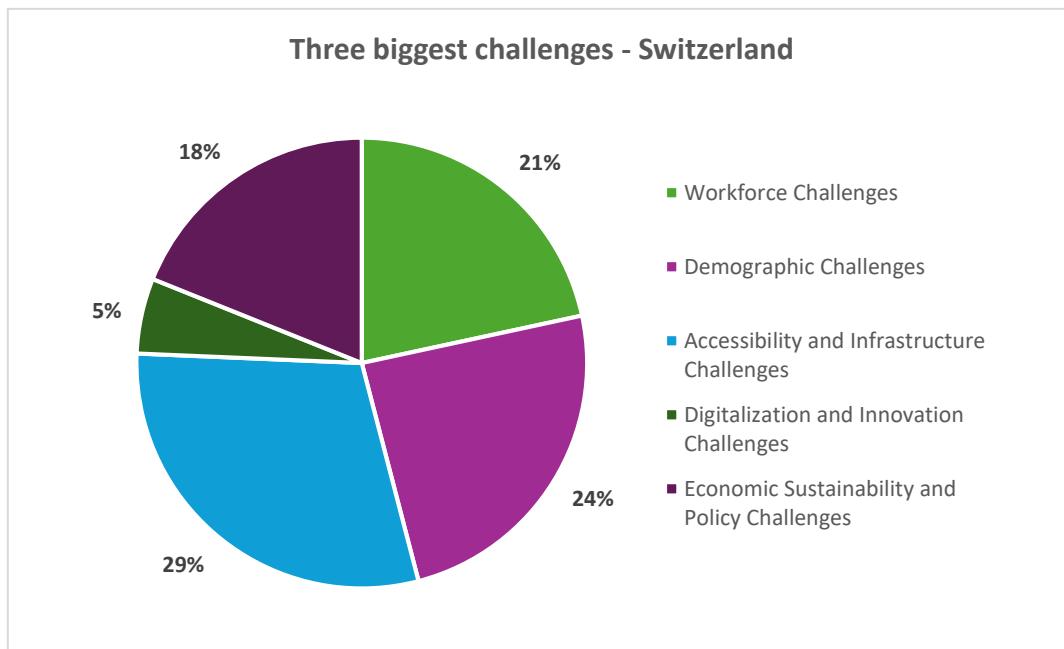


Figure 35 Biggest health and care challenges in Switzerland (source: Author generated, 2025)

⁹ World Bank. (2024). GDP (current US\$). World Bank Data. <https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?locations=CH>



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The subcategories of each challenge that have emerged from the analysis are showcased below:

1. **Accessibility and infrastructure challenges** - Switzerland faces a range of accessibility issues spread fairly evenly across several areas. Urban-rural disparities in health and care access (18%), long distances and poor transportation in remote regions (18%), and gaps in needs-based service delivery (18%) are among the highest. Additionally, concerns include reduced quality of inpatient and outpatient care (18%), long waiting times (18%), and equity in access to services (9%).
2. **Demographic challenges** - The aging population and rising age-related health issues (44%) are the most significant concern, followed by social isolation and the growing burden on family caregivers (33%). Chronic and terminal illnesses (11%) and increasing demand for elderly and geriatric services (11%) put additional pressure on the healthcare system.
3. **Workforce challenges** – These challenges affect Switzerland, with shortage of healthcare personnel (63%) being the biggest issue. Other concerns include challenges in retaining and recruiting staff (12.5%), administrative and bureaucratic burdens (12.5%), and a lack of young professionals entering the field (12%).
4. **Economic sustainability and policy challenges** - Financial and policy-related challenges are significant in Switzerland, with limited funding and financial resources making up 57% of concerns. Inequities in insurance coverage and access to healthcare (29%) and administrative and policy burdens (14%) reflect the broader structural challenges within the system.
5. **Digitalization and innovation challenges** - Half of the concerns relate to the implementation of technology, while the other half point to security and ethical considerations around advanced technologies.



4.2.2.7. Comparison of challenges per country

Based on various demographic and socioeconomic factors, as well as differences in health and care systems, governance models, and other elements, stakeholders from different countries face distinct challenges. To better understand these differences, a transnational ranking of challenges¹⁰ will be provided, summarizing the issues faced by all 101 stakeholders interviewed. This will be followed by an overview of the average sociodemographic and economic factors in Europe. Subsequently, a detailed overview of the challenges specific to each country, along with the relevant demographic and socioeconomic factors, will be presented, providing a basis for comparison.

Table 11 Comparison of challenges per country (source: Author generated, 2025)

Ranking	General (EU)	Italy	Germany	Austria	France	Slovenia	Switzerland
Population size	446 735 291	59 030 133	88 237 124	8 978 929	67 871 925	2 107 180	8 870 561
Share of population over age 65 (%)	21.1	23.8	22.1	19.4	21	21.1	21.6
Fertility rate (2021)	1.5	1.3	1.6	1.5	1.8	1.6	1.5
GDP per capita (EUR PPP)	35 219	33 688	41 246	44 065	35 769	32 546	77 870
Relative poverty rate	16.5	20.1	14.7	14.8	15.6	12.1	8.2
Unemployment rate (%)	6.2	8.1	3.1	4.8	7.3	4	4.3
1	WFC (32%)	WFC (30%)	WFC (39%)	WFC (32%)	WFC (27%)	WFC (33%)	AIC (29%)
2	AIC (22%)	AIC (23%)	AIC (20%)	AIC (25%)	DC (19%)	DIC (29%)	DC (24%)
3	DC (17%)	DC (19%)	DIC (15%)	DC (18%)	AIC (16%)	AIC (13%)	WFC (21%)
4	DIC (13%)	DIC (11%)	DC (13%)	DIC (13%)	DIC (11%)	PHC (8%)	ESPC (18%)
5	ESPC (8%)	SDC (10%)	ESPC (12%)	ESPC (7%)	PHC (11%)	DC (8%)	DIC (5%)
6	SDC (4%)	PHC (5%)	PHC (1%)	SDC (3%)	SDC (8%)	ESPC (8%)	SDC (0%)
7	PHC (4%)	ESPC (3%)	SDC (0%)	PHC (2%)	ESPC (8%)	SDC (0%)	PHC (0%)

¹⁰ Legend: **WFC** – workforce challenges; **DIC** – digitalization and innovation challenges; **DC** – demographic challenges; **AIC** – accessibility and infrastructure challenges; **ESPC** – economic sustainability and policy challenges; **SDC** – standardization and decentralization challenges; **PHC** – prevention and health promotion challenges



4.3. Discussion

This section lays the groundwork for understanding the challenges at both transnational and national levels, as well as explaining their impact on each target group. This analysis also serves as a basis for identifying the H&C OUTCOMES—known as the thematic objectives of the project.

After presenting the main challenges affecting stakeholders at the transnational level, certain interconnections were identified. It became evident that some challenges influence each other within the same category, while others have cross-category impacts. These challenges can be triggered by the system, by health and care institutions, or by the workers themselves—indicating that they have different causes. Regarding the impact on target groups, it was observed that challenges can have either a direct or indirect effect on each group.

To illustrate the interconnections between different challenges, a figure has been developed. It explores the causes of each challenge, who is affected, and how.

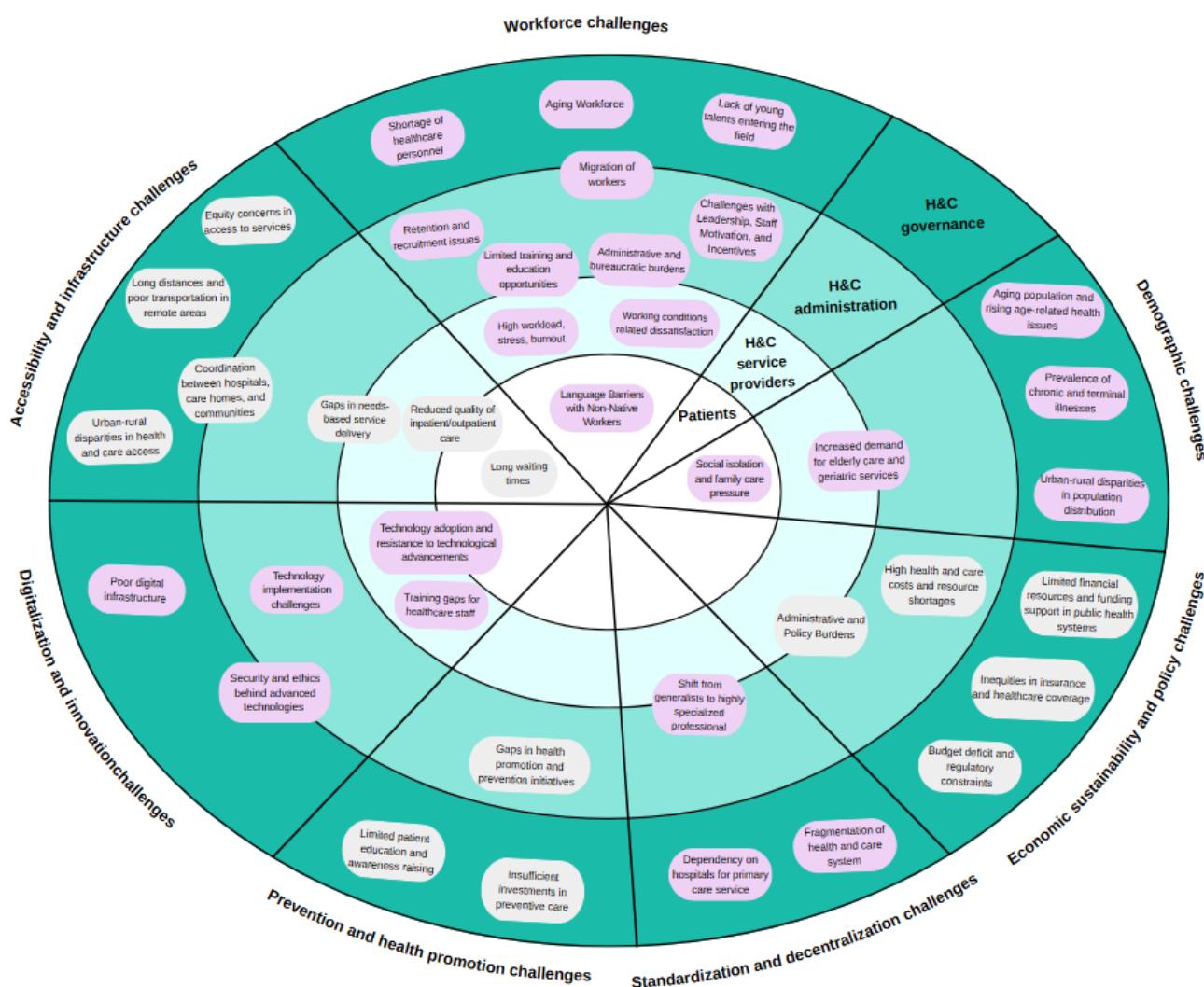


Figure 36 The overview of the health and care challenges (source: Author generated, 2025)

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The figure above showcases all key challenges identified through the analysis of transnational results. It illustrates challenge categories and subcategories, highlighting their impact and the level at which they occur—whether in H&C governance, H&C administration, H&C service providers, or patients.

Each challenge directly impacts or originates from the level at which it is shown, indicating that it may come from systemic inefficiencies and barriers. These systemic issues then cascade down, causing problems at lower levels and indirectly affecting every other level in the process.

Workforce Challenges

Challenges such as workforce shortages, an aging workforce and a lack of young talent entering the sector are consequences of the overall functioning of the health and care ecosystem. They are deepened by the absence of effective incentive policies and strategic plans to address them. As such, these issues need to be addressed at the systemic (governance) level. These fundamental challenges lead to others, such as workforce migration, leadership difficulties, low motivation, and recruitment and retention challenges, which are mainly at the management and administrative level of healthcare institutions. These, in turn, have a direct impact on staff through increased stress, workload and burnout. Ultimately, patients are also directly affected, particularly through weakened doctor-patient relationships and language barriers resulting from the migration of workers. This illustrates how workforce shortages indirectly affect patients, directly affect hospitals and service providers, and need to be addressed jointly at both H&C governance and administrative levels.

Impact on other challenges: Workforce shortages also contribute to challenges in accessibility and infrastructure. For example, reduced staff levels impact negatively on service quality and cause longer waiting times for patients. A lack of specialists in certain locations results in service delivery gaps and unmet healthcare needs.

Accessibility and Infrastructure Challenges

Similar to workforce issues, accessibility and infrastructure challenges are often systemic in nature. These include urban-rural disparities in access to health care, long travel distances, poor transport in remote areas, and equity concerns in accessing services. Addressing these issues requires coordinated policies, investments and incentives to close the gap and ensure equitable access for all. In addition, coordination between hospitals, nursing homes and communities remains weak due to an underdeveloped system. This leads to an over-reliance on hospitals for care that could otherwise be provided in outpatient settings, putting further burden on facilities and doctors. In some areas, the lack of coordination also leads to gaps in the service provision, with certain specialists not available in certain regions or facilities. As a result, the quality of services declines and patients face longer waiting times.



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Impact on other challenges: These challenges further contribute to the digitalization and innovation challenges due to the poor infrastructure where sometimes the basic requirements for the technology implementation and innovative systems are not met. Additionally, due to the rural-urban disparities, it is more difficult for people from these areas to access certain services, especially elderly, which is increasing social isolation. This also contributes to the fact that young people are moving from rural areas to urban centers, worsening the problem with social isolation, but also impacting the workforce shortages in rural areas.

Demographic Challenges

Challenges such as an aging population, the prevalence of chronic and terminal illnesses, and urban-rural disparities in population distribution are impacting the entire ecosystem. These factors further create an increased demand for elderly and geriatric services, which, combined, puts additional pressure on hospitals and care centers, as well as healthcare service providers. This pressure comes from the increasing demand for services while workforce shortages remain. Finally, due to the migration of the population from rural to urban areas and the low connectivity of rural areas, social isolation is becoming a more significant problem, directly impacting patients and worsening their access to health and care services. Additionally, greater pressure is placed on family caregivers.

Impact on other challenges: These challenges further contribute to workforce challenges as the increasing demand for health and care services places a higher workload on healthcare service providers, potentially leading to burnout and increased stress.

Digitalization and Innovation Challenges

Starting with poor digital infrastructure, a challenge originating at a higher level due to the need for significant investments and infrastructural changes, alongside the security and ethical considerations surrounding advanced technologies (which may arise from a lack of laws and regulations or insufficient instructions and guidance), the implementation of technology becomes challenging at the level of individual health and care institutions. Additionally, implementation is hindered by a lack of training for health and care staff, making it more difficult to adopt advanced technological solutions. This directly impacts the healthcare workforce as they struggle to use advanced technologies due to a lack of practice or initial resistance. Furthermore, concerning patients, a lack of awareness and digital literacy means certain groups are less receptive to using advanced technologies in their treatments.

Impact on other challenges: This significantly impacts the full ecosystem, causing further problems. Due to a lack of digitalization initiatives and the implementation of technological solutions, healthcare workers face administrative and bureaucratic burdens that consume a significant amount of their time, time that could be spent providing services. Advanced technologies can also improve service delivery, reduce errors, and reduce the workload of healthcare workers. Additionally, advanced technologies and innovative solutions can help reduce urban-rural disparities by using tools such as AI and telemedicine, making it easier for patients to receive the help they need.



Economic Sustainability and Policy Challenges

Challenges such as limited financial resources and funding support, inequalities in insurance and healthcare coverage, and budget deficits and regulatory constraints influence the entire health and care system, creating barriers to further progress and problem-solving. Due to the increased demand for health and care services combined with limited financial resources, the costs of health and care are rising, and resources are becoming increasingly scarce. This creates problems for health and care administrators who must find a balance between healthcare costs and the quality and availability of services. Additionally, administrative and bureaucratic burdens directly impact both health and care administrators and service providers, consuming significant time from their daily work.

Impact on other challenges: Economic aspects impact all other categories, as financial resources are needed to improve access to services, enable proper infrastructure for implementing advanced technologies, create better working conditions and incentives for workers, and ensure equal access to health and care services for patients, reducing out-of-pocket spending due to inequalities in healthcare coverage. Additionally, limited financial resources lead to a lack of prevention initiatives, which could be beneficial in addressing the rising demand for health and care services.

Standardization and Decentralization Challenges

These challenges significantly impact the entire ecosystem and are mainly related to health and care governance, indirectly affecting all stakeholder groups. Fragmentation of the health and care system leads to a lack of coordination between different institutions, duplicated efforts, and gaps in care continuity. Additionally, the dependency on hospitals for primary care due to a lack of focus on outpatient care further burdens the system. The shift from generalists to specialists also contributes to this problem, causing a shortage of general practitioners and limited access to basic care.

Impact on other challenges: As these challenges are primarily systemic, they further trigger other issues. For instance, due to the lack of general practitioners and focus on specializations, as well as insufficient outpatient care, patients seek help in hospitals even when their situation may not be an emergency. This causes long waiting times as the system is overwhelmed and there is a workforce shortage, increasing the workload of available doctors. Due to long waiting times, access to services is reduced, and some patients turn to private practitioners, increasing out-of-pocket healthcare spending. Furthermore, the fragmentation of the healthcare system makes it difficult for patients to know where to seek appropriate services, hindering service delivery.

Prevention and Health Promotion Challenges

These challenges are also mainly triggered at the ecosystem level due to insufficient investments in preventive care and an overall limited focus on education and awareness regarding this topic. Due to these systemic barriers, there are also gaps in health promotion and prevention initiatives within individual health and care institutions, as they lack the appropriate resources and incentives to implement these actions. This further contributes to low patient awareness, leading individuals to



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seek health and care services only when necessary, instead of focusing on regular checkups and prevention rather than treatment.

Impact on other challenges: Low awareness and a lack of initiatives result in low patient responsiveness and infrequent checkups, which would otherwise reduce the burden on the system. Due to the lack of prevention and health promotion efforts, patients seek health and care services only when needed, further burdening the system and increasing the workload of doctors and general waiting times.

At the national level, it is clear that different socioeconomic, demographic and other factors significantly influence the challenges facing health systems. The specific nature of these challenges varies considerably according to the structure of the health system in a country, the extent to which the population is fully insured, the sectors requiring out-of-pocket expenditure, the proportion of the budget allocated to health, and the strategies and plans implemented to address issues such as workforce shortages, urban-rural disparities, system fragmentation or the emphasis on local provision of health services.

It's evident that workforce challenges, demographic shifts, and accessibility and infrastructure challenges are significant concerns for stakeholders from all six countries. When it comes to other factors, they vary, and this can be brought into relation with the aforementioned factors.

Summarizing the key findings, it can be concluded that effectively addressing the majority of healthcare challenges requires a multi-level approach, as certain issues appear at different levels of the system. First, the system level - H&C governance - should be a primary focus of intervention. This involves creating a supportive environment through appropriate financing mechanisms, strategic incentives, effective inter-institutional coordination and collaboration. Such governance should aim to ensure the availability of quality health and care services at the local level through a range of enabling initiatives. This basic level of support will then enable individual H&C institutions and other operational levels to address challenges specific to their context, whether through the adoption of new technologies, the implementation of innovative systems, or the efforts to reduce costs through sustainability practices and resource conservation.



5. Health and Care OUTCOMES Refinement

This section outlines the process for specifying three pre-defined H&C OUTCOMES in the application form: **advancing green and e-hospitals, boosting customized technology transfer, and improving system-level service provision**. These three OUTCOMES represent the thematic objectives of the project and are closely related to three project APPROACHES (CAREavan, STEMlab, and PolicyParley). The illustration below showcases these connections:

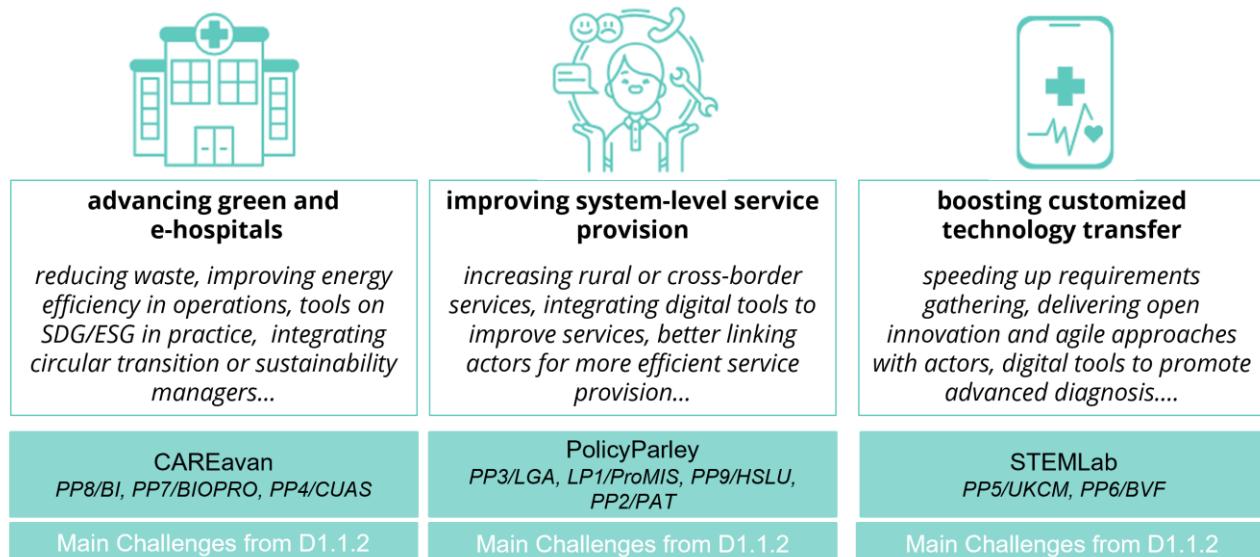


Figure 37 The link between H&C Challenges, H&C OUTCOMES and three project APPROACHES (source: Project generated, 2025)

As showcased above, each H&C OUTCOME corresponds to one of the APPROACHES and is directly linked to the H&C challenges identified in the H&C ecosystem analysis (see Section 4.2). The further specification of these three OUTCOMES represents potential pathways or goals for addressing the main challenges faced by key stakeholders in the H&C sector.

Prior to the H&C OUTCOMES specifying process, an analysis of transnational H&C challenges was conducted, and a framework for the PPs co-creation session in Klagenfurt was developed.

The process of specifying H&C OUTCOMES was carried out in four steps:

1. **Identifying the main H&C challenges** in the AS region through 90+ interviews with key stakeholders in the healthcare sector.
2. **Co-creation session in Klagenfurt** – Specifying H&C OUTCOMES at the transnational/AS level by Project Partners.
3. **Focus Group Workshop** – Validating H&C OUTCOMES with regional stakeholders.
4. **Summarizing the findings** and delivering the final version of the H&C OUTCOMES.



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The process is showcased in the illustration below:

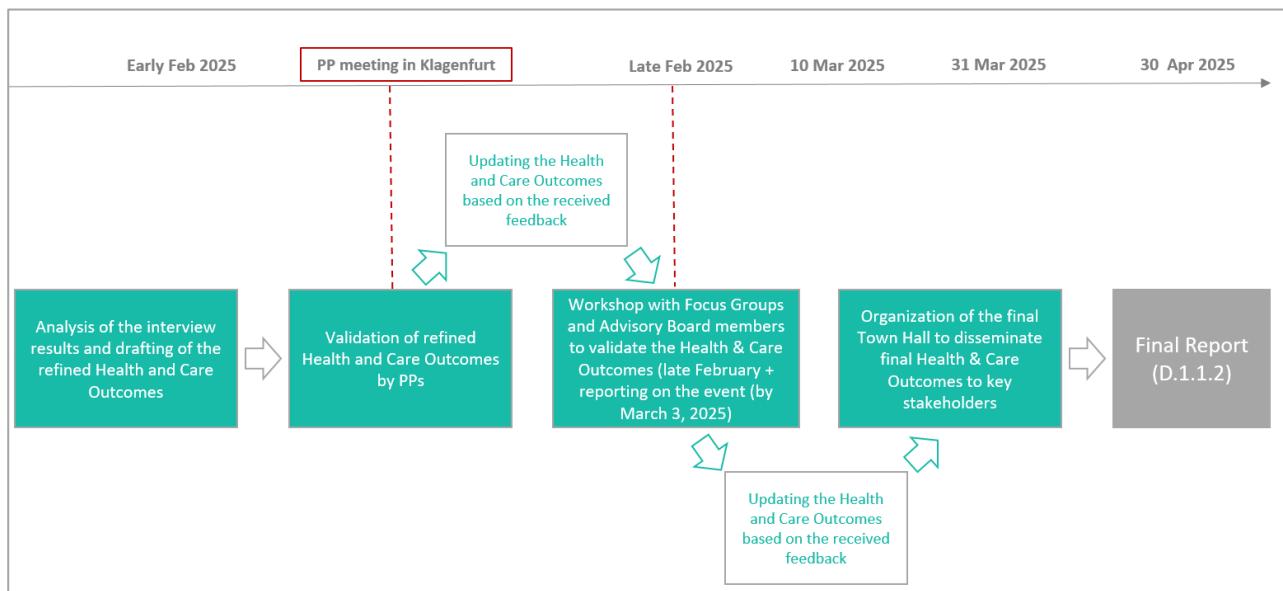


Figure 38 H&C OUTCOMES validation process (source: Project generated, 2024)

The timeline and responsibilities for completing this task were as follows:

Table 12 Timeline for refining the H&C OUTCOMES and organizing 9 Focus Group workshops (source: Project generated, 2024)

Task to achieve	Deadline	Responsibility
Analysis of the interview results and drafting of the refined Health and Care Outcomes	Early February 2025	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs
Validation of refined Health and Care Outcomes by PPs	PPs Meeting in Klagenfurt	R: All PPs; A: PP3/NÖ LGA
Updating the Health and Care Outcomes based on the received feedback	20 February 2025	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs
Workshop with Focus Groups and Advisory Board members to validate the Health & Care Outcomes	Late February 2025	R: All PPs; A: PP3/NÖ LGA
Reporting on the workshop with Focus Groups and AB members	3 March 2025	R: All PPs; A: PP3/NÖ LGA
Updating the Health and Care Outcomes based on the received feedback	10 March 2025	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs
Organization of the final Town Hall to disseminate final Health & Care Outcomes to key stakeholders	31 March 2025	R: All PPs; A: PP3/NÖ LGA

5.1. Co-creation Session in Klagenfurt

The main aim during the co-creation session in Klagenfurt was to specify the three already predefined H&C OUTCOMES (advancing green and e-hospitals, boosting customized technology transfer, improving system-level service provision) and ensure that these subcategories address the main challenges identified during the H&C ecosystem analysis (Section 4.2). PP3/NÖ LGA created the structure for the co-creation session in Klagenfurt, setting the baseline for guiding the PPs towards final solutions.

PPs worked together to better define the H&C OUTCOMES, in line with the main AS challenges identified. PPs were split into groups based on the APPROACH they wanted to work on (as the H&C OUTCOMES are also connected to the project's three APPROACHES, as showcased in Figure 37). Three groups were formed in total. Each group was assigned one OUTCOME and was tasked with highlighting the challenges (either those identified in the analysis or based on their own experience with their interviewees) that were relevant to the specific H&C OUTCOME they were working on. After listing all the challenges, PPs were tasked with identifying the potential solutions related to the specific H&C OUTCOMES. PPs had to repeat this action for all three OUTCOMES, ensuring that each group provided their feedback and built on other groups' suggestions.

This exercise allowed for a clear distinction between the H&C challenges and the H&C OUTCOMES, ensuring that the H&C OUTCOMES' subcategories address the identified H&C AS challenges and are relevant for each APPROACH (STEMlab, CAREavan, and PolicyParley).

The co-creation session results were digitized, and PPs had the option to add additional suggestions. The final results are showcased in the image below:

Advancing green and e-hospitals	Boosting customized technology transfer	Improving-system level service provision
Challenges <ul style="list-style-type: none"> Lack of young talents entering the field Retention and recruitment issues Gaps in health promotion initiatives Implementation challenges to new technological systems Limited training and education opportunities Training gaps for H&C staff Limited financial and human resources Poor digital infrastructure, especially in rural areas Regulatory compliance 	Challenges <ul style="list-style-type: none"> Resistance to tech advancements Limited training and education opportunities High workload, stress, burnout, aging population Resistance to training, motivation, shortage of time Limited financial and human resources System interoperability Equity concerns in access to services 	Challenges <ul style="list-style-type: none"> High health and care costs and resource shortages Fragmentation of H&C Training gaps for H&C staff Resistance to technology advancements Retention and recruitment issues Aging population Social isolation and family care pressure
Solutions <ul style="list-style-type: none"> Micro-credentials More sustainability > marketing tools Marketing and promotion -> increase willingness Increase com' + national/EU funding + work on workflow Rising awareness > management, staff, patients Get digital and green Role models, certificates in sustainability, make sustainability visible 	Solutions <ul style="list-style-type: none"> Improve acceptance, engagement, use experienced stakeholders Funding or financial suitable solutions Promotion in interesting way Presenting PoC to policymakers 	Solutions <ul style="list-style-type: none"> Harmonize digital tools Encourage participatory processes Education for seniors Aggregated data Policymaking based on data-driven decision Visualisation of processes Volunteer-work based -> point of facilitation Education and demo on the road

Picture 1 Results of the co-creation session in Klagenfurt (source: Author generated, 2025)

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After reviewing the inputs from PPs, PP3/NÖ LGA summarized the findings and attempted to create the framework for the three H&C OUTCOMES, based on the transnational challenges identified, the challenges outlined by PPs, and PPs' potential solutions. They created the draft version of the H&C OUTCOMES, which was ready to be presented during the 9 Focus Group Workshops (1/PP).

5.2. First Draft of the H&C OUTCOMES

Based on the key inputs from PPs during the co-creation session in Klagenfurt, the analysis of H&C challenges, and desk research on existing and available frameworks, PP3/NÖ LGA developed a draft version of the H&C OUTCOMES.

It is also important to mention that all three H&C OUTCOMES are interlinked and dependent on each other. For example:

- To achieve green and e-hospitals, certain technologies are necessary to contribute to resource optimization and savings, and certain regulations and standards must be followed;
- When discussing advanced technologies, different regulations and laws must be adhered to, as well as systematic changes and infrastructure development to enable the realization of advanced technologies.
- When it comes to improving system-level service provision, optimizing processes in hospitals, improving sustainable practices, training staff, raising awareness, and using advanced technologies should also be considered.

Thus, the three H&C OUTCOMES address all of the challenges identified, but from different perspectives. That's why, while developing the H&C OUTCOMES, all challenges were considered for each of the three OUTCOMES.

5.2.1. Advancing Green and E-hospitals

The subcategories for the H&C OUTCOME "advancing green and e-hospitals" were developed based on the key inputs from the PPs during the co-creation session in Klagenfurt and the framework developed in the paper *Best Practices That Healthcare Leaders Can Embrace to Create Sustainable Hospitals*.¹¹

¹¹ Digby, G., Saavedra Bravo, M. A., Helal, M., Al Obeidli, M., Pinto Ramalho de Oliveira, S., & Jain, U. (2023). *Best practices that healthcare leaders can embrace to create sustainable hospitals* (YEL2023).



The main challenges identified by PPs during the co-creation session in Klagenfurt were:

Table 13 Relevant inputs for H&C OUTCOMES development - Advancing green and e-hospitals (source: Project generated, 2025)

Challenges identified by PPs	Solutions identified by PPs
<ul style="list-style-type: none"> lack of young talents entering the field; limited training and education opportunities; retention and recruitment issues; limited financial resources and funding support; gaps in health promotion initiatives; implementation challenges to new technological systems; poor digital infrastructure, especially in rural areas; regulatory compliance. 	<ul style="list-style-type: none"> micro-credentials; rising awareness -> management, staff, patients; more sustainability -> marketing tools; marketing and promotion -> increase willingness; role models, and certificates in sustainability, make sustainability visible; increase communication + national/EU funding + work on workflow.
Additional relevant challenges	
<ul style="list-style-type: none"> high health and care costs and resource shortages; lack of staff encouragement for participation in the implementation of sustainable practices for H&C staff; lack of sustainable practices and a sustainable strategy in H&C institutions; high workload, stress, burnout. 	

Following the co-creation session in Klagenfurt, the subcategories for the H&C OUTCOME “advancing green and e-hospitals” are defined as follows:

1. Support the healthcare workforce to embrace sustainable practices

- Education** – Micro-credentials, educational materials, and courses.
- Training** – Programs on sustainable and circular practices and their impact.
- Participatory decision-making** – Involving the healthcare workforce in ideation and decision-making processes for implementing sustainability and sustainable practices.

2. Establish an organizational culture of sustainable healthcare

- Sustainability strategy** – Develop a sustainability strategy and set KPIs within the facility or integrate sustainable practices into an existing strategy.
- Integration into business practices** – Clearly communicate the strategy to the healthcare workforce and embed it into daily operations.
- Sustainability reporting** – Establish a system for sustainability reporting and monitor progress toward defined KPIs.
- Sustainability officer** – Appoint a sustainability officer to oversee the implementation of sustainable practices and lead this transition.



- **Learning organization** – Create a system that adapts and evolves based on innovation and new approaches.

3. Embrace technology and innovation that supports environmental sustainability

- **Technology adoption** – Implement digital tools and methods to optimize resources, measure the impact of sustainable practices, and save energy and costs.
- **Training** – Train employees to effectively use these tools and methods.

4. Regulations, incentives and policies

- **Regulatory compliance** – Adhere to sustainability regulations and stay informed about new policies and regulatory developments.
- **Sustainability standards & certifications** – Follow sustainability certificates, regulations, and guidelines that help hospitals adopt sustainable practices.
- **Communication & funding** – Raise awareness of procurement processes, leverage national/EU funding opportunities, and enhance communication with policymakers to address key needs.

5. Enhance patient awareness on sustainability practices

- **Awareness campaigns** – Use various tools, platforms, and channels to inform patients and the public about sustainability efforts and practices.
- **Educational materials** – Provide patients with resources to increase their understanding of the impact of sustainable practices.

6. Maximize efficiency and implement sustainable practices

- **Resource efficiency**: Optimize resource usage within the organization, such as energy, water, and waste, to minimize environmental impacts.
- **Green supply chain**: Work with suppliers to promote sustainable sourcing, ethical labor practices, and environmentally responsible production methods.
- **Use of natural materials**: Replace synthetic or non-sustainable materials (where possible) with eco-friendly, renewable resources to reduce environmental impact.
- **Climate change**: Implement measures that contribute to reducing CO₂ emissions and minimizing the negative impact on the environment.



5.2.2. Boosting customized technology transfer

The subcategories for the H&C OUTCOME “boosting customized technology transfer” were developed based on the key inputs from the PPs during the co-creation session in Klagenfurt and the desk research.

The main challenges identified by PPs during the co-creation session in Klagenfurt were:

*Table 14 Relevant inputs for H&C OUTCOMES development - Boosting customized technology transfer
(source: Project generated, 2025)*

Challenges identified by PPs	Solutions identified by PPs
<ul style="list-style-type: none"> • limited training and education opportunities; • resistance to tech advancements; • limited financial resources and funding support; • high workload, stress, burnout; • aging population and rising age-related health issues; • resistance to training, motivation, shortage of time. 	<ul style="list-style-type: none"> • improve acceptance, engagement, use experienced stakeholders; • funding or financial suitable solutions; • promotion in interesting way; • presenting PoC to policymakers.
Additional relevant challenges	
<ul style="list-style-type: none"> • high health and care costs and resource shortages; • security and ethics behind advanced technologies; • poor digital infrastructure; • technological mismatch between doctors and patients; • technology implementation challenges; • administrative and policy challenges; • patients don't fully recognize the advantages of digital tools and novel methods and are not fully adaptive to them. 	

Following the co-creation session in Klagenfurt, the subcategories for the H&C OUTCOME “boosting customized technology transfer” are defined as follows:

1. Education and acceptance of healthcare workers

- **Raise awareness:** Educate healthcare workers on digital tools, methods, and their applications in healthcare, highlighting the positive impact these innovations can bring.
- **Training:** Equip healthcare workers with essential knowledge and hands-on experience through training sessions and technology showcases, covering not only tool usage but also data security and ethical considerations.
- **Participatory decision-making:** Engage workers in the decision-making process, fostering their involvement in brainstorming and implementing new digital tools and methods, while creating an open space for them to contribute ideas and innovative solutions to everyday challenges.



2. Raising awareness and promoting patient acceptance

- **Raise awareness:** Educate patients about digital tools, methods, and advanced technological solutions that assist in healthcare.
- **Improve acceptance and engagement:** Involve patients in various courses, technology showcases, and demonstrations to highlight the applications and benefits of advanced technologies. Use a citizen science approach to engage patients in ideation and idea generation on how to leverage new technologies to address healthcare challenges and gaps.
- **Educate patients:** Teach patients how to use digital tools that can support them within the healthcare system, while also raising awareness of measures to ensure data security and protection.

3. Funding and infrastructural resources

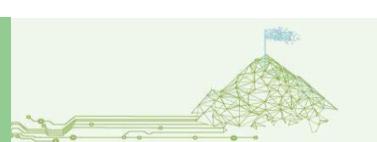
- **Leverage initiatives, funding opportunities, and programs:** Utilize available resources to finance the implementation and testing of new technologies in healthcare.
- **Resources and Infrastructure:** Highlight the infrastructural and other resources required to enable the successful implementation of digital tools and advanced technologies.

4. Adherence to regulations and ethics

- **Regulation compliance:** Comply with regulations and standards necessary for the usage and implementation of advanced technologies, ensuring data security.
- **Create a data protection framework:** Develop a framework to ensure data protection and raise awareness among all stakeholders about additional steps that can be taken to enhance security.
- **Adhere to ethical standards:** Follow ethical standards in the application of advanced technologies.

5. Collaboration, research and innovation

- **Enhance cross-sectoral collaboration:** Foster collaboration across different sectors to enable the testing and implementation of advanced technologies in healthcare.
- **Strengthen sector partnerships:** Improve collaboration between various health and care stakeholders to exchange knowledge on new technological approaches.
- **International collaboration:** Establish a network to learn from other regions and countries facilitating the transfer of technology and the implementation of innovative practices.



5.2.3. Improving system-level service provision

The subcategories for the H&C OUTCOME “improving system-level service provision” were developed based on the key inputs from the PPs during the co-creation session in Klagenfurt and the framework developed in the paper *Trust transformation: Transforming health service delivery – What can policy-makers do to drive change?*¹²

The main challenges identified by PPs during the co-creation session in Klagenfurt were:

Table 15 Relevant inputs for H&C OUTCOMES development – Improving system-level service provision
(source: Project generated, 2025)

Challenges identified by PPs	Solutions identified by PPs
<ul style="list-style-type: none"> high health and care costs and resource shortages; high workload, stress, burnout; urban-rural disparities in H&C access; fragmentation of H&C; equity concerns in access to services; implementation challenges to new technological systems; limited training and education opportunities; limited financial and human resources; staff retention and recruitment issues; resistance to technology advancements; poor digital infrastructure, especially in rural areas; aging population and rising age-related health issues; social isolation and family care pressure; dependency on hospitals for primary service care. 	<ul style="list-style-type: none"> harmonize digital tools; better interoperable tools such as applications for staff and patients; encourage participatory processes; policymaking based on data-driven decision; visualisation of processes; education for seniors; volunteer-work based → point of facilitation; education and demo on the road; aggregated data.
Additional relevant challenges	
<ul style="list-style-type: none"> administrative and policy challenges; gaps in needs-based service delivery; long waiting times; long distances and poor transportation in remote areas; insufficient investment in preventive care; gaps in health promotion and prevention initiatives. 	

Following the co-creation session in Klagenfurt, the subcategories for the H&C OUTCOME “improving system-level service provision” are defined as follows:

¹² Panteli, D., Mauer, N., Winkelmann, J., & Fahy, N. (Year). *Trust transformation: Transforming health service delivery – What can policy-makers do to drive change?* (Policy Brief No. 58).



1. Building strategic governance framework for improved service provision

- **Data-driven decision-making:** Focus on addressing the real needs and challenges to ensure better service delivery and effectively tackle healthcare issues.
- **Flexibility and agility:** Adapt the governance framework to meet evolving needs, responding to real-time demands and adjusting measures and incentives to align with the ecosystem's requirements.
- **Clear leadership:** Lead by setting clear goals, fostering a culture open to change, and aligning governance mechanisms to achieve shared commitments. The responsibilities of all stakeholders within the governance framework are clearly defined and aligned.
- **Appropriate regulations and incentives:** Advocate for relevant regulations and incentives to facilitate the required changes and improve overall conditions.

2. Top-down and bottom-up approach

- **Top-down approach:** Ensures decisions are effectively communicated and reach key stakeholders.
- **Bottom-up approach:** Leverages the knowledge and input of various stakeholders, ensuring a holistic perspective on improving system-level service delivery.

3. Advocating for the necessary resources and incentives to drive the change

- **Sufficient funding:** Address real needs by providing measures such as incentives, financial support, and resources to drive innovation and tackle challenges at local, regional, and national levels.
- **Multi-professional and intersectoral workforce planning:** Ensure the right staff and skill mix are placed in the right roles.
- **Nurture organizational and clinical leadership:** Support training opportunities and empower frontline staff by providing opportunities for skill development and the space to implement changes on the ground.
- **Support necessary technical infrastructures:** Invest in systems such as health information systems.
- **Enhance interoperability:** Promote better interoperable tools, including applications for both staff and patients.
- **Foster the availability of robust information:** Ensure communication of good practices and progress on transformation goals.



**4. Multi-stakeholder collaboration and participative decision-making**

- **Citizen science:** Engage citizens in ideation and problem-solving to address their challenges, while encouraging their participation in identifying the best ways to tackle health and care issues.
- **Co-creation and collaboration:** Facilitate collaboration between diverse stakeholders through activities such as webinars, meetings, and open dialogue spaces for idea exchange and developing potential solutions.
- **Cross-sectoral collaboration:** Foster cooperation among stakeholders from various sectors—particularly policymakers, researchers, healthcare providers, and the general public—to gain a holistic view of the challenges faced by different target groups in service delivery, and unite efforts to overcome these barriers with innovative solutions.
- **Knowledge transfer and learning:** Learn from other regions, systems, and countries, adopting innovative practices and solutions to address challenges effectively.

5. Awareness raising and education initiatives

- **Encourage participatory processes:** Incentivize and motivate stakeholders to engage in participatory decision-making, contributing to the improvement of healthcare service provision.
- **Public education:** Educate the general public about initiatives and events that can help create a better health and care system.
- **Education and demonstrations on the go:** Offer educational sessions and demonstrations through mobile or on-site initiatives to reach a wider audience.
- **Volunteer-based facilitation:** Use volunteer work as a point of facilitation to engage the community and enhance participation.

The draft version of the H&C OUTCOMES was delivered to PPs together with the presentation of the H&C Challenges. Following this, each PP was tasked with organizing a Focus Group workshop to discuss these OUTCOMES with regional stakeholders and validate their relevance for their regional ecosystems.



5.3. Focus Group Workshop

This section reflects on the Focus Group workshops organized by the PPs and the main feedback received on the H&C OUTCOMES.

The main aim of the workshop was to gather a total of 5–8 stakeholders, consisting of the AB members of each PP and interviewees, representatives of Health and Care Service Providers, Health and Care Administration Staff, Policymakers, and Associations representing citizens and patients interested in following up on the results of the H&C ecosystem analysis. The key findings from the H&C ecosystem analysis and the drafted H&C OUTCOMES were presented to them, engaging them in a discussion to validate the H&C OUTCOMES and their relevance for each specific region.

PPs were tasked with organizing the Focus Group workshop **between February 14th and 28th, 2025**. Following this, each PP was required to submit a report (Annex 4) on their workshop and deliver key takeaways relevant for updating the H&C OUTCOMES by March 3rd.

In total, seven partners have organized and submitted their reports on the Focus Group workshop according to the planned timeline, and based on their inputs, the H&C OUTCOMES have been refined. In order to allow all the key stakeholders of the project to participate both to the Focus Group and to the second Town Hall, PP2/PAT and PP9/HSLU decided to join the two events. For this reason, the results of the PP2/PAT and PP9/HSLU Focus Group Workshop were not included in the H&C OUTCOMES refinement, as they were not available at the time.

PPs inputs from their individual reports have been gathered in one Excel sheet, analyzed and presented in the following categories:

1. General information about the event – number of stakeholders reached, event format, and goals of the event
2. General feedback from key stakeholders regarding H&C OUTCOMES

Based on this feedback, the H&C OUTCOMES are updated to ensure relevance at both the national and regional levels and guide the partners delivering their pilots actions.



5.3.1. General information about the event

This section provides an overview of the stakeholders involved, the event format, and the main objectives of the PPs.

The primary requirement was for each PP to organize a Focus Group workshop, engaging 5–8 stakeholders. These stakeholders included some interviewees from the H&C ecosystem analysis and their AB members.

All PPs met these requirements. The figure below illustrates the number of stakeholders engaged per PP.

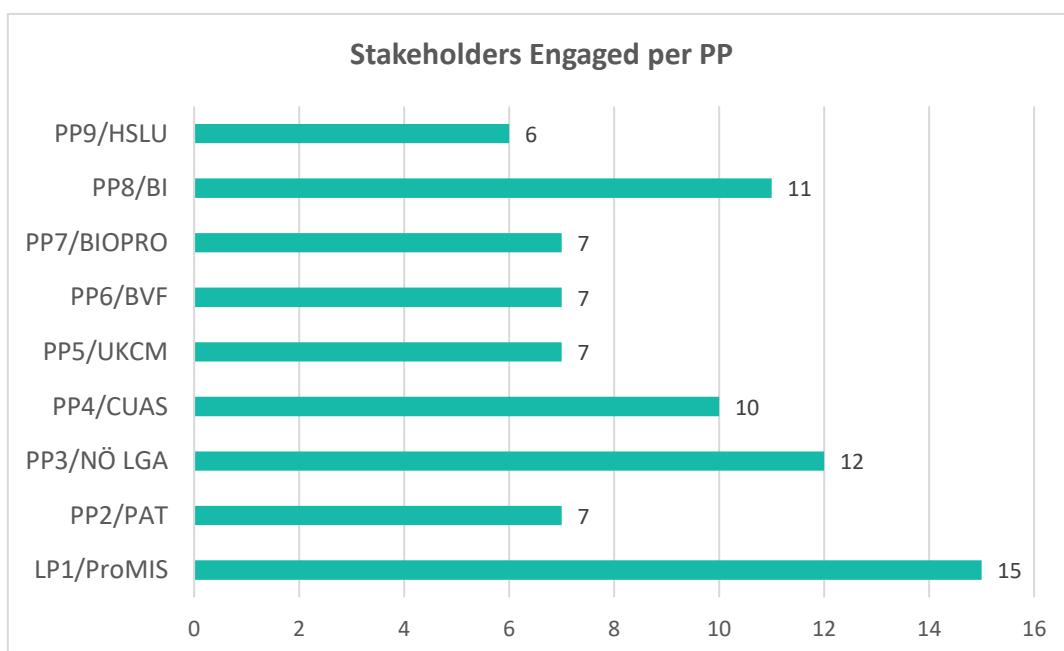


Figure 39 Stakeholders engaged per PP (source: Author generated, 2025)

In total, **82 stakeholders** from 9 different regions representing 6 countries - Austria, Slovenia, Italy, France, Switzerland and Germany - were involved in 6 focus group workshops. Figure 39 above shows the number of participants engaged by each PP in their region.



The figure below shows the target groups involved:

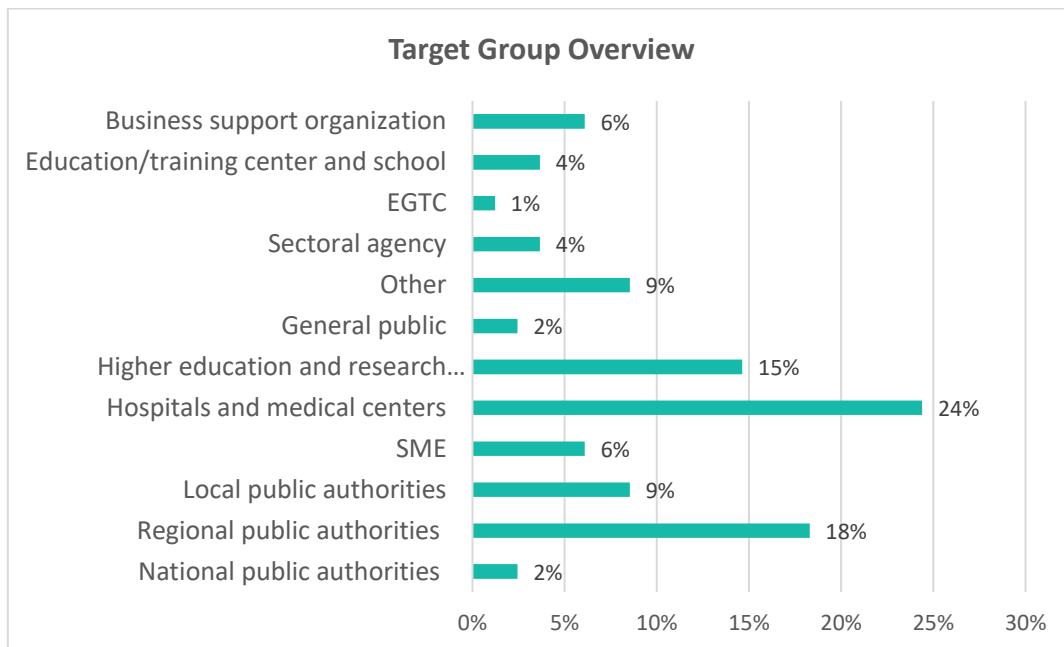


Figure 40 Target Group Overview (source: Author generated, 2025)

We can conclude that the most represented TGs were hospital and medical centre representatives (24%), regional public authorities (18%), and higher education and research organizations (15%).

Regarding the event format, five PPs (56%) held their Focus Group workshops online, only three (33%) organized them in person, and one (11%) organized it in a hybrid form.

The main goals of the Focus Group workshop were:

1. **Presenting the results of the H&C ecosystem analysis** to key stakeholders who participated in the interviews, along with AB members, providing them with a holistic overview of the challenges faced at both the transnational/AS, national and regional/local levels. These insights were valuable to participants, as they represented specific target groups with their own interests and perspectives. This allowed them to gain a broader understanding of the challenges by considering different viewpoints.
2. Engaging participants in a **discussion on the H&C ecosystem analysis results** and gathering their feedback.
3. **Presenting participants** with a draft version of the **H&C OUTCOMES** and involving them in a discussion or collaborative workshop where they could provide feedback on the outcomes and their relevance to their specific ecosystems and challenges. They also had the opportunity to suggest new subcategories for the H&C OUTCOMES to ensure alignment with their ecosystems.
4. Creating a **networking opportunity** for key stakeholders to connect with each other and learn more about the project, while also clarifying expectations for future meetings. The goal



was to foster a certain level of commitment from the focus group to engage in discussions on the results.

5.3.2. Stakeholders' Feedback

This section outlines the main feedback gathered from the stakeholders during the Focus Group workshop. The stakeholders were tasked to provide the feedback on the H&C OUTCOMES and suggest some changes that were relevant for their specific ecosystems.

Some project partners focused on validating all H&C OUTCOMES with their key stakeholders and some focused specifically on the H&C OUTCOMES relevant for their Pilot.

In total, three PPs didn't have any amendments to the suggested H&C OUTCOMES, and three had suggested the following updates to ensure the compliance with their ecosystem:

Advancing Green and E-Hospitals

- Integrate sustainability into professional development programs.
- Raise awareness of the effects of implementing green and e-initiatives in hospitals, as well as the benefits and cost savings they can bring.
- Enhance transparency in sustainability reporting.
- Optimize procurement processes to include eco-friendly products and set sustainability as a criterion.
- Enhance communication with policymakers to address key needs, enabling follow-up actions. Convince cost bearers to invest more in sustainability.
- Develop educational materials promoting sustainable patient behaviour.

Boosting Customized Tech Transfer

- Educate future healthcare workers (students) on digital tools, methods, and their applications in healthcare, as well as regulatory requirements for AI tools (AI Act, AI competence).
- Engage workers in the development process of new technologies.
- Share capacities through greater openness to data sharing and shared access to devices.

Improving System-Level Service Provision

- Streamline administrative procedures to reduce bureaucratic delays and enable faster implementation of healthcare initiatives. Enable greater regional decision-making autonomy to allow local healthcare systems to adapt policies to their specific needs.
- Enable alternative financing mechanisms, including public-private partnerships, to reduce reliance on payroll-based funding. Establish cost-effective healthcare models to optimize



HACK-IT-NET

resource allocation, with greater investment in community-based healthcare initiatives, particularly for mental health services.

- Increase investment in rural healthcare, including mobile health units and telemedicine, to bridge disparities in access. Modernize medical infrastructure to meet growing demands.
- Ensure seamless integration of healthcare IT systems across regions.
- Improve representation of disadvantaged and underrepresented population groups for a more holistic approach.
- Facilitate cross-sector collaboration through a common language and shared understanding.
- Strengthen regional healthcare collaboration by enabling larger hospitals to support smaller facilities, reducing pressure on national systems.
- Expand public health campaigns, early detection programs, and prevention-focused initiatives.

Afterward, feedback was analyzed and integrated into existing or newly created subcategories of the H&C OUTCOMES. The final version of the H&C OUTCOMES is presented in Section 5.



5.4. Final version of the H&C OUTCOMES

Based on the key inputs received from the key stakeholders participating in the Focus Group workshop, certain changes to the H&C OUTCOMES have been made to better fit the PPs' specific ecosystem, while still maintaining transnational/AS relevance.

The presented H&C OUTCOMES reflect the project's thematic objectives and are closely linked to the three project APPROACHES and the pilots PPs plan to implement. PPs don't have to address all these thematic goals within their piloting activities; they should set their focus. The holistic framework is created to ensure relevance for the full AS ecosystem, expansion zones, and later set the strong groundwork for Flagship Projects.

The final version of the H&C OUTCOMES is presented below:

5.4.1. Advancing green & e-hospitals

This section summarizes the key subcategories of the H&C OUTCOME *advancing green and e-hospitals*. Based on the Focus Groups' feedback, main categories and subcategories remained the same, with certain description refinements marked in orange:

1. Support the healthcare workforce to embrace sustainable practices

- **Education** – Micro-credentials, educational materials, and courses. **Integrate sustainability into professional development programs.**
- **Training and awareness raising** – Programs on sustainable and circular practices and their impact. **Raise awareness of the effects of implementing green and e-initiatives in hospitals, as well as the benefits and cost savings they can bring.**
- **Participatory Decision-Making** – Involving the healthcare workforce in ideation and decision-making processes for implementing sustainability and sustainable practices.

2. Establish an organizational culture of sustainable healthcare

- **Sustainability strategy** – Develop a sustainability strategy and set KPIs within the facility or integrate sustainable practices into an existing strategy.
- **Integration into business practices** – Clearly communicate the strategy to the healthcare workforce and embed it into daily operations.
- **Sustainability reporting** – Establish a system for sustainability reporting and monitor progress toward defined KPIs. **Enhance transparency in sustainability reporting.**
- **Sustainability officer** – Appoint a sustainability officer to oversee the implementation of sustainable practices and lead this transition.
- **Learning organization** – Create a system that adapts and evolves based on innovation and new approaches.



3. Leverage technology for ecological sustainability

- **Technology adoption** – Implement digital tools and methods to optimize resources, measure the impact of sustainable practices, and save energy and costs.
- **Training** – Train employees to effectively use tools and methods to leverage ecological sustainability.

4. Regulations, incentives and policies

- **Regulatory compliance** – Adhere to sustainability regulations and stay informed about new policies and regulatory developments.
- **Sustainability standards & certifications** – Follow sustainability certificates, regulations, and guidelines that help hospitals adopt sustainable practices.
- **Communication & funding** – Optimize procurement processes to include eco-friendly products and set sustainability as a criterion, leverage national/EU funding opportunities, and enhance communication with policymakers to address key needs so they could do the follow-up actions. Convince cost bearers to invest more in sustainability.

5. Enhance patient awareness on sustainability practices

- **Awareness campaigns** – Use various tools, platforms, and channels to inform patients and the public about sustainability efforts and practices.
- **Educational materials** – Provide patients with resources and educational materials to increase their understanding of the impact of sustainable practices and promote sustainable patient behaviour.

6. Maximize efficiency and implement sustainable practices

- **Resource efficiency:** Optimize resource usage within the organization, such as energy, water, and waste, to minimize environmental impacts.
- **Green supply chain:** Work with suppliers to promote sustainable sourcing, ethical labor practices, and environmentally responsible production methods.
- **Use of natural materials:** Replace synthetic or non-sustainable materials (where possible) with eco-friendly, renewable resources to reduce environmental impact.
- **Climate change:** Implement measures that contribute to reducing CO₂ emissions and minimizing the negative impact on the environment.



5.4.2. Boosting customized technology transfer

This section summarizes the key subcategories of the H&C OUTCOME *boosting customized technology transfer*. Based on the feedback, the main categories remain the same. One new subcategory, *sharing capacities*, was added to the category *Foster collaboration, research, and innovation*. Other subcategories remain the same, with certain descriptive refinements marked in orange.

1. Education and acceptance of healthcare workers

- **Raise awareness:** Educate healthcare **workers and future healthcare workers (students)** on digital tools, methods, and their applications in healthcare, and **regulatory requirements for AI tools (AI Act, AI competence)**, highlighting the positive impact these innovations can bring.
- **Training:** Equip healthcare workers **and future healthcare workers (students)** with essential knowledge and hands-on experience through training sessions and technology showcases, covering not only tool usage but also data security and ethical considerations.
- **Participatory decision-making:** Engage workers in the decision-making process and in the development of new technologies, fostering their involvement in brainstorming and implementing new digital tools and methods, while creating an open space for them to contribute ideas and innovative solutions to everyday challenges.

2. Raising awareness and promoting patient acceptance

- **Raise awareness:** Educate patients about digital tools, methods, and advanced technological solutions that assist in healthcare.
- **Improve acceptance and engagement:** Involve patients in various courses, technology showcases, and demonstrations to highlight the applications and benefits of advanced technologies. Use a citizen science approach to engage patients in ideation and idea generation on how to leverage new technologies to address healthcare challenges and gaps.
- **Educate patients:** Teach patients how to use digital tools that can support them within the healthcare system, while also raising awareness of measures to ensure data security and protection.

3. Funding and infrastructural resources

- **Leverage initiatives, funding opportunities, and programs:** Utilize available resources to finance the implementation and testing of new technologies in healthcare.
- **Resources and Infrastructure:** Highlight the infrastructural and other resources required to enable the successful implementation of digital tools and advanced technologies.



4. Adherence to regulations and ethics

- **Regulation compliance:** Comply with regulations and standards necessary for the usage and implementation of advanced technologies, ensuring data security.
- **Create a data protection framework:** Develop a framework to ensure data protection and raise awareness among all stakeholders about additional steps that can be taken to enhance security.
- **Adhere to ethical standards:** Follow ethical standards in the application of advanced technologies.

5. Foster collaboration, research and innovation

- **Enhance cross-sectoral collaboration:** Foster collaboration across different sectors to enable the testing and implementation of advanced technologies in healthcare.
- **Strengthen sector partnerships:** Improve collaboration between various health and care stakeholders to exchange knowledge on new technological approaches.
- **International collaboration:** Establish a network to learn from other regions and countries facilitating the transfer of technology and the implementation of innovative practices.
- **Sharing capacities:** Create a framework that promotes greater openness towards data sharing, as well as the sharing of devices and information among key stakeholders.



5.4.3. Improving system-level service provision

This section summarizes the key subcategories of the H&C OUTCOME *improving system-level service provision*. Based on the feedback, the main categories remain the same. Three new subcategories were added: (1) *workforce planning and retention strategies* to the category *advocating for the necessary resources and incentives to drive the change*; (2) *top-down and bottom-up approach* to the category *building strategic governance framework for improved service provision*; and (3) *regional collaboration* to the category *multi-stakeholder collaboration and participative decision-making*. Other subcategories remain the same, with certain descriptive refinements marked in orange.

1. Building strategic governance framework for improved service provision

- **Data-driven decision-making:** Focus on addressing the real needs and challenges to ensure better service delivery and effectively tackle healthcare issues.
- **Flexibility and agility:** Adapt the governance framework to meet evolving needs, responding to real-time demands and adjusting measures and incentives to align with the ecosystem's requirements.
- **Clear leadership:** Lead by setting clear goals, fostering a culture open to change, and aligning governance mechanisms to achieve shared commitments. **Enable greater regional decision-making autonomy to allow local healthcare systems to adapt policies to their specific needs.**
- **Appropriate regulations and incentives:** Advocate for relevant regulations and incentives to facilitate the required changes and improve overall conditions. **Streamline administrative procedures to reduce bureaucratic delays and enable faster implementation of healthcare initiatives.**
- **Top-down and bottom-up approach:** Ensures decisions are effectively communicated and reach key stakeholders and leverages the knowledge and input of various stakeholders, **including patient representatives**, ensuring a holistic perspective on improving system-level service delivery.

2. Advocating for the necessary resources and incentives to drive the change

- **Sufficient funding:** Address needs through incentives, financial support, and resources to drive innovation. **Enable alternative financing**, such as public-private partnerships, to reduce reliance on payroll-based funding. Establish cost-effective healthcare models and invest more in community-based initiatives, especially for mental health services.
- **Workforce planning and retention strategies:** Ensure the right staff and skill mix are placed in the right roles. **Develop stronger workforce retention strategies**, including better working conditions, financial incentives, and enhanced cross-border mobility. Prioritize mental health support for healthcare workers to address burnout. Support training opportunities



HACK-IT-NET

and empower frontline staff with skill development and the autonomy to implement changes.

- **Support necessary infrastructure:** Modernize medical infrastructure to meet growing demands, and invest in health information systems and rural healthcare, including mobile health units and telemedicine, to bridge access disparities.

- **Enhance interoperability:** Promote better interoperable tools, including applications for both staff and patients. Ensure that healthcare IT systems across regions can be integrated seamlessly.

3. Multi-stakeholder collaboration and participative decision-making

- **Citizen science:** Engage citizens in ideation and problem-solving to address their challenges, while encouraging their participation in identifying the best ways to tackle health and care issues.

- **Co-creation and collaboration:** Facilitate collaboration between diverse stakeholders through activities such as webinars, meetings, co-creation workshops and open dialogue spaces for idea exchange and developing potential solutions. Improve representation of disadvantaged and underrepresented population groups for a more holistic approach.

- **Cross-sectoral collaboration:** Foster cooperation among stakeholders from various sectors—particularly policymakers, researchers, healthcare providers, and the general public—to unite efforts to overcome barriers with innovative solutions. Facilitate cross-sector collaboration through a common language and shared understanding.

- **Regional collaboration:** Strengthen regional healthcare collaboration by enabling larger hospitals to support smaller facilities, reducing pressure on national systems.

- **Knowledge transfer and learning:** Learn from other regions, systems, and countries, adopting innovative practices and solutions to address challenges effectively.

4. Awareness raising and education initiatives

- **Encourage participatory processes:** Incentivize and motivate stakeholders to engage in participatory decision-making, contributing to the improvement of healthcare service provision.

- **Public education:** Educate the general public about initiatives and events that can help create a better health and care system. Expand public health campaigns, early detection programs, and prevention-focused initiatives. Offer educational sessions and demonstrations through mobile or on-site initiatives to reach a wider audience.

- **Volunteer-based facilitation:** Use volunteer work as a point of facilitation to engage the community and enhance participation.



6. Town Halls

This section outlines the key takeaways from the 28 Town Hall events (2/PP) organized within Activity 1.1 during Periods 1 and 2, detailing the objectives of each event, reviewing the planning and implementation process taken by PPs, and summarizing key learnings.

There were four main requirements defined in the D1.1.2 implementation paper considering both Town Halls:

- **Target groups:** Each Town Hall had to bring together 15-25 stakeholders relevant to the health and care sector in the region, including health and care service providers, health and care administration staff, policymakers, and associations representing citizens and patients.
- **General objective:** The general objective of the Town Halls was to present the HACK-IT-NET project and its goals to different stakeholders and create a space for dialogue, idea exchange, networking, and collaboration to address various challenges, ultimately contributing to a better and stronger health and care system in the region and, consequently, in the Alpine Space area.
- **Format:** The D1.1.2 Implementation paper recommended that the event be organized in-person or in a hybrid format to allow for networking, collaboration, and discussion on key topics of interest.
- **Content:** Participants had to be engaged in various collaborative activities (such as brainstorming, brainwriting, storyboarding, role-playing, etc.) that encouraged them to work together, identify key challenges in the region, and leverage their knowledge and best practices to think about possible solutions. These forums represented a valuable opportunity to test and strengthen the cooperation matrix, integrating more stakeholders who were either interested in learning from best-in-class examples or in sharing their own experiences.



6.1. First Town Hall

This section reflects on the organization of the **first nine Town Halls (1/PP)**, aiming to create a critical group of key stakeholders, present the project to them, and engage them in various project activities to gain their input and perspectives, as well as communicate key project findings.

The section is divided into three parts:

- Providing a general overview of the first Town Hall, including the objective, key target groups, engagement methods, and the process PPs followed to organize the event, as well as collecting data.
- Presenting the key takeaways from the first Town Hall, including the organizational and contextual aspects—lessons learned.
- Providing key recommendations and a summary of plans for the next Town Hall and other events organized by the consortium.

6.1.1. General Overview of the First Town Hall

This section outlines the general information about the first Town Hall, including the specific objective, key target groups to be involved, the process and timeline for organizing it, and the data collection and reporting processes.

6.1.1.1. The main objective

In addition to the general objective defined above, each Town Hall had a specific thematic objective. The thematic objectives of the first Town Hall were to introduce the concept of the project, discuss the challenges key stakeholders were facing in the health and care sector, brainstorm on potential solutions, and invite interested stakeholders to 'Join-the-Journey' and engage in the planned social-innovation activities. This was also an opportunity for some PPs to conduct their first five interviews with selected stakeholders to obtain prompt responses and insights on the needs and challenges in the health and care sector.

6.1.1.2. Target groups

During the first Town Hall, the main focus was on involving stakeholder groups relevant to the interviewing phase: health and care service providers, health and care administration workers, policymakers, and associations representing citizens/patients. PPs had the opportunity to use the event as a dialogue space to engage a wide pool of stakeholders in identifying the challenges they face and the potential solutions to these challenges, as well as to generate interest in the project and encourage them to participate in interviews afterward. Some PPs decided to interview their stakeholders immediately after the event, while others did so independently. In general, the event served as a good platform for stakeholders to get to know each other, trigger interest in the project, and encourage participation in the project's activities.



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6.1.1.3. The process

The process of organizing the Town Halls began with identifying potential stakeholders and categorizing them based on the target group criteria. Following this, PPs invited key stakeholders and began planning the organizational aspects of the event. PPs had from **the 1st of November to the 10th of December** to organize their first Town Hall.

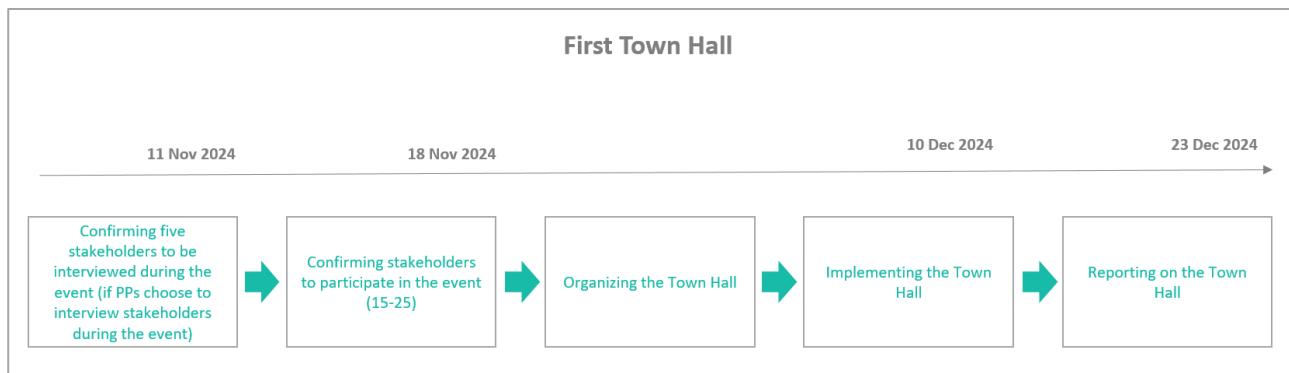


Figure 41 The process for organizing the first Town Hall (source: Project generated, 2024)

PPs had until the **23rd of December** to report on their events. Due to the tight schedule and the Christmas holidays that followed in December, some PPs faced difficulties organizing the event within the suggested period, so the deadline was extended, with the last report received in March 2025.

All PPs, except PP9/HSLU, organized the First Town Hall. Due to organizational difficulties and resource constraints, PP9/HSLU did not organize the first Town Hall but decided to hold a larger event during the second Town Hall, engaging a significant number of stakeholders to make up for this delay.

6.1.1.4. Data collection and analysis process

After completing the event, each PP had to submit a report ([Annex 5](#)), sharing the key takeaways from the event. PPs inputs from their reports have been gathered in one Excel sheet, analyzed, and presented in the following categories:

1. General information about the event – number of stakeholders reached, event format, and goals of the event.
2. General feedback from key stakeholders regarding the first Town Hall.
3. Next steps for organizing future events.

In total, **8 reports** were uploaded by PPs and analyzed, excluding reports from PP9/HSLU due to organizational difficulties as mentioned in section 6.1.1.3.



6.1.2. Key takeaways from the first Town Hall

This section provides an overview of key learnings from the first Town Hall, reflecting on the general information about the event, the feedback received from key stakeholders, and the PPs' plans for organizing the second Town Hall.

6.1.2.1. Event organization

This section reflects on the number and type of stakeholders reached during the first Town Hall, the format that was used, and the main objectives of PPs.

Target Groups

In total, **129 stakeholders participated** in the HACK-IT-NET's first Town Hall, bringing in different target groups from 5 countries – Austria, Germany, Italy, Slovenia, and France. The main requirement of the First Town Hall was for each PP to gather **15 to 25 stakeholders**. The figure below gives the overview of the stakeholders brought in by each PP:

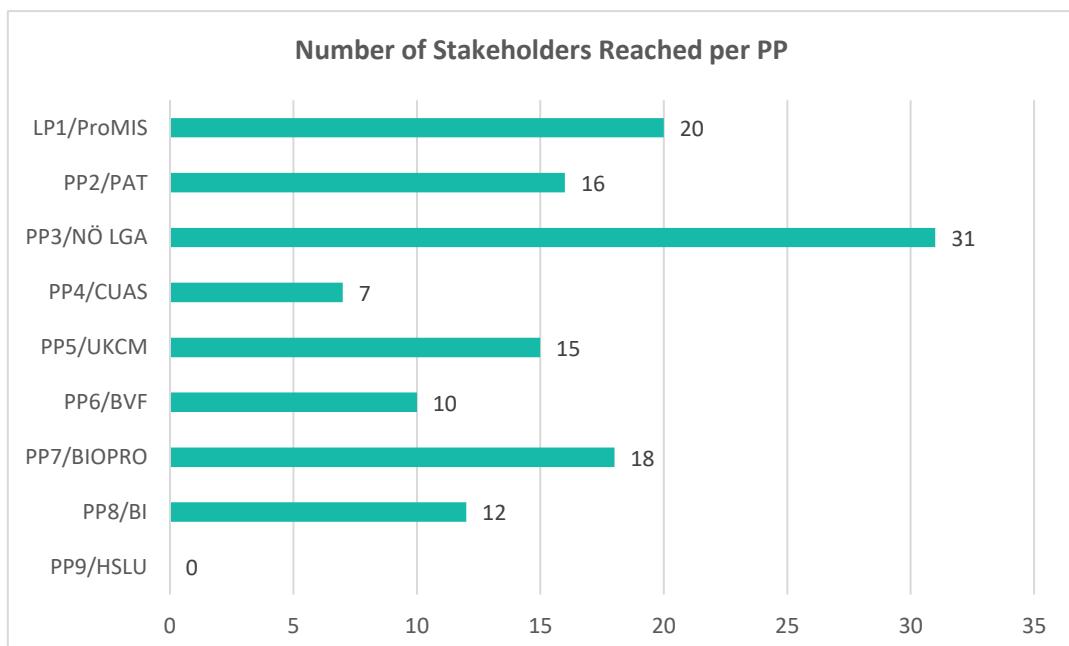


Figure 42 Number of stakeholders reached per PP (source: Author generated, 2025)

We can conclude that **5 PPs involved** at least 15 stakeholders during their first Town Hall. Due to the time frame for organizing the event, PPs had difficulties in involving stakeholders as the holiday season was close. PP9/HSLU decided to combine the first and second Town Hall, organizing them later. This is why the data was not included in this section of the report.



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When it comes to the key target groups reached, the figure below shows the distribution:

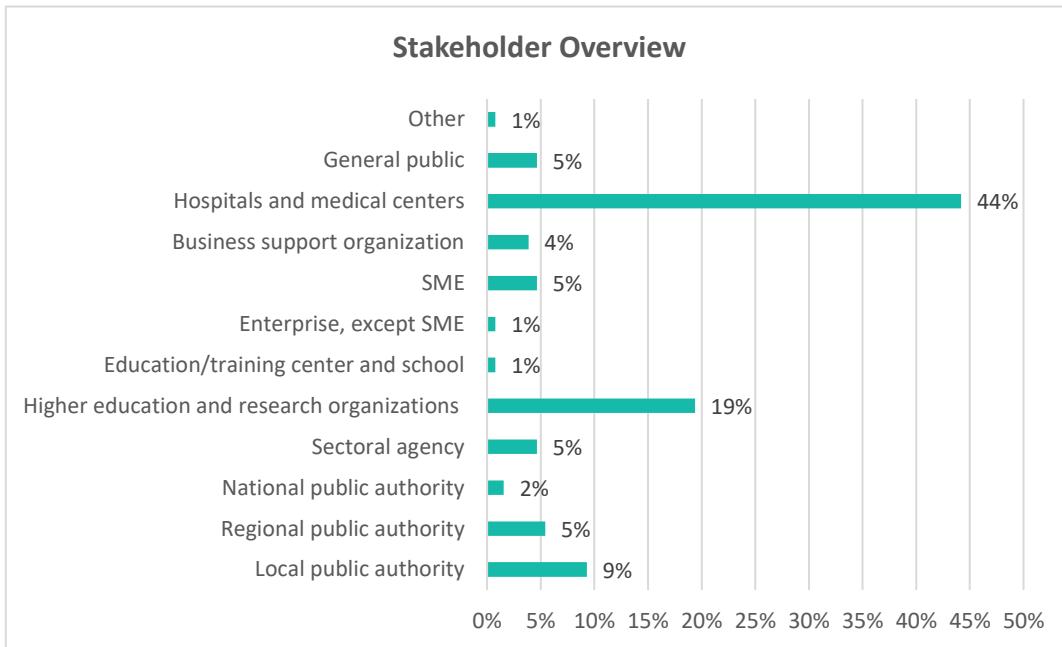


Figure 43 Stakeholder overview (source: Author generated, 2025)

We can conclude that the most represented TG were hospitals and medical centers (44%), followed by higher education and research organizations (19%) and local public authorities (9%). Other target groups were almost equally represented, ranging from 5% (regional public authorities, SMEs, general public and sectoral agencies) to 1% (education/training centers and schools, and enterprises, except SMEs).

Event format

This section reflects on the format project partners used to engage their stakeholders in the first Town Hall.

As shown in the figure below, out of **the eight events** organized, four were held online, three in person, and one in a hybrid format, allowing participants who were unable to attend in person to join online.

Event objectives

This section reflects on the main objectives of the PPs and the scope of the event.

During the first Town Hall, project partners aimed to achieve the following with their event:

1. **Raise awareness of the project and engage stakeholders** by (1) introducing the HACK-IT-NET project to stakeholders; (2) providing an overview of the project and its objectives; (3) emphasizing cross-sectoral, cross-border, and transnational collaboration in healthcare; and (4) encouraging stakeholder participation through various engagement methods such as brainstorming, brainwriting, World Café, Mentimeter, and breakout sessions.
2. **Foster networking and collaboration** by (1) creating connections among stakeholders and using the event as a dialogue space; (2) encouraging joint actions and knowledge exchange;



HACK-IT-NET

(3) facilitating discussions on digitalization and sustainability; and (4) enabling informal interactions and contact exchanges.

3. **Identify challenges and opportunities in healthcare** by (1) addressing digitalization and sustainability in the health sector; (2) identifying key healthcare challenges and potential solutions; and (3) exploring the role of innovation in improving healthcare accessibility.

The project partners used the first Town Hall as an opportunity to present the HACK-IT-NET project, boost stakeholder interest, and initiate discussions. **However, they concluded that continued discussions are essential for driving meaningful and lasting change.**

Additionally, it was highlighted that to achieve truly meaningful and sustainable transformation, **these discussions must be elevated to the national level.** This requires strong collaboration and engagement, particularly from policymakers, whose support and commitment are critical for driving necessary changes. That's why it is recommended for each project partner to engage more policymakers in their second Town Hall, making this a key objective for the next event.

6.1.2.2. General feedback from key stakeholders

This section outlines the main findings from the event and the key inputs provided by stakeholders, presenting overall conclusions as well as insights into the healthcare and care (H&C) challenges they face, along with potential solutions.

Overall Feedback

This section provides a summary of the key topics that were discussed during the first Town Hall, based on the key stakeholders' overall feedback.

Key topics were:

- **Role of Digitalization in Healthcare**

Digital solutions such as teleconsultations, centralized systems, and electronic health records were seen as opportunities to enhance efficiency and accessibility. However, challenges in implementation, including interoperability issues, regulatory barriers, and resistance to change within healthcare teams, were widely noted. Participants emphasized the need for a holistic approach to digital transformation, ensuring that all stakeholders, including patients and medical professionals, are engaged throughout the process. Financial resources and public trust in new technologies were also identified as critical factors for successful implementation.

- **Complexity of Care Pathways and Patient Experience**

Stakeholders highlighted the need for improved communication and support for patients navigating the healthcare system. Socioeconomic disparities, language barriers, and bureaucratic inefficiencies contributed to unequal access to care and long waiting times. Simplifying processes and ensuring clear communication were seen as essential for better treatment adherence and follow-up care.



- **Strategic Prioritization of Healthcare Challenges**

Participants agreed that solutions should address interconnected issues to maximize impact. Digitalization was seen as a tool to tackle multiple challenges, including cost reduction, specialist shortages, and improved cooperation in the healthcare sector. Additionally, concerns were raised about financing innovation, navigating regulatory complexities, and addressing the environmental impact of healthcare systems.

- **Collaboration and Partnerships**

Partnerships across different stakeholder groups were emphasized as essential for progress. Several town halls proposed forming focus groups, working groups, and public-private partnerships to develop actionable initiatives and drive meaningful change in the healthcare sector.

Overall, while there was some frustration with the current state of the health and care system, most participants remained optimistic that the right measures, particularly those emphasizing digitalization, improved communication, and strategic prioritization, could lead to meaningful improvements. The discussions laid a strong foundation for future activities, reinforcing the importance of **continuous stakeholder engagement and cross-sector collaboration to address pressing challenges in the healthcare sector**.

H&C Challenges

The brainstorming sessions during the first Town Hall highlighted several key challenges within the health and care sector:

- **Innovation and Digitalization Challenges**

The most frequently mentioned challenges in this area revolved around the **acceptance of innovation and the integration of digital technologies**. Barriers to innovation included competency gaps, resistance to change within traditional healthcare systems, and the complexity of existing information systems. A lack of interoperability between different systems and concerns about **data security**, particularly with increased digitization, were significant points of discussion. There was also a strong emphasis on the need for **engagement and communication with all stakeholders** to ensure the successful implementation of digital tools. Additionally, some stakeholders expressed concerns about the **overcomplication of digital systems** and the need for simplification before further digital solutions are introduced.

- **Sustainability in Healthcare**

Various challenges were identified regarding sustainability, particularly around balancing environmental concerns and healthcare needs. Issues such as the **tension between hygiene regulations and sustainability laws, along with time and financial constraints for adopting sustainable practices**, were discussed. Participants also noted the challenges posed by **outdated infrastructure** and the need for significant upgrades to meet sustainability goals.



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Further concerns were raised about accurately measuring the impact of sustainability efforts and the carbon reductions needed to address environmental challenges.

- **Healthcare Access and Equity**

Healthcare access and equity emerged as another key challenge, particularly regarding socio-economic and demographic inequalities. Ensuring equal access to healthcare, especially in rural or underserved areas, was difficult, as well as the growing shortage of skilled healthcare professionals. Participants also pointed to the digital literacy of patients and the financial burden of adopting new systems as factors contributing to unequal access to quality care.

- **Financial Challenges**

Financial challenges were heavily discussed, especially regarding the long-term financing of innovations and the economic sustainability of digital tools and solutions in healthcare. Stakeholders emphasized the high implementation costs and the financial barriers that small healthcare providers face in adopting new technologies.

- **Collaboration and Communication in Healthcare**

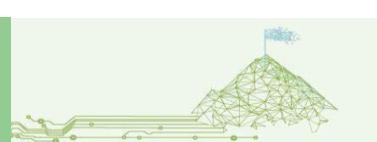
The importance of collaboration within the healthcare sector was frequently mentioned, with challenges related to cooperation among different healthcare sectors, regions, and stakeholders. Ensuring effective communication and collaboration between governments, healthcare providers, and technology partners was seen as a crucial factor for driving progress. There was also a stress on the need for improved training and capacity building for healthcare workers to effectively use new systems and tools.

- **Regulatory Challenges**

Finally, there were concerns about regulatory hurdles and bureaucracy, which were identified as barriers to innovation in the healthcare system. Participants pointed out that existing regulations often hinder the development and implementation of new solutions and called for greater regulatory harmonization to support innovation.

In summary, the key challenges identified during the brainstorming sessions reflect a combination of technical, organizational, social, and financial barriers that must be addressed to enhance the health and care sector. Collaborative efforts, innovation-friendly policies, and targeted capacity-building initiatives will be critical in overcoming these challenges.

We can also conclude that the main challenges that emerged during the Town Hall brainstorming session align with those identified in the H&C analysis, reflecting inputs from over 90 interviews.



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Identified Solutions

After identifying the challenges, stakeholders were tasked with considering potential solutions to address the mentioned issues. They suggested different approaches based on their field of expertise and experience, including the following:

- **Acceptance of Innovation**

Solutions focused on **creating an environment of trust and effective communication**. This could be achieved through the use of **functional tools**, making realistic promises, and leveraging trustworthy multipliers to build credibility and facilitate change. Additionally, **initiating projects with small, manageable steps**—referred to as "low-hanging fruits"—was suggested as a way to gradually move toward more sustainable practices. It was also emphasized that **communicating the possibilities and benefits of such transitions** would help foster acceptance.

- **Comprehensive Healthcare**

For comprehensive healthcare, solutions included **exporting innovative technologies and concepts, with funding provided after pilot phases for broader implementation**. There was also a focus on **utilizing resources more efficiently**, such as reducing overcapacity to mitigate the shortage of skilled workers. **Increasing the attractiveness of healthcare professions**, particularly through the recruitment of foreign specialists, was another key solution. **Digital technologies and artificial intelligence** were suggested to support healthcare, such as by introducing digital care models before outpatient and inpatient care.

- **Prevention**

In the area of prevention, solutions emphasized **improving education and information** on primary prevention measures, **including nutrition and exercise**. **Legal regulations to promote health**, such as a sugar tax, were also proposed. Other solutions included strengthening equal opportunity and **adopting prevention-oriented urban planning** to improve living spaces, ultimately fostering healthier communities.

- **Cost Management**

On the topic of costs, participants **suggested implementing long-term financing systems and providing reliable long-term framework conditions**. The concept of **citizens' insurance**, replacing statutory and private health insurance, was proposed. **Regional care management** was also raised as a way to ensure cost-effective, **locally tailored** healthcare solutions.

- **Environment/Climate and Health**

Solutions focused on sustainable practices, **including waste avoidance, designing products for recycling, and using ecologically sustainable buildings**. Regarding the pharmaceutical sector's environmental impact, **decentralized wastewater treatment systems** were suggested to minimize harm.



- **Cooperation within the Healthcare Sector**

To improve cooperation, participants proposed developing **new formats for collaboration**, with an emphasis on breaking down silos and fostering **inter-professional collaboration**. Innovation events like “Inno’lunch” were suggested to link specific clinical departments with solution providers, ensuring that all relevant stakeholders, including patients, are involved in finding solutions.

- **Regulation and Bureaucracy**

The primary solution for addressing regulation and bureaucracy was **the simplification and standardization of regulatory requirements**. A reduction in bureaucracy was also suggested to facilitate innovation and improve overall efficiency within the healthcare system.

- **Digital Health**

To improve digital health, **teleconsultations** were emphasized to address accessibility issues, especially in remote and underserved areas. The establishment of **centralized digital systems to streamline patient data management and reduce redundancy** during doctor visits was also proposed. **Education and training for healthcare professionals** on new technologies were seen as essential to reduce fear and improve adoption. Additionally, initiatives like **focus groups and digital literacy campaigns** were suggested to engage patients and improve their interaction with digital healthcare solutions.

- **Financial Stability**

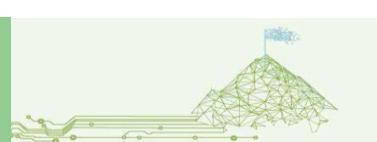
To support the healthcare system's financial stability, **diversifying funding sources** was recommended, alongside **providing incentives** to attract and retain healthcare professionals in underserved areas. **Streamlining hospital operations and investing in digital infrastructure** were also seen as essential solutions to reduce inefficiencies and improve overall effectiveness.

- **Aging Population and Mental Health Crisis**

To address the challenges of an aging population and the mental health crisis, it was suggested to **expand geriatric and long-term care services**. Additionally, **integrating mental health services into primary care**, with a **focus on early intervention** for children and adolescents, was proposed as a way to improve outcomes.

Overall, the potential solutions identified during the event focus on a multi-faceted approach, combining digital innovation, education, sustainability, collaboration, and effective financial strategies to address the challenges in the healthcare sector.

While considering the final version of the H&C OUTCOMES, these solutions were also taken into consideration, ensuring a holistic approach in setting the project's thematic goals.



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6.1.2.3. Summary of key takeaways for organizing future events

This section outlines the key next steps that the project partners were planning to take to organize future events, as well as the topics of interest highlighted by stakeholders that they would like to be addressed during these events.

The next steps include:

- **Topic and Question Selection:** Select appropriate topics and questions for discussion, ensuring alignment with participants' priorities and the event's objectives. Present the pilot concept for implementation and encourage a comprehensive discussion.
- **Event Logistics and Invitations:** Confirm the date and venue for the event. Inform interview partners and the Focus Group members of the date and send out invitations. Create a list of key participants.
- **Participant Diversity and Engagement:** Ensure a diverse group of participants, building on feedback and lessons from the first Town Hall. **Extend invitations to the same participants, as well as others, particularly those from underrepresented stakeholder categories. Engage stakeholders earlier to facilitate a more diverse and impactful discussion.**
- **Outcomes and Insights:** Collect and present outcomes from previous activities to ensure the session benefits from current insights.

The stakeholders have expressed interest in addressing several key topics at other events:

- **Pilot Action as a Central Topic:** The pilot actions PPs are planning to implement could be a key topic for discussion in the next event.
- **Technological Integration:** Stakeholders are interested in exploring how technology can be integrated effectively into healthcare systems.
- **Regulatory Harmonization:** A focus on aligning regulations across different regions or sectors in the healthcare system was highlighted as a priority.
- **Financial Sustainability:** There is interest in discussing ways to ensure the financial sustainability of healthcare innovations.
- **Patient-Centric Strategies:** Strategies centered on improving patient care and outcomes were identified as a key area of interest.
- **Concrete Steps for Problem-Solving:** Stakeholders want to understand the specific steps being taken to address the identified issues in healthcare and are particularly interested in HACK-IT-NET solutions.



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- **Improving Innovation Implementation:** While innovation is present in research and university/hospital settings, stakeholders emphasized the need for better implementation strategies. They are keen to explore new approaches that involve greater stakeholder engagement and are adaptable to different healthcare environments (e.g., hospitals, small rural medical structures, and diverse patient categories).

Based on the learnings from the first Town Hall, PPs should take into the account following while organizing the next event:

- It is advisable for project partners to organize the event in person to better engage key stakeholders, foster connections, and jointly explore potential solutions.
- It is recommended for each project partner to engage more policymakers in the future events to elevate the discussion on the higher level.
- PPs should engage stakeholders in interactive sessions by using one of the methods that will be provided within D1.1.1 to engage stakeholders and motivate them to work with each other towards providing valuable feedback.
- Ensuring that the information provided by stakeholders is noted down so the key takeaways can be analysed and presented.
- Getting stakeholders' feedback on the Pilots PPs plan to implement, at the same time showcasing to them the potential solutions of the HACK-IT-NET project.



6.2. Second Town Hall

This section reflects on the organization of the second round of nine Town Halls (1/PP) with the aim of following up with the main group of stakeholders, providing insights into the progress of the project, reflecting on the H&C challenges identified and the refined H&C OUTCOMES, and engaging the group in co-creation and discussion activities with the aim of obtaining input relevant to the pilots that the PPs intend to implement.

The section is divided into three parts:

- Providing a general overview of the second Town Hall, including the objective, key target groups, engagement methods, and the process PPs followed to organize the event, as well as collecting data.
- Presenting the key takeaways from the second Town Hall, including the organizational and contextual aspects—lessons learned.
- Providing key recommendations and a summary of plans for the follow-up actions.

6.2.1. General Overview of the Second Town Hall

This section outlines the general information about the first Town Hall, including the specific objective, key target groups to be involved, the process and timeline for organizing it, and the data collection and reporting processes.

6.2.1.1. The main objective

In addition to the general objective defined in the introduction, each Town Hall had a specific thematic objective. The thematic objectives of the second Town Hall were to disseminate the final Health & Care OUTCOMES and the results of the health and care ecosystem analysis to key stakeholders. Additionally, partners had the opportunity to present project progress to key stakeholders and showcase the pilot concepts they planned to implement. By engaging stakeholders in interactive and co-creative activities using methods outlined in D1.1.1, the aim was to gather valuable insights from key stakeholders regarding the pilots PPs plan to implement, involving stakeholders from the early stage and inviting them to follow the journey.

6.2.1.2. Target groups

During the second Town Hall, the main focus was on involving stakeholder groups relevant to the Pilots they want to implement, stakeholders who were engaged in the Focus Group workshop and solution suppliers bringing best practices that could be used in addressing challenges identified in the health and care ecosystem analysis. PPs had the opportunity to use the event as a dialogue space to engage a wide pool of stakeholders in their Pilot ideation forces and gain valuable inputs, also inviting interested stakeholders to join the process.



HACK-IT-NET

6.2.1.3. The process

The process of organizing the Town Halls began with identifying potential stakeholders and categorizing them based on the target group criteria. Following this, PPs invited key stakeholders and began planning the organizational aspects of the event. PPs had from **the 10th to the 31st of March** to organize their second Town Hall.

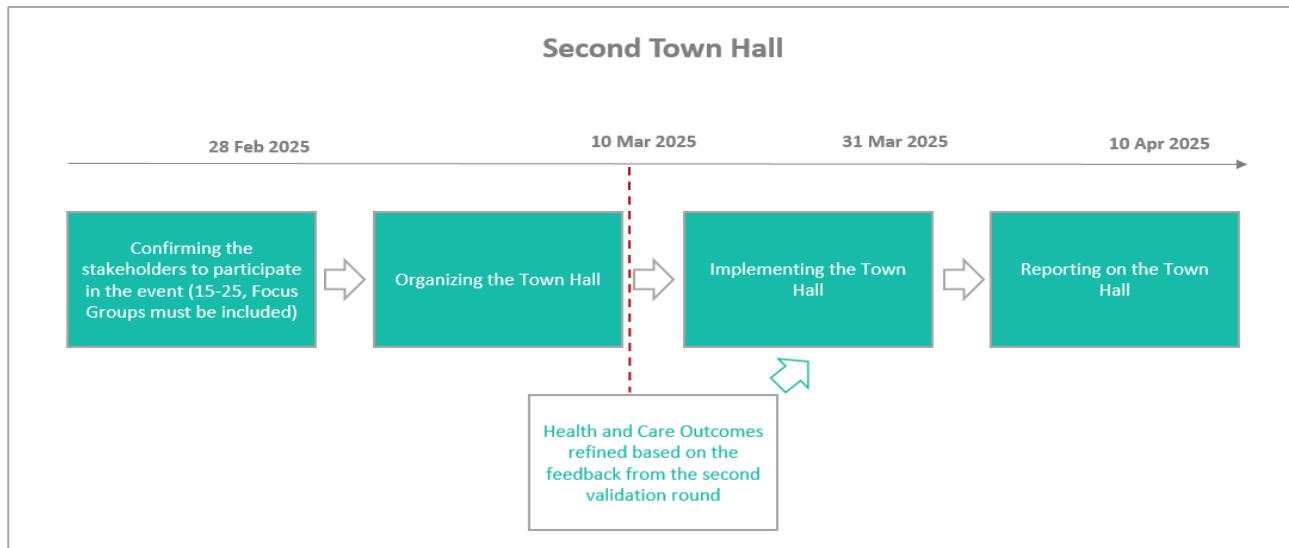


Figure 44 Process for organizing the second Town Hall (source: Project generated, 2024)

PPs had until the **10th of April** to report on their events. All PPs managed to organize the second Town Hall and deliver the final report.

6.2.1.4. Data collection and analysis process

After completing the event, each PP had to submit a report (Annex 5), sharing the key takeaways from the event. PPs inputs from their reports have been gathered in one Excel sheet, analyzed, and presented in the following categories:

1. General information about the event – number of stakeholders reached, event format, and goals of the event;
2. General feedback from key stakeholders regarding the second Town Hall;
3. Next steps for organizing the follow-up actions.

In total, **9 reports** were uploaded by PPs and analyzed.



6.2.2. Key takeaways from the second Town Hall

This section provides an overview of key learnings from the second Town Hall, reflecting on the general information about the event, the feedback received from key stakeholders, and the PPs' plans for organizing the follow-up activities.

6.2.2.1. Event organization

This section reflects on the number and type of stakeholders reached during the second Town Hall, the format that was used, and the main objectives of PPs.

Target Groups

In total, **173 stakeholders participated** in the HACK-IT-NET's second Town Hall, bringing in different target groups from 6 countries – Austria, Germany, Italy, Slovenia, France, and Switzerland. The main requirement of the second Town Hall was for each PP **to gather 15 to 25 stakeholders**. The figure below gives the overview of the stakeholders brought in by each PP:

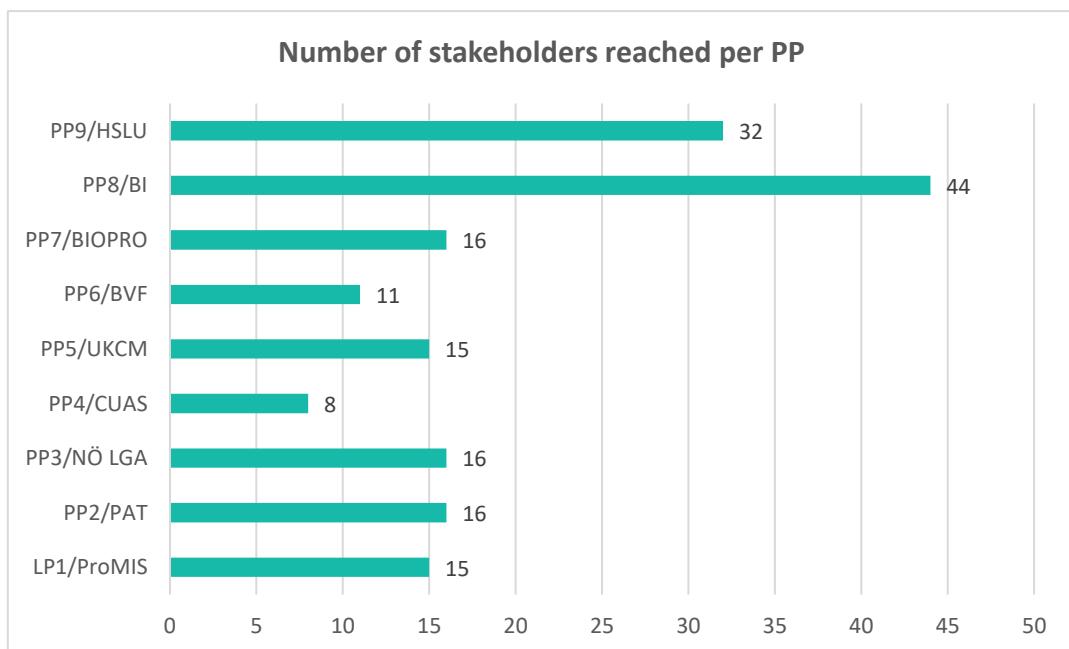


Figure 45 Number of stakeholders reached per PP (source: Author generated, 2025)

We can conclude that the majority of partners managed to involve at least 15 stakeholders in their second Town Hall. Due to the time frame for organizing the event, some PPs had difficulties in involving stakeholders.

In addition, PPs that did not reach the required number of stakeholders should think about the strategy and mitigation plan on how to approach stakeholders for the next events to ensure high participation and valuable input.



When it comes to the key target groups reached, the figure below shows the distribution:

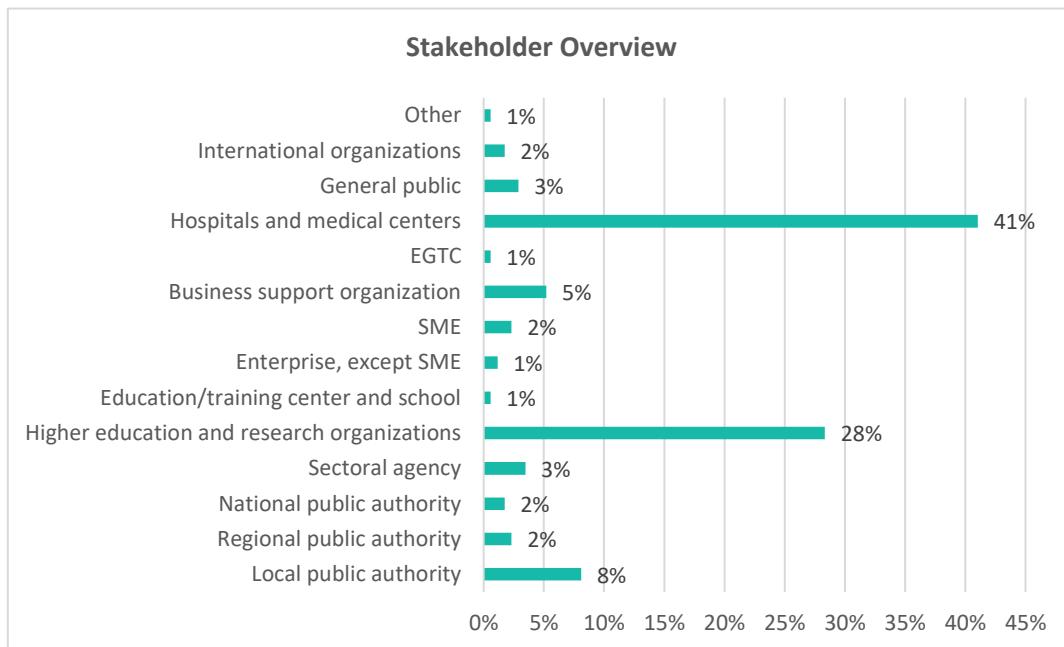


Figure 46 Stakeholder overview (source: Author generated, 2025)

We can conclude that the most represented TG were hospitals and medical centres (41%), followed by higher education and research organizations (28%), local public authorities (8%) and BSOs (5%). Other target groups were almost equally represented, ranging from 3% (sectoral agencies and general public) to 1% (education/training centres and schools, EGTC, and enterprises, except SMEs).

Event format

This section reflects on the format project partners used to engage their stakeholders in the first Town Hall.

As shown in the figure below, out of **the nine events** organized, four were held online, three in person, and two in hybrid format, allowing participants who were unable to attend in person to join online.

Event objectives

This section reflects on the main objectives of the PPs and the scope of the event.

During the second Town Hall, project partners aimed to achieve the following with their event:

1. **Follow up on the project's progress and disseminate key takeaways** from the health and care ecosystem analysis by sharing the identified H&C challenges with the broader group of stakeholders and introducing the final version of the H&C OUTCOMES, laying the groundwork for identifying potential solutions.
2. **Raise awareness of the PPs' individual Pilots and engage stakeholders** by: (1) introducing the Pilots that PPs plan to implement; (2) showcasing to stakeholders the challenges in the healthcare sector that can be addressed by this action; (3) triggering a discussion on potential pathways for pilot implementation; and (4) encouraging stakeholder participation



HACK-IT-NET

through various engagement methods such as brainstorming, brainwriting, World Café, Mentimeter, and breakout sessions.

3. **Share best practices on potential solutions** for addressing H&C challenges and achieving the project's thematic goals by bringing knowledge from other Pilots and projects and exchanging ideas.
4. **Foster networking and collaboration** by: (1) creating connections among stakeholders and using the event as a space for dialogue; (2) encouraging joint actions and knowledge exchange; (3) facilitating discussions on digitalization and sustainability; and (4) enabling informal interactions and contact exchanges.

In addition to the overall objectives outlined by all PPs, some had more specific goals. For example, PP6/BVF aimed to: (1) Analyze the impact of increased workload; (2) assess resource needs; (3) examine existing processes; and (4) gather feedback from stakeholders. The goal was to obtain a clear picture of the main challenges and scenarios for possible solutions and future improvements.

Additionally, PP2/PAT and PP9/HSLU had the objective of organizing a Focus Group workshop to present the H&C OUTCOMES to their interviewees and Advisory Board members and trigger the discussion, in addition to the regular program of the second Town Hall.

The project partners used the second Town Hall as an opportunity to present the current status of the HACK-IT-NET project and the key takeaways, to boost stakeholder interest in the Pilots and engage them in the early stages. This ensured the gathering of interested participants who might join the initiative, raised awareness of the activities the partners plan to implement, and initiated discussions.

6.2.2.2. General feedback from key stakeholders

This section outlines the main findings from the event and the key inputs provided by stakeholders, presenting overall conclusions as well as insights into the discussions on PPs' Pilots and methods used.

Overall Feedback

This section provides a summary of the key topics that were discussed during the second Town Hall, based on the key stakeholders' overall feedback.

Some of the key topics discussed were:

Digital transformation

Throughout the discussions, digitization emerged as a critical area of focus. Participants highlighted persistent inefficiencies in administrative processes - particularly in patient registration and scheduling - caused by fragmented systems and regulatory constraints, such as GDPR. There was a shared recognition of the need for standardised, interoperable digital tools such as NANDA, NIC and NOC to support clinical workflows. To ensure successful implementation, participants highlighted the importance of user training and co-design approaches that involve end users from the start. This would ensure that tools are not only technically appropriate, but also aligned with daily practice and



HACK-IT-NET

easy to adopt. Cross-border digital solutions, possibly tested through pilot projects, were seen as a promising way to address common challenges at a systemic level.

Human-centred design and participation

There was a strong emphasis on putting people at the heart of innovation. Participants highlighted that technology-driven approaches could lead to overlooking the emotional, social and cultural dimensions of healthcare. Instead, successful solutions should respond to the real needs and behaviours of patients, professionals and citizens. Co-creation was often cited as a best practice, with citizens and health professionals actively contributing to the design of tools and services.

Collaboration and knowledge sharing

Collaboration, both local and transnational, was recognised as a key enabler of innovation. Whether through stakeholder dialogues, town hall formats or digital brainstorming boards, participants valued opportunities to connect and learn from each other. Such spaces allowed for open exchange, iteration and the development of interconnected ideas. Participants also expressed interest in testbeds and pilots where innovations could be explored, evaluated and improved together.

Sustainability and efficiency

Sustainability was a recurring theme, with participants acknowledging that many institutions are still at the beginning of this journey. The high cost of energy has served as a trigger for greater efficiency, increasing the interest in renewable technologies such as solar panels and heat pumps. Beyond large-scale infrastructure, even simple measures, such as automated systems and usage monitoring, were seen as valuable steps. Waste reduction and circular economy principles were also discussed, particularly in relation to hospital operations. Participants emphasised the need for realistic, clearly defined targets and expressed a preference for practical 'quick wins' that could have a tangible impact without overcomplicating implementation.

Workforce wellbeing and patient-centred care

The wellbeing of healthcare workers and the quality of patient care were consistently highlighted as top priorities. Participants noted that improving working conditions - through better climate control, manageable workloads and digital support - was essential not only for staff morale, but also for the overall resilience of healthcare systems. Despite the drive for technological innovation, patient-centred care and human interaction must remain at the core.

Based on all the inputs from different stakeholders and Pilot arenas, general feedback for three Pilot arenas (CAREavan, STEMlab and PolicyParley) is summarized, giving the list of key insights and recommendations allowing PPs to learn from each other.



HACK-IT-NET

CAREavan

This section outlines the main feedback on the CAREavan pilot that different PPs plan to implement. Each PP working on the CAREavan concept has discussed potential ideas and elements to be included with their local stakeholders, exchanging knowledge and best practices. Stakeholders involved in the second local Town Hall meetings held by each PP highlighted several key inputs relevant to the CAREavan concept:

A key concern was the high energy costs and inefficiencies in medical centres. To address this, participants suggested the **integration of solar energy, heat pumps and automated energy saving systems**. The importance of **real-time energy monitoring was highlighted**, with one participant recommending a company that provides IoT-based solutions to help transform existing buildings into smart, energy-efficient environments by tracking consumption and indoor climate.

Discussions also focused on the broader environmental impact of healthcare, particularly **emissions related to energy use in buildings, single-use products, pharmaceuticals and logistics**. The issue of **healthcare waste** - particularly in long-term care settings, such as incontinence materials - was identified as a growing concern. In addition, pharmaceutical waste and overtreatment were identified as major contributors to the sector's environmental burden.

Sustainable sourcing and global fairness emerged as another important area, with calls for **more transparent and ethical medical product supply chains**.

Participants appreciated the inclusion of concrete examples and pilot projects with proven impact and realistic pathways to implementation. However, they noted that presenting facts alone is not enough - **the roadshow should also create an emotional response**. Suggestions to increase engagement included the **inclusion of hands-on elements, real-life stories and immersive formats** such as sound, video and tactile exhibits.

Participants stressed the importance of **communicating ambition, credibility and urgency**, supported by evidence-based examples, strong visual design and clear calls to action. They also called for clear takeaways tailored to different stakeholder groups, ideally in the form of 'quick wins' - simple, low-barrier actions that can be implemented immediately.

Finally, there was a strong call for the roadshow to speak to the different realities of **healthcare professionals, decision-makers and innovators**. Each audience segment should clearly understand what is relevant to them and what actions they can take. Despite the diversity of topics, stakeholders agreed on the need for a clear thematic focus and navigable structure. Beyond information, the event should connect people and institutions, with space to test new tools and gather feedback.



HACK-IT-NET

STEMlab

This section outlines the main feedback on the STEMlab pilot that different PPs plan to implement. Each PP working on the STEMlab concept has discussed potential ideas and elements to be included with their local stakeholders, exchanging knowledge and best practices. Stakeholders involved in the second local Town Hall meetings held by each PP highlighted several key inputs relevant to the STEMlab concept:

Stakeholders have provided valuable input into the development and implementation of the STEMlab approach, with testing of mental wellbeing tools being one of the examples. One such tool focuses on addressing mild to moderate levels of stress through preventive, low-intensity interventions. Rather than offering treatment for diagnosed mental health conditions, the tool is designed to teach coping strategies, representing a shift towards more accessible and scalable mental health support.

However, before piloting or scaling up the use of such tools - especially in vulnerable populations - stakeholders stressed the **importance of ensuring that there is strong clinical evidence** to support their effectiveness. They also raised concerns that the **implementation of certain tools could uncover hidden health needs**, potentially putting additional pressure on health systems that are already overwhelmed and facing a shortage of doctors.

To ensure relevance and impact, stakeholders recommended involving **a diverse group of stakeholders in the pilot phase**, including **local healthcare providers, institutions and technology experts**. They emphasized that psychological needs do not always correspond to physical diagnoses.

Age differences in the use of digital tools were also noted. Younger generations may feel more comfortable using digital health tools, while older people may be more hesitant, suggesting the need for tailored approaches based on age and digital literacy.

Stakeholders also highlighted the importance of ensuring the contextual relevance of pilot programs and the ability to scale solutions effectively across different communities and demographic groups. Finally, they pointed to **the need for digital tools that reduce administrative burdens**, particularly in areas such as patient registration and appointment booking, to improve efficiency and user experience in healthcare settings.



HACK-IT-NET**PolicyParley**

This section outlines the main feedback on the PolicyParley pilot that different PPs plan to implement. Each PP working on the PolicyParley concept has discussed potential ideas and elements to be included with their local stakeholders, exchanging knowledge and best practices. Stakeholders involved in the second local Town Hall meetings held by each PP highlighted several key inputs relevant to the PolicyParley concept:

Stakeholders participating in the PolicyParley discussions identified several critical challenges and offered suggestions to **improve accessibility, coordination and innovation in healthcare** - particularly through digital solutions, cross-border collaboration and citizen engagement.

A key barrier identified was the inability to centralize appointment booking across different healthcare providers due to legal restrictions. Differences in software systems and restrictions on data sharing between regions and countries were seen as further complicating factors, calling for solutions to **improve data interoperability and digital coordination between healthcare providers**. A proposed pilot project will explore these issues and test mechanisms for better integration of digital patient care.

Beyond digital infrastructure, participants highlighted the importance of **ensuring good working conditions for health and care staff**, particularly in terms of workload distribution and climate control in the workplace. The **need to improve coordination between health professionals across borders** was also identified as essential to address the complexities of cross-border care.

Another recurring theme was sustainability. Stakeholders stressed **the importance of raising awareness of sustainable practices among both health professionals and patients**. In this context, the citizen science approach was highlighted, especially in structurally disadvantaged areas where traditional top-down innovation often fails. Participants preferred this approach for its ability to directly involve citizens in designing healthcare solutions that reflect their real needs, preferences and local conditions. Participants emphasized that innovative and advanced solutions should not be imposed from above. Instead, such services should be developed with citizens using citizen science methods to ensure cultural and contextual appropriateness.

Central to this bottom-up approach is active listening and observation. Stakeholders advocated engaging directly with people in their everyday environment to understand their needs and routines. Finally, co-designing solutions based on which technologies people would readily adopt was seen as a way to ensure greater uptake and long-term impact.



6.2.3. Steps after organizing the Second Town Hall

This section outlines the main next steps that the project partners plan to take after organizing the second Town Hall, mainly related to analysing all the feedback received and further developing their pilots. The next steps include:

Collaborative planning

The most important decision for the future is the joint development of a common co-working space – Canva board, Word document, and report on the key takeaways from the meeting that will serve as the operational basis for the pilot action. This will ensure the summary of all the key takeaways from the event and allow key stakeholders to add any additional ideas, if they have merged after the meeting, as well as to give them the overview of the discussed activities and the next steps that are planned.

Pilot Design and Execution

Partners are committed to defining clear, measurable goals for each focus area and identifying both short-term actions and longer-term strategies. A structured plan will be developed to assess feasibility, particularly in areas like patient coordination, energy efficiency, and staff engagement. Legal and technical risks will be reviewed before implementation begins. A summary of all brainstorming results will be compiled into an internal report and shared for additional feedback. Based on stakeholder input, the Pilots will be structured, each tailored to different audiences. The next phase will focus on developing clear, audience-specific messages, selecting compelling pilot examples and identifying engaging, practical elements to bring the content to life. A key priority is to ensure clarity, reduce complexity and create an accessible, emotionally engaging format that resonates with different audiences.

Ongoing communication and evaluation

Ongoing collaboration and open communication will be essential throughout the next phases. Regular updates, feedback loops and meetings with key stakeholders will help refine the pilots. Participation in strategic networking events will support visibility and alignment, while collected ideas and proposed actions will be continuously evaluated to ensure relevance and feasibility.



7. Conclusion and Next Steps

7.1. Conclusion

The purpose of this document is to provide a comprehensive overview of A1.1, detailing the key takeaways from the health and care ecosystem analysis and multi-stakeholder engagement activities in D1.1.2 *Report, Infographics & Videos on Alpine Space Health & Care System Needs and Challenges*.

All PPs are required to provide feedback on the content of this report to ensure understanding of the key takeaways and to build the next activities from the key findings of this report. These include the summary and key findings of the analysis of 101 interview, the organization of 18 regional multi-stakeholder Town Halls and the facilitation of 9 Focus Groups, culminating in the D1.1.2 *Report, Infographics, and Videos on Alpine Space Health & Care System Needs and Challenges*.

According to the process developed in the implementation paper, all PPs should provide their feedback within 10 working days, with mandatory feedback from LP1/ProMIS and WP1 Leader PP4/CUAS.

The WP Leader (PP4/CUAS) will maintain overarching monitoring of the work packages and will support the WS Comms Leader (LP1/ProMIS) to trigger the communication items as planned.

7.2. Next Steps

This section summarizes the steps that have to be completed in order for D1.1.2 to be fully delivered.

The table below showcases the critical path to ensure the completion of the activity in due time according to AF expectations (due in Period 2). The responsibilities are defined and attributed following the RACI methodology (R: Responsible, A: Accountable, C: Consulted, I: Informed). For further planning, please refer to the sections “Timeline” showcasing the critical path for the deliverable D1.1.2 to be achieved.

Draft version of the D1.1.2 report	15 April 2025	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs
PPs review draft version of the report	30 April 2025 Prolonged to 16 May 2025	R: All PPs; A: PP3/NÖ LGA
Final version of the report	7 May 2025 Prolonged to 20 May 2025	R: PP3/NÖ LGA; A: PP3/NÖ LGA; C: All PPs
Video showcasing key takeaways from D1.1.2	30 June 2025	R: LP1/ProMIS; A: LP1/ProMIS; C: All PPs



8. Annex

8.1. Annex 1 - Stakeholder Mapping

The templates can be found on the following [link](#).

Health and Care System Needs and Challenges Analysis - Identifying Interviewees										Focus Groups	
Please identify the stakeholders you wish to interview from your ecosystem and provide the required information. After contacting them, record the date of the first contact and their response (either whether they accepted or declined). If they accept, schedule a date for the interview and send them the information toolkit, which includes the interview template and the HACK-IT-NET project presentation. Stakeholders (10 in total) must be identified and confirmed by November 30th, with five stakeholders confirmed by November 11th.										Please identify the stakeholders who wish to participate in the Focus Groups workshop, which will be organized at the end of February 2025.	
Note: You must have a min of 10 interviewees, including at least two representatives from each target group [Health and Care Service Providers, Health and Care Administration Staff, Policymakers, and Associations representing citizens and patients].										You must select five interviewed stakeholders, ensuring that there is at least one from each target group.	
No.	Name	Contact details (email)	Organization	Target Group by the A5 categorization (Locally public authority; Regional public authority; National public authority; Sectoral agency; Higher education institutions; Research centres; Local and regional chambers and associations; Local and regional government; Specialized NGOs; Local and regional associations; General associations)	Target Group (Health and Care Service Providers; Health and Care Administration Staff; Policymakers; and Associations representing citizens and patients)	Contacted	Status	Date of the Interview	Status	Final confirmation	
1											
2											
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											
14											
15											
16											

Town Halls - Identifying Participants										First Town Hall		Second Town Hall	
Please identify the stakeholders you want to invite to the Town Hall. Each Town Hall must include 15-25 participants representing the four identified target groups: Health and Care Service Providers, Health and Care Administration Staff, Policymakers, and Associations representing citizens and patients. Participants for the first Town Hall must be confirmed by November 18, 2024, and for the second Town Hall by February 28, 2025.										Note: Five interviews must be conducted during the first Town Hall, so the interviewees must be invited. During the second Town Hall, Focus Group representatives should be included.			
No.	Name	Contact details (email)	Organization	Target Group by the A5 categorization (Locally public authority; Regional public authority; National public authority; Sectoral agency; Higher education institutions; Research centres; Local and regional chambers and associations; Local and regional government; Specialized NGOs; Local and regional associations; General associations)	Target Group (Health and Care Service Providers; Health and Care Administration Staff; Policymakers; and Associations representing citizens and patients)	Contacted	Status	Interviewee	Contacted	Status	Focus Group		
1													
2													
3													
4													
5													
6													
7													
8													
9													
10													
11													
12													
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24													
25													
26													



8.2. Annex 2 - Interview Questionnaires - First round

The templates used during the first interviewing phase (version 2) can be found on the following [link](#).

Health and Care Service Providers	
Project and Activity description HACK-IT-NET is an innovative INTERREG Alpine Space project set to run for three years, from July 2024 to June 2027 . It brings together nine partners from six countries— IT, AT, SI, FR, DE, and CH —to enhance health and care provision by facilitating the transfer of innovations among ecosystem actors and healthcare professionals and employing novel methods and digital tools tailored to the specific needs of the Alpine region. <i>This questionnaire aims to identify the challenges faced by key stakeholders in the Alpine Space health and care sector. Based on the key takeaways from the interviews analysis and the identified challenges, the project's thematic objectives will be refined, and the most suitable methodologies for addressing these challenges will be explored. Interviewees who wish to engage further with the interview findings are invited to participate in the project activities as part of Focus Groups. These groups will meet for a workshop at the end of February (date to be determined) to provide their feedback on the main challenges identified in Alpine Space and be directly connected to existing best practices and initiatives coping with these challenges.</i>	
Name	
Region (County, region and city)	
Area (Urban: Populations of 2,500 inhabitants or more, including cities, towns, and suburbs; Rural: Populations of fewer than 2,500 inhabitants, consisting of open spaces, agricultural land, and smaller communities)	<input type="checkbox"/> Urban <input type="checkbox"/> Rural
Role description (Describe your role in the organization and provide the name of your position)	
Organization (name, website address)	
Contact information (phone number/email)	
Are you interested to be a part of the HACK-IT-NET Focus Group?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Would you like to be informed about the results of the analysis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Video consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Photo consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
GDPR form signed	<input type="checkbox"/> Yes <input type="checkbox"/> No
General Challenges in the Healthcare Sector	
1. What are the 3 biggest challenges in the health and care sector in your region ? Please explain. (For example, challenges caused by demographic change, a lack of qualified workforce, poor accessibility to services in rural areas, staff resistance to adopting advanced technologies, etc.) [free text response]	
2. What are the 3 biggest challenges in the health and care sector your organization faces? Please explain. [free text response]	



<p>3. How can the implementation of sustainable practices improve the overall challenges your organization faces?</p> <p>(<i>Sustainable practices: reducing waste, improving energy efficiency in operations, tools on SDG/ESG in practice, integrating circular transition or sustainability managers, prevention tools to reduce number of patients by empowering them etc.</i>)</p> <p>[free text response]</p>	
<p>4. How can the implementation of novel methods and digital tools improve the overall challenges your organization faces?</p> <p>(<i>Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.</i>)</p> <p>[free text response]</p>	
<p>5. How can the implementation of novel methods and digital tools improve patient care?</p> <p>(<i>Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.</i>)</p> <p>[free text response]</p>	
<p>Likert scale</p> <p>Indicate the level of agreement by selecting one of the options on the scale: 1 – strongly disagree; 2 – disagree; 3 - somewhat disagree; 4 - somewhat agree; 5- agree; 6- strongly agree</p>	
<p>6. Demographic change has a significant influence on the health and care system in your region.</p>	1 2 3 4 5 6
<p>7. Rural areas in your region are accessible, and there is an established system for providing health and care services to patients.</p>	1 2 3 4 5 6
<p>8. There are still some aging or inadequate healthcare facilities that do not meet modern standards for patient care in your region.</p>	1 2 3 4 5 6
<p>9. Your institution faces difficulties in finding a qualified workforce.</p>	1 2 3 4 5 6
<p>10. Your institution provides the necessary knowledge and training and has a clear strategy for upskilling the workforce.</p>	1 2 3 4 5 6
<p>11. Your institution has sustainable practices (e.g. waste management system, energy management system, tools on SDG/ESG in practice, staff member in charge of sustainability, prevention tools or processes etc.) and a sustainable strategy in place.</p>	1 2 3 4 5 6
<p>12. You and your colleagues are encouraged to participate in the implementation of sustainable practices.</p>	1 2 3 4 5 6
<p>13. There are digitization initiatives in your institution.</p>	1 2 3 4 5 6
<p>14. You work with digital tools and novel methods and implement them in everyday work.</p>	1 2 3 4 5 6



Alpine Space

HACK-IT-NET

15. You and your colleagues have the required knowledge and experience to utilize digital tools and novel methods.	1	2	3	4	5	6
16. You are informed about your institution's cybersecurity policies and the steps needed to protect patient data	1	2	3	4	5	6
17. You and your colleagues recognize the importance of sustainable practices, digital tools, and novel methods and are willing to use them.	1	2	3	4	5	6
18. Patients recognize the advantages of digital tools and novel methods and are adaptive to them.	1	2	3	4	5	6

Space for additional comments

Feedback Loop	
19. Do you have any additional challenges or solutions in the health and care sector that you believe are worth mentioning? [free text response]	Additional Challenges: Additional Solutions:
20. Do you have any additional comments which you are prompted to tell us about, before we complete this interview? [free text response]	

Health and Care Administration Staff	
Project and Activity description HACK-IT-NET is an innovative INTERREG Alpine Space project set to run for three years, from July 2024 to June 2027 . It brings together nine partners from six countries— IT, AT, SI, FR, DE, and CH —to enhance health and care provision by facilitating the transfer of innovations among ecosystem actors and healthcare professionals and employing novel methods and digital tools tailored to the specific needs of the Alpine region. <i>This questionnaire aims to identify the challenges faced by key stakeholders in the Alpine Space health and care sector. Based on the key takeaways from the interviews analysis and the identified challenges, the project's thematic objectives will be refined, and the most suitable methodologies for addressing these challenges will be explored. Interviewees who wish to engage further with the interview findings are invited to participate in the project activities as part of Focus Groups. These groups will meet for a workshop at the end of February (date to be determined) to provide their feedback on the main challenges identified in Alpine Space and be directly connected to existing best practices and initiatives coping with these challenges.</i>	
Name	
Region (County, region and city)	
Area (Urban: Populations of 2,500 inhabitants or more, including cities, towns, and suburbs; Rural: Populations of fewer than 2,500 inhabitants, consisting of open spaces, agricultural land, and smaller communities)	<input type="checkbox"/> Urban <input type="checkbox"/> Rural
Role description (Describe your role in the organization and provide the name of your position)	
Organization (name, website address)	
Contact information (phone number/email)	
Are you interested to be a part of the HACK-IT-NET Focus Group?	<input type="checkbox"/> Yes <input type="checkbox"/> No



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Would you like to be informed about the results of the analysis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Video consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Photo consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
GDPR form signed	<input type="checkbox"/> Yes <input type="checkbox"/> No
General Challenges in the Healthcare Sector	
1. What are the 3 biggest challenges in the health and care sector in your region ? Please explain. (for example, challenges caused by demographic change, a lack of qualified workforce, poor accessibility to services in rural areas, staff resistance to adopting advanced technologies, etc.) [free text response]	
2. What are the 3 biggest challenges in the health and care sector your organization faces? Please explain. [free text response]	
3. How can the implementation of sustainable practices improve the overall challenges your organization faces? (Sustainable practices: reducing waste, improving energy efficiency in operations, tools on SDG/ESG in practice, integrating circular transition or sustainability managers, prevention tools to reduce number of patients by empowering them etc.) [free text response]	
4. How can the implementation of novel methods and digital tools improve the overall challenges your organization faces? (Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.) [free text response]	
5. How can the implementation of novel methods and digital tools improve patient care ? (Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.) [free text response]	
6. Are there any policy or regulatory restrictions that your institution is facing? If so, please describe them. [free text response]	
Likert scale Indicate the level of agreement by selecting one of the options on the scale: 1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – somewhat agree; 5 – agree; 6 – strongly agree	

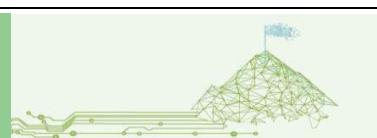


7. Demographic change has a significant influence on the health and care system in your region.	1	2	3	4	5	6
8. Rural areas in your region are accessible, and there is an established system for providing health and care services to patients.	1	2	3	4	5	6
9. Planning and governance initiatives in your region are in place to address challenges such as healthcare workforce shortages, accessibility in remote areas, etc.	1	2	3	4	5	6
10. You are aware of the existing incentives and financial/policy instruments available to promote the implementation of sustainable practices, digital tools, and novel methods.	1	2	3	4	5	6
11. There are no limitations that your institution faces regarding funding or resources that impact service delivery .	1	2	3	4	5	6
12. There are still some aging or inadequate healthcare facilities that do not meet modern standards for patient care in your region.	1	2	3	4	5	6
13. Health and care institutions in your region face difficulties in finding a qualified workforce .	1	2	3	4	5	6
14. Your institution faces difficulties in finding a qualified workforce .	1	2	3	4	5	6
15. Your institution has a strategy in place for recruiting and retaining a qualified workforce .	1	2	3	4	5	6
16. Your institution provides the necessary knowledge and training and has a clear strategy for upskilling the workforce.	1	2	3	4	5	6
17. Your institution has sustainable practices (e.g. waste management system, energy management system, tools on SDG/ESG in practice, staff member in charge of sustainability, prevention tools & processes to reduce number of patients by empowering them) and a sustainable strategy in place .	1	2	3	4	5	6
18. Health and care staff is encouraged to participate in the implementation of sustainable practices .	1	2	3	4	5	6
19. There are digitization initiatives in your institution.	1	2	3	4	5	6
20. Health and care staff has the opportunity to utilize digital tools and novel methods and implement them in everyday work.	1	2	3	4	5	6
21. Health and care staff has the required knowledge and experience to utilize digital tools and novel methods.	1	2	3	4	5	6
22. Your institution has cybersecurity policies in place and the steps needed to protect patient data .	1	2	3	4	5	6
23. Health and care staff recognizes the importance of sustainable practices, digital	1	2	3	4	5	6

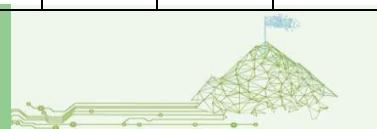


tools, and novel methods and is willing to use them.						
24. Patients recognize the advantages of digital tools and novel methods and are adaptive to them.	1	2	3	4	5	6
Space for additional comments						
Feedback Loop						
25. Do you have any additional challenges or solutions in the health and care sector that you believe are worth mentioning? [free text response]	Additional Challenges: Additional Solutions:					
26. Do you have any additional comments which you are prompted to tell us about, before we complete this interview? [free text response]						

Policymakers	
Project and Activity description	
<p>HACK-IT-NET is an innovative INTERREG Alpine Space project set to run for three years, from July 2024 to June 2027. It brings together nine partners from six countries—IT, AT, SI, FR, DE, and CH—to enhance health and care provision by facilitating the transfer of innovations among ecosystem actors and healthcare professionals and employing novel methods and digital tools tailored to the specific needs of the Alpine region.</p> <p>This questionnaire aims to identify the key challenges faced by key stakeholders in the Alpine Space health and care sector. Based on the key takeaways from the interviews analysis and the identified challenges, the project's thematic objectives will be refined, and the most suitable methodologies for addressing these challenges will be explored. Interviewees who wish to engage further with the interview findings are invited to participate in the project activities as part of Focus Groups. These groups will meet for a workshop at the end of February (date to be determined) to provide their feedback on the main challenges identified in Alpine Space and be directly connected to existing best practices and initiatives coping with these challenges.</p>	
Name	
Region (County, region and city)	
Area <i>(Urban: Populations of 2,500 inhabitants or more, including cities, towns, and suburbs; Rural: Populations of fewer than 2,500 inhabitants, consisting of open spaces, agricultural land, and smaller communities)</i>	<input type="checkbox"/> Urban <input type="checkbox"/> Rural
Role description <i>(Describe your role in the organization and provide the name of your position)</i>	
Organization (name, website address if any)	
Contact information (phone number/email)	
Are you interested to be a part of the HACK-IT-NET Focus Group?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Would you like to be informed about the results of the analysis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Video consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Photo consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
GDPR form signed	<input type="checkbox"/> Yes <input type="checkbox"/> No



General Challenges in the Healthcare Sector						
1. What are the 3 biggest challenges in the health and care sector in your region ? Please explain. <i>(for example, challenges caused by demographic change, a lack of qualified workforce, poor accessibility to services in rural areas, , lack of digitalization initiatives in the region, etc.)</i> <i>[free text response]</i>						
2. What initiatives are in place to address health and care challenges in the region? Please explain. <i>[free text response]</i>						
3. Do you have an established system for cross-regional collaboration and learning? If so, please describe it. <i>[free text response]</i>						
4. Do you have an established system for cross-sectoral collaboration and learning? If so, please describe it. <i>[free text response]</i>						
5. Are there planning and governance initiatives/ incentives in your region to address challenges such as healthcare workforce shortages and accessibility to healthcare services in rural areas? If so, please explain. <i>[free text response]</i>						
Likert scale						
<i>Indicate the level of agreement by selecting one of the options on the scale: 1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – somewhat agree; 5 – agree; 6 – strongly agree</i>						
6. Demographic change has a significant influence on the health and care system in your region.	1	2	3	4	5	6
7. Rural areas in your region are accessible, and there is an established system for providing health and care services to patients.	1	2	3	4	5	6
8. Health and care institutions in your region face difficulties in finding a qualified workforce .	1	2	3	4	5	6
9. There are still some aging or inadequate healthcare facilities that do not meet modern standards for patient care in your region.	1	2	3	4	5	6
10. Health and care institutions in your region face lack of technological infrastructure to support digital health initiatives (e.g. telemedicine and others)	1	2	3	4	5	6
11. Planning and governance initiatives in your region are in place to address challenges such as healthcare workforce shortages, accessibility in remote areas, etc.	1	2	3	4	5	6

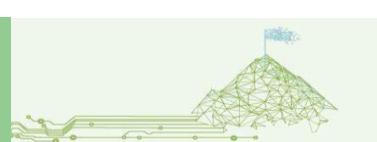


12. Sustainable practices are present in the health and care institutions in your region (e.g. waste management system, energy management system, tools on SDG/ESG in practice, staff member in charge of sustainability, prevention tools & processes to reduce number of patients by empowering them).	1	2	3	4	5	6
13. There are digitization initiatives in the health and care institutions in your region.	1	2	3	4	5	6
14. There are different incentives and financial/policy instruments in place to boost the implementation of sustainable practices in the health and care sector.	1	2	3	4	5	6
15. There are different incentives and financial/policy instruments in place to boost the implementation of novel methods and digital tools in the health and care sector.	1	2	3	4	5	6
16. Health and care institutions are aware of the existing incentives and financial/policy instruments available to promote the implementation of sustainable practices, digital tools, and novel methods.	1	2	3	4	5	6

Space for additional comments

Feedback Loop	
17. Do you have any additional challenges or solutions in the health and care sector that you believe are worth mentioning? <i>[free text response]</i>	Additional Challenges: Additional Solutions:
18. Do you have any additional comments which you are prompted to tell us about, before we complete this interview? <i>[free text response]</i>	

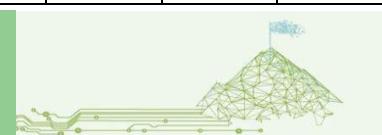
Associations Representing Citizens and Patients	
Project and Activity description	
HACK-IT-NET is an innovative INTERREG Alpine Space project set to run for three years, from July 2024 to June 2027 . It brings together nine partners from six countries— IT, AT, SI, FR, DE, and CH —to enhance health and care provision by facilitating the transfer of innovations among ecosystem actors and healthcare professionals and employing novel methods and digital tools tailored to the specific needs of the Alpine region.	
This questionnaire aims to identify the key challenges faced by key stakeholders in the Alpine Space health and care sector . Based on the key takeaways from the interviews analysis and the identified challenges, the project's thematic objectives will be refined, and the most suitable methodologies for addressing these challenges will be explored. Interviewees who wish to engage further with the interview findings are invited to participate in the project activities as part of Focus Groups . These groups will meet for a workshop at the end of February (date to be determined) to provide their feedback on the main challenges identified in Alpine Space and be directly connected to existing best practices and initiatives coping with these challenges.	
Name	
Region (County, region and city)	
Area (Urban: Populations of 2,500 inhabitants or more, including cities, towns, and suburbs; Rural: Populations of fewer than	<input type="checkbox"/> Urban <input type="checkbox"/> Rural



<i>2,500 inhabitants, consisting of open spaces, agricultural land, and smaller communities)</i>	
Role description <i>(Describe your role in the organization and provide the name of your position)</i>	
Organization (<i>name, website address if any</i>)	
Contact information (<i>phone number/email</i>)	
Are you interested to be a part of the HACK-IT-NET Focus Group?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Would you like to be informed about the results of the analysis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Video consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Photo consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
GDPR form signed	<input type="checkbox"/> Yes <input type="checkbox"/> No
General Challenges in the Healthcare Sector	
1. What are the 3 biggest challenges in the health and care sector in your region ? Please explain. (<i>for example, a lack of qualified workforce, poor accessibility to services in rural areas, long waiting times for proper treatment, limited availability of doctors, use of new technologies, etc.</i>) [free text response]	
2. What are the 3 biggest challenges in the health and care sector that you face ? Please explain. [free text response]	
3. Which aspects of the health and care services offered to you are you satisfied with ? Please explain. [free text response]	
4. What aspects of the health and care services offered to you are you dissatisfied with ? Please explain. [free text response]	
5. Are you aware if the health and care institutions in your region are applying sustainable practices in the operation of their organization? If so, which ones? (<i>Sustainable practices: reducing waste, improving energy efficiency in operations, tools on SDG/ESG in practice, integrating circular transition or sustainability managers, prevention tools & processes to reduce number of patients by empowering them etc.</i>) [free text response]	
6. Are you aware if the health and care institutions in your region applying digital tools and innovative ? If so, which ones?	



<p>(<i>Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.</i>)</p> <p><i>[free text response]</i></p>							
<p>7. What are your thoughts on new digital tools and innovative methods in the health and care sector?</p> <p>(<i>Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.</i>)</p> <p><i>[free text response]</i></p>							
<p>Likert scale</p> <p>Indicate the level of agreement by selecting one of the options on the scale: 1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – somewhat agree; 5 – agree; 6 – strongly agree</p>							
<p>8. The health and care system in your region is well-established and operates effectively and efficiently (universal coverage, preventive care, patient-centered services, easy access to services, etc.)</p>		1	2	3	4	5	6
<p>9. It's easy for you to reach healthcare facilities (e.g., hospitals, clinics).</p>		1	2	3	4	5	6
<p>10. Rural areas in your region are accessible, and there is an established system for providing health and care services to patients.</p>		1	2	3	4	5	6
<p>11. You have access to health and care services whenever you need them.</p>		1	2	3	4	5	6
<p>12. There is a lack of qualified workforce in your region.</p>		1	2	3	4	5	6
<p>13. There are enough healthcare professionals (doctors, nurses) in your community to meet local needs.</p>		1	2	3	4	5	6
<p>14. Health and care staff in your area has the knowledge and skills necessary to provide you with the care and treatment you need (there is no need to go to other areas to receive the treatment you need).</p>		1	2	3	4	5	6
<p>15. You are aware of any digital healthcare services (e.g., telemedicine) in your area, and you use them.</p>		1	2	3	4	5	6
<p>16. You feel comfortable with treatments that rely on digital tools and novel methods (e.g., personalized medicine, participatory medicine, artificial intelligence, virtual hospital, telehealth).</p>		1	2	3	4	5	6
<p>17. You feel that your healthcare provider takes adequate steps to protect your personal data and ensure the security of digital systems used in your care.</p>		1	2	3	4	5	6
<p>18. You recognize the advantages of new technologies and novel methods and are adaptive to them (e.g., personalized medicine, participatory medicine, artificial intelligence, virtual hospital, telehealth).</p>		1	2	3	4	5	6



Space for additional comments	
Feedback Loop	
19. Do you have any additional challenges or solutions in the health and care sector that you believe are worth mentioning? <i>[free text response]</i>	Additional Challenges: Additional Solutions:
20. Do you have any additional comments which you are prompted to tell us about, before we complete this interview? <i>[free text response]</i>	

8.3. Annex 3 - Interview templates - Second round

The templates used during the second interviewing phase can be found on the following [link](#).

Health and Care Service Providers	
Project and Activity description	
<p>HACK-IT-NET is an innovative INTERREG Alpine Space project set to run for three years, from July 2024 to June 2027. It brings together nine partners from six countries—IT, AT, SI, FR, DE, and CH—to enhance health and care provision by facilitating the transfer of innovations among ecosystem actors and healthcare professionals and employing novel methods and digital tools tailored to the specific needs of the Alpine region.</p> <p>This questionnaire aims to identify the challenges faced by key stakeholders in the Alpine Space health and care sector. Based on the key takeaways from the interviews analysis and the identified challenges, the project's thematic objectives will be refined, and the most suitable methodologies for addressing these challenges will be explored. Interviewees who wish to engage further with the interview findings are invited to participate in the project activities as part of Focus Groups. These groups will meet for a workshop at the end of February (date to be determined) to provide their feedback on the main challenges identified in Alpine Space and be directly connected to existing best practices and initiatives coping with these challenges.</p>	
Name	
Region (County, region and city)	
The area your organization operates in/you represent <i>(Urban: Populations of 2,500 inhabitants or more, including cities, towns, and suburbs; Rural: Populations of fewer than 2,500 inhabitants, consisting of open spaces, agricultural land, and smaller communities)</i>	<input type="checkbox"/> Urban <input type="checkbox"/> Rural
Role description <i>(Describe your role in the organization and provide the name of your position)</i>	
Organization (name, website address)	
Contact information (phone number/email)	
Are you interested to be a part of the HACK-IT-NET Focus Group?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Would you like to be informed about the results of the analysis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Video consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Photo consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
GDPR form signed	<input type="checkbox"/> Yes



<input type="checkbox"/> No						
General Challenges in the Healthcare Sector						
1. What are the 3 biggest challenges in the health and care sector in your region ? Please explain. <i>(For example, challenges caused by demographic change, a lack of qualified workforce, poor accessibility to services in rural areas, staff resistance to adopting advanced technologies, etc.)</i> <i>[free text response]</i>						
2. What are the 3 biggest challenges in the health and care sector your organization faces? Please explain. <i>[free text response]</i>						
3. How can the implementation of sustainable practices improve the overall challenges your organization faces? <i>(Sustainable practices - environmental, social and governance: reducing waste, improving energy efficiency in operations, tools on SDG/ESG in practice, integrating circular transition or sustainability managers, prevention tools to reduce number of patients by empowering them etc.)</i> <i>[free text response]</i>						
4. How can the implementation of novel methods and digital tools improve the overall challenges your organization faces? <i>(Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.)</i> <i>[free text response]</i>						
5. How can the implementation of novel methods and digital tools improve patient care ? <i>(Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.)</i> <i>[free text response]</i>						
Likert scale <i>Indicate the level of agreement by selecting one of the options on the scale: 1 – strongly disagree; 2 – disagree; 3- somewhat disagree; 4 - somewhat agree; 5- agree; 6- strongly agree</i>						
6. Demographic change has a significant influence on the health and care system in your region.	1	2	3	4	5	6
7. Rural areas in your region are accessible, and there is an established system for providing health and care services to patients.	1	2	3	4	5	6
8. There are still some aging or inadequate healthcare facilities that do not meet modern standards for patient care in your region.	1	2	3	4	5	6
9. Your institution faces difficulties in finding a qualified workforce .	1	2	3	4	5	6

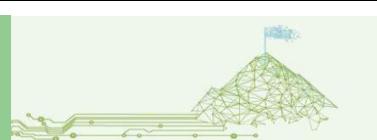


10. Your institution provides the necessary knowledge and training and has a clear strategy for upskilling the workforce.	1	2	3	4	5	6
11. Your institution has sustainable practices (environmental, social and governance, e.g. waste management system, energy management system, tools on SDG/ESG in practice, staff member in charge of sustainability, prevention tools or processes etc.) and a sustainable strategy in place.	1	2	3	4	5	6
12. You and your colleagues are encouraged to participate in the implementation of sustainable practices .	1	2	3	4	5	6
13. There are digitization initiatives in your institution.	1	2	3	4	5	6
14. You work with digital tools and novel methods and implement them in everyday work.	1	2	3	4	5	6
15. You and your colleagues have the required knowledge and experience to utilize digital tools and novel methods .	1	2	3	4	5	6
16. You are informed about your institution's cybersecurity policies and the steps needed to protect patient data	1	2	3	4	5	6
17. You and your colleagues recognize the importance of sustainable practices, digital tools, and novel methods and are willing to use them.	1	2	3	4	5	6
18. Patients recognize the advantages of digital tools and novel methods and are adaptive to them.	1	2	3	4	5	6

Space for additional comments

Feedback Loop	
19. Do you have any additional challenges or solutions in the health and care sector that you believe are worth mentioning? <i>[free text response]</i>	Additional Challenges: Additional Solutions:
20. Do you have any additional comments which you are prompted to tell us about, before we complete this interview? <i>[free text response]</i>	

Health and Care Administration Staff
Project and Activity description HACK-IT-NET is an innovative INTERREG Alpine Space project set to run for three years, from July 2024 to June 2027 . It brings together nine partners from six countries— IT, AT, SI, FR, DE, and CH —to enhance health and care provision by facilitating the transfer of innovations among ecosystem actors and healthcare professionals and employing novel methods and digital tools tailored to the specific needs of the Alpine region. This questionnaire aims to identify the challenges faced by key stakeholders in the Alpine Space health and care sector . Based on the key takeaways from the interviews analysis and the identified challenges, the project's thematic objectives will be refined, and the most suitable methodologies for addressing these challenges will be explored.



Alpine Space

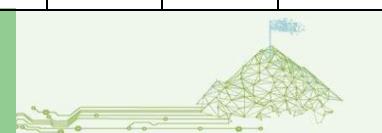
HACK-IT-NET

Interviewees who wish to engage further with the interview findings are invited to participate in the project activities as part of **Focus Groups**. These groups will meet for a workshop at the end of February (date to be determined) to provide their feedback on the main challenges identified in Alpine Space and be directly connected to existing best practices and initiatives coping with these challenges.

Name	
Region (County, region and city)	
The area your organization operates in/you represent <i>(Urban: Populations of 2,500 inhabitants or more, including cities, towns, and suburbs; Rural: Populations of fewer than 2,500 inhabitants, consisting of open spaces, agricultural land, and smaller communities)</i>	<input type="checkbox"/> Urban <input type="checkbox"/> Rural
Role description <i>(Describe your role in the organization and provide the name of your position)</i>	
Organization (name, website address)	
Contact information (phone number/email)	
Are you interested to be a part of the HACK-IT-NET Focus Group?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Would you like to be informed about the results of the analysis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Video consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Photo consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
GDPR form signed	<input type="checkbox"/> Yes <input type="checkbox"/> No
General Challenges in the Healthcare Sector	
1. What are the 3 biggest challenges in the health and care sector in your region ? Please explain. <i>(for example, challenges caused by demographic change, a lack of qualified workforce, poor accessibility to services in rural areas, staff resistance to adopting advanced technologies, etc.)</i> <i>[free text response]</i>	
2. What are the 3 biggest challenges in the health and care sector your organization faces? Please explain. <i>[free text response]</i>	
3. How can the implementation of sustainable practices improve the overall challenges your organization faces? <i>(Sustainable practices- environmental, social and governance: reducing waste, improving energy efficiency in operations, tools on SDG/ESG in practice, integrating circular transition or sustainability managers, prevention tools to reduce number of patients by empowering them etc.)</i> <i>[free text response]</i>	
4. How can the implementation of novel methods and digital tools improve the overall challenges your organization faces? <i>(Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual</i>	



<i>hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.)</i> <i>[free text response]</i>						
5. How can the implementation of novel methods and digital tools improve patient care ? <i>(Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.)</i> <i>[free text response]</i>						
6. Are there any policy or regulatory restrictions that your institution is facing? If so, please describe them. <i>[free text response]</i>						
Likert scale <i>Indicate the level of agreement by selecting one of the options on the scale: 1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – somewhat agree; 5 – agree; 6 – strongly agree</i>						
7. Demographic change has a significant influence on the health and care system in your region.	1	2	3	4	5	6
8. Rural areas in your region are accessible, and there is an established system for providing health and care services to patients.	1	2	3	4	5	6
9. Planning and governance initiatives in your region are in place to address challenges such as healthcare workforce shortages, accessibility in remote areas, etc.	1	2	3	4	5	6
10. You are aware of the existing incentives and financial/policy instruments available to promote the implementation of sustainable practices, digital tools, and novel methods.	1	2	3	4	5	6
11. There are no limitations that your institution faces regarding funding or resources that impact service delivery .	1	2	3	4	5	6
12. There are still some aging or inadequate healthcare facilities that do not meet modern standards for patient care in your region.	1	2	3	4	5	6
13. Health and care institutions in your region face difficulties in finding a qualified workforce .	1	2	3	4	5	6
14. Your institution faces difficulties in finding a qualified workforce .	1	2	3	4	5	6
15. Your institution has a strategy in place for recruiting and retaining a qualified workforce .	1	2	3	4	5	6
16. Your institution provides the necessary knowledge and training and has a clear strategy for upskilling the workforce.	1	2	3	4	5	6
17. Your institution has sustainable practices (environmental, social and governance, e.g. waste management system, energy management system, tools on SDG/ESG in	1	2	3	4	5	6



Alpine Space

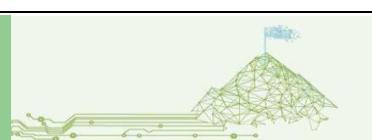
HACK-IT-NET

practice, staff member in charge of sustainability, prevention tools & processes to reduce number of patients by empowering them) and a sustainable strategy in place .						
18. Health and care staff is encouraged to participate in the implementation of sustainable practices.	1	2	3	4	5	6
19. There are digitization initiatives in your institution.	1	2	3	4	5	6
20. Health and care staff has the opportunity to utilize digital tools and novel methods and implement them in everyday work.	1	2	3	4	5	6
21. Health and care staff has the required knowledge and experience to utilize digital tools and novel methods.	1	2	3	4	5	6
22. Your institution has cybersecurity policies in place and the steps needed to protect patient data .	1	2	3	4	5	6
23. Health and care staff recognizes the importance of sustainable practices, digital tools, and novel methods and is willing to use them.	1	2	3	4	5	6
24. Patients recognize the advantages of digital tools and novel methods and are adaptive to them.	1	2	3	4	5	6

Space for additional comments

Feedback Loop	
25. Do you have any additional challenges or solutions in the health and care sector that you believe are worth mentioning? <i>[free text response]</i>	Additional Challenges: Additional Solutions:
26. Do you have any additional comments which you are prompted to tell us about, before we complete this interview? <i>[free text response]</i>	

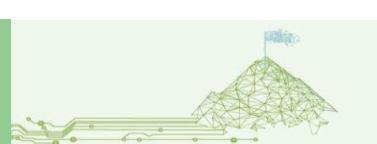
Policymakers	
Project and Activity description	
HACK-IT-NET is an innovative INTERREG Alpine Space project set to run for three years, from July 2024 to June 2027 . It brings together nine partners from six countries— IT, AT, SI, FR, DE, and CH —to enhance health and care provision by facilitating the transfer of innovations among ecosystem actors and healthcare professionals and employing novel methods and digital tools tailored to the specific needs of the Alpine region.	
This questionnaire aims to identify the key challenges faced by key stakeholders in the Alpine Space health and care sector . Based on the key takeaways from the interviews analysis and the identified challenges, the project's thematic objectives will be refined, and the most suitable methodologies for addressing these challenges will be explored. Interviewees who wish to engage further with the interview findings are invited to participate in the project activities as part of Focus Groups . These groups will meet for a workshop at the end of February (date to be determined) to provide their feedback on the main challenges identified in Alpine Space and be directly connected to existing best practices and initiatives coping with these challenges.	
Name	



Alpine Space

HACK-IT-NET

Region (County, region and city)	
The area your organization operates in/you represent <i>(Urban: Populations of 2,500 inhabitants or more, including cities, towns, and suburbs; Rural: Populations of fewer than 2,500 inhabitants, consisting of open spaces, agricultural land, and smaller communities)</i>	<input type="checkbox"/> Urban <input type="checkbox"/> Rural
Role description <i>(Describe your role in the organization and provide the name of your position)</i>	
Organization (name, website address if any)	
Contact information (phone number/email)	
Are you interested to be a part of the HACK-IT-NET Focus Group?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Would you like to be informed about the results of the analysis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Video consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Photo consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
GDPR form signed	<input type="checkbox"/> Yes <input type="checkbox"/> No
General Challenges in the Healthcare Sector	
1. What are the 3 biggest challenges in the health and care sector in your region ? Please explain. <i>(for example, challenges caused by demographic change, a lack of qualified workforce, poor accessibility to services in rural areas, , lack of digitalization initiatives in the region, etc.)</i> <i>[free text response]</i>	
2. What initiatives are in place to address health and care challenges in the region? Please explain. <i>[free text response]</i>	
3. Do you have an established system for cross-regional collaboration and learning? If so, please describe it. <i>[free text response]</i>	
4. Do you have an established system for cross-sectoral collaboration and learning? If so, please describe it. <i>[free text response]</i>	
5. Are there planning and governance initiatives/ incentives in your region to address challenges such as healthcare workforce shortages and accessibility to healthcare services in rural areas? If so, please explain. <i>[free text response]</i>	
Likert scale	



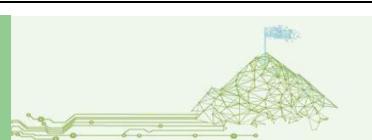
Indicate the level of agreement by selecting one of the options on the scale: 1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – somewhat agree; 5- agree; 6- strongly agree

6. Demographic change has a significant influence on the health and care system in your region.	1	2	3	4	5	6
7. Rural areas in your region are accessible, and there is an established system for providing health and care services to patients.	1	2	3	4	5	6
8. Health and care institutions in your region face difficulties in finding a qualified workforce .	1	2	3	4	5	6
9. There are still some aging or inadequate healthcare facilities that do not meet modern standards for patient care in your region.	1	2	3	4	5	6
10. Health and care institutions in your region face lack of technological infrastructure to support digital health initiatives (e.g. telemedicine and others)	1	2	3	4	5	6
11. Planning and governance initiatives in your region are in place to address challenges such as healthcare workforce shortages, accessibility in remote areas, etc.	1	2	3	4	5	6
12. Sustainable practices are present in the health and care institutions in your region (environmental, social and governance, e.g. waste management system, energy management system, tools on SDG/ESG in practice, staff member in charge of sustainability, prevention tools & processes to reduce number of patients by empowering them).	1	2	3	4	5	6
13. There are digitization initiatives in the health and care institutions in your region.	1	2	3	4	5	6
14. There are different incentives and financial/policy instruments in place to boost the implementation of sustainable practices in the health and care sector.	1	2	3	4	5	6
15. There are different incentives and financial/policy instruments in place to boost the implementation of novel methods and digital tools in the health and care sector.	1	2	3	4	5	6
16. Health and care institutions are aware of the existing incentives and financial/policy instruments available to promote the implementation of sustainable practices, digital tools, and novel methods.	1	2	3	4	5	6

Space for additional comments

Feedback Loop

17. Do you have any additional challenges or solutions in the health and care sector that you believe are worth mentioning? [free text response]	Additional Challenges: Additional Solutions:
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Alpine Space

HACK-IT-NET

18. Do you have **any additional comments** which you are prompted to tell us about, before we complete this interview?

[free text response]

Associations Representing Citizens and Patients

Project and Activity description

HACK-IT-NET is an innovative INTERREG Alpine Space project set to run for three years, from **July 2024 to June 2027**. It brings together nine partners from six countries—**IT, AT, SI, FR, DE, and CH**—to enhance health and care provision by facilitating the transfer of innovations among ecosystem actors and healthcare professionals and employing novel methods and digital tools tailored to the specific needs of the Alpine region.

This questionnaire aims to **identify the key challenges faced by key stakeholders in the Alpine Space health and care sector**. Based on the key takeaways from the interviews analysis and the identified challenges, the project's thematic objectives will be refined, and the most suitable methodologies for addressing these challenges will be explored.

Interviewees who wish to engage further with the interview findings are invited to participate in the project activities as part of **Focus Groups**. These groups will meet for a workshop at the end of February (date to be determined) to provide their **feedback on the main challenges identified in Alpine Space** and be directly **connected to existing best practices and initiatives** coping with these challenges.

Name	
Region (County, region and city)	
The area your organization operates in/you represent <i>(Urban: Populations of 2,500 inhabitants or more, including cities, towns, and suburbs; Rural: Populations of fewer than 2,500 inhabitants, consisting of open spaces, agricultural land, and smaller communities)</i>	<input type="checkbox"/> Urban <input type="checkbox"/> Rural
Role description <i>(Describe your role in the organization and provide the name of your position)</i>	
Organization (name, website address if any)	
Contact information (phone number/email)	
Are you interested to be a part of the HACK-IT-NET Focus Group?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Would you like to be informed about the results of the analysis?	<input type="checkbox"/> Yes <input type="checkbox"/> No
Video consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
Photo consent	<input type="checkbox"/> Yes <input type="checkbox"/> No
GDPR form signed	<input type="checkbox"/> Yes <input type="checkbox"/> No

General Challenges in the Healthcare Sector

- What are the **3 biggest challenges** for patients in the health and care sector in **their region**? Please explain.
(for example, a lack of qualified workforce, poor accessibility to services in rural areas, long waiting times for proper treatment, limited availability of doctors, use of new technologies, etc.)

[free text response]



<p>2. What are the 3 biggest challenges for patients in the health and care sector that they face (local level)? Please explain.</p> <p><i>[free text response]</i></p>	
<p>3. What aspects of the health and care services provided to patients are they satisfied with? Please explain.</p> <p><i>[free text response]</i></p>	
<p>4. What aspects of the health and care services provided to patients are they dissatisfied with? Please explain.</p> <p><i>[free text response]</i></p>	
<p>5. Are patients aware if the health and care institutions in their region are applying sustainable practices in the operation of their organization? If so, which ones?</p> <p><i>(Sustainable practices - environmental, social and governance: reducing waste, improving energy efficiency in operations, tools on SDG/ESG in practice, integrating circular transition or sustainability managers, prevention tools & processes to reduce number of patients by empowering them etc.)</i></p> <p><i>[free text response]</i></p>	
<p>6. Are patients aware if the health and care institutions in their region apply digital tools and innovative methods? If so, which ones?</p> <p><i>(Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.)</i></p> <p><i>[free text response]</i></p>	
<p>7. What are patients' thoughts on new digital tools and innovative methods in the health and care sector?</p> <p><i>(Novel methods and digital tools: Personalized medicine, Participatory medicine, Artificial intelligence, Virtual hospital, Telehealth, Big data, Digital therapy, Digital twins, etc.)</i></p> <p><i>[free text response]</i></p>	

Likert scale

Indicate the level of agreement by selecting one of the options on the scale: 1 – strongly disagree; 2 – disagree; 3 – somewhat disagree; 4 – somewhat agree; 5 – agree; 6 – strongly agree

<p>8. The health and care system in patients' region is well-established and operates effectively and efficiently (universal coverage, preventive care, patient-centered services, easy access to services, etc.)</p>	1	2	3	4	5	6
<p>9. It's easy for patients to reach healthcare facilities (e.g., hospitals, clinics).</p>	1	2	3	4	5	6
<p>10. Rural areas in patients' region are accessible, and there is an established system for</p>	1	2	3	4	5	6



providing health and care services to patients.						
11. Patients have access to health and care services whenever they need them.	1	2	3	4	5	6
12. There is a lack of qualified workforce in patients' region.	1	2	3	4	5	6
13. There are enough healthcare professionals (doctors, nurses) in their community to meet local needs.	1	2	3	4	5	6
14. Health and care staff in patients' area has the knowledge and skills necessary to provide them with the care and treatment they need (there is no need to go to other areas to receive the treatment they need).	1	2	3	4	5	6
15. Patients are aware of any digital healthcare services (e.g., telemedicine) in their area, and they use them.	1	2	3	4	5	6
16. Patients feel comfortable with treatments that rely on digital tools and novel methods (e.g., personalized medicine, participatory medicine, artificial intelligence, virtual hospital, telehealth).	1	2	3	4	5	6
17. Patients feel that their healthcare provider takes adequate steps to protect their personal data and ensure the security of digital systems used in their care.	1	2	3	4	5	6
18. Patients recognize the advantages of new technologies and novel methods and are adaptive to them (e.g., personalized medicine, participatory medicine, artificial intelligence, virtual hospital, telehealth).	1	2	3	4	5	6
Space for additional comments						
Feedback Loop						
19. Do you have any additional challenges or solutions in the health and care sector that you believe are worth mentioning? <i>[free text response]</i>	Additional Challenges: Additional Solutions:					
20. Do you have any additional comments which you are prompted to tell us about, before we complete this interview? <i>[free text response]</i>						



8.4. Annex 4 - Focus Group Reporting Template

The template used for reporting on the Focus Group workshop can be found on the following [link](#).

Title of the event	
Date of event	
Location (offline/online)	
About the event	
1. Description of the scope of the event. <i>(include explanation of any interactive activities which occurred during the event)</i>	
2. What were the key takeaways from the event?	
3. What was the main feedback on the transnational Health and Care Outcomes?	
4. What changes would the Focus Groups and AB members like to see to better adapt the Outcomes to the specifics of their regions?	
5. Did you manage to achieve all the goals you set? Please describe.	



6. How do you plan to engage your Focus Group during the second Town Hall and what do you hope to achieve?			
Participants			
Category	Present at the event (number)	Organisations' names	
Total number of physical persons			
Local public authority			
Regional public authority			
National public authority			
Sectoral agency			
Higher education and research organizations			
Education/training center and school			
Enterprise, except SME			
SME			
Business support organization			
EGTC			
Hospitals and medical centers			
General public			
International organizations			
Other			
Promotion and other materials			
Promotion	Event promoted	Project website	
		Partner own website	
		Social media	
		Other	
	Event not promoted	Explain why (i.e. other topics confidential etc..), or Direct invitation	
	Possible attachments	Tick	Compulsory / recommended / voluntary



Attachments to the present targeted event report	Signature sheet/ List of participants		Mandatory
	Photos/print screens if online		Mandatory
	Agenda		Mandatory
	Presentations		Recommended
	Articles published (e.g. print media)		Voluntary
	Video/streaming		Voluntary

8.5. Annex 5 - Town Halls Reporting Templates

The templates used for reporting on the first and the second Town Hall can be found on the following [link](#).

First Town Hall

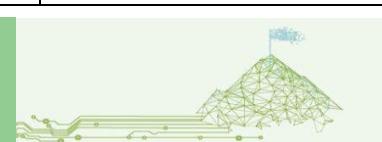
Title of the event	
Date of event	
Location (offline/online)	
About the event	
1. Description of the scope of the event. (include explanation of any interactive activities which occurred during the event)	
2. What were the key takeaways from the event?	
3. What were the key challenges identified during the brainstorming session?	



4. What were the potential solutions identified during the event?	
5. Did you manage to achieve all the goals you set? Please describe.	
6. What are your next steps regarding the organization of the second Town Hall?	
7. What are the topics stakeholders would like to address during the second Town Hall event?	

Participants

Category	Present at the event (number)	Organisations' names
Total number of physical persons		
Local public authority		
Regional public authority		
National public authority		
Sectoral agency		
Higher education and research organizations		
Education/training center and school		
Enterprise, except SME		
SME		
Business support organization		
EGTC		
Hospitals and medical centers		



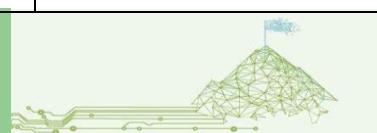
General public			
International organizations			
Other			
Promotion and other materials			
Promotion	Event promoted	Project website	
		Partner own website	
		Social media	
		Other	
		Event not promoted	Explain why (i.e. other topics confidential etc..), or Direct invitation
Attachments to the present targeted event report	Possible attachments	Tick	Compulsory / recommended / voluntary
	Signature sheet/ List of participants		Mandatory
	Photos/print screens if online		Mandatory
	Agenda		Mandatory
	Presentations		Recommended
	Articles published (e.g. print media)		Voluntary
	Video/streaming		Voluntary

Second Town Hall

Title of the event	
Date of event	
Location (offline/online)	
About the event	
1. Description of the scope of the event. (include explanation of any interactive activities which occurred during the event)	



2. What were the key takeaways from the event?																															
3. Did you manage to achieve all the goals you set? Please describe.																															
4. Please summarize any feedback received from the focus group and other stakeholders on Pilots and/or best practices presented during the event?																															
5. Describe the decisions made and follow-up actions taken during the event.																															
Participants <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Category</th> <th style="text-align: left; padding: 5px;">Present at the event (number)</th> <th style="text-align: left; padding: 5px;">Organisations' names</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">Total number of physical persons</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Local public authority</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Regional public authority</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">National public authority</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Sectoral agency</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Higher education and research organizations</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Education/training center and school</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">Enterprise, except SME</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> <tr> <td style="padding: 5px;">SME</td> <td style="padding: 5px;"></td> <td style="padding: 5px;"></td> </tr> </tbody> </table>		Category	Present at the event (number)	Organisations' names	Total number of physical persons			Local public authority			Regional public authority			National public authority			Sectoral agency			Higher education and research organizations			Education/training center and school			Enterprise, except SME			SME		
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Business support organization			
EGTC			
Hospitals and medical centers			
General public			
International organizations			
Other			
Promotion and other materials			
Promotion	Event promoted	Project website	
		Partner own website	
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