

Final Transnational Strategy for Network of Health Labs4Value 2035

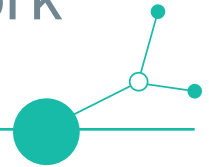




Table of contents

1. EXECUTIVE SUMMARY	2
2. INTRODUCTION	3
3. PHASED ROADMAP FOR IMPLEMENTATION (2026-2035)	4
3.1. PHASE I - CONSOLIDATION AND CAPACITY ALIGNMENT (2026-2028)	4
3.2. PHASE II - SCALING AND INTEGRATION (2029-2032)	5
3.3. PHASE III - INSTITUTIONALISATION AND LONG-TERM SUSTAINABILITY (2033-2035)	6
4. THE CURRENT SITUATION AND THE CHALLENGES DRIVING THE STRATEGY	8
4.1. THE CURRENT SITUATION	8
4.2. RATIONALE FOR A JOINT CHALLENGE APPROACH	9
4.3. AGREED JOINT TRANSNATIONAL CHALLENGES	10
4.3.1. STRUCTURAL FRAGMENTATION OF CROSS-SECTOR COLLABORATION	10
4.3.2. UNEVEN DIGITAL HEALTH MATURITY AND INTEROPERABILITY GAPS	10
4.3.3. WORKFORCE CAPACITY CONSTRAINTS AND INNOVATION READINESS GAPS	11
4.3.4. PERSISTENT HEALTH OUTCOME DISPARITIES AND LIMITED PREVENTIVE INTEGRATION	11
4.3.5. INSTITUTIONAL AND FINANCIAL FRAGILITY OF INNOVATION STRUCTURES	12
5. STRATEGIC OBJECTIVES	13
5.1. FACILITATING CROSS-SECTOR AND PUBLIC-PRIVATE COLLABORATION	14
5.2. ADVANCED DIGITAL HEALTH SOLUTIONS AND STREAMLINED TECHNOLOGY ADOPTION	15
5.3. STRENGTHEN WORKFORCE CAPABILITIES	17
5.4. EXPANDED PREVENTIVE HEALTHCARE AND ENHANCED PATIENT-CENTRED CARE	18
5.5. FOSTERING REGIONAL AND INTERNATIONAL INNOVATION ECOSYSTEMS	19
5.6. PROMOTING SUSTAINABILITY IN HEALTHCARE (HORIZONTAL OBJECTIVE)	20
6. TRANSNATIONAL COOPERATION FRAMEWORK	22
6.1. GOVERNANCE STRUCTURE	23
6.2. MECHANISMS FOR COLLABORATION	25
6.3. MONITORING AND EVALUATION	26
6.4. COMMUNICATION AND OUTREACH	28
7. EVIDENCE AND INSIGHTS FROM HEALTH LABS4VALUE PILOTS	30
7.1. PURPOSE AND ROLE OF THE PILOTS IN STRATEGY DEVELOPMENT	30
7.2. OVERVIEW OF THE PILOTS AND SOLUTIONS	31
7.3. CROSS-CUTTING INSIGHTS FROM THE PILOTS	31
7.4. PILOT EVIDENCE SUPPORTING STRATEGIC OBJECTIVES	32
7.5. OBSERVED AND MEASURABLE IMPACTS	33
7.6. IMPLICATIONS FOR SCALING AND STRATEGY IMPLEMENTATION	33
8. MEASURABLE IMPACTS AT TERRITORIAL LEVEL	34
8.1. IMPROVED HEALTH OUTCOMES AND PATIENT-CENTRED CARE	35
8.2. STRENGTHENED INNOVATION CAPACITY AND ECOSYSTEM MATURITY	35
8.3. DIGITAL TRANSFORMATION AND ADMINISTRATIVE EFFICIENCY	36
8.4. WORKFORCE COMPETENCE AND INNOVATION READINESS	36
8.5. ENVIRONMENTAL AND INSTITUTIONAL SUSTAINABILITY	37
9. SUSTAINABILITY MODEL AND POST-2035 PATHWAY	38
9.1. GOVERNANCE SUSTAINABILITY	38
9.2. FINANCIAL SUSTAINABILITY AND RESOURCE MODEL	39
9.3. OPERATIONAL SUSTAINABILITY	40
9.4. STRATEGIC SUSTAINABILITY AND POLICY POSITIONING	40
9.5. REALISTIC POST-2035 OUTLOOK	41
9.6. ADOPTION OF EMERGING HEALTH TECHNOLOGIES AND TRENDS	41



1. Executive summary

Brief overview of the strategy

The Health Labs4Value initiative is a comprehensive transnational strategy aimed at driving healthcare innovation and technology transfer across participating regions in Europe. This strategy addresses key challenges in the healthcare sector, including limited inflow of innovative products, regulatory barriers, and disparities in healthcare access. It focuses on fostering cross-sector collaboration, advancing digital health solutions, strengthening workforce capabilities, expanding preventive healthcare, and creating robust regional and international innovation ecosystems.

The strategy employs a Living Labs approach, emphasizing decentralised, flexible, and collaborative innovation. It outlines a governance structure with an International Steering Committee and regional Living Labs coordinators to ensure effective implementation and coordination. The initiative prioritises sustainability, aiming to create lasting impacts beyond 2035 through diversified funding sources, continuous stakeholder engagement, and adaptability to emerging healthcare trends.

Strategic vision and mission of Health Labs4Value up to 2035

Vision

To create a unified, innovative, and sustainable healthcare ecosystem across participating regions, leveraging transnational cooperation to improve patient outcomes, reduce healthcare costs, and enhance the quality of care.

Mission

To build robust partnerships among academia, healthcare providers, start-ups, industry leaders, and public institutions, driving innovation and technology transfer through streamlined frameworks for collaboration. The initiative aims to:

- Facilitate cross-sector and public-private collaboration to accelerate healthcare innovation.
- Advance digital health solutions and streamline technology adoption to improve access and care quality.
- Strengthen workforce capabilities through upskilling and training programs.
- Expand preventive healthcare and enhance patient-centred care through cutting-edge technologies.
- Foster regional and international innovation ecosystems to scale impactful solutions.
- Promote sustainability in healthcare (horizontal objective)



2. Introduction

Background and rationale for the strategy

The healthcare innovation landscape across regions participating in the Health Labs4Value initiative is characterised by advancements in medical technologies, digital health, and research. However, these advancements are accompanied by systemic challenges that impact the pace of innovation and its integration into healthcare systems. Key issues include limited inflow of innovative products and processes, often attributed to the heavy workload of researchers who juggle multiple roles as educators, clinicians, and innovators. Additionally, there is a lack of systemic incentives that reward healthcare facilities for adopting innovative solutions, creating a disincentive for organisations to prioritise such advancements.

Legal and regulatory frameworks also play a crucial role in slowing down the innovation process, with strict data protection laws and medical product regulations imposing lengthy approval processes that deter the rapid deployment of new technologies. Furthermore, there is a scarcity of dedicated spaces and knowledgeable personnel for testing and piloting healthcare innovations, which further hampers progress.

The importance of transnational cooperation in health innovation and value creation

Transnational cooperation has shown promise in addressing some of these challenges by pooling resources, expertise, and innovative solutions across borders. The COVID-19 pandemic demonstrated the value of unified strategies in tackling global health crises effectively. By fostering international partnerships, the healthcare sector can leverage collective strengths, overcome shared challenges, and ultimately improve healthcare outcomes for citizens across Europe.

Transnational cooperation enables knowledge sharing, resource pooling, and the alignment of goals to accelerate innovation. It also helps address the issue of limited infrastructure for testing innovations by creating shared spaces and partnerships. Moreover, it allows for the harmonisation of efforts across regions to share best practices and scale innovations.

Overview of the Health Labs4Value initiative

The Health Labs4Value initiative is a strategic effort to drive healthcare innovation and technology transfer through streamlined frameworks for collaboration. It aims to build robust partnerships among academia, healthcare providers, start-ups, industry leaders, and public institutions. The initiative focuses on several key areas:

- Facilitating cross-sector and public-private collaboration to drive innovation and technology transfer.
- Advancing digital health solutions and streamlining technology adoption to improve access, care quality, and scalability.
- Strengthening workforce capabilities by investing in the upskilling of healthcare professionals and technical experts.



- Expanding preventive healthcare and enhancing patient-centred care through the integration of cutting-edge technologies into clinical workflows.
- Fostering regional and international innovation ecosystems to facilitate access to resources, funding, and networks.

By addressing these areas, the Health Labs4Value initiative seeks to overcome the challenges facing healthcare innovation and create a more efficient, personalised, and effective healthcare system across participating regions.

Target group of the strategy

This Strategy is addressed to the members of the Health Labs4Value Network, comprising the participating Territorial Health Labs4Value organisations and their associated stakeholders. These include healthcare providers, public authorities, research and academic institutions, small and medium-sized enterprises (SMEs), and innovation intermediaries engaged in regional health innovation ecosystems.

The Strategy provides a jointly agreed framework to guide coordinated action within the Network. It supports decision-makers, Living Labs coordinators, and innovation actors in planning, implementing, scaling, and sustaining value-based and co-created healthcare solutions across participating regions.

3. Phased roadmap for implementation (2026-2035)

The implementation of the Health Labs4Value Strategy will follow a structured three-phase roadmap to ensure progressive consolidation, scaling and long-term institutionalisation of the Network. The phasing reflects the maturity trajectory of transnational cooperation and aligns with the strategic objectives defined in Chapter 4.

The phased approach ensures:

- gradual capacity building,
- measurable milestone achievement,
- risk mitigation,
- and long-term sustainability beyond project cycles.

3.1. Phase I - Consolidation and capacity alignment (2026-2028)

Strategic focus:

Establishing operational coherence, harmonising methodologies and building the minimum viable transnational structure necessary for scaling.

During this phase, the Network will prioritise structural consolidation and alignment across participating Territorial Health Labs4Value entities. The objective is to ensure that cooperation moves from project-based interaction to structured, predictable collaboration.



Key policy-oriented priorities:

- **Operationalisation of governance**
 - Formal activation of the International Steering Committee (ISC).
 - Clear division of roles between ISC and Territorial HL4V coordinators.
 - Adoption of common decision-making procedures.
- **Harmonisation of Living Lab methodology**
 - Agreement on minimum methodological standards.
 - Development of shared evaluation templates.
 - Alignment of data collection principles (respecting national regulatory contexts).
- **Pilot consolidation and structured knowledge transfer**
 - Internal evaluation of completed pilots.
 - Identification of solutions suitable for cross-border replication.
 - Establishment of thematic working groups.
- **Baseline measurement and KPI system activation**
 - Establishment of baseline values for all agreed KPIs.
 - Deployment of a light but functional monitoring framework.
 - Annual reporting cycle initiated.
- **Capacity-building foundations**
 - Initial cross-border training modules launched.
 - Mapping of workforce skills and digital readiness.

Expected outputs by 2028:

- Fully operational governance structure.
- Agreed transnational methodological framework.
- Baseline data established.
- Minimum 1 pilot solutions prepared for replication.
- First measurable collaboration indicators reported.

3.2. Phase II - Scaling and integration (2029-2032)

Strategic focus:

Cross-border replication, deeper integration of digital health solutions and strengthened ecosystem maturity.

This phase shifts from structural consolidation to measurable expansion of impact. The Network will focus on scaling validated solutions and embedding cooperation into routine operations of member institutions.

Key policy-oriented priorities:

- **Cross-border replication of validated solutions**
 - Systematic transfer of selected pilots to at least two additional regions.
 - Adaptation protocols developed to ensure contextual fit.
 - Structured evaluation of replication outcomes.



- **Strengthening digital interoperability**
 - Promotion of interoperable digital solutions.
 - Alignment of technical standards where feasible.
 - Increased cross-border exchange of implementation expertise.
- **Expansion of workforce competence**
 - Structured transnational training framework.
 - Targeted upskilling in digital health, AI-supported processes and change management.
 - Integration of training into institutional HR strategies.
- **Ecosystem reinforcement**
 - Increased engagement of SMEs and research institutions.
 - Joint funding applications submitted.
 - Development of thematic innovation clusters within the Network.
- **Demonstration of value-based outcomes**
 - Measurable improvements in patient-centred indicators.
 - Evidence of administrative efficiency gains.
 - Documented reduction in fragmentation of care pathways.

Expected outputs by 2032:

- Minimum 3 cross-border solution replications completed.
- Measurable increase in digital solution uptake across member institutions.
- At least 15-30% of relevant staff trained in innovation-related competencies.
- Demonstrable improvements in selected patient outcome indicators.
- Recognised position of the Network within Central European health innovation ecosystems.

3.3. Phase III - Institutionalisation and long-term sustainability (2033-2035)

Strategic focus:

Embedding the Network into permanent structures, ensuring financial and governance sustainability, and positioning HL4V as a recognised transnational reference model.

In this final phase, the objective is to transition from structured cooperation to institutional permanence.

Key policy-oriented priorities:

- **Institutional embedding**
 - Formalisation of the Network's long-term governance model.
 - Multi-year cooperation agreements among members.
 - Integration into regional and national health innovation strategies where feasible.
- **Sustainable resource model**
 - Implementation of diversified funding approach.
 - Structured approach to revenue from innovation-related activities (where applicable).

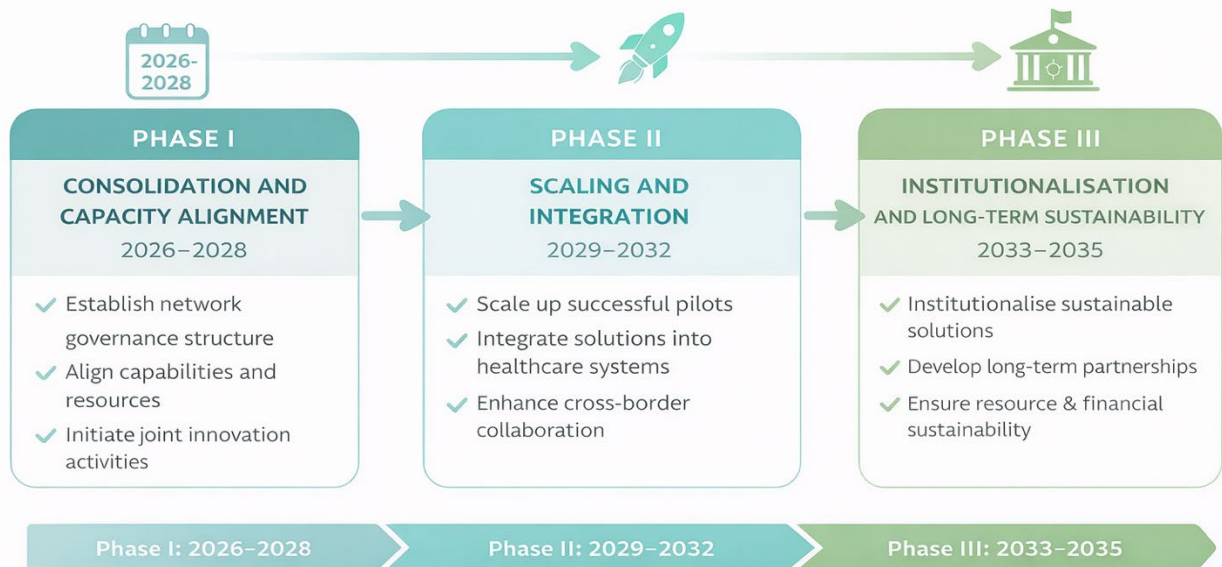


- **Long-term impact measurement**
 - Longitudinal assessment of health outcome indicators.
 - Evaluation of ecosystem development and innovation capacity.
 - Periodic strategic review cycle (5-year horizon).
- **Policy-level positioning**
 - Active contribution to regional, national and EU-level health innovation dialogues.
 - Documentation of HL4V as a transferable cooperation model.
 - Exploration of carefully selected geographic expansion opportunities.

Expected outputs by 2035:

- Permanently functioning transnational governance body.
- Stable and diversified resource base.
- At least 50% workforce digital competence target reached (as defined in Strategic Objectives).
- Documented improvements in patient-centred and efficiency indicators.
- HL4V recognised as a structured Central European cooperation model

Phased Roadmap for Implementation (2026–2035)





4. The current situation and the challenges driving the strategy

4.1. The current situation

The healthcare innovation landscape across regions participating in the Health Labs4Value initiative is characterised by significant advancements in medical technologies, digital health, and research. However, these advancements are accompanied by systemic challenges that impact the pace of innovation and its integration into healthcare systems. These challenges are reviewed below.

Innovation and technology transfer

The integration of innovation into healthcare systems remains a significant challenge due to structural and systemic barriers. One of the primary issues is the limited inflow of innovative products and processes, which is often attributed to the heavy workload of researchers who juggle multiple roles as educators, clinicians, and innovators. This multitasking leaves little time for entrepreneurial activities or dedicated innovation development. Furthermore, there is a lack of systemic incentives that reward healthcare facilities for adopting innovative solutions, creating a disincentive for organisations to prioritise such advancements. Legal and regulatory frameworks also play a crucial role in slowing down the innovation process. For example, strict data protection laws and medical product regulations impose lengthy approval processes that deter the rapid deployment of new technologies. Additionally, there is a scarcity of dedicated spaces and knowledgeable personnel for testing and piloting healthcare innovations, which further hampers progress. Without these resources, it becomes difficult to evaluate the feasibility and effectiveness of new solutions before scaling them for broader use.

Digital health infrastructure

The digital transformation of healthcare has made significant strides with tools like electronic health records (EHRs) and telemedicine. However, interoperability across IT systems remains a critical obstacle. Most healthcare providers operate on disparate IT frameworks, which complicates data sharing between hospitals, outpatient clinics, and insurance providers. This lack of integration not only affects operational efficiency but also limits the potential for comprehensive patient care. Privacy concerns further exacerbate these challenges. Strict regulations such as GDPR mandate stringent data protection measures that can conflict with the needs of advanced technologies like Artificial Intelligence (AI)-driven diagnostics, which rely on large datasets for training algorithms. The fear of data breaches and scepticism among patients regarding data security add another layer of complexity to digital health adoption.

Resource allocation

Funding constraints are a recurring theme in healthcare innovation. Many organisations struggle to secure sustainable financing for research and development projects. This issue



is particularly pronounced in rural areas where healthcare facilities often lack the resources to compete with urban centres in attracting investments or implementing advanced technologies. The uneven distribution of resources also highlights disparities in healthcare access. Urban areas tend to have better-equipped facilities and more specialized staff compared to rural regions. This imbalance not only affects patient outcomes but also creates a divide in the quality of care available across different geographic locations.

Workforce challenges

The healthcare workforce is under immense pressure due to increasing demands from aging populations and chronic disease burdens. Recruitment challenges are compounded by administrative burdens that detract from patient care responsibilities. Younger professionals are often deterred from entering or staying in the field due to these high demands coupled with insufficient incentives. Moreover, the shortage of specialised staff poses a significant risk to the sustainability of healthcare systems. As experienced professionals retire, and fewer newly trained medical professionals will follow due to the low birth rates of younger generations compared to the high birth rate generations that will retire in the next few years, there is a growing gap in expertise that needs to be addressed through targeted training programs and workforce development initiatives. The region of Central and Eastern Europe is also suffering from a huge brain drain of skilled workers in the health sector.

Geographical disparities

Healthcare access varies significantly between urban and rural areas, creating a divide that impacts patient outcomes and overall public health metrics. Rural regions often face shortages in specialists, advanced medical equipment, and digital connectivity, which limit their ability to provide comprehensive care. Telemedicine has emerged as a potential solution to bridge this gap by enabling remote consultations and monitoring. However, its effectiveness depends heavily on the availability of robust digital infrastructure, which remains inadequate in many rural areas.

International collaboration

Transnational cooperation has shown promise in addressing some of these challenges by pooling resources, expertise, and innovative solutions across borders. The COVID-19 pandemic demonstrated the value of unified strategies in tackling global health crises effectively. However, international collaboration also comes with its own set of challenges. Differences in regulatory frameworks, cultural attitudes towards innovation, and resource availability can complicate joint efforts. Despite these hurdles, fostering international partnerships remains a key strategy for advancing healthcare innovation on a global scale.

4.2. Rationale for a Joint Challenge Approach

The Health Labs4Value Network operates across diverse Central European health systems that differ in structure, financing models and institutional maturity. Despite these



contextual differences, participating Territorial Health Labs4Value entities face structurally comparable systemic bottlenecks that limit the uptake of innovation, the scalability of digital solutions and the long-term sustainability of collaborative health ecosystems.

The identification of joint challenges is based on:

- empirical evidence generated through the five HL4V pilots,
- structured cross-border consultations among Network members,
- comparative assessment of health system performance across participating regions,
- and shared operational experiences within Living Lab environments.

The purpose of defining agreed joint challenges is to ensure that the Strategy is not a generic sectoral analysis, but a **jointly validated, prioritised framework reflecting real systemic constraints experienced by Network members.**

4.3. Agreed joint transnational challenges

4.3.1. Structural fragmentation of cross-sector collaboration

Across participating regions, healthcare innovation ecosystems remain structurally fragmented. Cooperation between academia, healthcare providers, SMEs, industry actors and public authorities is often ad hoc and project-based rather than institutionalised.

Key systemic issues include:

- Limited structured collaboration platforms,
- Insufficient long-term partnership mechanisms,
- Weak integration between clinical environments and innovation actors,
- Limited cross-border coordination.

Evidence from the HL4V pilots demonstrated that co-creation significantly improves adoption and sustainability. However, without structured cross-sector governance mechanisms, solutions risk remaining isolated at institutional level.

Transnational relevance:

The absence of coordinated collaboration mechanisms across Central Europe limits scale effects, reduces innovation diffusion and weakens international competitiveness.

4.3.2. Uneven digital health maturity and interoperability gaps

Digital transformation across participating regions progresses at different speeds. While digital tools are increasingly present, systemic barriers remain:

- Fragmented IT infrastructures,
- Limited interoperability between systems,
- Administrative burdens due to non-integrated workflows,



- Regulatory complexity slowing adoption.

Pilot evidence demonstrated measurable efficiency gains (e.g., reduction in administrative burden), yet replication is constrained by technical and regulatory fragmentation.

Transnational relevance:

Without coordinated transnational alignment, digital health solutions remain regionally confined and cannot fully leverage shared knowledge, economies of scale or harmonised standards.

4.3.3. Workforce capacity constraints and innovation readiness gaps

Healthcare professionals across participating territories face:

- Increasing workload due to demographic pressure,
- Shortage of specialised staff,
- Brain drain in parts of Central and Eastern Europe,
- Limited structured training in digital and innovation competencies.

Innovation initiatives often depend on individual champions rather than institutionalised competence frameworks.

Pilot experiences highlighted that resistance to change and limited digital literacy can delay implementation even when solutions are technically sound.

Transnational relevance:

The sustainability of healthcare innovation depends on systematic upskilling and retention strategies that require coordinated action beyond local efforts.

4.3.4. Persistent health outcome disparities and limited preventive integration

Participating regions experience:

- Higher rates of chronic diseases compared to EU5 benchmarks,
- Lower life expectancy in parts of Central Europe,
- Rural-urban access disparities,
- Limited integration of preventive tools into routine care pathways.

Although innovative patient-centred solutions exist, preventive healthcare remains insufficiently embedded in digital workflows and care models.

Pilots demonstrated that digital rehabilitation tools and patient empowerment platforms can improve satisfaction and continuity of care. However, scaling remains limited without coordinated frameworks.



Transnational relevance:

Health disparities across Central Europe require shared solutions and scalable preventive approaches to generate macro-regional improvement.

4.3.5. Institutional and financial fragility of innovation structures

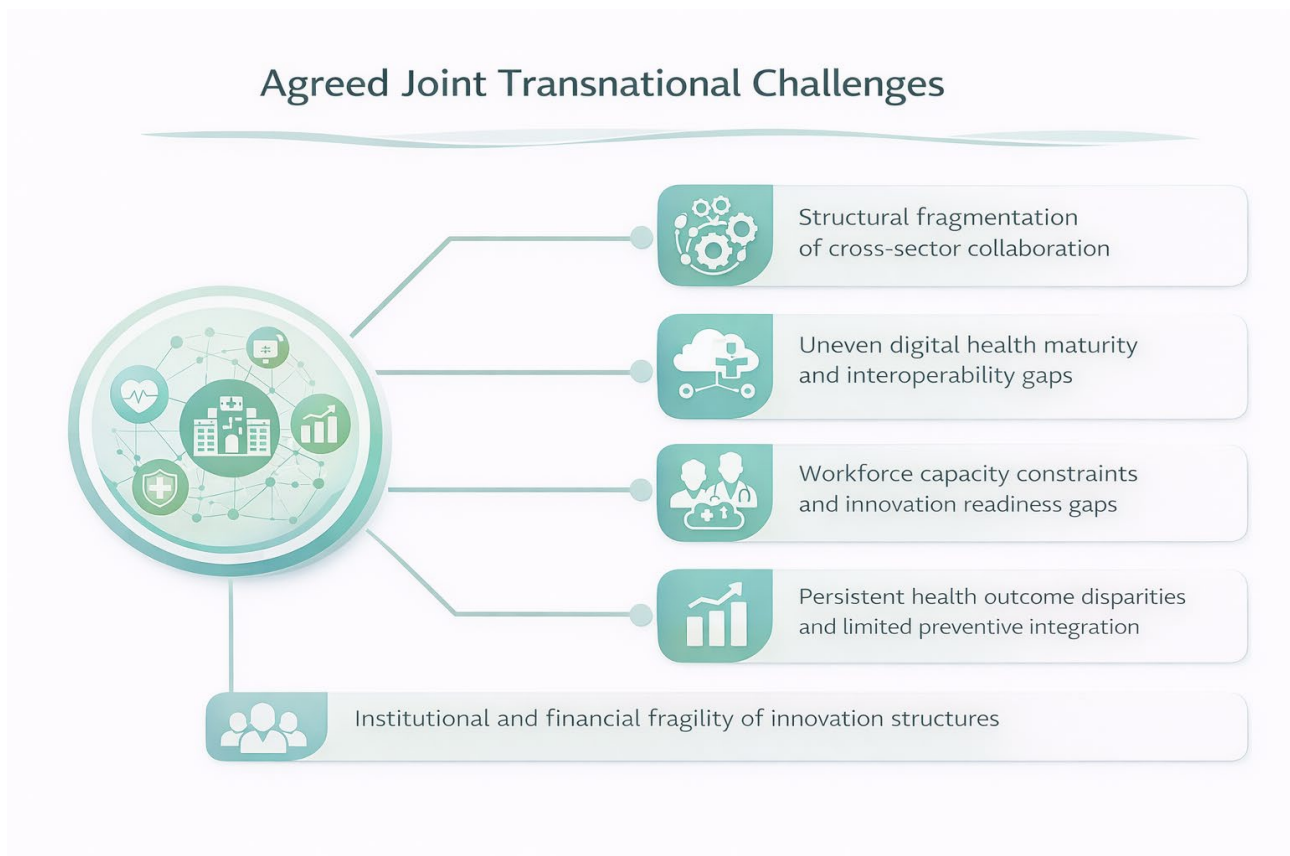
Living Lab structures and innovation ecosystems often operate within temporary project frameworks. Structural weaknesses include:

- Dependence on short-term funding cycles,
- Lack of permanent transnational coordination bodies,
- Unclear long-term governance models,
- Insufficient integration into regional policy frameworks.

Without institutional embedding, successful pilots risk discontinuation after funding periods end.

Transnational relevance:

Sustainable cross-border innovation ecosystems require stable governance, diversified financing mechanisms and long-term strategic alignment beyond individual project cycles.





5. Strategic objectives

Strategic objectives play a crucial role in shaping the direction and focus of an organisation or initiative, particularly in the context of healthcare innovation and technology transfer. These objectives serve as the bridge between the identified challenges and the concrete actions needed to address them. In a strategic document like the one being developed for Health Labs4Value, strategic objectives are carefully crafted to provide a clear, focused response to the complex landscape of issues facing the healthcare sector across participating regions.

The process of deriving strategic objectives from identified problems is a methodical one, involving several key steps:

1. **Problem Analysis:** This involves a comprehensive review of the challenges identified in the earlier sections of the document. For Health Labs4Value, these challenges include limited inflow of innovative products, regulatory barriers, funding constraints, workforce shortages, and technological integration issues.
2. **Prioritisation:** Not all problems can be addressed simultaneously or with equal emphasis. The most critical issues that align with the organisations mission and have the potential for significant impact are prioritised.
3. **Objective Formulation:** Based on the prioritised problems, objectives are formulated to address these issues. These objectives should be broad enough to encompass the complexity of the challenges but specific enough to guide action.
4. **Alignment Check:** Each objective is checked against the identified problems to ensure that all major issues are being addressed and that the objectives are relevant to the current healthcare landscape.
5. **Feasibility Assessment:** The objectives are evaluated for their achievability within the given timeframe and resources.

The number of strategic objectives in a document like this is typically limited to ensure focus and manageability. Generally, 4-6 high-level strategic objectives are considered optimal. This number allows for comprehensive coverage of key areas without becoming overwhelming or diluting focus. Each of these high-level objectives can then be supported by more specific sub-objectives or operational goals.

The depth of development for these objectives in the strategic document should be sufficient to provide clear direction but not so detailed as to constrain future flexibility. Typically, this means:

- A clear statement of the objective
- A brief explanation of its importance and relevance to the identified challenges
- An outline of the broad approaches or areas of focus within each objective



It is crucial to strike a balance between providing enough detail to guide action and leaving room for adaptation in the subsequent action plans. The strategic objectives should set the overall direction, while the action plans will detail the specific steps, timelines and resources needed to achieve these objectives.

This approach allows for a coherent strategy that addresses the identified problems while providing a framework flexible enough to accommodate the diverse needs and contexts of different participating regions. It also ensures that the strategy remains relevant over time, as the specific actions can be adjusted in response to changing circumstances without altering the fundamental strategic direction.

By following this methodological approach, the strategic objectives for Health Labs4Value can effectively bridge the gap between the complex challenges facing healthcare innovation and the concrete actions needed to drive positive change across European healthcare systems.

The strategic objectives set out above are as described in the following chapters.

5.1. Facilitating cross-sector and public-private collaboration

Clear statement of the objective:

Build robust partnerships among academia, healthcare providers, start-ups, industry leaders and public institutions to drive innovation and technology transfer through streamlined frameworks for collaboration.

Importance and relation to challenges:

This objective addresses the fragmentation in healthcare innovation ecosystems, where academia, industry and public institutions often operate in silos. Challenges such as limited inflow of innovative products, insufficient funding mechanisms and regulatory barriers are exacerbated by a lack of coordinated efforts among stakeholders. By fostering cross-sector collaboration, this objective enables knowledge sharing, resource pooling and the alignment of goals to accelerate innovation. It also helps address the issue of limited infrastructure for testing innovations by creating shared spaces and partnerships.

Broad approaches or focus areas:

- Establishing innovation hubs: Create physical or virtual spaces that enable collaboration among stakeholders.
- Developing collaborative frameworks: Define roles, responsibilities and protocols for partnerships.
- Fostering academic-industry partnerships: Facilitate joint research projects and knowledge transfer.
- Supporting start-up ecosystems: Provide mentorship, resources and funding opportunities for start-ups.
- Public-private partnership models: Design funding structures combining public resources with private investments.



- Cross-border collaboration: Harmonise efforts across regions to share best practices and scale innovations.

Intended impacts

- Increased structural cooperation between academia, healthcare providers, SMEs and public authorities.
- Reduced fragmentation of innovation processes.
- Accelerated co-creation and validation of healthcare solutions.
- Strengthened transnational ecosystem cohesion.

Indicators

- Number of joint cross-sector projects initiated annually.
- Number of transnational collaborative activities (workshops, working groups, co-creation sessions).
- Percentage of innovations developed through multi-actor collaboration.
- Number of formalised cooperation agreements (MoUs, consortium agreements).

Baseline and 2035 targets

Baseline (2026):

- Existing HL4V pilot collaborations.
- Limited structured transnational governance.

Target (2035):

- Minimum 5 structured cross-border joint innovation projects.
- Annual transnational working meetings institutionalised.
- At least 70% of new HL4V-supported innovations developed in multi-actor settings.
- Permanent transnational cooperation framework operational.

Responsible bodies

- International Steering Committee (ISC) - strategic oversight.
- Territorial HL4V Coordinators - local implementation and reporting.
- Thematic Working Groups - operational coordination.

5.2. Advanced digital health solutions and streamlined technology adoption

Clear statement of the objective:

Promote the development, implementation and regulatory integration of digital tools such as telemedicine platforms, wearable health technologies, AI-based diagnostics and personalised medicine to improve access, care quality and scalability.

Importance and relation to challenges:



This objective directly tackles challenges related to fragmented IT systems, regulatory barriers to technology adoption and geographical disparities in healthcare access. Digital health solutions can bridge gaps between urban and rural areas while improving efficiency in healthcare delivery. Streamlining regulatory processes ensures faster adoption of technologies like AI-driven diagnostics and wearable devices.

Broad approaches or focus areas:

- Telemedicine development: Expand remote care platforms for underserved areas.
- AI-based diagnostics: Develop algorithms for disease detection and treatment planning.
- Wearable technologies integration: Enable continuous monitoring through smart devices.
- Personalised medicine tools: Incorporate genomic data into treatment plans.
- Interoperability standards: Ensure seamless data exchange across systems.
- Regulatory streamlining: Simplify approval processes for digital health tools.

Intended impacts

- Increased digital health adoption across participating regions.
- Improved interoperability between digital systems.
- Reduced administrative burden in healthcare institutions.
- Improved patient access through digital tools.

Indicators

- Number of digital health solutions implemented across borders.
- Percentage of member institutions using HL4V-supported digital tools.
- Measured reduction in administrative processing time.
- Number of interoperability agreements or standards adopted.

Baseline and 2035 targets

Baseline (2026):

- Digital maturity uneven across regions.
- Pilot-level digital deployment in selected institutions.

Target (2035):

- At least 60% of member health institutions adopt at least one HL4V-supported digital solution.
- Minimum 5 cross-border solution replications.
- Measurable administrative burden reduction (e.g., 20-30% in participating institutions).
- Structured interoperability alignment across Network members.

Responsible bodies



- ISC - digital strategy alignment.
- Territorial HL4V Coordinators - implementation monitoring.
- IT/Innovation Leads within Living Labs - technical deployment.

5.3. Strengthen workforce capabilities

Clear statement of the objective:

Invest in the upskilling of healthcare professionals and technical experts to ensure readiness for adopting emerging technologies and managing data-driven healthcare systems.

Importance and relation to challenges:

Workforce shortages and skill gaps are critical issues exacerbated by an aging population and increasing demands on healthcare systems. This objective focuses on equipping professionals with the skills needed to implement new technologies effectively while addressing recruitment challenges by making healthcare careers more attractive.

Broad approaches or focus areas:

- Upskilling programs: Offer training on digital health tools and data management.
- Specialist development: Focus on areas like AI integration or telemedicine expertise.
- Reducing administrative burdens: Implement tools that free up time for patient care.
- Talent retention strategies: Create incentives for young professionals to enter healthcare fields.

Intended impacts

- Increased digital and innovation competence among healthcare professionals.
- Improved innovation readiness.
- Reduced resistance to technology adoption.
- Enhanced retention and attractiveness of healthcare careers.

Indicators

- Percentage of healthcare professionals trained in digital/innovation tools.
- Number of cross-border training modules delivered.
- Participant satisfaction rates in training programmes.
- Adoption rate of new technologies after training.

Baseline and 2035 targets

Baseline (2026):

- No structured transnational training framework.



- Limited digital training across territories.

Target (2035):

- At least 50% of relevant healthcare professionals trained in digital and innovation competencies.
- Annual transnational training programme institutionalised.
- Demonstrable improvement in adoption rates post-training.

Responsible bodies

- ISC - approval of training framework.
- Territorial HL4V Coordinators - delivery coordination.
- Academic partners - curriculum development.
- Healthcare institutions - staff participation.

5.4. Expanded preventive healthcare and enhanced patient-centred care

Clear statement of the objective:

Focus on preventive measures and integrate cutting-edge technologies into clinical workflows, emphasizing personalised, efficient and high-quality care to address evolving patient needs and improve long-term health outcomes.

Importance and relation to challenges:

This objective addresses the growing burden of chronic diseases due to aging populations while tackling low patient engagement with preventive care. Personalised approaches can improve outcomes by tailoring interventions to individual needs. It also aligns with challenges related to improving patient satisfaction and reducing disparities in care quality.

Broad approaches or focus areas:

- Preventive health campaigns: Educate patients on lifestyle changes and early screening.
- Integration of predictive analytics: Use AI to identify at-risk populations.
- Personalised care models: Tailor treatments based on genetic profiles or patient preferences.
- Patient engagement tools: Develop apps or platforms that empower patients in their care journey.

Intended impacts

- Improved patient empowerment and engagement.
- Increased integration of preventive approaches.
- Improved continuity of care.
- Measurable improvements in selected health outcomes.



Indicators

- Reduction in hospital readmission rates (where applicable).
- PROM/PREM score improvements.
- Number of patients using digital preventive tools.
- Uptake of rehabilitation and follow-up digital solutions.

Baseline and 2035 targets

Baseline (2026):

- Pilot-level improvements observed.
- Limited cross-border preventive scaling.

Target (2035):

- Documented improvement in selected patient outcome indicators.
- At least 30% increase in patients supported through digital preventive tools.
- Replication of preventive digital solutions in multiple regions.

Responsible bodies

- ISC - outcome monitoring oversight.
- Territorial HL4V Coordinators - local outcome reporting.
- Healthcare providers - implementation in clinical workflows.
- SMEs/Innovation partners - tool maintenance and development.

5.5. Fostering regional and international innovation ecosystems

Clear statement of the objective:

Facilitate access to resources, funding and networks to scale impactful solutions and drive innovation both nationally and internationally.

Importance and relation to challenges:

This objective addresses disparities in resource allocation between urban and rural areas while leveraging international collaboration to overcome funding gaps. By building innovation ecosystems that span borders, it enhances the scalability of solutions developed locally while fostering knowledge exchange among regions.

Broad approaches or focus areas:

- Resource sharing platforms: Create transnational databases for shared use of innovations and knowledge.
- Joint funding mechanisms: Pool resources from multiple countries or organisations.
- International networks: Build partnerships that connect innovators across borders.



- Scaling local innovations globally: Adapt successful regional solutions for broader application.

Intended impacts

- Increased innovation capacity at territorial level.
- Stronger SME-healthcare integration.
- Improved cross-border resource sharing.
- Increased competitiveness of Central European innovation actors.

Indicators

- Number of SMEs engaged in HL4V activities.
- Number of innovation clusters strengthened.
- Joint funding applications submitted.
- Solutions commercialised or scaled.

Baseline and 2035 targets

Baseline (2026):

- Five territorial Living Labs established.
- Limited structured ecosystem metrics.

Target (2035):

- Recognised Central European health innovation cooperation model.
- At least 5 solutions scaled beyond original territory.
- Sustained multi-actor innovation ecosystem in each member region.

Responsible bodies

- ISC - ecosystem strategy and partnerships.
- Territorial HL4V Coordinators - regional ecosystem facilitation.
- SMEs and universities - co-development leadership.

5.6. Promoting sustainability in healthcare (horizontal objective)

Clear statement of the objective:

Implement green practices in healthcare delivery and innovation processes, aiming to reduce the environmental impact while maintaining operational excellence.

Importance and relation to challenges:

This horizontal objective cuts across all others by ensuring that sustainability is embedded into every aspect of healthcare innovation. It addresses global concerns about climate change while ensuring that advancements in healthcare do not come at an environmental



cost. For example, digital health solutions should be energy-efficient; cross-sector collaborations should prioritise sustainable practices; workforce training should include environmental awareness; preventive care should reduce wasteful resource use; international ecosystems should align with global sustainability goals.

Broad approaches or focus areas:

- Eco-friendly infrastructure investments: Upgrade facilities with energy-efficient technologies.
- Sustainable supply chains: Source materials responsibly for medical equipment production.
- Green IT systems: Develop low-energy digital platforms for data management.
- Waste reduction initiatives: Minimize medical waste through better resource planning.
- Carbon neutrality goals: Encourage organisations to adopt carbon reduction strategies.

Intended impacts

- Reduced environmental footprint of healthcare innovation.
- Integration of sustainability principles in digital transformation.
- Increased long-term viability of innovation structures.

Indicators

- Reduction in paper-based administrative processes.
- CO₂-related performance improvements (where measurable).
- Adoption of green procurement practices.
- Sustainability audits conducted.

Baseline and 2035 targets

Baseline (2026):

- No unified sustainability framework across Network.

Target (2035):

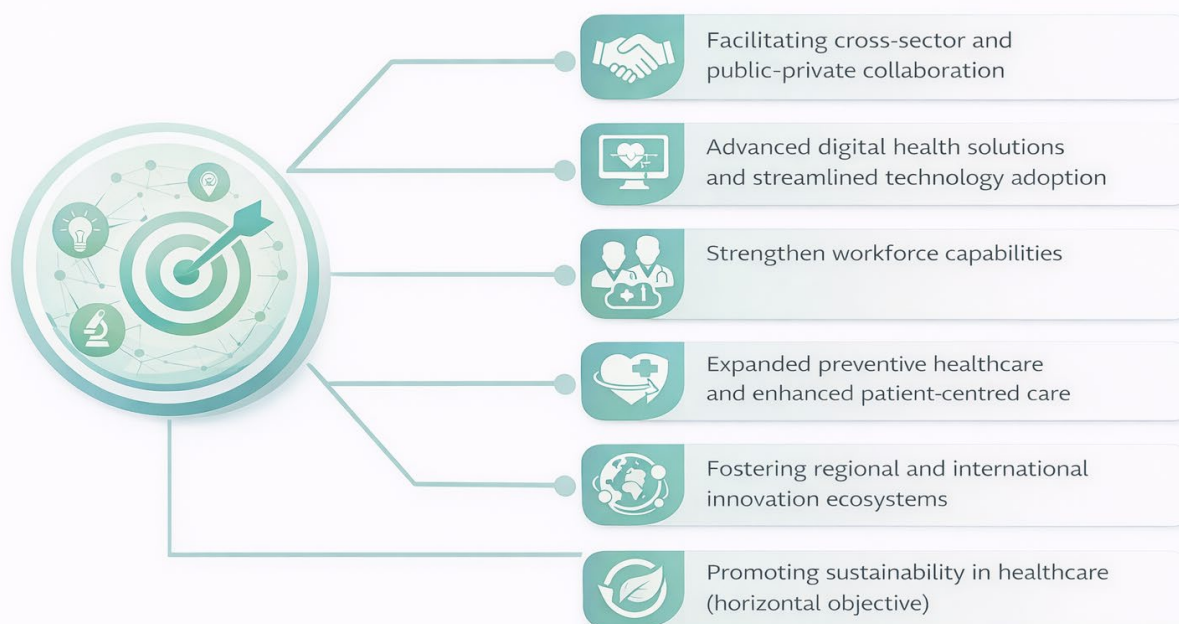
- Sustainability integrated into all major innovation initiatives.
- Measurable reduction in resource-intensive processes.
- Regular sustainability review embedded in governance cycle.

Responsible bodies

- ISC - sustainability policy oversight.
- Territorial HL4V Coordinators - implementation tracking.
- Member institutions - local environmental integration.



Strategic Objectives



6. Transnational cooperation framework

The transnational cooperation framework for the Health Labs4Value initiative represents a structured approach to fostering collaboration and innovation across borders in the healthcare sector. This framework is designed to address the complex challenges facing healthcare systems in Europe by leveraging the collective expertise, resources and experiences of multiple countries and organisations.

At its core, the transnational cooperation framework aims to create a unified strategy for advancing healthcare innovation while respecting the unique contexts and needs of participating regions. It provides a blueprint for governance, collaboration mechanisms and shared objectives that enable diverse stakeholders to work together effectively towards common goals.

The importance of this framework cannot be overstated in the context of modern healthcare challenges. Many of the issues facing healthcare systems today, such as aging populations, workforce shortages and the need for digital transformation, transcend national boundaries. By establishing a transnational approach, the framework allows for:

- Knowledge sharing and best practice exchange across borders.
- Pooling of resources and expertise to tackle complex healthcare challenges.
- Acceleration of innovation through collaborative research and development.



- Harmonisation of standards and practices to improve interoperability.
- More efficient use of funding and resources through coordinated efforts.

The framework also recognises the value of diverse perspectives in driving innovation. By bringing together academia, healthcare providers, start-ups, industry leaders, public institutions and patients from different countries, it creates a rich ecosystem for generating and implementing novel solutions.

Furthermore, the transnational cooperation framework addresses the need for sustainability in healthcare innovation. It provides mechanisms for long-term collaboration beyond individual project lifecycles, ensuring that the benefits of joint efforts can be realised and expanded over time.

In an era of rapid technological advancement and evolving healthcare needs, this framework serves as a crucial tool for navigating the complexities of cross-border collaboration. It enables participating regions to leverage collective strengths, overcome shared challenges and ultimately improve healthcare outcomes for citizens across Europe.

6.1. Governance structure

International Steering Committee (ISC)

The International Steering Committee (ISC) plays a crucial role in the governance and coordination of the Health Labs4Value initiative. As the central decision-making body, the ISC has several key responsibilities:

- **Strategic oversight:** The ISC is responsible for setting and overseeing the overall strategy for the Health Labs4Value initiative. This includes defining long-term goals, priorities and direction for the project.
- **Funding allocation:** The committee oversees the distribution of resources across the initiative, ensuring that funding is allocated effectively to support the projects objectives.
- **Progress monitoring:** The ISC tracks the overall progress of the initiative, reviewing milestones, achievements and challenges faced by the various Living Labs and partner organisations.
- **Decision-making:** Major decisions that affect the direction or implementation of the project are made by the ISC. The committee adopts a consensus-based approach for these decisions, with a voting mechanism in place when consensus cannot be reached.
- **Stakeholder representation:** The ISC ensures that the interests and perspectives of all participating countries and key stakeholders are represented in the decision-making process.
- **Coordination:** By bringing together representatives from each participating country, including national coordinators and key players from Living Lab organisations, the ISC facilitates coordination and alignment across the various project components.



- **Adaptive management:** The committee is responsible for adapting the project strategy and approach as needed, based on emerging challenges, opportunities and lessons learned throughout the project lifecycle.

The ISC's role is critical in maintaining the cohesion and effectiveness of the transnational cooperation framework, ensuring that the Health Labs4Value initiative remains focused on its objectives of improving patient care after the project lifetime, reducing healthcare costs, and enhancing cooperation among healthcare stakeholders across Central Europe.

Composition: Representatives from each participating country, including national coordinators and key stakeholders from Regional Living Lab organisations. 2 members/country.

Decision-making: Adopt a consensus-driven approach for major decisions, with a voting mechanism.

Living Labs coordinators

Each regional Living Lab will select and appoint a coordinator to lead the local Living Labs. This structure supports the decentralised approach.

The Living Labs coordinators will:

- Implement initiatives in accordance with the ISC guidelines.
- Adapt innovations to local needs.
- Collect and share best practices.
- Coordinate activities at the local or regional level.

This structure maintains the flexibility and decentralisation emphasised while providing clear lines of communication and coordination.



Organisational Structure



6.2. Mechanisms for collaboration

In the current situation it is considered that the Memorandum of Understanding (MoU) and Consortium Agreement can play crucial roles in establishing and maintaining effective cooperation mechanisms within the Health Labs4Value initiative.

Memorandum of Understanding (MoU)

For starters and in general:

- MoUs serve as initial agreements that outline the broad intentions of cooperation between participating organisations.
- They provide a framework for future collaboration without imposing strict legal obligations.
- MoUs can be used to establish the groundwork for more detailed agreements later on.

Identify the roles, responsibilities and commitments of each participating organisation:

- MoUs can define the general roles of each partner.
- They can outline high-level commitments, such as resource sharing, knowledge exchange, or participation in joint activities.
- MoUs can specify the expected contributions from each partner, whether in terms of expertise, facilities, or funding.



Ensure alignment of objectives, governance structure and decision-making processes:

- MoUs can state the shared objectives of the Health Labs4Value initiative, ensuring all partners are working towards common goals.
- They can outline the basic governance structure, including the formation of the International Steering Committee (ISC) and the role of Living Labs coordinators.
- MoUs can describe the general decision-making processes, such as the consensus-based approach with a voting mechanism as mentioned in the governance structure.

Consortium Agreement

For specific joint projects, on an ad hoc basis:

- Consortium Agreements are more detailed and legally binding documents used for specific collaborative projects within the Health Labs4Value initiative.
- They are created as needed for particular research projects, technology development efforts, or other joint activities.

Establish clear operational guidelines for collaboration:

- Intellectual property (IP) rights: The agreement can specify how IP generated during the project will be owned, protected and commercialised.
- Data sharing Protocols: It can outline how data will be collected, stored, shared and protected among consortium members, ensuring compliance with data protection regulations.
- Conflict resolution mechanisms: The agreement can establish procedures for addressing and resolving disputes that may arise during the project.

Formalise the relationships between Living Labs, national coordinators and international steering committees:

- The Consortium Agreement can define the specific roles and responsibilities of Living Labs, national coordinators and the ISC within the context of the project.
- It can establish reporting lines and communication protocols between these entities.
- The agreement can specify how decisions will be made within the project, aligning with the broader governance structure outlined in the MoU.

6.3. Monitoring and evaluation

Monitoring and evaluation are essential components of transnational cooperation because they ensure that collaborative efforts across borders are effective, efficient and impactful. In projects involving multiple countries, organisations and stakeholders, monitoring and evaluation provides a structured approach to track progress, assess outcomes and measure long-term impact. It helps ensure accountability by demonstrating that resources are used responsibly and objectives are being met. At the same time, it fosters transparency, as stakeholders need clear and measurable evidence of results.



By consistently monitoring activities, potential challenges or inefficiencies can be identified early, allowing for timely adjustments and improvements. Evaluation, on the other hand, provides an opportunity to analyse the broader outcomes of the cooperation, determining whether the intended goals have been achieved and what lessons can be drawn for future initiatives. This learning process is particularly important in transnational settings, where partners work within different cultural, economic and regulatory contexts. Through evaluation, best practices can be shared and failures can be used as opportunities for growth.

Moreover, it helps manage the inherent complexities of cross-border cooperation, ensuring that efforts are harmonised and aligned despite differences among partners. It also plays a vital role in strengthening stakeholder confidence by offering evidence that transnational cooperation delivers value and contributes to sustainable solutions. Ultimately, monitoring and evaluation not only enhance decision-making and coordination but also support the long-term success and relevance of transnational strategies and partnerships. Monitoring and evaluation are critical components of the Health Labs4Value initiative to ensure accountability, tracking of progress and continuous improvement. To this end, KPIs should be developed to measure progress, ensure accountability and drive continuous improvement across the transnational collaborative framework. The KPIs can be categorised into four main areas:

Collaboration effectiveness KPIs

- Number of joint projects initiated.
- Frequency of cross-border meetings and interactions.
- Participation rate in shared activities.
- Quality of transnational cooperation/involvement (qualitative assessment).

Impact on innovation KPIs

- Number of innovations developed.
- Percentage of innovations scaled.
- Number of solutions/products made available and used by organisations.
- Regional technology adoption rate.

Resource utilization KPIs

- Utilization rate of shared infrastructure.
- Number of resources shared across borders.
- Active participation metrics on centralised resource-sharing platforms.

Healthcare outcomes KPIs

- Improvement in patient outcomes (e.g. reductions in hospital readmission rates).
- Accessibility of solutions (increase in patients served through digital health initiatives).



- Adoption rates of technologies by healthcare providers.
- Impact of healthcare innovations on patient care metrics.

When implementing these KPIs, there are additional considerations.

- Use a centralised resource-sharing platform (e.g., Microsoft Teams, Asana, Monday.com) to document activities, milestones and quality standards, ensuring easy tracking and communication.
- Develop KPIs at a fairly general level to allow for flexible adjustment to future uncertain realities.
- Include both quantitative and qualitative metrics to provide a comprehensive view of the initiatives progress and impact.
- Conduct long-term studies to assess the impact of healthcare innovations on patient outcomes.
- Ensure that KPIs are realistic and do not create excessive additional financial and personnel burdens for member organisations.

6.4. Communication and outreach

Communication and outreach are fundamental to the success of transnational cooperation because they ensure that the goals, activities, and outcomes of collaborative efforts are clearly conveyed to all relevant stakeholders. In projects involving partners from different countries, effective communication fosters mutual understanding, builds trust and ensures that everyone remains aligned despite cultural, linguistic, or institutional differences. It helps coordinate efforts, enabling partners to work cohesively toward shared objectives while avoiding misunderstandings or duplication of work.

Outreach, on the other hand, plays a crucial role in engaging a broader audience, including policymakers, communities and the public. By raising awareness about the goals and achievements of transnational cooperation, outreach helps secure support, attract resources and amplify the projects impact. It also creates opportunities for knowledge sharing, encouraging the dissemination of best practices, lessons learned and innovative solutions beyond the immediate partnership. This is particularly important in transnational contexts, where cooperation often seeks to address common challenges that extend across borders.

A comprehensive communication and outreach strategy for the Health Labs4Value initiative should be developed after the cooperation will start officially. This strategy should focus on effective knowledge dissemination and public engagement, combining traditional methods with innovative digital approaches. The suggested key components of this strategy are:



Knowledge dissemination

Regular publications

- Develop white papers, policy briefs and scientific articles to share research outcomes and best practices.
- Publish a quarterly digital newsletter targeted at healthcare stakeholders, policymakers and innovators.
- Encourage partners to co-author reports, showcasing cross-border collaborations.

Conferences and workshops

- Host annual Health Labs4Value Innovation Summits, bringing together participants from Living Labs to share progress, outcomes and challenges.
- Organise thematic workshops focused on specific topics, such as AI in healthcare, sustainability, or regulatory alignment.
- Partner with existing international health and innovation conferences to showcase the initiatives achievements.

Public engagement

Awareness campaigns

- Launch multi-channel campaigns to promote the initiatives goals and outcomes.
- Use compelling storytelling to highlight the human impact of innovations.
- Leverage local media in partner countries to ensure regional relevance and engagement.

Social media outreach

- Maintain active presence on platforms like LinkedIn, Twitter (X) and Instagram, focusing on updates, success stories and event promotions.
- Host live Q&A sessions, virtual tours of Living Labs and panel discussions to engage broader audiences.
- Use hashtags and campaigns like #HealthLabs4Value to increase visibility and foster a sense of community.

Educational content

- Create easily shareable infographics, videos and animations to explain complex innovations and health challenges to the general public.
- Partner with schools and universities to run educational programs about health innovation.

Local community engagement



- Involve local communities through open days at Living Labs, where citizens can learn about the initiative and provide feedback.
- Develop community-focused projects to demonstrate the real-world impact of innovation.

Additional tools

Resource-sharing platform

Development a centralised resource-sharing platform. This could be used not only for internal communication but also as a tool for disseminating information to stakeholders and the public.

International conferences and forums

Presenting results at industry and academic events, which aligns with the partnering with existing international health and innovation conferences.

7. Evidence and insights from Health Labs4Value pilots

The Health Labs4Value pilots conducted in Hungary, Slovenia, Germany, Poland and the Czech Republic provide essential real-world evidence for the strategic direction outlined in this document. They demonstrate how the Living Lab methodology, value-based healthcare principles and transnational collaboration translate into tangible improvements for patients, healthcare providers and innovation ecosystems. Across highly diverse organisational and clinical contexts, the pilots validated the strategy's assumptions, revealed common implementation challenges, and identified success factors for sustainable and scalable healthcare innovation.

7.1. Purpose and role of the pilots in strategy development

The pilots were not isolated experiments but integral components of the strategic design process. They were intended to:

- test the Living Lab methodology across Central Europe,
- generate measurable or observable outcomes relevant to the strategy's objectives,
- identify barriers to digital innovation uptake,
- validate co-creation processes with patients and staff,
- provide evidence for the feasibility and scalability of solutions.

All pilots applied the HL4V methodological framework exploration, co-creation, iterative prototyping, testing in real healthcare environments, and structured stakeholder involvement. Their combined results form a robust empirical foundation for the strategic objectives and cooperation mechanisms described in Chapters 4 and 5.



7.2. Overview of the pilots and solutions

The five pilot initiatives addressed different health system challenges but shared a focus on patient value, digital support and collaborative development.

- **Hungary** developed an integrated patient and case-management system for surgical pathways, reducing administrative burden and improving transparency for patients and clinicians.
- **Slovenia** created a mobile rehabilitation application empowering patients after hand injuries with evidence-based exercises and information available at home.
- **Germany** piloted *ActiveTEP*, a CE-certified app supporting hip replacement patients with training, education and symptom tracking along the perioperative trajectory.
- **Poland** digitised hospital documentation through biometric signatures, streamlining admission processes and improving patient experience in line with VBHC and patient-centred care principles.
- **The Czech Republic** designed *Rovinka*, a digital tool supporting spinal-cord-injury patients with physiotherapy routines, pressure-ulcer prevention and caregiver involvement from hospital to home.

Despite differing clinical fields, all pilots demonstrated similar patterns of need: fragmented information pathways, administrative inefficiencies, limited digital support for patients outside the hospital, and inconsistent communication among stakeholders. The solutions collectively show how digital innovation can address these gaps effectively.

7.3. Cross-cutting insights from the pilots

Co-creation increases relevance and accelerates adoption

Across all pilots, early and continuous involvement of patients, relatives, clinicians, IT staff and innovation actors proved decisive. Co-creation clarified user needs, avoided costly redesigns, and ensured high acceptance. Particularly strong engagement emerged in Slovenia, Germany and the Czech Republic, where patients volunteered to co-create new content, signalling ownership and long-term commitment. Staff engagement challenges, seen especially in Hungary and Poland, underline the need for consistent change-management and internal communication efforts.

Digital solutions improve patient empowerment and continuity of care

All solutions improved patient autonomy, understanding of their care pathway and confidence in rehabilitation or administrative processes. Tools such as exercise videos, personalised reminders, activity diaries, and simplified documentation significantly strengthened continuity between hospital and home. The German, Slovenian and Czech pilots illustrate how targeted digital support can mitigate risks, strengthen self-management and reduce anxiety in vulnerable patient groups.

Administrative efficiency gains are significant yet require workflow adaptation



The Hungarian and Polish pilots revealed substantial time savings and reduction of manual errors when administrative processes were digitised. However, both identified transitional challenges: staff needed training, workflows had to be redesigned, and integration with hospital information systems required iterative adjustments. These insights highlight the importance of organisational readiness and interoperability standards.

Transnational cooperation fosters methodological refinement

All pilots benefited from structured exchanges with partners from other countries. Shared workshops, testing feedback and methodological peer review accelerated decision-making and improved solution quality. Partners reported that exposure to alternative approaches (e.g., patient recruitment strategies, usability testing methods) strengthened their own development processes and increased the transferability of pilot outcomes.

Sustainability requires clear ownership and resource planning

Long-term sustainability models differed across pilots but shared key features:

- internal IT ownership (Hungary),
- institutionalisation of Living Labs (Slovenia),
- commercial start-up model with external funding (Germany),
- integration with hospital infrastructure (Poland),
- SME-hospital partnership with university support (Czech Republic).

These models highlight the need for early definition of responsibilities, funding trajectories, and technical maintenance pathways to secure lasting impact.

7.4. Pilot evidence supporting strategic objectives

The pilots directly validate the strategy's objectives:

- **Cross-sector collaboration (Obj. 5.1):** All pilots demonstrated effective quadruple-helix cooperation, with SMEs, hospitals, universities and patients jointly shaping solutions.
- **Digital transformation (Obj. 5.2):** Each pilot introduced or improved digital systems - from administrative tools to rehabilitation platforms - confirming the centrality of digital innovation.
- **Workforce capabilities (Obj. 5.3):** Pilots identified training needs, improved staff workflows and demonstrated how digital tools can reduce administrative load.
- **Patient-centred care (Obj. 5.4):** Strong positive results in Slovenia, Germany and the Czech Republic show clear benefits in patient understanding, satisfaction and self-management.
- **Innovation ecosystems (Obj. 5.5):** The Czech, Hungarian and Slovenian pilots demonstrate how Living Labs can evolve into durable regional innovation structures.
- **Sustainability (Obj. 5.6):** All pilots developed sustainable ownership models and identified funding paths, confirming feasibility of long-term implementation.



7.5. Observed and measurable impacts

Although pilots varied in maturity and scope, several common impacts emerged:

- **Improved patient experience and empowerment:** Strong PROM/PREM results were documented in all clinical pilots.
- **Greater usability and acceptance:** Solutions scored high on usability (e.g., SUS scores in Germany) and were perceived as helpful by nearly all participants.
- **Operational efficiency:** Hungary reported ~30% administrative time reduction; Poland demonstrated smoother admission processes.
- **Better care coordination:** Digital tools reduced fragmentation between hospital and home environments.
- **Enhanced innovation capacity:** Pilots strengthened local Living Labs, staff skills and transnational learning networks.

These findings reinforce the KPIs and impact pathways presented in the following chapter.

7.6. Implications for scaling and strategy implementation

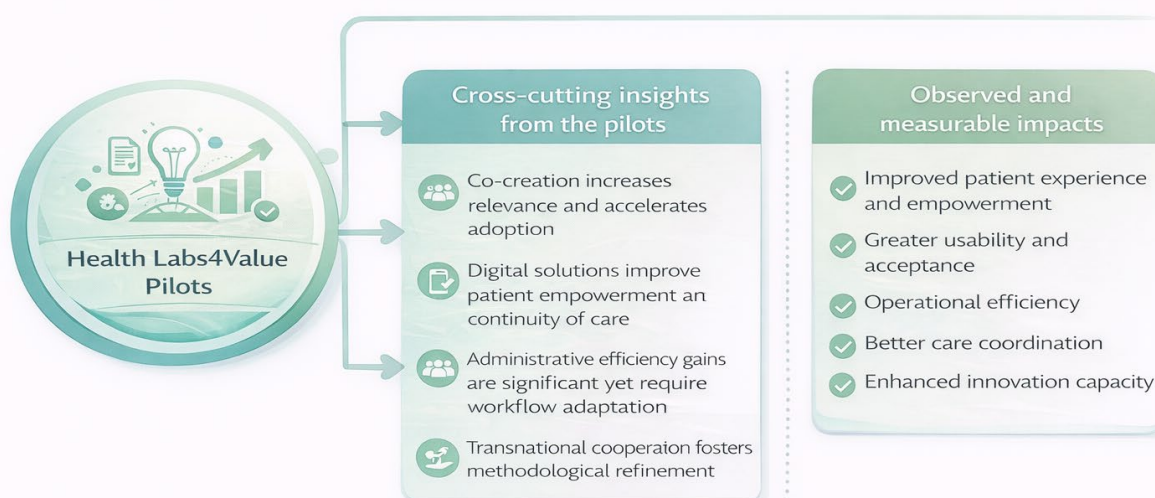
The pilots show that scaling requires more than technical replication. Successful scaling depends on:

- adaptable content and modular architecture,
- clear clinic-level ownership and workflow integration,
- sustained Living Lab structures for ongoing improvement,
- transnational peer learning to accelerate adoption,
- flexible funding models aligned with public and private actors.

The diversity of pilot contexts also demonstrates that HL4V solutions can be transferred across borders when supported by a structured innovation process, shared methodological tools and coordinated stakeholder engagement.



Evidence and insights from Health Labs4Value pilots



8. Measurable impacts at territorial level

The Health Labs4Value Strategy aims to generate measurable and sustainable impacts within participating territories by translating transnational cooperation into tangible improvements at institutional and regional levels.

While individual regions are capable of implementing local innovation initiatives, the Network approach provides added value that cannot be achieved through isolated action alone. Transnational cooperation enhances impact in several structurally significant ways:

- **Scale and replication capacity:** Solutions validated in one territory can be adapted and replicated across multiple regions, increasing efficiency and reducing duplication of development efforts.
- **Shared methodological refinement:** Living Lab methodologies are continuously improved through cross-border exchange of experiences, reducing implementation risks.
- **Critical mass for digital and data-driven innovation:** Larger cross-regional user bases strengthen testing environments and improve solution robustness.
- **Accelerated learning cycles:** Structured knowledge transfer shortens the time between pilot validation and scaling.
- **Increased credibility and policy relevance:** Joint action across Central European regions strengthens institutional legitimacy and strategic positioning at European level.



- **Resource optimisation:** Shared expertise, infrastructure and evaluation frameworks reduce fragmentation and enhance cost-effectiveness.

Through these mechanisms, transnational cooperation amplifies territorial impacts beyond what local actions could achieve independently.

This chapter outlines how the Strategic Objectives defined in Chapter 5 are expected to materialise within participating territories by 2035. The impacts presented here are directly aligned with the agreed objectives and associated indicators. Baseline values will be established during Phase I (2026-2028), with progress monitored through the Network's KPI framework.

The focus remains on impacts within participating institutions and territories, recognising that broader national-level outcomes are influenced by additional systemic factors beyond the Network's mandate.

8.1. Improved health outcomes and patient-centred care

The Strategy contributes to improved health outcomes by embedding digital, preventive and patient-centred approaches into clinical pathways.

At territorial level, measurable impacts are expected in the following areas:

- Reduction in hospital readmission rates in participating institutions where digital follow-up or rehabilitation tools are implemented.
- Improvement in PROM/PREM scores associated with patient empowerment and digital support solutions.
- Increased uptake of digital preventive and rehabilitation tools among targeted patient groups.
- Improved management indicators for chronic diseases (including diabetes and cardiovascular conditions) within participating institutions, where digital monitoring or patient-support tools are deployed.

Rather than committing to macro-level epidemiological shifts, the Network focuses on measurable improvements within implementation environments. These institution-level improvements are expected to contribute to broader territorial health gains over time.

By 2035, participating regions are expected to demonstrate documented improvements in selected patient outcome indicators aligned with the Strategic Objectives.

8.2. Strengthened innovation capacity and ecosystem maturity

The Network strengthens territorial innovation ecosystems by institutionalising cross-sector collaboration and improving structured cooperation between healthcare providers, SMEs, academia and public authorities.

Measurable territorial impacts include:



- Increase in the number of cross-sector innovation projects initiated within each territory.
- Growth in SME participation in healthcare innovation activities.
- Increased number of solutions replicated beyond their territory of origin.
- Strengthening of regional innovation clusters through structured Living Lab cooperation.

By 2035, each participating territory is expected to demonstrate:

- A stable, multi-actor innovation ecosystem embedded within regional healthcare structures.
- Regular cross-border collaboration as part of routine innovation processes.
- Increased capacity to attract and manage innovation-related funding initiatives.

These outcomes reflect enhanced ecosystem resilience and reduced dependence on isolated project-based collaboration.

8.3. Digital transformation and administrative efficiency

Digital health solutions supported by the Network are expected to generate measurable improvements in operational efficiency and patient access.

Territorial-level impacts include:

- Increased adoption of telemedicine and digital consultation tools within participating institutions.
- Increased percentage of patients accessing specialised services through digital channels in supported regions.
- Measurable reduction in administrative processing time in institutions implementing workflow digitalisation.
- Improved interoperability practices across healthcare IT systems within participating territories.

By 2035, participating territories are expected to demonstrate substantial progress in digital solution uptake and administrative efficiency improvements aligned with agreed targets.

These improvements contribute to increased accessibility, reduced operational burden and enhanced system responsiveness.

8.4. Workforce competence and innovation readiness

The Strategy addresses workforce constraints by strengthening digital and innovation-related competencies among healthcare professionals.

Territorial impacts include:



- Progressive increase in the percentage of healthcare professionals trained in digital tools, innovation processes and change management.
- Improved technology adoption rates following structured training interventions.
- Enhanced staff engagement in Living Lab activities and co-creation processes.
- Strengthened institutional innovation readiness across participating regions.

By 2035, at least 50% of relevant healthcare professionals within participating institutions are expected to have received structured training in digital and innovation competencies, contributing to long-term workforce resilience and improved implementation capacity.

8.5. Environmental and institutional sustainability

Sustainability is integrated as a horizontal principle across all activities of the Network.

At territorial level, measurable impacts include:

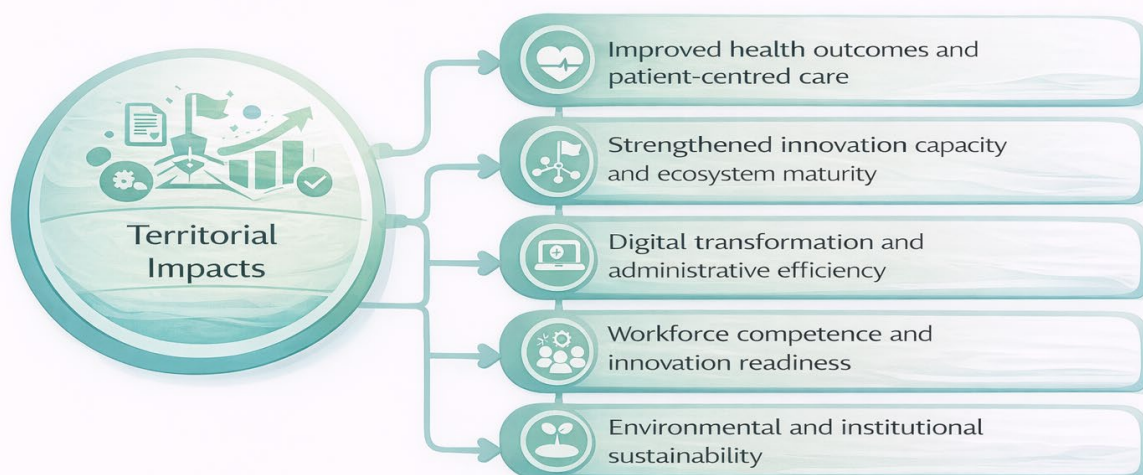
- Reduction in paper-based administrative processes through digitalisation.
- Reduction in resource-intensive workflows within participating institutions.
- Introduction of environmentally conscious procurement or operational practices where feasible.
- Periodic sustainability reviews embedded within governance processes.

Where measurable, participating institutions may report improvements in resource consumption or healthcare-related waste reduction linked to digital process optimisation.

By 2035, sustainability considerations are expected to be systematically integrated into innovation design, implementation and governance across all participating territories.



Measurable impacts at territorial level



9. Sustainability model and post-2035 pathway

The long-term sustainability of the Health Labs4Value Network is based on institutional embedding, diversified resource mechanisms and structured governance continuity rather than reliance on single funding instruments.

The post-2035 pathway builds on the institutional maturity achieved during the three implementation phases (2026-2035) and ensures that the Network remains operational, adaptable and financially viable beyond individual project cycles.

9.1. Governance sustainability

Sustainability after 2035 requires a stable governance architecture with clearly defined responsibilities and decision-making mechanisms.

Permanent transnational coordination structure

By 2035, the International Steering Committee (ISC) will function as a permanent coordination body, supported by:

- Defined membership structure,
- Rotating chairmanship model,



- Formalised decision-making procedures,
- Annual strategic review meetings.

The governance structure will transition from project-based coordination to a stable cooperation platform embedded within member institutions.

Institutional embedding at territorial level

Each Territorial Health Labs4Value entity commits to:

- Integrating Living Lab activities into institutional strategies,
- Assigning designated coordination personnel,
- Maintaining minimum operational capacity for cross-border cooperation.

This approach ensures that transnational collaboration becomes part of routine institutional practice rather than a temporary initiative.

9.2. Financial sustainability and resource model

The Network's sustainability model avoids dependence on specific external funding instruments and instead relies on a diversified and realistic resource mix.

Core resource mechanisms

Post-2035 financial sustainability will be based on:

- Moderate membership contributions
 - Annual contributions from participating entities to support coordination functions.
 - Scaled according to institutional capacity.
- Project-based co-financing
 - Continued participation in EU and national funding programmes where strategically aligned.
 - No structural dependence on any single funding source.
- Service-based revenue mechanisms (where applicable)
 - Training programmes,
 - Methodological consulting,
 - Innovation facilitation services.
- In-kind contributions
 - Staff time,
 - Infrastructure use,
 - Technical expertise.



The Network will not assume guaranteed funding from specific EU instruments but will maintain funding-readiness capacity to respond to relevant calls.

9.3. Operational sustainability

Operational sustainability ensures that collaboration remains functional even in low-funding periods.

Low-overhead coordination model

The Network will operate with:

- Digital collaboration platforms,
- Structured annual work planning cycles,
- Shared monitoring tools,
- Lean administrative structures.

This model minimises fixed costs while preserving functional cooperation.

Knowledge and infrastructure retention

- The shared methodological framework remains open and continuously updated.
- Digital tools developed under HL4V remain accessible to participating members.
- Evaluation frameworks and KPIs remain operational for longitudinal monitoring.

9.4. Strategic sustainability and policy positioning

Long-term sustainability also depends on strategic positioning.

Policy integration

Where feasible, HL4V principles will be:

- Integrated into regional innovation strategies,
- Referenced in institutional digital transformation plans,
- Aligned with national value-based healthcare initiatives.

Five-year strategic review cycle

From 2035 onward, the Network will conduct structured five-year strategic reviews to:

- Reassess priorities,
- Adjust governance structures,
- Refine resource models,
- Respond to emerging technologies.

This ensures adaptability without requiring structural reinvention.



9.5. Realistic post-2035 outlook

The Health Labs4Value Network does not assume exponential expansion or guaranteed long-term external funding.

Instead, sustainability is defined as:

- Maintaining a stable, functioning transnational cooperation platform,
- Preserving methodological and ecosystem capacities,
- Continuing measurable collaboration and scaling activities,
- Remaining adaptable to emerging health innovation needs.

By institutionalising governance, diversifying resources and embedding cooperation into routine structures, the Network ensures that its impact extends beyond 2035 without creating financial or strategic overcommitments.

9.6. Adoption of emerging health technologies and trends

Emerging health technologies and trends will fundamentally reshape healthcare delivery, patient outcome, and system efficiency in the coming years. These advancements are driven by breakthroughs in science, technology and data. They align with global healthcare demands, such as improving accessibility, reducing costs and personalising treatment.

The adoption of emerging health technologies and trends, particularly AI and precision medicine, is transforming the healthcare landscape. These innovations promise to improve patient outcomes, increase efficiency and make healthcare more personalised and accessible.

Artificial intelligence in healthcare

AI is making significant strides in various aspects of healthcare:

- **Diagnostics:** AI algorithms can analyse medical imaging data to detect early signs of diseases like cancer, often with greater accuracy than human doctors.
- **Personalised treatment:** By analysing vast datasets of clinical and molecular information, AI can help tailor treatments to individual patients, optimising care and reducing trial-and-error approaches.
- **Predictive medicine:** AI-powered systems can forecast health risks and potential disease onset, enabling proactive interventions.
- **Operational efficiency:** AI automates routine tasks, streamlines workflows and improves resource allocation in healthcare settings.

Precision medicine

Precision medicine leverages genetic, environmental and lifestyle data to customise healthcare for individuals:



- **Genomic analysis:** Advanced genetic testing allows for more accurate disease risk assessment and treatment selection.
- **Pharmacogenomics:** This field studies how genetic variations affect drug responses, enabling more effective and safer medication prescribing.
- **Targeted therapies:** Precision medicine enables the development of treatments that target specific genetic mutations or molecular pathways.

Digital health technologies

The integration of digital technologies is enhancing healthcare delivery:

- **Telemedicine:** Remote consultations have become increasingly prevalent, improving access to care, especially in rural areas.
- **Wearable devices:** These tools enable continuous health monitoring and data collection, supporting both preventive care and chronic disease management.
- **Electronic health records (EHRs):** Centralised digital records improve data sharing and care coordination across healthcare providers.

Challenges in adoption

Despite the potential benefits, several barriers hinder the widespread adoption of these technologies:

- **Cost and financial constraints:** Implementing new technologies often requires significant upfront investment.
- **Data security and privacy concerns:** The use of sensitive health data raises important privacy and security issues.
- **Integration with existing systems:** Many healthcare providers struggle to integrate new technologies with legacy systems.
- **Resistance to change:** Both healthcare professionals and patients may be hesitant to adopt new technologies due to unfamiliarity or scepticism.
- **Regulatory hurdles:** Strict regulations, while necessary for patient safety, can slow down the adoption of innovative technologies.

The adoption of emerging health technologies like AI and precision medicine holds immense potential to revolutionise healthcare. While challenges remain, ongoing efforts to address barriers and foster innovation are paving the way for a more efficient, personalised and effective healthcare system.



9. Sustainability model and post-2035 pathway

