



**Healthcare  
Innovation  
Consortium**

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# Healthcare Innovation Consortium – Northern Ireland Research and Innovation Network – Discovery & Proposed Design Key Steps to Success

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## Introduction

Looking to the future of healthcare innovation in Northern Ireland, it's crucial to reflect on progress and chart a course aligned with the vision for transformative change. This chapter draws upon insights from our analysis of the current landscape and stakeholder feedback to outline strategic pathways for advancing innovation and research.

Northern Ireland boasts a robust foundation for innovation yet faces challenges such as fragmented governance and resource limitations that it must seek to overcome if it is going to foster a more effective research and innovation culture within its healthcare system. By leveraging strengths, fostering collaboration, and investing in capacity-building, the region's full potential can be unlocked.

## Rationale for an innovation pathway

For a number of reasons, the HSC should be ideally placed to be at the leading edge of innovation. It is already observed there are many significant strengths including:

- A relatively stable population which is of a large enough size to warrant system-wide studies, with results potentially replicable to other populations and markets.
- An integrated health & social care policy and delivery structure including the development of a NI-wide Integrated Care System.
- A wealth of historical, linkable data sets.
- A newly established digital EPR system using Epic, enriched by the roll out of [Encompass](#) last year.
- Relatively close organisational proximity between the formulation of policy and the delivery of services to patients and clients.
- Ambitious digital strategies, underpinned by strong governance processes, which include the deployment of a system-wide, integrated health & care Electronic Patient Record; a digital innovation strategy which aims to develop a digital innovation hub; and a data strategy which will progress the creation of a data institute - significantly enhancing capability to analyse & derive insight from data.
- A well-developed system of R&D in health and care with a significant number of component organisations, programmes, collaborations and partners.
- A well-established approach to embedding innovation within policy development and service delivery through the Medicines Optimisation and Innovation Centre (MOIC), modelled on the Academic Health Science Network (AHSN) concept now known as Health Innovation Network.
- A well-developed Quality Improvement infrastructure with dedicated and trained resources in each of the HSC Trusts.
- The development of an Innovation and Market Development Unit within the Procurement and Logistics Service.
- A number of innovation 'nodes' including the Clinical Translational Research and Innovation Centre (C-TRIC) and the Connected Health Innovation Centre (CHIC).
- Significant capital development via the NI City and Growth Deals.
- Established processes for timely access within the HSC to new innovative medicines with an evidence base for efficacy and cost-effectiveness.

Missing from the above however and posing a challenge to fully leverage the available opportunities, is the absence of a comprehensive system-wide governance and leadership framework to support the coordination and implementation of innovation. Such a framework would unite leaders from various sectors to foster and sustain a culture of innovation and collaboration. With suitable linkages to industry and academia, this structure could effectively coordinate the efforts aimed at translating and implementing scaled outcomes across the Health and Social Care (HSC) system. This coordination would ensure alignment with policy objectives, funding priorities, procurement processes, and the allocation of clinical and managerial resources necessary to drive effective change management.

## Stakeholder Feedback

### Internal Stakeholders

Based on the feedback from internal stakeholders, several key themes emerge regarding suggestions for more successful collaboration, and the development of an effective innovation ecosystem in Northern Ireland.

1. **Need for AHSN-style Model:** There is a prevailing sentiment among stakeholders regarding the potential benefits of transitioning towards an Academic Health Science Network (AHSN)-style model. This shift, although acknowledged as challenging, is perceived as essential for bolstering collaboration and aligning efforts towards common objectives. As one stakeholder expresses, "Having a united AHSN-style model in NI would put us in a much stronger position to collaborate effectively."
2. **Balancing Innovation Principles and Addressing the Economy-Health Gap:** Stakeholders have emphasised the importance of ensuring that innovations yield tangible benefits for the health and care service and its end users, foster collaboration, and deliver improved health outcomes and economic value. There is a recognition that in the context of Northern Ireland, economic benefit may be a byproduct of improved health outcomes, rather than a primary goal.
3. **Establishment of Recognisable Innovation Framework:** Stakeholders highlight the necessity for a well-defined program for innovation, accompanied by a clear vision statement and robust infrastructure for implementation. A suggested innovation Pathway has been well received with one participant outlining how NI could have a visual representation of an "arc of innovation" delineating the journey from conceptualisation to implementation, with supportive organisations and processes visually displayed.
4. **Resource Allocation for Data and Digital Aspects:** There is a consensus among stakeholders regarding the need for increased resources dedicated to addressing data and digital aspects of research and innovation. Particularly, there is a recognition of individuals with dedicated expertise in healthcare innovation within NHS England, where supporting and delivering innovation objectives are fundamental to their role.
5. **Cultural Shift towards Learning from Failure:** Stakeholders advocate for a cultural shift that reframes unsuccessful innovations as learning opportunities or re-focusing points rather than failures. By fostering a positive narrative around setbacks e.g. fail fast and pivot stakeholders believe that it will encourage continuous learning and engagement from diverse perspectives.
6. **Enhanced Decision-Making Mechanisms:** Stakeholders stress the importance of establishing a deliberate decision-making framework within the healthcare system to advance innovation initiatives. This includes identifying individuals mandated to represent organisational interests and ensuring avenues for discussions at senior levels.
7. **Promotion of Collaboration with Academia:** There is a consensus on the necessity of strengthening collaboration with academia to foster innovation. Stakeholders suggest involving external stakeholders in research networks to facilitate collaboration and mutual understanding.
8. **Cultural Change and Long-term Funding Strategy:** Stakeholders underscore the need for a cultural shift towards appreciating the role of communication and collaboration in innovation. Additionally, there are calls for a long-term funding strategy to incentivise collaboration and provide stability for innovation initiatives.
9. **Focus on Meaningful Outputs and Benefits:** Stakeholders emphasise the importance of focusing on meaningful outcomes and outputs rather than solely on activities. This entails sharpening the focus on achieving tangible benefits and ensuring that innovations yield meaningful results.
10. **Importance of Change Management and Coordination:** Stakeholders highlight the complexity of change within the healthcare system and stress the importance of effective change management and coordination. Boots-on-the-ground personnel are deemed essential for connecting various stakeholders and ensuring successful implementation of innovations.



**94% of internal stakeholders indicated they would be in favour of a united brand representing, communicating, and receiving research and innovation opportunities.**

## External Stakeholders

Drawing from insights provided by external stakeholders, several pivotal themes emerge, shedding light on recommendations for fostering enhanced collaboration and cultivating a robust innovation ecosystem in Northern Ireland:

1. **Amalgamation of Groups:** There is a suggestion for the consolidation or refocus of certain groups within the ecosystem to streamline operations and avoid inefficiency.
2. **Tangible Outcomes and KPIs:** Stakeholders emphasise the importance of establishing tangible outcomes and Key Performance Indicators (KPIs) for each group or job role to measure progress effectively.
3. **Alignment with Services and Solutions:** There is a call for individuals aligned with the services provided by various groups to identify solutions that address the needs of the healthcare service effectively.
4. **Guidance for Entrepreneurs:** Stakeholders highlight the need for guidance and direction for entrepreneurs to navigate the healthcare innovation landscape effectively.
5. **AHSN-Style Model:** Stakeholders express support for adopting a unified Academic Health Science Network (AHSN)-style model in Northern Ireland to enhance collaboration and effectiveness.
6. **Wide Consultation and Engagement:** Emphasis is placed on consulting a wide range of stakeholders and engaging individuals at various levels within the system to ensure inclusivity and commitment to proposed changes.
7. **Alignment and Unity:** Stakeholders recognise the importance of alignment and unity among stakeholders to achieve better outcomes for patients, carers, and service users.
8. **Political and Governmental Engagement:** Acknowledgment is made of the political and policy elements involved in implementing changes, underscoring the need to engage decision-makers from various government departments.
9. **Involvement of Service Providers and Users:** Importance is placed on including service providers and users in the decision-making process to ensure relevance and effectiveness of proposed changes.
10. **Promotion of Existing Facilities:** There is a suggestion to promote and utilise existing facilities and resources effectively to support innovation initiatives and research within the region.
11. **Department-Level Sign-Off and Consultation:** Stakeholders highlight the importance of department-level sign-off and consultation with academia for policy alignment and collaboration around the innovation agenda.
12. **Acknowledgment of Internal Competition:** Acknowledging internal competition within the healthcare system's scale, stakeholders emphasise the importance of recognising and exploring ways to leverage this competition collectively and not let it stand in the way of improving health outcomes.
13. **Funding and Support:** Stakeholders emphasise the need for funding and support for clinicians in both secondary and primary care, streamlined funding mechanisms, and clearer pathways for accessing financial support for innovation projects, as well as the establishment of a model, network, or institute of innovation tailored to the Northern Ireland landscape.

**87% of external stakeholders indicated they would be in favour of a united brand** representing, communicating, and receiving research and innovation opportunities. They clarify that rather than creating new networks, reviewing and leveraging existing ones, such as HIRANI, could serve as an effective conduit to businesses and academia. This approach could be combined with an exercise to review overlapping administrative functions and ensuring that roles are refocused to ensure that they are focused on improving health outcomes by implementing innovation.

## Recommendations

### Initial Design Recommendations based on Discovery

- 1. Map functions and overlaps of current R&I and healthcare organisations:** Conduct a comprehensive assessment to identify the functions and potential overlaps among existing R&I and healthcare industry bodies in Northern Ireland. By more detailed understanding services provided within the current landscape, we can effectively allocate resources, eliminate duplication, and optimise efficiency across organisations.
- 2. Assess data sources for determining priorities:** Evaluate various data sources to identify key priorities and areas of focus within the healthcare and R&I sectors. By leveraging data-driven insights, we can make informed decisions and allocate resources effectively to address pressing healthcare challenges and drive impactful innovation.
- 3. Set up innovation pathway and map resource for each stage:** Develop a structured innovation pathway that outlines the stages from ideation to implementation. Map the resources required at each stage, including funding, expertise, and infrastructure, to support seamless progression and efficient utilisation of available resources. It is likely the two separate innovation pathways would be most meaningful; one for internal and one for external innovation.
- 4. Establish a suitable governance structure to support delivery of innovation priorities and programmes:** Create a centralised structure comprising representatives from all relevant organisations involved in delivering services within the healthcare and research and innovation (R&I) sectors. This group will facilitate collaboration, streamline decision-making processes, and ensure alignment with overarching strategic goals. Additionally, where necessary, formalise Memorandums of Understanding (MoUs) to solidify commitments and responsibilities among stakeholders.
- 5. Determine innovation priorities and workstreams, in consultation with key stakeholders:** Define innovation priorities and develop programs of work to achieve short, medium, and long-term success across Northern Ireland, while engaging with key stakeholders throughout the process. Consider how these will be delivered, ensuring accountability and capacity is reviewed continually, as well as measures of success. Consultation with stakeholders, including healthcare professionals, researchers, industry partners, and government agencies, will ensure that initiatives are aligned with stakeholder needs and priorities. Continuous review of accountability, capacity, and measures of success will be integral to the ongoing delivery of these priorities.
- 6. Establish process for managing industry access:** Develop a transparent and efficient process for managing industry access to the NI healthcare system, ensuring fair and equitable opportunities for collaboration and partnership. This process should streamline interactions between industry stakeholders and healthcare organisations while adhering to regulatory requirements and ethical standards.
- 7. Outline critical path to launch and timescales:** Develop a detailed pathway outlining key milestones, timelines, and dependencies for the implementation of initiatives within the healthcare and R&I ecosystem. This will enable effective project management, risk mitigation, and resource allocation to ensure timely delivery and successful outcomes.
- 8. Support launch planning and build ongoing internal comms plan:** Provide support for launch planning activities, including event coordination, stakeholder engagement, and communications strategy development. Establish an ongoing communications plan to keep stakeholders informed, engaged, and aligned with project objectives throughout the implementation phase.
- 9. Establish and launch intrapreneur programme and NI Accelerator Programme:** Foster a culture of innovation by establishing an intrapreneur programme to encourage creativity and entrepreneurship among healthcare professionals and researchers. This programme must include health and care organisations supporting intrapreneurs. Additionally, launch a Northern Ireland (NI) Accelerator Programme to support startups and SMEs in developing and scaling innovative healthcare solutions.

- 10. Consider external communications and engagement strategy:** Develop an external communications and engagement strategy to promote awareness of new infrastructure, initiatives, and opportunities within the healthcare and R&I ecosystem. Foster international collaborations and partnerships to enhance knowledge exchange and leverage global best practices in healthcare innovation.

## Conclusion

In navigating the complex landscape of healthcare innovation in Northern Ireland, it becomes evident that progress hinges upon strategic collaboration, robust governance, and a shared commitment to transformative change. The insights gleaned from internal and external stakeholders provide valuable guidance for charting a course towards success.

Internally, stakeholders underscore the importance of adopting an Academic Health Science Network (AHSN)-style model, fostering a culture of innovation, and enhancing collaboration with academia and industry partners. The need for a clear innovation framework, dedicated resources for data and digital aspects, and effective decision-making mechanisms emerges as critical priorities. Moreover, stakeholders advocate for a cultural shift towards embracing failure as a learning opportunity and emphasise the importance of long-term funding strategies to sustain innovation initiatives.

Externally, stakeholders echo similar sentiments, emphasising the importance of alignment, collaboration, and strategic engagement across sectors. Recommendations for leveraging existing networks, promoting collaboration with academia, and aligning vision and strategy underscore the need for a unified approach to innovation. The call for enhanced political and governmental engagement, utilisation of City Deals, and establishment of cross-departmental linkages highlights the interconnected nature of healthcare innovation and the imperative for collective action.

Moving forward, the design recommendations based on this discovery phase provide a potential roadmap for action, encompassing the establishment of governance structures, innovation pathways, and communication strategies. By mapping functions, streamlining workflows, establishing new innovation implementation processes and fostering collaboration, Northern Ireland can unlock its full potential as a hub for healthcare innovation. The potential launch of intrapreneur and accelerator programmes, alongside transparent processes for industry access, will cultivate a fertile ground for innovation to thrive.

To measure the success of future initiatives, several key indicators may be considered. These include ensuring that innovation meets priority needs and over time improves health outcomes, tracking the number of active innovation projects per year, and cultivating a growing network of identified champions of innovation, innovation implementation leads, and intrapreneurs across the healthcare system. As those outcomes may take time to materialise, some initial outputs can be measured, such as the development of programmes, educational and knowledge-sharing sessions, the number of individuals trained to be champions or intrapreneurs, and the establishment of an Innovation Toolkit can provide tangible markers of progress.