

Data Infrastructure and Transformational Change

The Prize

Our unique combination of integrated data systems, collaborative culture, and dual-market access positions us to capture £200 million in AI sector value by 2028¹ whilst establishing NI as a global hub for trusted AI.

The Challenge

Northern Ireland has a transformational opportunity to maximise its early mover advantage compared to our competitors. To do this we will need to minimise cross-departmental, cross-sectoral friction and overcome key regulatory hurdles to accelerate progress.

The Opportunity

Northern Ireland possesses rich and detailed integrated data assets. In health, we have integrated GP records across 2 million citizens, five health trusts adopting a unified electronic health record, and research partnerships already in place. This foundation promises AI applications that other regions cannot replicate. Combined with our 'triple helix' model (academia, industry and government), we can scale from demonstrator projects to global leadership.

The Estonia Model

Estonia, with just 1.3 million people compared to Northern Ireland's 1.9 million, transformed from Soviet bureaucracy to digital leader in 20 years. Estonia's digital transformation now saves 1,400 years of working time annually², freeing up their civil servants for higher value activities. Northern Ireland has the same structural small nation advantage, with world-class universities, international partnerships, and dual-market access.

The Potential Within Health

Developing an Academic Health Partnership that builds on the Belfast Trust-QUB MoU and which draws other HEIs and all trusts together, will provide the platform and collaborative structures that can focus on maximising insights from our rich healthcare data resource. This will transform healthcare outcomes and accelerate economic activity. Expanded collaborations such as these hold the potential to create a thriving ecosystem of global research partnerships, pharma collaborations, and exporting startups.

However, the same collaborative data-sharing model extends across other major sectors - from cyber security and fintech, to green energy and manufacturing. Health is merely the most near-term and realisable of these.

Call to Action

Legislation already exists to enable health data sharing and linkage, creating an oven-ready environment that other regions simply cannot match. With an ageing population (over 40% will be 65+ by 2045) and integrated health systems covering 2 million citizens, we can build secure, comprehensive health datasets that attract MedTech innovators and AI researchers, amongst others. This means faster diagnoses, preventative interventions, reduced health inequalities, and more efficient services. It also provides an additional and valuable income stream to re-invest in our healthcare system for public benefit.

¹ AICC Artificial Intelligence Capability Census: A Baseline Study of AI Adoption, Opportunity and Impact in Northern Ireland (Pg4)
https://www.aicc.co/_data/assets/pdf_file/0008/1754090/AICC-Baseline-Study-of-AI-Adoption,-Opportunity-and-Impact-in-Northern-Ireland-2025.pdf

² <https://e-estonia.com/solutions/e-governance/government-cloud/>

Immediate requirements:

- Cross-departmental working group to accelerate health data initiatives
- Endorse development of an Academic Health Partnership model
- Legislative framework enabling secure data sharing whilst maintaining privacy
- Investment in AI-ready infrastructure starting with health, scaling to all sectors
- Training and development programmes for senior leadership across government.