



# Northern Ireland's Life and Health Sciences Sector: An Emerging Powerhouse

*Thomas Bartley, Business Development Director, Invest Northern Ireland.*

With exceptional expertise in precision medicine, digital health, and medical devices, Northern Ireland's Life and Health Sciences sector has progressed remarkably in recent years. The region's economic development agency, Invest Northern Ireland, has maintained a presence in the US over the years and we continue to play an important role in strengthening Northern Ireland's links, collaboration, and partnerships with key stakeholders across the country, particularly in Massachusetts and California.

Innovation has remained at the core of Northern Ireland's life and health sciences ecosystem, with a legacy dating back to the development of the world's first portable defibrillator in 1965. Today, the sector continues to thrive, with Northern Irish expertise reshaping the future of healthcare. For instance, our excellence in precision medicine and next-generation data analytics supports ground-breaking clinical trials and the development of rapid molecular diagnostic tests. Our world class universities are making significant strides in researching the effective diagnosis and treatment of cancer, cardiovascular disease, and cystic fibrosis.

## **An ecosystem that drives collaboration and innovation**

The Life and Health Sciences sector is worth £1.9bn to Northern Ireland's economy and has a thriving cluster of over 250 companies, exporting to over 145 countries. It consists of a mix of local indigenous firms, start-ups, university spinouts, and international investors who have chosen Northern Ireland as their preferred location.

Northern Ireland's unique positioning allows businesses to trade freely with Great Britain and the European Union, offering tariff-free access to two of the world's largest markets. This strategic advantage, coupled with a combination of talent, cost-effectiveness, regulatory compliance, product quality, intellectual property protection, makes Northern Ireland a key global player in addressing healthcare challenges with innovative solutions.

## **Innovative research and global excellence**

Northern Ireland boasts two globally recognised universities, Ulster University and Queen's University Belfast, along with 17 research centres and over a thousand skilled researchers. This close integration of academic research, clinical practice and technological expertise enables scientific research to be directly linked to clinical outcomes, thereby helping companies in Northern Ireland accelerate their development efforts and achieve success ahead of their competitors. Both universities have made significant contributions to bioscience research in the UK, earning global recognition and serving as incubators for fresh ideas and innovative spinoff ventures.

Belfast, the capital of Northern Ireland, is a thriving city known for its entrepreneurship and innovation. It has been consistently recognised as one of the fastest-growing tech cities in the UK and a hub of fresh ideas and spinouts. This includes companies making a name for themselves in the MedTech industry, particularly in diagnostics, data integration, digital health, wearables, and advanced pharmaceutical delivery systems.

## **Expertise in digital and connected health**



Northern Ireland is a hub for cutting-edge medical technologies such as neonatal ventilation equipment and non-invasive neuro-stimulation products produced by companies such as Armstrong Medical and Neurovalens.

Armstrong Medical, part of Eakin Group, is a medical device company with a portfolio of high-quality innovative respiratory disposables for anaesthesia and critical care, exporting their products to over 60 countries.

Neurovalens is an award-winning health-tech company that innovatively combines neuroscience and technology to address global health issues like obesity, insomnia, and anxiety. The company recently obtained FDA clearance for their Modius Sleep device, a non-invasive treatment for chronic insomnia.

The region's innovation potential is further enhanced by its AI, data analytics, cybersecurity, and software development strengths.

Cirdan is a leader in informatics software and imaging solutions that speeds up the diagnosis of patients, particularly in pathology. Sonrai Analytics is a pioneer within the precision medicine sector, utilising cutting-edge artificial intelligence (AI) and data analytics to integrate large-scale multi-omics data types and help generate significant insights and hypotheses, leading to the discovery of novel therapies and biomarkers.

Other examples of cutting-edge Northern Irish expertise include Axial3D, which creates patient-specific 3D human anatomy models, revolutionising medical planning and surgical procedures globally, as well as Eolas Medical's mobile platform solution, which helps healthcare delivery organisations access clinical guidelines, education resources, and team communication.

### **Conclusion**

With its rich resources and extensive network of partnerships, Northern Ireland is well-positioned to drive innovation and growth in the Life and Health Sciences sector in North America and beyond. The £1.3 billion Northern Ireland government investment in the life and health sciences will revolutionise the healthcare industry, creating new business opportunities and paving the way for cutting-edge technologies, products, and services. It will transform Northern Ireland into a global leader in this field, inspiring a thriving community committed to driving healthcare innovation.