



Overview of Regional Innovation and Digital Investments

Innovation

£230M of investment will create world class centres of innovation excellence underpinned by the common thread of digital and data driven innovation, which will ultimately support the delivery of thousands of new and better jobs by driving innovation and increased productivity. These investments are critical in tackling the productivity gap and will be essential if we are to sustain jobs in many of our major employers, attract investment into the high value R&D sections of existing business and grow our indigenous SMEs within the high growth sectors that have proved most resilient to the impact of the pandemic.

Advanced Manufacturing Innovation Centre (AMIC)

This ambitious project will be transformative for the advanced manufacturing sector in the Belfast Region and indeed Northern Ireland. The 4th industrial revolution presents a set of threats and opportunities for Advanced Manufacturing companies. The manufacturing landscape is changing fundamentally and the future of the industry will rely on smart automation, machine learning, sensors and data. The multiplier effect of all the services needed to support manufacturing, particularly as offerings evolve, make advanced manufacturing a critical industry that needs to be supported, allowing the large number of micro-businesses and SMEs to scale. Talent is obviously key to this and attracting diverse talent into a largely traditional sector remains one of the major challenges that advanced manufacturing businesses are trying to address.

AMIC is a Centre that will have the capability and capacity/scale to define and deliver high quality, industry-focused R&D as required by Northern Ireland's advanced manufacturing sectors. The mission is dual: to provide a comprehensive support to all our industry sectors for cross cutting technologies like digital transformation, automation and high value design; and also invest in our technological areas of strength that can become national capabilities. AMIC comprises three facilities within the Belfast Region that serve to bridge the gap between emerging research and industrial application. AMIC Factory of the Future is an industry-led, advanced digital manufacturing and prototyping facility for industry to test and scale-up new technologies across both broad and niche sectors. AMIC NIACE is an industry-led centre focused on composites technologies. AMIC Campus is not-BRCD funded and serves as a bridge to university research

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and skills development in the University setting. AMIC will act as a nationally, and internationally, recognised capability that safeguards the future of the NI manufacturing base.

Global Innovation Institute (GII)

This project aims to transform NI's digital economy by substantially increasing both the volume and range of digital innovation taking place within the region, with a particular focus on driving a Digital One Health agenda. GII will provide a novel multi-disciplinary environment, by combining world leading expertise across cyber security, advanced wireless technologies, data science/analytics and scalable computing (*secure – connected – intelligence*), alongside internationally-recognised excellence in food security/sustainability and health sciences (*One Health*). These unique combinations of skills, combined with a ground-breaking partnership approach to delivering scalable computing solutions, in an exciting new physical co-creation environment, will make GII a game changer for the region. GII will deliver a distinctive programme of research and innovation, harnessing the common technical foundations for innovation in One Health sectors (including privacy-preserving analytics; distributed sensing; Artificial Intelligence and Machine Learning), through an approach to data based on principles of trust, transparency and fair value, to stimulate inclusive economic growth. Through strategic public and private sector partnerships, GII will provide a distinctive offering to companies and organisations seeking to navigate the complex landscape of data analytics and Artificial Intelligence.

Institute for Research Excellence in Advanced Clinical Healthcare (i-REACH)

This project will be transformative for the Life and Health Sciences (LHS) sector in the Belfast Region and more widely across Northern Ireland. iREACH has been developed with support, commitment and insight from industry, academia and public sector stakeholders.

The aim is to build a wider healthcare ecosystem to support the development of new treatments that will be rapidly assessed in early phase R&D programmes. This will allow the Belfast Region to leverage additional industrial investment and funding for R&D, attract and retain skilled individuals to ensure sustainability in the LHS sector, drive economic growth and ultimately deliver better health and wellbeing outcomes to people in NI.



iREACH provides the opportunity to develop a connected and aligned ecosystem that will allow the Belfast region to leverage industrial relationships and investment, funding for research translation, and attract and retain appropriately talented and skilled individuals to ensure sustainability in the LHS sector. The development of new treatments, diagnostics and med-tech for patients is complicated, risky, expensive and heavily regulated. Speed of delivery through joined up services is crucial. The ability to establish clinical trials in a high-quality environment and in a timely manner without competing with NHS requirements for radiology, pharmacy, laboratory etc. is important. Dedicated services and facilities are needed to support clinical trial delivery by industry. iREACH will provide co-ordinated access to clinical investigators and patients through a single point of contact for industry, accessible clinical research support infrastructures, and streamlined and timely clinical trial approvals.

Centre for Digital Healthcare Technology (CDHT)

CDHT will accelerate a dynamic and productive open innovation ecosystem for the development of innovative medical technology. It will transform the innovation pathway and will encourage a faster and more successful rate of commercialisation for new products by co-locating academic researchers alongside industry. In addition, it will provide both a community living lab based in the main CDHT building adjacent to the new UU Belfast campus and a clinical innovation living lab based on the Royal Victoria Hospital site. This will support all users to successfully generate, prototype, develop, test and validate new ideas successfully within a unique setting. It is innovative, forward looking and collaborative bringing together key partners including both NI universities, industry (local and international) and key public sector partners.

The project will be a key contributor to the achievement of outcomes within the UK Industrial Strategy, specifically aligning to the Ageing Society Grand Challenge. It will ensure that the UK competes effectively with other leading life science clusters globally, and it will increase economic output, productivity and exports whilst also addressing the Northern Ireland region's productivity deficit.

Screen Media & Innovation Lab (SMIL)

SMIL is a research-led, industry-facing project, developed in response to the identified strategic needs of the screen sector of the creative industries, locally, nationally and internationally. This transformative project seeks to build on the incredible success story that the creative industries

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have created for Northern Ireland, already generating over £1 billion GVA to the NI economy and employing around 26,000 people, contributing to a wider UK creative sector that employs over 2 million people and generates £111 billion in GVA.

At the core of SMIL is a unique facility, developed through partnership between academia and industry, and comprising production and R&D&I capability as follows:

Virtual Production Facilities: including a highly specified Virtual Production stage (of a scale benchmarked against the VP stage used in the production of The Mandalorian), with supporting Motion Capture and 3-D Scanning studios and a SMART Stage. The specification for these facilities has been developed to conform with the standards required by leading global players, such as Netflix and EPIC Games.

Broadcast Studio: A commercial facility, with an audience capacity of 600 integrated with, but separate from the Virtual Production facilities, to operate on a commercial basis, with BBC NI potentially as the primary tenant.

Film Studios: co-located within the Harbour Film Studios complex at the Giant's Park on the North Foreshore in Belfast, where Belfast Harbour is planning a major £45m expansion to quadruple the size of the existing studio complex, the presence of SMIL will enhance and diversify the offering.

Digital

The Digital Innovation Programme will support up to £120M of capital investment across a range of interventions, which will allow us to nurture collaboration and greater place-based investment in digital innovation and to build digital innovation excellence and capability across the Belfast Region. The three capital interventions are summarised below:

Challenge Fund Programme

The Belfast Region Digital Pillar will establish a Challenge Fund programme focusing on a range of Missions designed to address the regional Grand Challenges of Artificial Intelligence & Data, Health & Wellbeing and Sustainability & Resilience through a range of agile financial instruments, including potentially competitive grant funding, equity/debt finance and a Small Business Research Initiative-style programme. The funding will be invested over a 10 year timeframe.



Infrastructure Enabling Fund

In addition, an Infrastructure Enabling Fund will support the Belfast Smart District (developed with Belfast's key anchor organisations) and the development of a Regional Testbed Network outside Belfast through investment in enabling infrastructure and world-class digital connectivity. The funding will also be invested over a 10 year timeframe.

Regional Innovation Hubs

Outside Belfast, the Digital Innovation programme will also invest in the region of £25m to deliver a network of Regional Innovation Hubs to ensure diffusion of innovation, digital infrastructure and skills throughout the region, building further on regional strengths such as the creative sector and advanced manufacturing.