

Strengthening
international collaboration

Cannot compete in every global market

Celebrate our successes

Encourage our young people
to be entrepreneurs

Innovation allows
firms to stay ahead
of their competitors

Public Sector Information -
driver of economic growth
and innovation

Concentrate on our key strengths

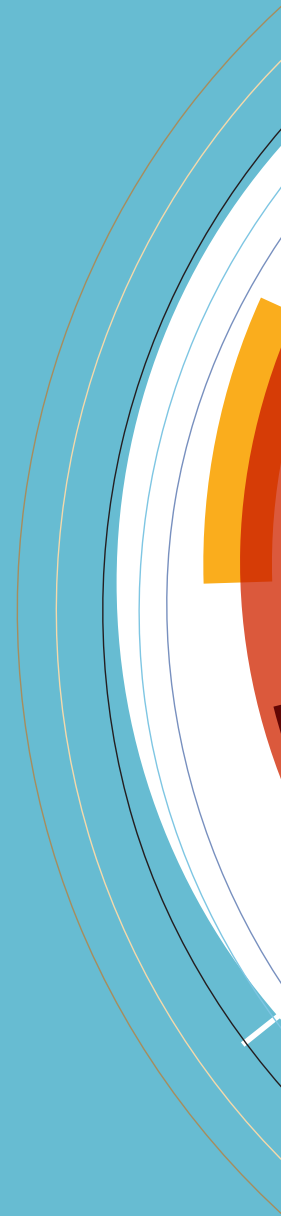
Companies who collaborate are more productive

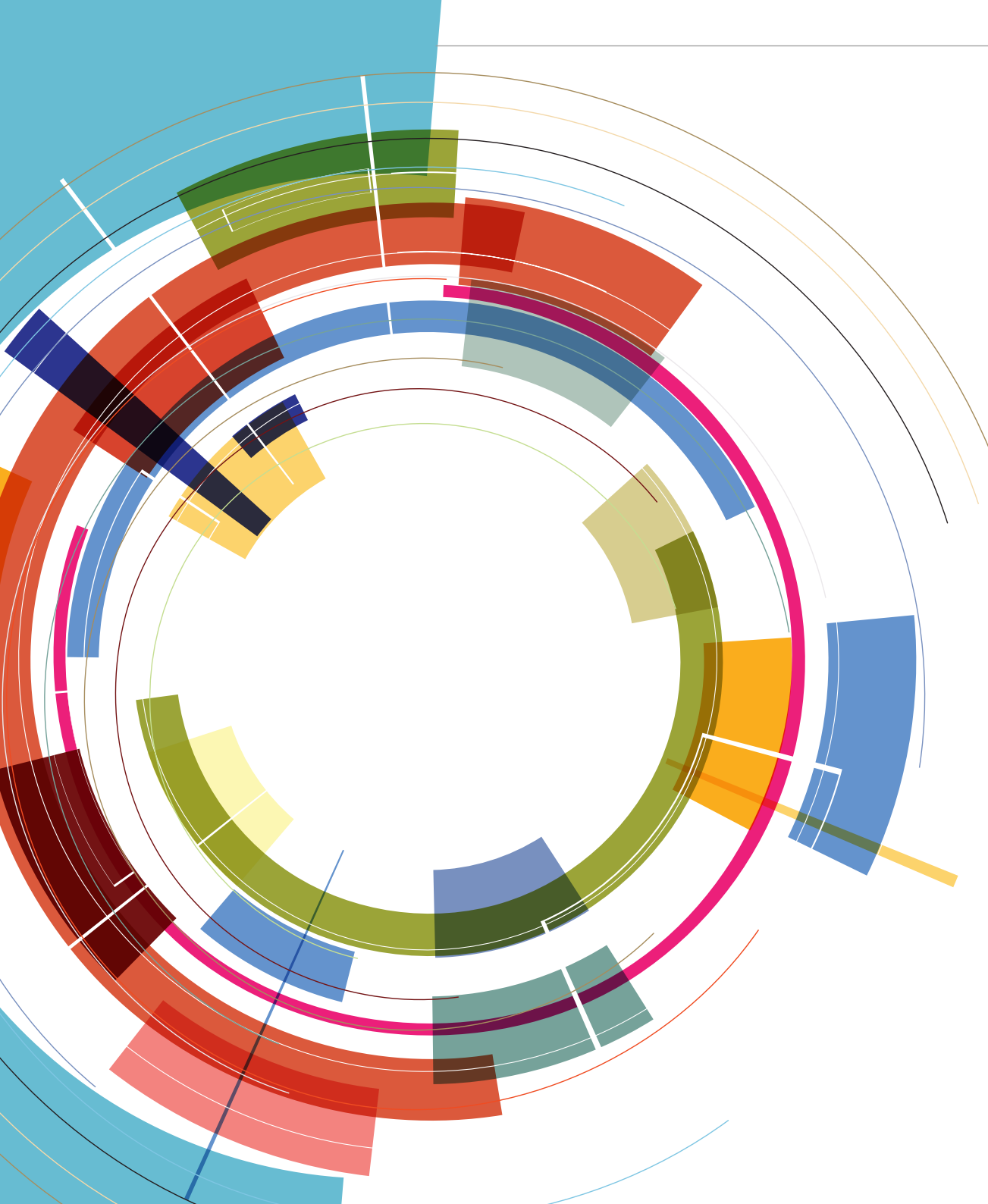
Innovation is
more than R&D

Enhancing our world class
research base

Grow more indigenous
high tech companies

Innovation distinguishes
between a leader and a follower





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Introduction

“Innovation is the successful generation and exploitation of new ideas”

Innovation is the successful generation and exploitation of new ideas. It is about transforming creative thinking into new products, new and improved processes and technologies to support new ways of doing business. It enables firms to stay ahead of competitors and grow nearly twice as quickly in terms of both employment and turnover as firms who do not innovate. Northern Ireland needs more firms engaging in innovation.

The new [Northern Ireland Innovation Strategy](#), which has been agreed by the Executive, sets out the key long term actions necessary to stimulate a step change in innovation performance and in doing so deliver a vision that:

Northern Ireland, by 2025, will be recognised as an innovation hub and will be one of the UK’s leading high-growth, knowledge-based regions which embraces creativity and innovation at all levels of society.

This Action Directory summarises the actions detailed in the Innovation Strategy. The actions in the Strategy have been grouped under the following four theme areas:

- A Cultural Change
- B Knowledge Generation
- C Knowledge Exchange
- D Knowledge Exploitation

Measuring Progress

A number of long term goals and medium term targets have been set to track the impact of the Strategy. These are set out in the table below.

| Long Term Goals | Current | Milestone | Long Term Goals |
|--|---------------------|---------------------|-------------------|
| European innovation scoreboard ranking | Innovation follower | Innovation follower | Innovation leader |
| UK regional innovation ranking | 12th of 12 | Top 6 | Top 4 |
| Employment in the knowledge economy | 33,370 | 45,000 | 54,000 |
| Total R&D spending | £624 million | £950 million | £1.2 billion |



| Medium Term Targets | Current | Target (2020) |
|---|----------------------|---------------|
| Drawdown from EU H2020 | n/a (starts in 2014) | €145 million |
| Business R&D expenditure | 1.6% of GVA | 1.8% of GVA |
| Number of R&D companies | 496 | 650 |
| Business start-up rate | 7% | 14% |
| Collaboration amongst innovation firms | 37% | 60% |
| Private sector turnover from innovation | £11 billion | £22 billion |

An Annual Innovation Report will be prepared and submitted each year to the Executive Sub-Committee on the Economy, chaired by the Enterprise, Trade & Investment Minister, Arlene Foster MLA. The report will include

- An update of performance against goals and targets;
- An assessment of innovation performance in a wider range of related areas;
- A review of how appropriate goals and targets are in light of emerging data;
- Progress on the actions outlined in this Strategy; and
- Recommendations for future actions and policy direction.

Theme: Cultural Change

Timescale Key: Short (S) = 0-2 years; Medium (M) = 3-5 years; Long (L) = Beyond 5 years

| A | Theme | Action | Timeframe | Responsibility |
|----|-----------------|--|-----------|------------------------|
| A1 | Cultural Change | Examine feasibility of establishing a Northern Ireland Innovation Council. | S | DETI |
| A2 | Cultural Change | Ensure that innovation and enterprise and the reform of the Northern Ireland public sector are central to any future Programme for Government. | S | DFP |
| A3 | Cultural Change | Appoint 'Innovation Champions' within Government Departments to drive and coordinate the innovation and reform agenda. | S | DFP / DETI |
| A4 | Cultural Change | Incorporate innovation and creativity into training and development programmes for public servants and into core competencies for managers. | M | DFP |
| A5 | Cultural Change | Introduce a scheme to improve public services by stimulating innovation amongst staff, service users and the wider public. | S | DFP |
| A6 | Cultural Change | Build the capability and capacity of the Public Sector Innovation Lab to address public sector policy challenges. | S | DFP / DETI |
| A7 | Cultural Change | Encourage companies to invest in attaining international standards such as International Office for Standardisation (ISO). | M | DETI / INVEST NI |
| A8 | Cultural Change | Develop a new innovation communications strategy involving businesses, government, academia, and media to showcase excellence in innovation and to inspire our young people. | S | DETI |
| A9 | Cultural Change | Create a Chief Scientific Advisor role for Northern Ireland to provide a coordinated approach to science within the public sector. | S | DETI / DHSSPS/ DARD |

Timescale Key: Short (S) = 0-2 years; Medium (M) = 3-5 years; Long (L) = Beyond 5 years

| A | Theme | Action | Timeframe | Responsibility |
|-----|-----------------|---|-----------|-----------------------|
| A10 | Cultural Change | Introduce a range of new leadership programmes and also develop a management strand within Invest NI's Skills Growth Programme. | M | INVEST NI |
| A11 | Cultural Change | Conduct a pilot Innovation Survey for Micro Businesses. | S | DETI |
| A12 | Cultural Change | Develop a new social innovation working group, to identify and report on future opportunities and promote the concept of social innovation. | S | DSD |
| A13 | Cultural Change | Establish accelerator programmes to act as key catalysts for social innovators in Northern Ireland. | S | Building Change Trust |

Theme: Knowledge Generation

Timescale Key: Short (S) = 0-2 years; Medium (M) = 3-5 years; Long (L) = Beyond 5 years

| B | Theme | Action | Timeframe | Responsibility |
|-----|----------------------|--|-----------|------------------|
| B1 | Knowledge Generation | Investigate the potential to introduce innovation audits within companies linked to the provision of intensive mentoring. | S | INVEST NI |
| B2 | Knowledge Generation | Incentivise research performers to engage in networking/ mentoring to increase the technological activities and capabilities of enterprises. | S | DETI / INVEST NI |
| B3 | Knowledge Generation | Run competitions to support innovation in key areas where there is potential for NI companies to compete on a global basis. | S | DETI |
| B4 | Knowledge Generation | Increase efforts to encourage companies to invest in R&D. | S | INVEST NI |
| B5 | Knowledge Generation | Encourage companies to deepen their R&D capabilities and develop their Technology Management capabilities. | S | INVEST NI |
| B6 | Knowledge Generation | Undertake new research and technology capabilities study across the public and private sector. | S | MATRIX |
| B7 | Knowledge Generation | Focus funding and support for research and innovation in both our education and company base in priority areas. | M | INVEST NI / DEL |
| B8 | Knowledge Generation | Develop a Foresight programme to identify new and emerging technologies and key future markets for NI companies. | M | MATRIX / DETI |
| B9 | Knowledge Generation | Develop further research excellence in sectors with high growth potential and also double the number of funded postgraduate places to 1000 by 2020, with these additional PhD places focussing on areas of economic relevance. | M | DEL |
| B10 | Knowledge Generation | Establish Competence Centres in strategically important areas. | M | INVEST NI |

Timescale Key: Short (S) = 0-2 years; Medium (M) = 3-5 years; Long (L) = Beyond 5 years

| B | Theme | Action | Timeframe | Responsibility |
|-----|----------------------|--|-----------|---------------------------|
| B11 | Knowledge Generation | Lead efforts to have the UK Catapult in Precision Medicine located in Northern Ireland. | M | DETI / INVEST NI |
| B12 | Knowledge Generation | Increase the capacity of Creative Learning Centres. | S | DCAL |
| B13 | Knowledge Generation | Develop a Creative Northern Ireland Framework to nurture a culture of creativity across the public, private and third sector. | M | DCAL |
| B14 | Knowledge Generation | Encourage more companies to incorporate design into their business planning processes. | S | INVEST NI |
| B15 | Knowledge Generation | Increase focus of the Employer Support Programme to provide targeted support to Small, Medium Enterprises (SMEs) and Micro Businesses for the skills required to engage in innovation, R&D and entrepreneurship. | S | DEL |
| B16 | Knowledge Generation | Progress the implementation of the Northern Ireland Science, Technology, Engineering and Maths (STEM) Strategy, 'Success through STEM', and, in particular, fund an additional 1,200 undergraduate places in STEM areas. | M | DEL |
| B17 | Knowledge Generation | Invest further in clinical research careers. | S | DHSSPS |
| B18 | Knowledge Generation | Work with industry to ensure that the necessary skills pipeline is in place to meet their needs. | S | DEL / INVEST NI DHSSPS |
| B19 | Knowledge Generation | Examine how we can increase support offered to encourage entrepreneurial activity in schools. | S | DE |

Theme: Knowledge Exchange

Timescale Key: Short (S) = 0-2 years; Medium (M) = 3-5 years; Long (L) = Beyond 5 years

| C | Theme | Action | Timeframe | Responsibility |
|----|--------------------|---|-----------|------------------|
| C1 | Knowledge Exchange | Introduce a new Open Innovation Service to support companies engage in innovation. | S | DETI / INVEST NI |
| C2 | Knowledge Exchange | Increase investment in industry-led collaborative networks, particularly those focussed on market opportunities identified in the MATRIX priorities. | M | INVEST NI |
| C3 | Knowledge Exchange | Provide increased funding for the latest rounds of the Higher Education Innovation Fund and Connected programme. | S | DEL |
| C4 | Knowledge Exchange | Increase the scope of Knowledge Transfer Partnerships (KTPs). | M | INVEST NI |
| C5 | Knowledge Exchange | Strengthen engagement in Knowledge Transfer Networks (KTNs) in Northern Ireland. | S | INVEST NI |
| C6 | Knowledge Exchange | Seek to increase investment in the Innovation Voucher programme. | M | INVEST NI |
| C7 | Knowledge Exchange | Introduce a Creative Credit Voucher. | S | DCAL |
| C8 | Knowledge Exchange | Explore the development of a sub-regional profile/map to indicate sectoral strengths across NI with local councils. | M | NILGA |
| C9 | Knowledge Exchange | Encourage Further Education colleges to create and establish Specialist provisions for Industry using Colleges Expertise (SPICE) centres, in order to provide bespoke support for all businesses in Northern Ireland, which will help them innovate and grow. | M | DEL |

Timescale Key: Short (S) = 0-2 years; Medium (M) = 3-5 years; Long (L) = Beyond 5 years

| C | Theme | Action | Timeframe | Responsibility |
|-----|--------------------|--|-----------|-------------------------------|
| C10 | Knowledge Exchange | Encourage and incentivise clinicians and other Health and Social Care (HSC) staff to become more efficient innovators by providing routes to the implementation of new products or practices that emerge from R&D, normally undertaken jointly with academics and / or businesses. | S | DHSSPS |
| C11 | Knowledge Exchange | Forge strategic partnerships with emerging economies in areas where there are alignments with Northern Ireland's capabilities and future market opportunities. | L | DETI / INVEST NI |
| C12 | Knowledge Exchange | Support key research institutes to further develop international agreements. | L | DEL / INVEST NI |
| C13 | Knowledge Exchange | Enhance support for researchers to engage in Horizon 2020. | S | DETI / DEL / DARD / INVEST NI |
| C14 | Knowledge Exchange | Secure at least €145m from Horizon 2020 | L | DETI |

Theme: Knowledge Exploitation

Timescale Key: Short (S) = 0-2 years; Medium (M) = 3-5 years; Long (L) = Beyond 5 years

| D | Theme | Action | Timeframe | Responsibility |
|----|------------------------|--|-----------|------------------|
| D1 | Knowledge Exploitation | Identify new ways to support companies to access finance. | S | INVEST NI / DETI |
| D2 | Knowledge Exploitation | Encourage greater uptake of HMRC's Patent Box. | S | INVEST NI / HMRC |
| D3 | Knowledge Exploitation | Fund a new world-class business accelerator to foster the growth of early stage high tech start-ups. | S | INVEST NI |
| D4 | Knowledge Exploitation | Investigate the commercial exploitation of traffic data and public transport movement data. | M | DRD |
| D5 | Knowledge Exploitation | Develop an Open Data Strategy and Action Plan for Northern Ireland. | S | DFP |
| D6 | Knowledge Exploitation | Examine the feasibility of establishing an Open Data Node in Northern Ireland. | S | DETI / DFP |
| D7 | Knowledge Exploitation | Organise a number of open data competitions. | M | DETI / DFP |

Timescale Key: Short (S) = 0-2 years; Medium (M) = 3-5 years; Long (L) = Beyond 5 years

| D | Theme | Action | Timeframe | Responsibility |
|-----|------------------------|--|-----------|----------------|
| D8 | Knowledge Exploitation | Conduct a study into the size and nature of the opportunity presented by big data for NI businesses. | M | MATRIX / DETI |
| D9 | Knowledge Exploitation | Increase the number of Small Business Research Initiative (SBRI) projects. | S | DETI |
| D10 | Knowledge Exploitation | Investigate the potential for the establishment of a central fund, for SBRI projects. | S | DETI |
| D11 | Knowledge Exploitation | Support the expansion of the Northern Ireland Science Park. | S | DETI |
| D12 | Knowledge Exploitation | Produce a Health and Life Sciences Strategy. | M | DETI / DHSSPS |
| D13 | Knowledge Exploitation | Work with the Agri-Food Strategy Board and other stakeholders to take forward their recommendations to expand innovation and exploit global opportunities. | S | DETI / DARD |
| D14 | Knowledge Exploitation | Work with businesses to increase their e-capability. | S | INVEST NI |

Contacting Us

If this document is not in the format that meets your needs please contact the NI Innovation Strategy Team

This document is also available on the following internet site:
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