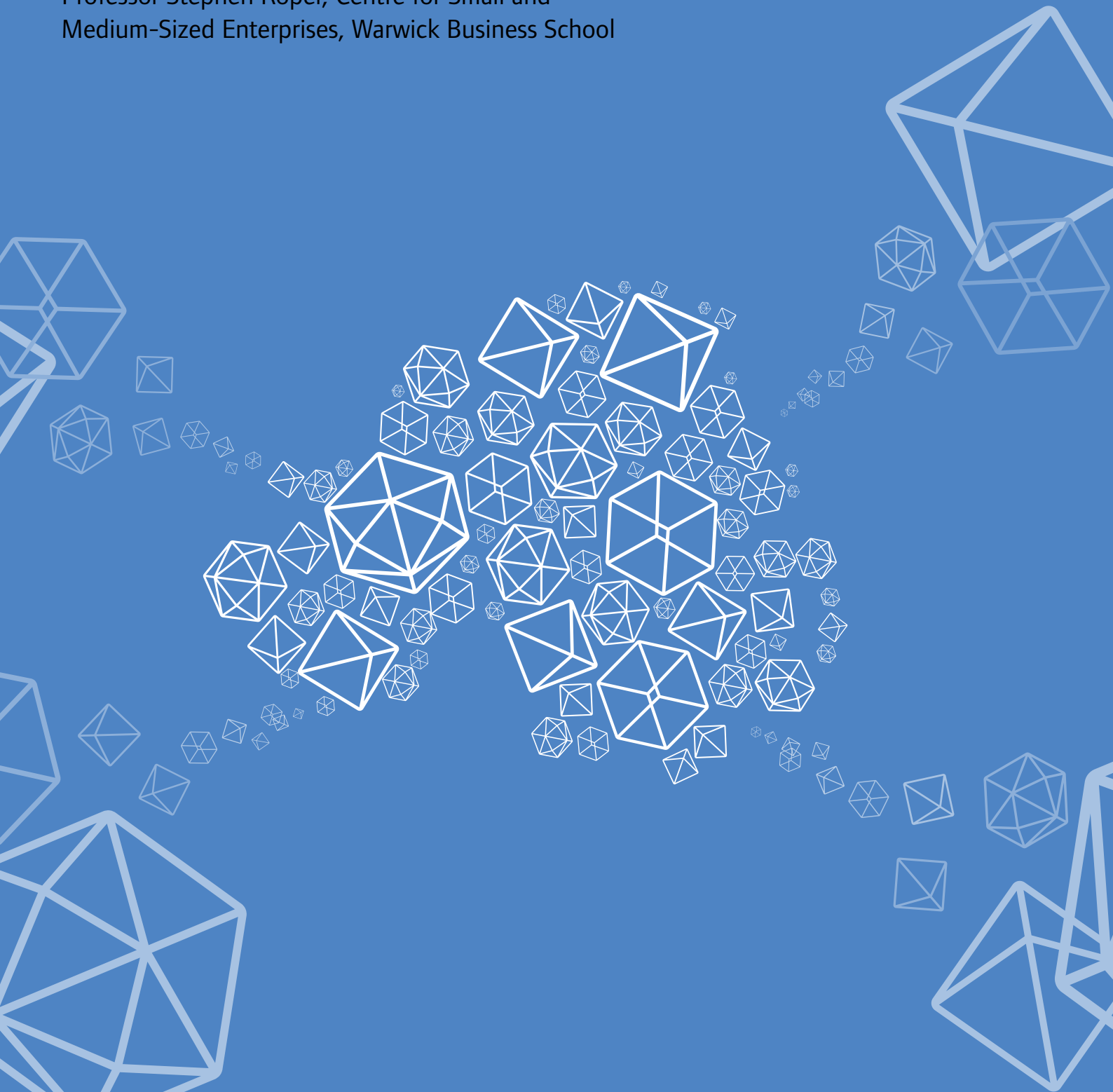


Stepping Forwards

Northern Ireland's Innovation Future

Professor Stephen Roper, Centre for Small and
Medium-Sized Enterprises, Warwick Business School



Executive summary

Recent statistics present a sobering picture of innovation in Northern Ireland. Northern Ireland has the lowest proportion of innovation-active firms of any area of the UK outside London. Moreover, a recent assessment suggested that Northern Ireland was one of only two regions lagging the UK average on all elements of absorptive and development capacity.

MATRIX – the Northern Ireland Science Industry Panel – has also highlighted important innovation challenges faced by Northern Ireland including low levels of private sector R&D, low levels of university-business collaboration, skills mismatches and a lack of innovation collaboration with external customers. This suggests that Northern Ireland faces significant innovation challenges.

However, the region also has some important 'innovation advantages'. These include the policy discretion that comes with devolution, which creates the potential for Northern Ireland to develop its own innovation policy agenda rather than follow models from other parts of the UK. Northern Ireland's other innovation advantages relate to the significant resources available for supporting innovation and a widespread commitment from both the public and private sectors to the 'innovation agenda'.

In this report we draw on international leading practice and suggest concrete steps which could be taken in Northern Ireland to construct a regional innovation advantage. We make four key recommendations building on leading practice from elsewhere. Adopting these recommendations will help to maximise the value of private and public investments in R&D and innovation.

Recommendation 1: An Innovation Council to improve system governance

To ensure priority is given to the innovation agenda we recommend the introduction of an Innovation Council to analyse, challenge and support developments in Northern Ireland's innovation capability. This could be developed by extending the remit and capability of the existing MATRIX organisation. Ideally, the Innovation Council would be close to the heart of government, have a strong analytical capability, a cross-cutting remit and a strong advocacy function for innovation.

Recommendation 2: A Service Innovation Grant Scheme to support non-technical innovation

To support broadly based and hidden innovation in Northern Ireland firms a Service Innovation Grant scheme, modelled on Finland's Tekes 'Serve' scheme, should be introduced to support non-technical innovation. This will be of direct benefit to innovation in services firms but could also support service innovation by manufacturing firms.

Recommendation 3: A requirement for collaboration to encourage co-operation on innovation and R&D

To boost levels of collaborative and networked innovation among firms, collaboration should be a required element of any industry R&D or innovation project which is publicly supported. This should apply both to the R&D grant scheme and the Service Innovation Grant scheme.

Recommendation 4: Northern Ireland Government should work to implement a two-tier funding system to encourage stronger regional alignment of the universities

To achieve a stronger alignment between developmental activity in the universities and the needs of the regional economy, the Northern Ireland Government should consider the introduction of a two-tier funding system for universities similar to that being suggested in Scotland.

While the adoption of these recommendations will not be easy, together they will help to address Northern Ireland's innovation challenges through better system governance and development, boosting levels of non-technical innovation, encouraging collaboration and improving regional alignment. This is vital if Northern Ireland is to significantly improve its innovation performance and capitalise effectively on the region's 'innovation advantages'.

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Stepping Forwards Northern Ireland's Innovation Future

1. The innovation journey

Building effective innovation in places such as Northern Ireland has been described as a "regional innovation journey".¹ This starts with the enthusiasm of a small group, progresses through the development of widely agreed goals and objectives and culminates in the widespread adoption of the innovation agenda. In recent years Northern Ireland has progressed well down this road. For example, the 2008 Innovation Action Plan demonstrates the commitment of a wide range of Northern Ireland organisations to improving innovation performance.² This broad-based commitment to an innovation agenda provides a strong basis for future development.

Strengthening and renewing Northern Ireland's innovation capabilities – the next step in the innovation journey – presents new challenges. These challenges are made all the more intense by the current downturn. However, innovation can help firms to combat difficult market conditions. In the longer term, as recovery comes, innovation will provide the basis for more rapid sales, exports and productivity growth.

In this report we make some recommendations for how Northern Ireland can address the challenge of strengthening and renewing its innovation capability, and take the next steps in its innovation journey. Our recommendations are built on what has been successful elsewhere drawing on international experience and recent policymaking in Scotland.

Our perspective on 'innovation' is broad-based including non-technical, hidden and service sector innovation. We are therefore looking beyond the science and technology agenda covered in detail by recent reports from the Northern Ireland Science Industry Panel (MATRIX). Our objective is to enable broad-based innovation and so maximise the value of all of Northern Ireland's innovation investments.

2. Defining the challenges

Recent statistics present a sobering picture of innovation in Northern Ireland. Northern Ireland has the lowest proportion of innovation-active firms of any region in the UK outside London, a deterioration of the position in 2005.³ However, the problem is not universal, with large firm innovation in Northern Ireland on a par with that in the UK.⁴ Arguably, however, the UK itself is a bad benchmark, with levels of innovation in the UK notably lower than those in leading European economies. This places Northern Ireland in the middle of the European innovation 'league table' with the prospect of a deteriorating position as the countries of Eastern Europe develop rapidly and other European economies – including Ireland – improve their innovation performance.

1. Benneworth, P. (2007) 'Leading Innovation: Building effective regional coalitions for innovation.' London: NESTA.
2. DETI (2008) 'Regional Innovation Strategy for Northern Ireland. Action Plan 2008-2011.' Belfast: DETI.
3. DETI (2007) 'UK Innovation Survey 2007: Northern Ireland Results.' Belfast: DETI. Figure 1, p.2.
4. Ibid. p.3.

5. On system failure see Woolthuis, R. K., Lankhuizen, M. and Gilsing, V. (2005) A system failure framework for innovation policy design. 'Technovation.' 25, pp.609-619.

6. NESTA (2008) 'Innovation by Adoption: Measuring and mapping absorptive capacity in UK nations and regions.' London: NESTA. p.99.

7. NESTA (2008) 'Innovation by Adoption: Measuring and mapping absorptive capacity in UK nations and regions.' London: NESTA. p.14.

Recent reports comparing innovation capability in UK regions also highlight systemic weaknesses in Northern Ireland's innovation capabilities.⁵ Indeed, Northern Ireland has been said to be one of only two UK regions (the other is the East Midlands) with below-average capability in each aspect of innovation (Box 1).⁶ Recent reports from MATRIX highlight some more specific issues in Northern Ireland's innovation profile. These include:

- Low levels of private sector R&D despite the availability of relatively high levels of public support.
- Relatively low levels of collaboration between universities and local companies for innovation both in R&D and other forms of design and organisational innovation.
- An over-emphasis on technology-push rather than market-pull innovation and a lack of collaborative innovation between firms in Northern Ireland and their external customers.
- A mismatch between the skills being developed by the education and training systems and the needs of local innovative companies.
- Weak cross-government structures to support innovation which result in a lack of high level co-ordination and innovation system governance.

Considerable challenges therefore remain if Northern Ireland is to maximise the potential contribution of innovation to future development. However, Northern Ireland has both the resources and the devolved authority to address these issues. These are Northern Ireland's innovation advantages.

Box 1: Innovation in Northern Ireland: An absorptive capacity/development capacity perspective

One perspective on regional innovation is provided by the absorptive capacity/development capacity approach. Absorptive capacity is a region's ability to identify, value and assimilate external knowledge; development capacity provides an indication of a region's ability to develop and exploit this knowledge. The relationship between these concepts is included in Figure 1.⁷

Absorptive capacity reflects Northern Ireland's ability to access external knowledge for innovation, embed this into local organisations and then diffuse this knowledge locally. Development capacity relates to Northern Ireland's ability to create and exploit new innovation. Figure 2 summarises the position of UK regions, comparing the five elements of absorptive and development capacity. Northern Ireland is one of only two regions with a below-average score on all aspects of absorptive and development capacity.

Figure 1: The Absorptive Capacity/Development Capacity Model

8. Ibid. p.99.

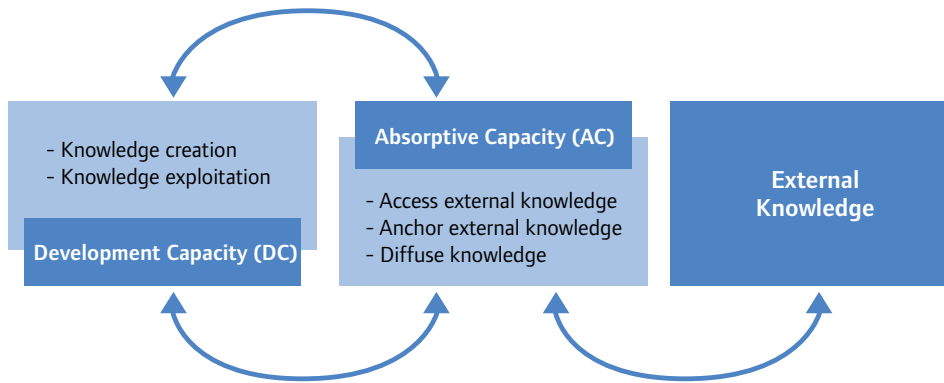
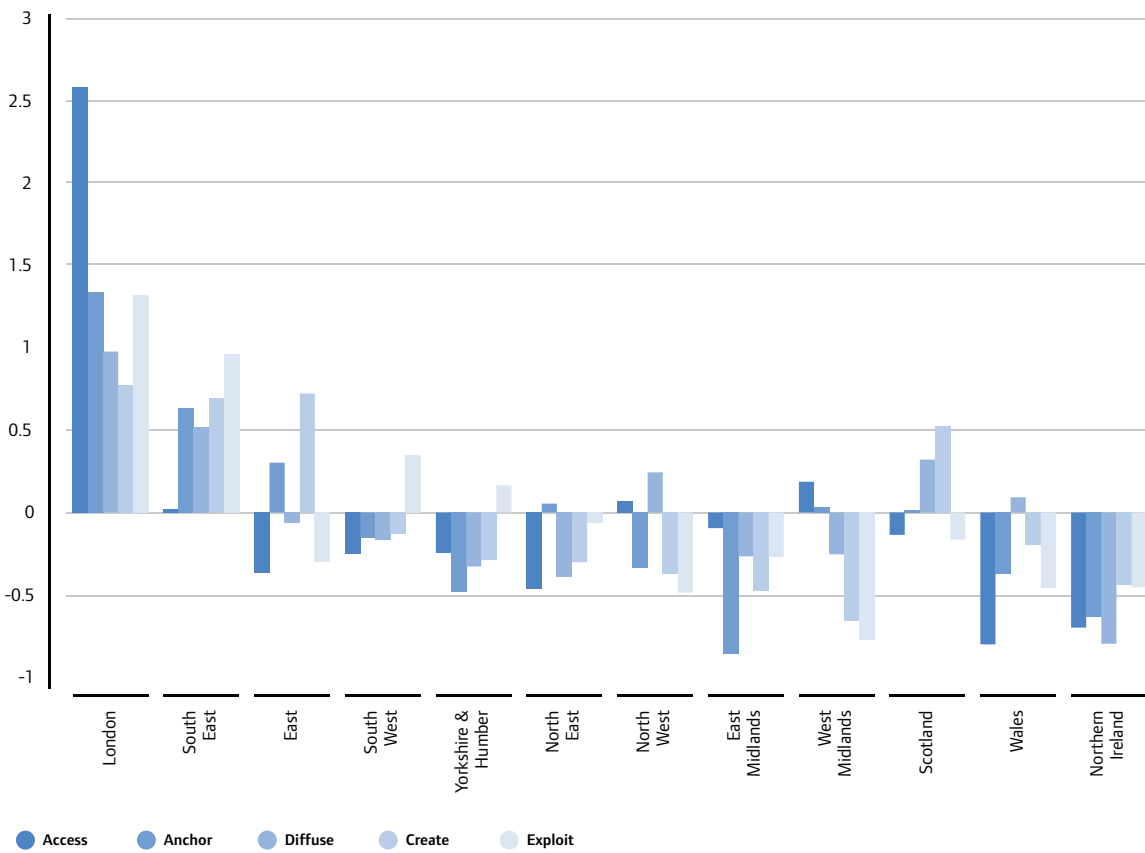


Figure 2: Absorptive Capacity/Development Capacity of UK regions⁸



9. Northern Ireland Executive (2008) 'Building a Better Future: Northern Ireland Executive Programme for Government 2008-2011.' Belfast: NIE. Foreword, pp.2-3.
10. DETI (2003) 'Think, Create, Innovate: The Regional Innovation Strategy for Northern Ireland.' Belfast: DETI; Invest Northern Ireland (2008) 'Corporate Plan 2008-2011.' p.24.
11. NESTA (2008) 'Innovation by Adoption: Measuring and mapping absorptive capacity in UK nations and regions.' London: NESTA. pp.32-33 and p.73.
12. DETI (2008) 'Regional Innovation Strategy for Northern Ireland. Action Plan 2008-2011.' Belfast: DETI.

3. Northern Ireland's innovation advantages

Whilst Northern Ireland is not the only part of the UK and beyond facing many of the innovation challenges identified in the last section, it does have clear innovation advantages to improve. Capitalising on these advantages will enable Northern Ireland to 'construct advantage' by enabling more effective innovation (Box 2).

Northern Ireland's innovation advantages are:

- Devolution means that the Northern Ireland Government has significant policy discretion over economic development. Importantly, it can shape and re-shape institutions and governance frameworks to most effectively construct regional advantage. As the Foreword to the Programme for Government states, devolution creates a "tremendous opportunity to shape our own future", going on to say that "growing the economy is our top priority".⁹ In terms of maximising Northern Ireland's innovation potential this means developing a distinctive regional innovation policy better suited to the needs of Northern Ireland rather than directly copying other parts of the UK.
- Innovation is a central priority in Northern Ireland regional development policy. This is evident in the 2003 Regional Innovation Strategy ('Think, Create, Innovate') and the commitment in the Invest NI Corporate Plan 2008-2011 to increase by a third support for innovation programmes to reach £55 million pa by 2010-11.¹⁰ This very significant level of public support creates the opportunities to change behaviours and to encourage firms to undertake more R&D and innovation.
- Northern Ireland has strong universities conducting high quality research and a high rate of graduate retention. This provides a strong basis on which to build new innovation both in science and technology and more broad-based innovation.¹¹
- The commitment of almost all public and educational organisations to Northern Ireland's new Innovation Action Plan provides strong evidence of the region's focus on supporting innovation.¹²

These innovation advantages create the potential for Northern Ireland to move forward. However, translating these advantages into a sustained improvement in regional innovation performance will require a proactive and strategic approach to 'constructing advantage'. Central to this will be a more dynamic role for the public sector, working in partnership with the universities, the economic governance system, and the private sector.

Devolution also creates the potential for Northern Ireland to be different – to implement different innovation policies from those elsewhere in the UK by matching international best practice with local needs. Ultimately, this has the potential to benefit innovation in Northern Ireland by creating innovation policy which leads, rather than follows, that in other UK regions.

In the following sections we outline three steps which are crucial if Northern Ireland is to maximise its innovative potential. Each step will require confidence and involve some difficult decisions if Northern Ireland is to move forward.

Box 2: Constructing advantage¹³

Thinking about regional and national competitiveness has often been focussed on notions of comparative or competitive advantage. However, comparative advantage is often criticised for ignoring the role of technological change and innovation, while the theory of competitive advantage can be seen as too narrowly market-focused.

Notions of constructed advantage emphasise the role and impact of the public sector and public-private partnerships in economic development and the importance of institutional and economic complementarities. In this view innovation depends crucially on interaction and connectivity between organisations. Instead of market failure, the rationale for policy intervention therefore becomes the reduction of systemic failure related to interaction or connectivity deficits. A regional innovation systems approach, which is key to constructed advantage, sees such deficits as the core problem of innovation in the EU.

In this way, regional advantage may be consciously and proactively constructed. This involves a new and more dynamic role for the public sector, emphasising the role of universities and the economic governance system, in interaction with the private sector.

The OECD has summarised the situation as follows, arguing that governments should “address systemic failures that block the functioning of innovation systems, hinder the flow of knowledge and technology ... Such systemic failures can emerge from mismatches between the different components of an innovation system, such as conflicting incentives for market and non-market institutions (e.g. enterprises and the public research sector), or from institutional rigidities based on narrow specialisations or asymmetric information”.

13. Asheim, B., Coenen, L., Moodysson, J. and Vang, J. (2007) Constructing knowledge-based regional advantage: implications for regional innovation policy. 'International Journal of Entrepreneurship and Innovation Management.' 7, pp.2-5 and pp.140-155; OECD (1999) 'Managing National Innovation Systems.' Paris: OECD. p.10.

4. Strengthening innovation governance and development – Step 1

Innovation is central to competing successfully in a globalised world, and will be crucial to Northern Ireland firms as they face recession and recovery. The most successful innovating economies in Europe have demonstrated that supporting innovation requires a systemic approach, and the effective co-ordination of the different elements of the innovation system.

The Swedish agency Vinnova performs this role (see Box 3) and is widely seen as representing leading practice in innovation system development and co-ordination. Vinnova has four main functions. First, it undertakes a detailed understanding of the Swedish innovation system and the barriers to its effectiveness. Second, it champions the cause of innovation across different government departments promoting cross-cutting initiatives and challenging policy proposals which might hinder innovation. Third, Vinnova invests to address weaknesses in innovation capability and enable collaborative innovation. Finally, Vinnova acts as a focal point stimulating collaboration between innovative organisations in Sweden and elsewhere.

The strength of Vinnova comes from its robust, evidence-based and systematic approach to maximising Sweden's innovation potential. The position of Vinnova outside government also gives it the freedom to challenge policy proposals where necessary and propose alternative approaches which might contribute to rather than hinder successful innovation. Vinnova's

14. NESTA (2007) 'Hidden Innovation: How innovation happens in six 'low innovation' sectors.' London: NESTA. p.6.

ability to link robust analysis and effective challenge and policy development within a single organisation makes it particularly effective.

In Northern Ireland, the type of system monitoring, analysis, challenge and co-ordination functions performed by Vinnova are currently missing, fragmented or weak. For example, there is currently little systematic or regular monitoring of Northern Ireland's innovation capabilities, and informed policy challenge in Northern Ireland is limited. The recent MATRIX reports are a positive step in this direction and in other regions, such as Scotland, advisory councils of experts have been established to support policy development.

Institutional structures in Northern Ireland also mean that policy co-ordination for innovation in Northern Ireland is limited with responsibility for delivering on Northern Ireland's regional innovation strategy residing within a single department (DETI). Albeit supported by an inter-departmental working group, this structure limits the group's influence over other departments' and agencies' policies which might influence Northern Ireland's innovation capability. Finally, with the Northern Ireland system no-one currently has responsibility for 'innovation-proofing' proposed policy developments, again weakening the challenge function. In the area of Science and Technology MATRIX is a notable exception but this addresses only an element of the broader innovation agenda.

In terms of innovation, Northern Ireland therefore currently has something of an institutional deficit compared to its leading international competitors.

We therefore recommend that Northern Ireland Government should establish an Innovation Council with similar capabilities as Vinnova to analyse, challenge and support developments in innovation capability. Ideally, the Innovation Council would be close to the heart of government, have a strong analytical capability, an expressly cross-cutting remit and a strong advocacy function for innovation. We do not envisage the Innovation Council supporting innovation directly but instead working in partnership with those intervening directly to support an organisation's innovation.

It is important that the Innovation Council is not an additional layer of bureaucracy, but rather developed by extending the remit of the MATRIX initiative towards a more holistic and system-wide innovation agenda and combining it with the existing Inter-departmental Working Group on Innovation within a single non-departmental government body. This would support technological innovation and also focus on supporting 'hidden innovation' right across the economy. Indeed earlier studies from NESTA have emphasised the importance of organisations like an Innovation Council combining high-level influence with in-depth sectoral knowledge.¹⁴ This leads to a perspective in which innovation policy encompasses science and technology policy and not the other way around.

5. A new deal for business? – Step 2

Significant developments have taken place recently in the support available to firms in Northern Ireland for R&D and innovation. In particular, the launch of Invest NI's new R&D Grant scheme provides substantial support for the whole range of R&D activities from industrial research to 'near market' development. Grant rates vary between firms and types of R&D but are up to 60 per cent of eligible project costs for medium-sized firms undertaking industrial R&D. Other Invest NI schemes support other aspects of innovation. For example, Innovation Vouchers support practical innovation projects in small firms while the RTD Centres of Excellence provide support for R&D infrastructure projects.

Other government departments in Northern Ireland also provide direct support for innovation. Most notably perhaps the £5 million Creative Industries Innovation Fund – announced in

Box 3: Vinnova – stimulating linkages, focussing international innovation¹⁵

Vinnova – the Swedish Governmental Agency for Innovation Systems – is an arms-length government body which aims to promote growth and prosperity in Sweden by researching and then investing to develop the nation's research and innovation capabilities. Vinnova's approach is systemic and evidence-based. Vinnova has a watching brief on the development of the innovation system in Sweden and its potential for creating advantage. This leads to a challenge function although Vinnova is also a direct funder of R&D and innovation programmes designed to address innovation system failures.

Since its foundation in 2001, Vinnova has focussed on developing a detailed understanding of the capabilities of the Swedish innovation system, identifying system failures and then investing to support collaborative innovation projects on either a network, sectoral or geographical basis. Increasingly, Vinnova is also acting as a focal point for international collaboration between Swedish researchers and innovators and international partners.

Much of Vinnova's direct support for collaborative R&D and innovation is co-funded with support accounting for around 6 per cent of the Swedish state's R&D investment. Key initiatives over recent years have involved collaborative competence centre initiatives and support for regional innovation 'milieus' involving long-term network agreements between diverse but regionally co-located partners.

15. See Vinnova website at www.vinnova.se; and review of activities in: Vinnova (2007) 'Innovation and Leading Research.' Stockholm: Vinnova.
16. NESTA (2007) 'Hidden Innovation: How innovation happens in six 'low innovation' sectors.' London: NESTA. New Horizons: Responding to the Challenges of the 21st Century, The Interim Report of the Joint Future Thinking Taskforce on Universities, p. 3.
17. NESTA (2008) 'Taking services seriously: How policy can stimulate the hidden innovation in the UK's services economy.' London: NESTA.

October 2008 – will provide support for enterprise development and innovation in creative industries in Northern Ireland. The establishment of this fund is particularly welcome as it extends public support for innovation in Northern Ireland beyond the technological and towards a more holistic view including what previous NESTA reports have called 'hidden innovation'.¹⁶ This work emphasises that it is as often about absorbing ideas rather than creating new ones and about organisational change as much as new technology. Hidden innovation is also very often about collaboration between firms, between firms and universities or between firms and further education colleges.

This suggests two important questions. Do current policy frameworks in Northern Ireland support broad-based hidden innovation effectively? And, do they effectively encourage collaborative innovation?

In terms of technological innovation, primarily, although not solely, the emphasis of manufacturing innovation, the Invest NI R&D Grants and other supports, are strong. Less clear, however, is the way in which public support for organisational or non-technical innovation is provided, particularly where this is not related to any technological change. Previous studies by NESTA, have emphasised that service innovations are less likely to involve a technological element than those in manufacturing but may still be highly significant in commercial terms. Innovative services businesses therefore face different challenges from those in manufacturing, requiring a different policy approach.¹⁷

Effectively promoting this type of innovation is likely to require some policy development in Northern Ireland, perhaps along the lines of the 'Serve' service innovation support measure run by the Finnish agency Tekes (See Box 4). Particularly interesting here are the broad-based definitions of service innovation and service business models adopted in the programme and for which support is available:

18. 'Finnish Innovation Environment.' Presentation by Ritva Saarelainen, Tekes, FCCS June 2008.

- **Service innovation:** is a new or significantly improved service concept that is taken into practice. It can be for example a new customer interaction channel, a distribution system or a technological concept or a combination of them. A service innovation always includes replicable elements that can be identified and systematically reproduced in other cases or environments. The replicable element can be the service outcome or the service process as such or a part of them. A service innovation benefits both the service producer and customers and it improves its developer's competitive edge.
- **Service business models:** a service innovation is a service product or service process that is based on some technology or systematic method. In services however, the innovation does not necessarily relate to the novelty of the technology itself but the innovation often lies in the non-technological areas. Service innovations can for instance be new solutions in the customer interface, new distribution methods, novel application of technology in the service process, new forms of operation with the supply chain or new ways to organise and manage services.

We therefore recommend that Northern Ireland Government should implement a Service Innovation Grant scheme modelled on Finland's Tekes 'Serve' scheme. Such a scheme offers the potential to support non-technical innovation across Northern Ireland industry supporting the support for technologically-based innovation provided by the R&D grant scheme.

In addition to supporting non-technical innovation, promoting more collaboration represents one of the key innovation challenges as Northern Ireland moves forward (see Section 2). Again, the example of the Finnish support regime for innovation is instructive here. In Finland, collaboration or networking is seen as fundamental to the innovation process, and public support for R&D and innovation is often conditional on projects having a collaborative element. As a result, almost all projects funded by Tekes in large companies, and about two-thirds of all innovation projects in SMEs, involve collaboration or networking. Partly as a result, Finland has some of the highest levels of networked and collaborative innovation in the EU and particularly high levels of university-business collaboration.

In Northern Ireland – at least in the Invest NI R&D Grant scheme – collaboration is seen as an 'add-on' with collaborative projects attracting a grant bonus. However, as the MATRIX

Box 4: Tekes – collaborative funding for R&D and service innovation

Tekes – the Finnish funding agency for technology and innovation – plays a central role in supporting R&D and innovation in both industry and services firms and research organisations (universities and public laboratories). Tekes has an annual budget of around €450 million equivalent to around 10-11 per cent of corporate R&D and 40-45 per cent of university R&D in Finland. Support is provided primarily through grants and loans. The emphasis of funding is on targeted key themes including recent programmes on biotechnology, sustainability and tourism and leisure.¹⁸

In more recent years Tekes has focussed on policy development to support service innovation. Central to this is the 'Serve – Innovative Services technology programme', which aims to: encourage the development of innovative service concepts and service business models in companies; strengthen and diversify service-related innovation activities, especially in SMEs; improve productivity and quality of service activities in various industries; and boost academic research in the area of service. The project

Science and Industry Panel has noted, levels of collaboration in innovation remain low in Northern Ireland.

We therefore recommend that publicly supported R&D and innovation projects are required to have a collaborative or networked element as a condition of funding. This should apply both to the R&D grant scheme and the Service Innovation Grant scheme recommended above.

6. A New Deal for Northern Ireland's universities – Step 3

Northern Ireland's universities have the potential to make a significant contribution to supporting regional development. As the MATRIX report notes, this contribution is being reduced at the moment because of relatively low levels of collaboration with local firms and because of a 'mismatch' between the skills being produced and the needs of local innovative companies.

These problems are not faced solely by Northern Ireland. For example, studies of the Scottish innovation system have also emphasised the lack of university-SME interaction there and the degree to which the agendas of Scottish universities are aligned with those of the Scottish Government.¹⁹ In Scotland this has led to controversial new proposals for structuring the support provided by the Scottish exchequer to Scottish universities (Box 5). No change is suggested in the way in which Scottish universities bid for funding from UK sources such as the Research Councils.

The key point here is that, as in Northern Ireland, the Scottish universities are funded largely from the devolved block grant. Expenditure on universities is therefore a trade-off with other areas of spending which might have regional benefits such as hospitals or infrastructure. The 'New Horizons' perspective is that the Scottish universities need to do more to justify their support from government, particularly as they seek additional funding. This leads to three 'challenges' from the Scottish Government to the universities relating to value for money, flexibility and a 'culture of engagement'.²⁰ These are:

Challenge 1 – Scottish universities must demonstrate that they use the funds they receive from the Scottish Government to support activities which are well aligned with the Scottish Government's Purpose, to increase Sustainable Economic Growth, as well as with its Economic Strategy and other framework documents such as that on skills.

Challenge 2 – learning provision in universities must become more flexible (if it is to respond to the changing needs of students) and more capable of being delivered by closer and differing institutional collaborations and structures.

Challenge 3 – universities contributing more directly to Scotland having a world-class knowledge economy by embedding a culture of engagement between themselves and the Scottish micro, small and medium sized business base.

These are equally relevant for Northern Ireland. Challenge 2, for example, reflects the skills mismatch highlighted by MATRIX – the Northern Ireland Science Industry Panel. Challenge 3 again relates to the lack of university-SME collaboration.

While recognising the potentially controversial nature of the proposal – and the potential trade-off between regional contribution and academic freedom – we recommend that Northern Ireland Government should consider introducing a two-tier GFU/HFU funding arrangement for the Northern Ireland universities along the lines being adopted in Scotland.

19. Roper, S., Love, J.H., Scott, J., Cooke, P. and Clifton, N. (2007) 'The Scottish Innovation System: Review and Application of Policy.' Edinburgh: Scottish Executive. Available at: <http://www.scotland.gov.uk/Publications/2007>.

20. Joint Future Thinking Taskforce on Universities (2008) 'New Horizons: Responding to the Challenges of the 21st Century. The Interim Report of the Joint Future Thinking Taskforce on Universities.' Edinburgh: Scottish Government. p.3.

21. Ibid. p.1.

22. Ibid. pp.4-5.

23. Ibid. p.25.

24. Ibid. p.31.

The aim being to achieve a stronger alignment between developmental activity in the universities and the needs of the regional economy.

Box 5: New Horizons – the Scottish approach

The new approach to funding Scottish universities has been developed over the last couple of years by the Scottish Joint Future Thinking Taskforce on Universities, which was established in November 2007. This taskforce was set up to consider “how to optimise the shape and contribution which the Scottish university sector can make to the Scottish economy ... and to the political priorities of the Scottish government”.²¹

The Taskforce’s interim report recognises the position of the Scottish universities as the “strongest centres for intellectual development and creativity” and their “central role in contributing to the achievement of the Scottish Government’s purpose”.²² It also stresses the need for a new relationship in which future increases in investment in the universities are conditional on “aligning publicly funded activity against the Scottish Government’s Purpose and Strategic Objectives”.²³

New Scottish Government funding arrangements are then proposed to support this aspiration. Two separate funding streams are envisaged. The General Fund for Universities (GFU) will provide formula-based, mainstream funding for universities with fewer restrictions and more flexibility on how this money can be spent. The Horizon Fund for Universities (HFU) will provide additional funding but this will be linked to outputs or outcomes related to key government strategies and priorities. The overarching aim is to ensure that public funding for universities is supporting “activities which are well aligned with the Scottish Government’s Purpose, its economic and skills strategies and its other policy frameworks”.²⁴

7. Next steps

Northern Ireland faces significant innovation challenges alongside the current recession. Northern Ireland is better placed to meet these challenges than many other regions due to the discretion provided by the devolved administration, the resources committed to supporting innovation, high quality universities and the commitment of a wide range of regional stakeholders to the innovation agenda. However, capitalising on these ‘innovation advantages’ is going to require ambition, determination and a willingness to make some difficult decisions.

We make four key recommendations here that build on leading practice from elsewhere. They are:

- 1. An Innovation Council** – develop the existing MATRIX initiative to become an Innovation Council to analyse, challenge and support developments in Northern Ireland’s innovation capability. Ideally, the Innovation Council would be close to the heart of government, have a strong analytical capability, an expressly cross-cutting remit and a strong advocacy function for innovation.
- 2. A Service Innovation Grant scheme** modelled on Finland’s Tekes ‘Serve’ scheme should be introduced to support non-technical innovation across Northern Ireland industry.

3. **Collaboration** should be a required element of any publicly funded R&D or innovation project. This should apply both to the R&D grant scheme and the Service Innovation Grant scheme.
4. **Two-tier funding for universities** should be considered to achieve a stronger alignment between developmental activity in the universities and the needs of the regional economy.

Adoption of these recommendations will not be easy. Together they will help to address Northern Ireland's innovation challenges through better system governance and development, boosting levels of non-technical innovation, encouraging collaboration and improving regional alignment. We believe this is vital if Northern Ireland is to significantly improve its innovation performance and capitalise effectively on the region's 'innovation advantages'.

NESTA

1 Plough Place
London EC4A 1DE
research@nesta.org.uk

www.nesta.org.uk

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