



Northern & Western Regional Assembly

Submission to the Consultation Paper For Successor to the Strategy for Science, Technology and Innovation

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1. Introduction

The Northern and Western Regional Assembly (NWRA) welcomes this opportunity to make a submission to the consultation paper on the successor to the Strategy for Science, Technology and Innovation (SSTI). Please note the role of the NWRA has been further extended to include the development of Regional Spatial and Economy Strategies (see page 7+8) under the Local Government Reform Act 2014 following the organisation's transition from being the Border, Midland and Western Regional Assembly under new regional administration arrangements.

This paper will identify a number of key areas that the next SSTI should address, reflecting the pillars identified and the extensive experience of the NWRA in the innovation field.

Ireland's Next SSTI Should:

1	<u>Pillar 1+2</u> Recognise the Need to Drive the innovation agenda and interactions at the sub-national level
2	<u>Pillar 3</u> Be Based Upon an Audit of the Performance of Ireland's Innovation System to Recognise both the Strengths and Weaknesses of it Current Dynamic
3	<u>Pillar 3</u> Acknowledge the Benefit of Resourcing Knowledge Intermediates to Bridge the Gap between Academia and Industry
4	<u>Pillar 3</u> Recognise and Integrate Design-Driven Innovation Practices as an Additional Tool to Drive Innovation Performance in Ireland
5	<u>Pillar 4</u> Recognise the Role of the Regional Assemblies (NWRA + SRA) as National Contact Points for Interreg Projects
6	<u>Pillar 5</u> Relate how it will Align and Integrate with the Forthcoming Three Regional Spatial and Economic Strategies

Key Supporting Reports

1. Northern and Western Regional Assembly (2015). Design-Driven Innovation: Why it Matters for SME Competitiveness.

http://www.nwra.ie/docs/BMWlr_low%20res.pdf

2. BMW Regional Assembly (2011). Audit of the Innovation System in the BMW Region: An Evaluation of a Regional Knowledge Economy.

<http://www.nuigalway.ie/cisc/documents/auditreportfinal.pdf>

Pillar 1: Investment in STI and Key Goals/Targets + Pillar 2: Prioritised Approach to Public Research Funding

The current processes initiated by the Department of Jobs, Enterprise and Innovation and the Department of Education and Skills which seek respectively to put in place an Action Plan for Jobs and a Regional Skills Strategy for each NUTSIII Region, represents a (relatively recent) emphasis by the Irish Government and key Agencies on understanding how our regions are functioning as engines of economic growth and job creation. Ireland's next SSTI should not be spatially blind in the development of its key goals and targets, as research and innovation capacity along with the enterprise support ecosystem and skills capabilities are each key building blocks of regional competitiveness. The new SSTI should therefore recognise that the foundations of national competitiveness are at a regional level - research and innovation capability are therefore key factors of both national and regional competitiveness.

What this means in practice for policy development is a rethink about the way we formulate and execute our next SSTI. It should be guided by an *evidenced-based approach to inform a smart policy mix guided by a clear vision around the functioning of our regions*. We refer to the findings of the OECD's report from 2011 on *Regions and Innovation Policy*¹ which should inform how Ireland's SSTI considers the regional dimension of innovation policy – Ireland is not too small to consider this issues nor it is optimising its potential for these challenges to be readily dismissed.

“Regions are not countries and cannot simply replicate national policies on a regional scale”²

The OECD recognises the public policy challenges that come with dealing with globalisation and agglomeration trends – equally their research highlights that despite the high importance given to social cohesion in European economic integration, ‘the regional implications of the new European research policies have not been extensively discussed or studied’³.

The OECD highlights a number of key areas for policy improvement which Ireland should consider⁴:

- 1. Acknowledgement of the Diversity of Regional Economic and Innovation profiles:** with appropriate policy and programming responses;
- 2. Enable Regions to Become Economic Agents of Change:** in order to do so regions need to adopt more sophisticated policy approaches to identify new regional competitive and comparative advantages;
- 3. Innovation Policies can Suffer from a Limited View of Innovation:** science and technology innovation only covers a fraction of the innovation potential that exists in many regions – therefore advancing the understanding of the different types of innovation are essential to develop this regional vision; and
- 4. Foster Learning through Better Metrics, Evaluation and Experimentation:** regions can be laboratories for programme and policy development and testing – developing a

¹ OECD (2011). *Regions and Innovation Policy: OECD Reviews of Regional Innovation*. OCED Publishing: Paris.

² IBID p.19

³ IBID. p.18.

⁴ IBID p.19-21

principal of pragmatic experimentation can both inform national policy and develop the associated regions.

Based on international best practise and the increased focus on regional employment policy and programmes, the next SSTI should explicitly recognise the regional innovation agenda

Pillar 3: Enterprise-level R&D and Innovation Performance

A) Review of the Innovation System in the BMW Region – Lessons for New SSTI

The interactions between companies and other innovation agencies are naturally seen as particularly important in establishing a dynamic process of economic development. The functioning of a system of innovation impacts and influences the dynamics of a country's labour market along with the ability of countries and locations to generate, attract and retain a highly skilled workforce. Innovative growth also relies on higher education institutions, the generation and valorisation of new (and incremental) knowledge as well as the so-called knowledge intensive services that are delivered in areas such as consultancy and R&D, incubation centres, and access to specialist facilities and expertise.

The Assembly undertook research in 2011 to examine and understand how this system was functioning in the (BMW) region. A number of key findings should be noted and reflected in the development of Ireland's next SSTI.

1) A Lack of Finance, Information and Expertise Inhibits Innovation in the BMW Region: Innovation levels among companies are inhibited by a lack of: (i) finances and other resource constraints, (ii) information and by perceptions of poor research quality, and (iii) relevant expertise, as well as slow responses from HE institutions.

2) Internal Culture remains a Serious Barrier to Engaging in Technology Transfer in the Higher Education Sector: While teaching and research continues to prevail over industry linkages in terms of the priorities for HEIs, as identified in the 2004 Audit of Innovation, there remain few, and limited, incentives for staff to engage and limited processes to facilitate engagement in particular in the Institutes of Technology sector.

3) Single Point Industry-Academic Solution to Address Barriers to Accessing Services: In discussions with stakeholders including both businesses and HEI staff, repeated calls were made for a one-stop shop or appropriate intermediary organisation to act as a go-between for businesses and academic/knowledge intensive experts. This should be staffed with qualified, experienced and appropriate individuals.

There has been very little evaluation of how Ireland's innovation system is functionally nationally and regionally, this remains a key knowledge gap (also acknowledged by the OECD) when it comes to putting in place responsive (and evidence-based) programmes under the next SSTI. The less developed innovation performance of Ireland's Institutes of Technology and indigenous companies are cases in point.

It is recommended that a review of the national (and regional) innovation system is undertaken to set appropriate policies and programmes in place to overcome these challenges

B) Resource Knowledge Intermediaries

Mechanisms are required that promote access, interaction and collaboration between knowledge providers and business users and enhanced absorption capacity among firms. Intermediary organisations that provide extensive knowledge networks at regional level can bridge this gap, to achieve effective knowledge diffusion for utilisation.

Examples:

- 1) The Food Technology Transfer Pilot Programme under the BMW Regional Programme of Innovative Actions 2006-2008 was established due to the identified lack for access of small and micro food businesses to food technologists. Two food technologists were recruited and funded under this programme and based in St. Angela's College, Sligo and the Food Hub Drumshanbo. The food technologists facilitated and provided a variety of different activities under the Programme and assisted more than 50 companies. These included: needs analysis in order to tailor supports in ways that add value to other existing supports available; one-to-one mentoring with food companies in the Region; running a series of workshops and training courses for food companies in the Region; facilitating of networking events and opportunities; and research/study visits.
- 2) MetricIreland is a research and innovation consortium for the medical technology sector, involving 5 founding higher education institutes, Athlone Institute of Technology, Galway Mayo Institute of Technology, Institute of Technology, Sligo, National University of Ireland, Galway and University of Limerick, along with the Northern and Western Regional Assembly. Its objective is to provide support and innovation to the medical technology sector through research and development, equipment utilisation and education/training. Metricireland's mission is to provide rapid and effective access to the capacity and capabilities within the consortium, the associate members and the broader HEI sector for enterprises. It does this through a single point of contact – MetricIreland Director – this initiative is now funded by Enterprise Ireland following 2 years of direct support by the college and the Assembly.

Further supports should be provided to resource knowledge Intermediaries

C) A Role for Design-Driven Innovation – Lessons for SSTI

Minster Ged Nash T.D. launched on March 10th last the NWRA's report, *Design-Driven Innovation: Why it Matters for SME Competitiveness*⁵. Supported by the European Commission's funding under the European Design Innovation Initiative, the extensive research highlighted the global shift towards the application of design-thinking to enhance business models which has been proven to cultivate dynamic cultures, more desirable products and services, faster growth and passionate customers.

Key Findings

1. The Design Process is Now Widely Recognised as a Tool of Innovation.
2. Investment in Design-Driven Innovation Processes by Governments and Firms Across Europe and the World is Yielding Increased Growth, Employment and Competitiveness for SMEs.
3. An Opportunity Exists in Ireland to Change Mindsets about What it Means to Apply Design-Thinking Principles to Business Development and Innovation.

⁵ http://www.nwra.ie/docs/BMWlr_low%20res.pdf A copy of the report is also provided with this submission.

4. Lessons from Other Countries Indicate that Supports to Irish SMEs could be Enhanced by the Addition of Design-Driven Support Programmes.
5. Some SMEs in Ireland are Successfully Applying the Design-Driven Approach to Grow, Export and Evolve.
6. Hidden Design is a Key Factor when Considering Policy and Supports for Design-Driven Innovation.

Being successful at innovation is not accidental. Rigour in pursuing opportunities that match significant customer need and developing related products or services quickly, at the right price and fit for purpose is essential. The ability to continuously transform knowledge and ideas into new products, services, processes, and systems for the benefit of the firm and its stakeholders or to possess ‘innovation capability’ is a key requisite for business success.

The Minister has asked Enterprise Ireland to report back to him by the end of summer 2015 in terms of how supports to businesses can be improved by integrated design-driven innovation supports.⁶

It is recommended that the next SSTI should recognise global trends and integrated acknowledge and integrate design-driven innovation practices within Ireland’s innovation policy

Pillar 4: International Collaboration and Engagement

The Consultation Paper (on page 31) fails to provide a complete overview of the full range of opportunities available through the EU funded inter-regional co-operation programmes (INTERREG). The current text elaborates on the cross-border programme only and does not include the other transnational programmes (North-West Europe, Atlantic Area, Northern Periphery and Arctic) or the Interreg Europe programme, in which Irish organisations continue to participate. The Regional Assemblies act as National Contact Points for these programmes and under the 2014-2020 programmes there will be heavy emphasis on strengthening regional innovation capacity with high levels of participation expected from higher education institutions, enterprise support agencies at local, regional and national level and from local authorities.

As an example of this, the Northern and Western Regional Assembly, together with the Incubation Centres from the region’s Institutes of Technology and NUI Galway have been participating in a transnational project aimed at increasing the innovation potential and internationalisation capabilities of new businesses emerging from the Campus Incubation environment. Together with partners with expertise in business incubation, venture finance, innovation and procurement in Wales, Belgium, Germany, France and the Netherlands, the Northern and Western Regional Assembly has led this €3.8m innovation support project entitled ‘*TESLA*’⁷ which has been supported by the EU-funded North West Europe (Interreg) Programme.

The project has provided a suite of specialist mentoring and training supports on a transnational basis to over 300 early stage technology-based firms throughout the programme area. Participant firms have benefitted from tailored supports across ten pilot actions

⁶ <http://www.djei.ie/press/2015/20150310a.htm>

⁷ <http://teslaproject.eu/>

including internationalisation, New Product Development, Entrepreneurial Finance and Procurement. The project has enabled the creation of new collaborative partnerships and has facilitated the entry of Irish and EU firms into new markets. Innovation Centre Managers have also benefitted from the project through a programme of reciprocal placements in specialist centres across Europe.

Pillar 5: Organisational/Institutional Arrangements to Enhance Research

The Northern and Western Regional will be responsible for Regional Spatial and Economic Strategies (RSESs) for the North and West Region. The aim of the RSES is to put in place a long-term strategic planning and economic framework for the development of the region.

The envisaged objectives of the RSES include:

“enhancing regional innovation capacity, including investment in research and development capacity, technology transfer between third level education and enterprise, and up-skilling and reskilling.”⁸

The follow-up to the SSTI should recognise and seek to complement what seek to achieve in line with forthcoming National Planning Framework, this can be achieved by working more closely with the Regional Assemblies over the term of the next SSTI.

It is recommended that the new SST will relate how it will Align and Integrate with the Forthcoming Three Regional Spatial and Economic Strategies

⁸ Local Government Reform Act 2014. P.128.

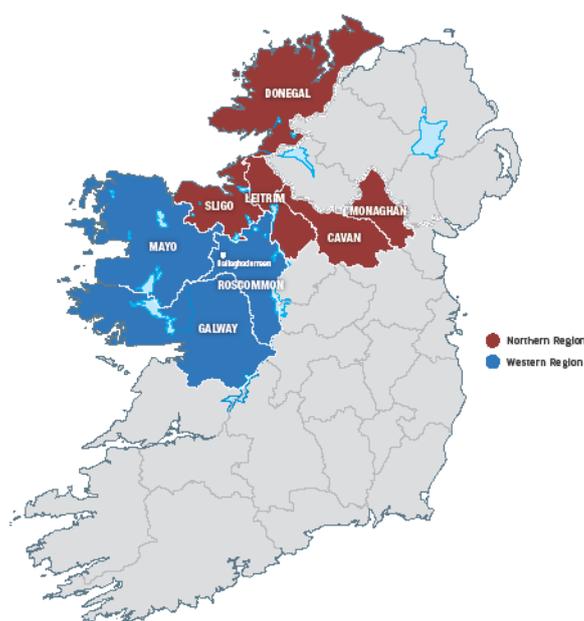
About the Northern and Western Regional Assembly

Under the Local Government ACT 1991 (Regional Authorities) (Amendment) Order 2014 the eight Regional Authorities (RAs) within Ireland were dissolved (June 2014) and subsumed, together the two Regional Assemblies, into 3 three New regional Assemblies effective from 1st January, 2015

1. The Northern and Western Regional Assembly;
2. The Eastern & Midlands Regional Assembly; and
3. The Southern Regional Assembly.

As a result the principle functions of the Northern and Western Regional Assembly (NWRA) will be the preparation and management of Regional Spatial and Economic Strategies (to be in place by 2016)s, the management of the BMW Regional Operational Programme 2014-2020 and as the national contact point for a number of EU trans-national programmes.

The NWRA Region is comprised of 8 counties representing 36.2% of the landmass of Ireland, 18.3% of the population and produces 14.6% of total national GDP⁹.



The Regional Assembly is the Managing Authority for the EU co-funded Regional Operational Programmes 2000-06, 2007-2013 and 2014-2020 for the wider Border, Midlands and Western region.

The €320m Border, Midland and Western Regional Operational Programme 2014-2020 includes several planned investments in support of research, innovation and entrepreneurship:

- SFI Research Centres and Spokes Programmes
- SFI Investigators Programme
- Enterprise Ireland Commercialisation Programme
- Enterprise Ireland Industry R&D Fund
- Enterprise Ireland SME Competitiveness Programme
- Local enterprise Offices (LEOs)
- National Broadband Plan

⁹ Not this figure includes Co. Louth as output figures for the Northern Region are not available without Louth currently.

- Enterprise Ireland New Frontiers Programme
- Enterprise Ireland Innovation Partnerships

The Assembly is also the national contact point for two EU Interreg Programmes covering the Northern Periphery and Arctic regions along with the Atlantic Area regions of Europe. In addition the Assembly has been involved in a range of Interreg projects since 1999 covering a range of areas such as innovation, design and maritime economy.

The Northern and Western Regional Assembly also has a policy and research unit which monitors the general economic and social impact of EU programmes and Irish exchequer-funded programmes in the Region; it fulfils a regional development advocacy function and undertakes a number of initiatives in a range of policy areas. Policy and economic research reports are undertaken both internally and through commissioned projects.