

Consultation on the National Smart Specialisation Strategy

Overview

Thank you for opportunity to partake and provide feedback in the consultation process. We have extracted out the consultation questions posed in the consultation paper and provided commentary below each set of grouped questions where appropriate. The comments and feedback reflect a consolidated response from members of the Operations team at Confirm – SFI Research Centre for Smart Manufacturing.

Consultation Feedback

Consultation Questions

In relation to the regional synopses above, we would like to hear the opinions of stakeholders on the enterprise strengths and opportunities in Ireland. Some questions stakeholders might consider are:

Q: Do you agree with the suggested areas of strength for the three regions as set out above? Are there other areas of strength in the three regions to be highlighted?

Q: What, in your opinion, are the key sectors in your region? What are the skills, assets and capabilities within your region?

Q: Which sectors could achieve critical mass in Ireland over the next seven years? Where are the opportunities and what needs to be done to unlock these opportunities?

Comments:

We agree with suggested areas of strength (for Southern Region). We would add to these: Engineering & Construction, Film & Media Content.

The key sectors are Pharma /Medtech, ICT and Advanced Manufacturing.

We believe that the Irish Engineering & Construction sector holds great opportunity for growth and development in the coming years. Demographic trends and strong economic activity will sustain demand for Construction & Engineering output and in the sector related horizontals and verticals e.g construction services and support technologies. Furthermore, climate change initiatives and an impending zero carbon regulatory environment will spur demand for energy efficient retrofit construction technology solutions and energy monitoring/building management systems.

However, publically commissioned reports such as the Seanad Public Consultation Committee Report on Small and Medium Sized Businesses in Ireland published in May 2019 point out that construction, retail and manufacturing sectors are laggard sectors in terms of SME adoption of digital technologies in Ireland. There is a need for both focused investment in tailored Digital Skills to assist this sector and there is a need to cultivate an innovation culture to realise new products and maximise the R&D

capacity already available to SMEs in third-level institutions and research centres. SFI Research Centres such as Confirm, with a focus on Low TRL, higher risk research, need an additional suite of RD&I support offerings targeted to the specific needs of SMEs and start-ups on an innovation journey.

Data storage -The number of operational data centres increased by 25% in Ireland in 2020 and the growing importance of AI, and Data analytics across all commercial sectors at national, European and global scale will surely ensure sustained growth in this sector and in specific related ICT sectors including Cloud computing, Networking, and Cybersecurity. The skills gap in these areas for Ireland and at a global level has been well highlighted and initiatives are already underway at national level.

Consultation Questions

It is hoped that this S3 consultation will provide further, contemporary insight into the digitalisation challenge facing Irish enterprise, and we would like to hear from stakeholders about their experiences and suggestions for what more can be done to help. Some questions stakeholders might consider are:

Q: Is digitalisation impacting your sector or region? How?

Q: Could your business or sector benefit from new digital technologies? What support would you need to adopt these technologies?

Q: How can we improve the alignment of the country's ICT and digitalisation expertise, initiatives and investments?

Comments:

In terms of support, analysis of digital maturity (to set a baseline) and development of follow-on roadmaps are useful supports to help manage digitalisation; helping to prioritise business needs within feasible operational, technological and financial constraints.

Consultation Questions

We would like to hear from stakeholders about their experiences and suggestions for what more can be done to support green transformation in Irish enterprise. Some questions stakeholders might consider are:

Q: What opportunities can you see as arising from Green Transformation for your sector or region?

Q: What challenges exist for enterprises trying to reduce emissions or introduce sustainable practices?

Q: How could government or enterprise agencies assist you in meeting those challenges?

Comments:

In terms of opportunities; Zero carbon and Digital technologies and services for Construction & Engineering as outlined above.

Energy management and storage technologies and solutions. Development of national Storage technologies and solutions might include subterranean compressed air storage (CAS), additional pumped hydroelectric storage plants, and scale electrical storage using battery cell technology. There is a host of opportunity in the development of products and services around all of these technologies as Europe moves towards a zero carbon future in lockstep.

In terms of challenges; some sectors such as agri-food and the transport/supply chain in Ireland are heavily dependent on fossil fuels. Compounding this is the growth in 'Data Centres' hosted in Ireland which are rapidly increasing electricity demand in the country. There are now 70 operational data centres in Ireland using 900 megawatts (MW), with eight under construction with 250MW usage. Most are concentrated around Dublin, which has become the largest data centre hub in Europe.

A switch to electrified transportation systems from petroleum based propulsion systems will exacerbate pressures on the Irish Electricity generation and distribution system. In 2019, only 36.5% of electricity was generated from renewable sources. The remaining (base-load) electricity supply was delivered via fossil fuels and/or imported via the interconnector from the UK. We do not have sufficient energy storage capacity at national level to store surplus renewable energy in order to meet demand spikes currently met by using Fossil fuel powered electric generation e.g. from gas turbines. Energy storage and management are significant challenges for Ireland.

Consultation Questions

It is hoped that this S3 consultation will provide further, contemporary insight into the challenges facing Ireland for innovation diffusion, and we would like to hear from stakeholders about their experiences and suggestions for how we can improve the system. Some questions stakeholders might consider are:

Q: What are the barriers for innovation diffusion in Ireland? How can these barriers be broken down? Are there regional differences in these barriers?

Q: What channels for diffusion are used by your business or sector?

Q: How can we enhance collaboration between industry and the higher education sector?

Comments:

The Irish manufacturing industry (including multinationals) are largely focused on short-term economic gain. Company's think in 6-month horizons while third level research centres etc. typically prefer to undertake research programmes that are of at least 2 years in duration (i.e. linked to the hiring of post graduates – 2 year contracts). The value of low TRL / blue-sky research such as that needed to develop disruptive innovations, new value chains and completely new products is a hard sell to many enterprises. Indigenous SMEs in particular lack the personnel & financial resources to dedicate to longer term, strategic research and development for their future products.

Consultation Questions

As a small, open economy, Ireland relies on external demand and international markets for sustainable and continued growth. The market for innovation and research is also global – international cooperation in research and innovation plays an important role in the development and sustainability of our innovation and research system. Some questions stakeholders might consider are:

Q: What areas of research or industry sectors does Ireland have an international competitive advantage in? How can we build on that advantage?

Q: In what areas or sectors should we be concentrating our international research collaboration activity? What supports do these areas or sectors need to be competitive on a world stage?

Q: How can Ireland's regions use Ireland's international links and memberships to support their strengths and emerging areas of future opportunity?

Comments:

Ireland is considered to be world-class in the manufacturing/production of products in highly regulated environments such as: Med-tech, Pharma, ICT and Food and Drink. The 'value add' of R&D (a pre-production activity) and services (delivered post-production) have increased over the last 50 years across the complete end-to-end production cycle. Ireland can build on this competitive advantage and achieve real impact on manufacturing by supporting companies to be more active and engaged in the high-'value add' R&D and post-production services of the end-to-end value chain.

Consultation Questions

An innovation gap exists between large multinationals and indigenous SMEs in Ireland. Irish SMEs will require enhanced supports to innovate to ensure their competitiveness and survival. Some questions stakeholders might consider are:

Q: Which RD&I initiatives have been successful for your sector/region? Which programmes should continue? Which RD&I programmes for enterprise are not working?

Q: How do we generate a stronger, unified ecosystem approach to RD&I across the country to strengthen the visibility of our RD&I supports?

Q: How do we target RD&I spend in a way which maximises impact for the economy and which addresses the market failure evident in low RD&I in the indigenous SME sector?