



Mr Dermot Curran
Assistant Secretary General
Department of Jobs, Enterprise and Innovation
Kildare Street
Dublin 2

23rd March 2015

Re: Consultation Paper for Successor to Strategy for Science, Technology and Innovation

Dear Mr Curran,

On behalf of NUI Galway, I welcome the development of a successor to the Strategy for Science, Technology and Innovation (SST&I) and thank you for the opportunity to input into the consultation process. The past 10-15 years has been a period of transformation of the research and innovation system within Ireland, and the formulation of a new Strategy represents an exciting opportunity to lay out a vision for how Ireland can build on the momentum created by the investments and achievements to date so that Ireland will distinguish itself globally through its ability to translate the benefits and outputs of research into a better society based on economic, social, and scientific excellence. In support of achieving such a vision, we ask that you consider the following feedback in the development of the successor to the SST&I:

1. **Vision:** We consider it important to present an overarching vision within the Strategy from which the goals and objectives will flow and suggest presenting the eight key Pillars in a holistic inter-connected approach.
2. **Investment in STI and key goals/targets:** If innovation is to be the long-term driver of economic growth and social progress, Ireland must be competitive with respect to developed economies. Despite significant investments in recent years, research and innovation in Ireland remains relatively under-invested compared to competitor countries. As presented in the consultation document, Ireland's GBAORD intensity is 0.49% of GNP and is below the EU average of 0.64%. In contrast, state investment in R&D is more than double this in other comparable countries with whom Ireland competes (*e.g.*, Denmark, 1.02%; Finland, 1.01%), and Iceland, which is also a small peripheral country, has a GBAORD intensity of 1.12% of GNP. ***We believe that part of the ambition in the SST&I should be to recommit to a target of combined public and private investment in ST&I to 2.5% of GNP by 2020.***

As part of the investment in research and innovation, we urge you strongly to ***rebalance the funding of research*** to sustain and support the continued development of both applied/oriented-basic research in prioritised areas and basic research across the full range of scientific disciplines including science, technology and engineering, as well as the arts, humanities and social sciences. We are convinced of the absolute necessity of investing in a balanced blend of basic and applied research in order to optimally underpin economic growth and societal development for the mid-to-longer term. As part of an overall strategy, it is essential to invest in applied research to generate economic benefits in the shorter-term, but ***it is imperative that this is coupled with a parallel investment in fundamental research*** which ultimately will fuel the generation of new innovations and enterprise developments in the longer term and provide the basis of a more sustainable research and innovation ecosystem.

3. **Prioritised approach to public research funding:** We welcome the intent to place Research Prioritisation and the focus on research relevance and impact within a broader context and to develop and articulate a vision for science policy across all disciplines. As part of placing Research Prioritisation within a broader context, we encourage you to ***expand the prioritised area of 'Therapeutics: Synthesis, Formulation, Processing and Drug Delivery' to include discovery, validation, and mechanism.*** This broadening of the priority area will ultimately support enterprise development and innovation through enhancing the competitiveness of Irish researchers in related areas in Horizon 2020 and facilitating new and stronger partnerships with industry in the area of drug discovery and therapy development.



In support of a vision for a research ecosystem that translates into a better society, we encourage you more explicitly encompass research that does not necessarily have commercial potential, but which has tangible societal and other benefits, within the Strategy. For example, population health and health services research can and does have evidence-based and knowledge-driven impact through the development of new models of care, improved efficiencies and effectiveness of health care delivery, and the improved quality and cost-effectiveness of health services and service delivery. Investment in the arts, humanities and social sciences, and population health and health services research also gives rise to other benefits including the development of human capital, informed decision making in policy and improved public health, and these areas should be embedded within the Strategy.

It is also important to allow scope within the SST&I to support the development of new and emerging areas of research and challenges. For example, the area of secure societies has been recognised by the EU as an emerging area of global importance and the amount of funding available to researchers from all disciplines for research on secure societies has increased under Horizon 2020. Allowing scope within the SST&I to embrace this and other emerging areas of research will enhance competitiveness in Horizon 2020 and promote the growth of SMEs.

4. **Organisational/institutional arrangements to enhance research excellence and deliver jobs:** We recommend that the SST&I is a strategic policy for the mapping, maintenance and development of the infrastructure that is required to deliver the national research agenda. This includes the maintenance, upgrade and refurbishment of existing infrastructure and appropriate funding of/strategy for same, as well as support for the addition of new infrastructure including test-bed facilities with strong links to the needs of industry and/or to enhance competitiveness in Horizon 2020. It also includes a continued commitment to E-journals, IREL and other ICT infrastructures such as the Irish Centre for High-End Computing, continued/expanded funding for PhD programmes, streamlining of processes between funding agencies, and a realigning of the overhead rate in line with Full Economic Costs.
5. **Research for knowledge and the development of human capital:** In order to maximise the potential for knowledge transfer in all its dimensions, we suggest that the Strategy should encapsulate policies that address researcher career structures (at all stages) and career development, capacity building, retention of excellent researchers, recruitment of world-leading researchers, succession planning and modes to increase the internationalisation of Irish researchers. The pivotal role of the HEIs in the generation of graduates with knowledge, skills and attributes as a significant contributor to the knowledge economy is relevant to the SST&I also.

We welcome the proposed whole-of-Government approach to the new SST&I and in summary suggest that its focus is on developing a research ecosystem that delivers a vision that is underpinned by:

1. maintaining/further enhancing excellence across the whole spectrum of research activity from basic to applied and across all disciplines including science, technology, engineering and mathematics, as well as arts, humanities and social sciences
2. nurturing the continued development of human capital
3. building an holistic research and innovation base that spans the private and public sectors and which delivers economic growth and societal development

I hope that you actively consider the above recommendations as you develop the Strategy and once again I thank you for the opportunity to input into the consultation process.

Kind regards,


Professor Lokesh Joshi
Vice-President for Research

