

Response of the Scottish Funding Council to the consultation on a UK Industrial Strategy

Introduction

The Scottish Funding Council (SFC) funds further and higher education funding on behalf of the Scottish Government and we welcome the opportunity to respond to the consultation on the UK Government's proposed Industrial Strategy. There is an enormous opportunity for the college and university sectors of Scotland to play their full part in the economic growth of the UK. SFC looks forward to building on its already excellent relationships with both UK and devolved administration bodies to help achieve the best economic and social outcomes for the people of the whole of the UK.

One of the overarching messages contained in the UK Industrial Strategy consultation document of 2017, that the benefits of prosperity should be shared by more people across all of the country, aligns well with Scotland's Economic Strategy (2015) which is similarly based on the principle of inclusive growth through increasing competitiveness and tackling inequality. As all of Scotland's public sector support for business is built on the Economic Strategy, this alignment is extremely helpful in enabling the most effective partnership across the UK to deliver the goals of the UK Industrial Strategy.

It is important to recognise that the structures and landscape of the four nations of the UK are diverse. To give examples: Scotland does not have Mayoral Authorities, LEPs or university enterprise zones. We do have other structures which are similar to, but not the same as, structures elsewhere in the UK: we have two enterprise agencies (at time of writing, though the Enterprise and Skills Review is considering a third one for the South of Scotland), eight Innovation Centres, and a combined Further and Higher Education Funding Council. It would be very important for the finalised UK Industrial Strategy to be more reflective of the variety of institutions, structures and interventions that can be partnered with, leveraged and otherwise benefitted from to ensure that productivity gains and societal benefit can be felt across the whole UK. The proposed Ministerial Forums may be a good mechanism to support effective implementation of the Strategy, but we should also take this opportunity to ensure that the proposed activities dovetail with existing structures in all of the four nations of the UK. SFC will be very keen to help our colleagues in BEIS to incorporate the Scottish landscape in this UK document and to expand on our experiences.

SFC has offered responses to the questions under Pillar 1, the pillar that is best aligned with our remit. We also have extensive responsibilities for skills support in Scotland (in partnership with Skills Development Scotland) and offer comment on Pillar 2, recognising that education and skills is a devolved policy area. We offer comment on other Pillars of the Strategy, where we have competence, recognising that other bodies in Scotland are better positioned to give a more comprehensive response.

Pillar 1 – Investing in Science and Innovation

5. What should be the priority areas for science, research and innovation investment?

It is critically important that a broad-based investment portfolio is maintained across the physical sciences, social sciences, engineering, humanities and arts to support a prosperous UK and a successful industrial strategy in the long term. Whilst additional resource for more applied research in support of sectors of our economy is welcome, we should be careful to maintain a longer term view and long-term funding for research and the training of researchers. The UK is a leading research nation and continued long term investment in fundamental, curiosity-driven research is essential to maintain that position and to provide the feedstock for future application. This research investment should be through our UK-wide dual-support system that prioritises excellence, supports high-quality training and rewards impact. To make maximum value from that underpinning investment in research, the industrial, health and social challenges of the UK can and should be posed to researchers (through UKRI) with appropriate resource.

6. Which challenge areas should the Industrial Challenge Strategy Fund focus on to drive maximum economic impact?

Others are better placed than SFC to comment on economic development but the approach of identifying research strength, commercial ambition and public-sector policy support through, for example, the Science and Innovation Audit process offers effective signposting for investment. Consultation with the devolved administrations will be important, and the proposed Ministerial Forums could be a suitable mechanism to ensure that the evolving list of opportunity areas for the Challenge Fund is both aligned with maximum economic impact, and with the aims of the Industrial Strategy to ensure that the impact of the investment is felt widely across the UK.

The areas of challenge already identified have a strong overlap with the research excellence, both fundamental and applied, in Scotland's universities and with the complementary education and training of both our college and university sectors. We expect a strong and purposeful role in skills-development, innovation and industry engagement to be played by Scottish further and higher education institutions in the sectoral responses being sought by BEIS. Furthermore, we will welcome every opportunity to help BEIS and UKRI to design and direct the Industrial Strategy Challenge Fund mechanism and future challenge areas in order to ensure it makes the most effective contribution to the prosperity of the whole UK.

7. What else can the UK do to create an environment that supports the commercialisation of ideas?

In Scotland, there has been considerable work done to support the commercialisation of ideas emerging from universities. We have, for example, notably high rates of spin-out company formation from our universities. This is the result of sustained research excellence, purposeful work by individual universities, the support of SFC's University Innovation Fund and the impact of national initiatives such as the Converge Challenge training and business plan competition.

Through Interface, we (SFC) have been working with the Scottish universities to greatly increase simplicity of IP terms for businesses when commercialising university research, both in terms of a broader adoption of agreed legal templates and of greater clarity on spin-out terms.

More generally, start-up support in Scotland has been intensifying, through both the entrepreneurial community and the increasing engagement of our universities and our regional colleges; and our Curriculum for Excellence supports the development of enterprising and entrepreneurial behaviours in our schools. Increased investment in commercialising academic outputs and in linking universities to business (through industrially linked PhDs and the KTP, for example) builds the relationships and skill-sets needed for successful commercialisation of ideas. The delivery mechanisms for some of this support will differ from elsewhere in the UK since, to give an example, industrially-linked PhDs in some sectors might be best clustered round an existing Innovation Centre.

However, it would be a mistake to focus exclusively on the supply-side, that is, on public-sector or academic interventions. A lot of work is needed with the business community to increase the demand for innovative ideas and to create the financial and tax environments that support investment by business in developing new products and processes. Some of this is reserved and therefore the responsibility of UK Government.

8. How can we best support the next generation of research leaders and entrepreneurs?

The UK Government can, firstly and fundamentally, support the next generation of research leaders and entrepreneurs by sustained investment in excellent research, through UKRI. Providing funding for research projects, doctoral studentships and facilities in the dual-support partnerships with the funding bodies of the four nations of the UK is the core requirement. Recognising regional areas of genuine strength and helping to build these into substantial ecosystems for knowledge, job, productivity and wealth generation is rational and an outcome of the proposed 10 pillars.

Secondly, using all available tools to sustain an environment which welcomes international researchers to the UK to contribute to our intellectual progress is another important action. Our leading UK universities are international communities of researchers, students and scholars. To ensure that we retain a world-leading research base and continue to develop a vibrant entrepreneurial ecosystem in our key industrial sectors we need to maintain the international links, the multi-cultural research community and the message of being open for (international research) business.

Finally, to support entrepreneurial thinking in the UK we should learn from existing programmes which help to bridge the skill gaps of entrepreneurs to take them from company formation to the capacity to grow that company to scale. In Scotland our enterprise agencies are working with SFC and the university sector in a number of programmes aimed at scale-up. We would be very happy to discuss progress and learning with our colleagues from UK Government or other administrations.

9. How can we best support research and innovation strengths in local areas?

The identification of research strengths, industrial exploitation potential and effective supporting infrastructure through the Science and Innovation Audits has been helpful in directing investment. The City and Region Deals process has offered similar insight. There is therefore much to be said for

pursuing that form of rigorous mapping of opportunity. In Scotland we can offer examples of both of these processes and the responses to them from local, Scottish and UK government.

A second local support mechanism which offers potential for strengthening local research excellence is research partnerships between universities, local networks to complement the national discipline-based Research Pools which have been instrumental in maintaining Scotland's research performance. The close partnership between the Universities of Edinburgh and St Andrews in Chemistry is one such beneficial local sub-partnership (of the ScotChem research pool, in this case)

The role of colleges as locally important focal points for employer engagement with innovative and creative ideas, as well as with the potential for upskilling staff to have the capacity or absorb and work with those ideas, is an important plank of local and regional growth support. We recognise that partnerships between universities, industry and colleges offer great opportunities. In Scotland we are seeing that nexus of the local and the sectoral developing where a sector may have a local centre of gravity but exploits the resources of, for example, one of our eight national Innovation Centres to great effect. Examples might be Oil and Gas in the North East or Aquaculture in the North West of Scotland.

Finally, it is important to recognise that capital investment plays an important role in place-based support for industrial growth, whether through research infrastructure or otherwise. Major capital interventions typically attract further (research and investment) income so an appropriate use of capital to drive local growth across the whole UK must be considered alongside revenue.

Comments on Pillars 2-10

Pillar 2 Developing Skills

Education, and by extension skills development, are devolved matters. The proposals for the development (in England) of new forms of tertiary-level education and new qualifications are interesting and we look forward to working with colleagues across the UK as we take forward our coherent and varied offer of vocational education, in part within the context of the Scottish Government's current review of the 15-24 'Learner Journey'.

Pillar 3 Upgrading infrastructure

From the point of view of SFC, the infrastructure development that is clearly important to support the UK's future inclusive growth of prosperity is capital investment in research and development infrastructure. We would advise the use of existing structures (universities and colleges) rather than creating new institutes and physical centres. The UK has long succeeded in carrying out efficient, internationally connected and renowned research from within universities and that is the appropriate place to invest in capacity to support existing and emerging industry.

Pillar 4 Supporting businesses to start and grow

Scotland has a notably high rate of business start-up (spin-out) from within universities. We would be pleased to share our experience of this and offer learning to other parts of the UK. A next key step that could benefit from support at UK level is creating the environment for companies to grow more quickly, where the 'levers' are reserved. It is now understood that scale-up of our base of small companies is essential to increase wages, increase tax income and spread prosperity. One of the areas that interests us would be mechanisms that help attract more private finance to Scotland to support business through early stage investment.

Pillar 6 Encouraging trade and inward investment

Our universities and colleges, the research they do and the talent pipeline they offer, are key platforms to develop trade and attract inward investment. Ensuring that our further and higher education establishments can maintain an international staff and student base is very important not just for their quality of research and teaching but also in order to effectively use these international institutions as ambassadors and bridges to international trade and investment. An immigration and visa regime that disincentivises staff and students from round the world from studying or working in the UK will be counter to our international growth ambitions.

Pillar 7 Delivering affordable energy and clean growth

The ten Pillars are broad and general but their specific meaning, and the contribution that can be made to them will vary across the UK. In Scotland, for example, the meaning of "delivering affordable energy and clean growth" will be in the more effective exploitation of our expertise and resources in renewable energy sources, smart grid technologies to enable local power generation, energy storage, carbon capture and so on. These reflect the research and resource strengths of Scotland and the ambitious nature of Scotland's carbon-reduction goals.

Pillar 9 Driving growth across the whole country

Many relevant institutions are in place in every nation of the UK to support the delivery of an industrial strategy. In the spirit of ensuring that the strategy delivers increased productivity across the entire UK and acts to bring all of the nations and regions of the UK up to the level of success of London and the South East of England, it is vital that the institutions of the devolved nations of the UK are recognised as central partners in the UK improvements. To illustrate this, HEFCE is mentioned often as a key actor in supporting universities, the process of spinning out companies from universities and so forth. In Scotland this role is carried out by the SFC. In short, if strengthening institutions is a key route to improvement, it is important that UK Government recognises and works with institutions outside England as effectively as those inside England. We would be happy to help with the description of potential delivery relationships that will allow for, and benefit from, the variety of structures and institutions in the four UK nations. The proposed Ministerial Forums will be very valuable in identifying how best to use our varied structures to best common effect.

Pillar 10 Creating the right institutions to bring together sectors and places

Our universities and colleges are natural place-based entities, with a simultaneously local identity and a global outlook. Building (as the City Deals have done) strongly on those institutions to anchor the special relationship of a place with a sector or sectoral opportunity is attractive. In Scotland we have been balancing competition (between universities in particular) with collaboration (through Research Pools, Innovation Centres, Interface and our internationally focussed Connected Scotland partnership) to bring national-scale effort to bear. It is possible, as we are showing through our thinking on the future of manufacturing, of the oil and gas industry, of the data-based economy to bring those national partnerships to bear on sectors with strong regional strengths. That approach is one we would be pleased to explain further and to commend.

A key point to make is that we have in the UK, a lot of the necessary institutions already. To create more would be a distraction. We need to use the structures we have to answer the very appropriate question of how to maximise the benefit of place in exploiting the opportunity of an existing or emerging sector.

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