

SFC review of coherent and sustainable provision: response from Interface

Introduction

We are pleased to submit a response to the recent call for evidence from SFC in relation to *A Review of Coherent Provision and Sustainability in Further and Higher Education*. Our response is underpinned from the extensive evidence gathered over the past 15 years from supporting Scottish and international businesses in all sectors. From nurturing entrepreneurial skills, spin-off companies and SMEs, research and development, and a supply of highly skilled graduates entering the jobs market, universities and colleges are key players in building the economy back from the COVID-19 recession. Through our impartial approaches of matching business led requirements from all industrial sectors to all academic disciplines over the last 15 years we offer unique knowledge on developing, promoting and innovating in knowledge exchange. In addition, the ideas and insights we have identified from “*on the ground*” approaches to businesses driving innovation can help reimagine and reconstruct provision within the challenges of the current environment.

Since the beginning of the COVID-19 pandemic, Interface, working with businesses and academia, have been proactively responding to the needs of the national response – both in supporting health and social care and in the wider economic restart and recovery. Given the significantly changed circumstances that now exist for individuals, Universities, Colleges, businesses, society and the economy, this review is timely to consider how further and higher education can best support the nation through the recession and into recovery.

In keeping with the call for evidence we have kept our response brief and succinct. Based on the role of Interface in enabling **collaborative partnerships** the evidence provided focuses on the themes of **knowledge exchange, entrepreneurship and innovation** to help inform the next stages of the review. We would be pleased to provide further clarity and explore in more detail the information provided below.

Background to Interface

Interface - The knowledge connection for business www.interface-online.org.uk provides companies and organisations with a central point of access to the expertise available in Scotland's Higher Education, Colleges and Research Institutes. Our core mission is “*to enable business-academic collaborations for economic and societal benefit*”. Funded by Scottish Funding Council since 2005 and with contributions from Scottish Enterprise and Highlands and Islands Enterprise, the service that Interface provides directly supports Scotland’s economic strategy by increasing competitiveness and fostering innovation by matching business to academia.

The impartial service delivered by Interface is in line with 2 of the 4 objectives of SFC’s Strategic Framework 2019-2022:

- *To invest in excellent research and innovation that adds to current knowledge, delivers economic and societal value, enhances Scotland’s international reputation and attractiveness, and makes the world around us prosperous, healthier and more sustainable.*
- *To ensure colleges, universities and specialist institutions form part of a successful, world-leading, coherent and sustainable system of education that responds effectively to the future needs of learners and the skills needs of the economy and society, enhances our rich cultural life, and strengthens Scotland’s international connections.*

We have a long standing and extensive track record over the past 15 years of translating industry led challenges and opportunities to collaborative R&D projects that are co-developed with academic teams from across Scotland to deliver new products, processes and services. We have unlocked new knowledge, technology, specialist facilities and skills from across Scotland’s Universities and Colleges for economic and societal benefit through impartial facilitation.

This impartial brokerage service works and delivers impacts - over 5,000 businesses (the majority SMEs) have been introduced to academic partners across Scotland and the economic impact through the Interface services realises at least £64.2m GVA per annum supporting 1,060 jobs¹.

The four key objectives of the Interface service underpin our mission:

- **Inspire** more businesses to partner with Scotland's universities, research institutes and colleges
- Escalate and deepen company partnerships with Scotland's universities, research institutes and colleges to accelerate the scale up of businesses through **innovation**
- Enable economic and societal **impact** to transform lives locally and globally
- **Inform** policy and practice in an ever-changing landscape

Response to SFC questions

The evidence provided in this response focuses on the themes of knowledge exchange, entrepreneurship and innovation in line with the mission of Interface.

- a) What do you think works well in the current further and higher education arrangements that we should keep in order to secure Scotland's inclusive social and economic recovery from the current pandemic? How can we best preserve and strengthen those features of education, research and innovation in Scotland that we most prize, in a very challenging funding environment?*

Scotland benefits from a wide range of excellent further and higher education institutions along with a wide range of businesses that deliver impact locally, regionally and globally. This **diversity** across further and higher education institutions is one of the key strengths that can inspire businesses of the possibilities – many different specialisms will be required to build back better in line with the key principles of **health & wellbeing, net zero, fairness and inclusivity**.

Supporting businesses and the economy through the recession, enabling cultural recovery and environmental sustainability, while keeping Scotland internationally focused and connected, are all critically important. Based on the exemplar track record to deliver **real and tangible impacts to Scotland** including securing and creating jobs, enabling company growth and delivering new products, processes and services, Interface has a key role to play.

We have been very heartened that despite financial difficulties, **business' appetite for continued R&D continues**. Many recognise the importance of innovation to progressing away from recession and Interface has rapidly supported companies and organisations across Scotland who have had to innovate, diversify, and adjust in many new ways. Indeed, despite the past six month period of economic uncertainty, all the ambitious KPI targets set by funders for Interface delivery in AY2019/2020 have been achieved with 136 collaborative R&D projects established in the last three months alone between businesses and academic teams (See *Appendix 1*).

Preserving and strengthening company led engagement with Universities and Colleges through **streamlined and rapid services all working cohesively** is critical to help drive recovery and be the foundation for future growth. There are many and varied pathways in which companies can travel to select an academic partner of choice (drawing on support from Interface, Innovation Centres, Innovation Vouchers, University Innovation Fund etc.) and underpinned by the continued investment in outstanding research capacity and capability.

We are fortunate in Scotland to have world leading academics in a range of disciplines from engineering, manufacturing, data, digital, visualisation, sensors, imaging, management and modelling who are well placed to support businesses in the recovery phase. The team at Interface working

¹ <https://interface-online.org.uk/about-us/facts-and-figures>

alongside the professional services staff at Scottish Universities are key to **unlocking expertise** swiftly to assist individuals or groups of businesses from across all Universities and Colleges so that support can be deployed directly to companies locally and regionally from Highlands and Islands to South of Scotland.

The publication of the Muscatelli Report in November 2019 has shone a spotlight on approaches adopted both through company led innovation and commercialisation to maximise the economic impact of the Higher Education sector and how it works in partnership with industry to drive inclusive growth for the future of Scotland. There is no doubting that over the coming months, many difficult decisions will be required with respect to resource prioritisation challenges. However, the recent report from the Advisory Group on Economic Recovery highlights how further and higher education are core parts of the education-led recovery.

We believe that continuity of funding for teaching, research and knowledge exchange is vital to ensure all parts of Scotland's economy and society can navigate through the pandemic crisis and recover. With over 60% of the businesses engaging with the regional Interface brokerage team being supported for their first-time engagement with academia, the ongoing market failure of companies "*don't know that they don't know*" requires sustained support.

b) What do you think colleges, universities and specialist institutions should stop doing, or do differently, in order to contribute effectively to an inclusive social and economic recovery? (You may wish to comment on teaching and skills development, sectoral and employer needs and employability, research, innovation and knowledge exchange, widening access and equalities issues.)

From Interface's direct support to over 1,000 businesses from across Scotland in the past few months, we know that there is a real urgency required to spur a recovery that supports safeguarding and generation of jobs, facilitates company growth and is underpinned by innovation, adaptation and diversification. Recovery will require collective efforts and **working collaboratively** across Universities and Colleges will ensure that businesses move from survival to green shoots to sales and invoices.

For example, co-operation and **streamlined marketing / outreach** to businesses across Scotland in conjunction with key industrial sectoral associations can deliver **economies of scale and rapid impacts**. The significant industry led demand from the *Adopt a business campaign* demonstrated what can be achieved in partnership by a small team in a short timeframe².

CASE EXAMPLE

- Through Interface proactively working with Visit Scotland and Scottish Tourism Alliance, tourism and hospitality businesses were offered the chance to collaborate with academics and students with expertise in tourism, management sciences, business models and marketing to help companies produce practical action plans for adaptation and diversification.
- Over the two weeks of the **Adopt a business promotional campaign** industry led projects **from over 80 organisations** were received by Interface. The academics from across 14 Universities generously offered their time pro-bono and are drawn from a variety of disciplines but mainly, business schools and management sciences. The key themes where academics' knowledge is making a difference to the tourism and hospitality sector include immersive technologies, business models and diversification strategies and Circular economy / sustainability / improving green credentials. The outreach activity has led to over 50 established R&D partnerships, many supporting new and innovative approaches for immediate adoption.

² <http://www.interface-online.org.uk/news/adopting-business-could-boost-tourism-sector-s-recovery>

In conjunction with Universities Scotland Research and Commercialisation Directors' group, the team at Interface have a long standing track record in delivering other streamlined approaches including a series of downloadable, standardised legal agreements³, collaborative platforms for marketing of university & college assets such as technologies / intellectual property available for commercial exploitation⁴ and specialist facilities⁵ for commercial use.

We would encourage SFC to advocate new levels of connectivity, creativity and resourcefulness with respect to supporting businesses and organisations through knowledge exchange and talent development.

In particular we would observe

- With ever diminishing resources across Universities and Colleges, how will support be prioritised / ring fenced for engagement with **small and medium-sized enterprises** who are the key to economic growth, sustaining the economy and our communities across Scotland?
- More agile approaches to move from **transactional to strategic relationships** with businesses and embedding good practices in customer and collaboration management that track outcomes and impacts more widely across Universities & Colleges. We regularly observe "best in class" approaches from HEIs with respect to excellence in customer service through regular and sustained communication and expectation management. However, this is always an area of continuous improvement – and we are committed to playing our role in shining a light on what works well and what can be improved.
- Balancing the opposing pressures of **full cost recovery** from knowledge exchange required by Universities versus **supporting companies locally and regionally**, many of whom are cash limited due to COVID 19 but collectively through scale up and growth are creating future economic and societal wealth.
- Our network of **Knowledge exchange practitioners** within each partner University and College are crucial to the successful establishment of partnerships. However, many of the professional services teams supporting knowledge exchange are small teams stretched very far and increasingly having to prioritise scant resources – carving out time to for effective engagement with SMEs is challenging. Should priority be given to having dedicated named Scottish SME liaison officers in line with UIF funding objectives?
- Streamlining the **burden of administration** at departmental and across institution level to respond more rapidly to industry led challenges.
- Consider the **wider integration of services** that support talent, skills, innovation, entrepreneurship and knowledge exchange. For many businesses, knowledge exchange and talent development go hand in hand. For example, internships, student work-based learning project benefit the University and companies/organisations by supporting skills, talent and employability which in turn benefits the economy through additional employment and industry through delivering a skilled workforce

c) How can colleges, universities and specialist institutions best support Scotland's international connectedness and competitiveness in the post pandemic, post-EU membership environment?

Attracting companies to Scotland is a key priority to boost Scotland's connectiveness and competitiveness. We are very encouraged about the levels of co-operation and connectivity that have been recently established between Interface (working impartially on behalf of all Scottish FE/HE) and Scottish Development International (SDI). In particular we understand that many of the businesses

³ <https://interface-online.org.uk/how-we-can-help/guidance-collaborating/standard-legal-agreements>

⁴ <https://interface-online.org.uk/how-we-can-help/university-technologies>

⁵ <https://interface-online.org.uk/how-we-can-help/specialist-facilities>

desire a collaborative R&D relationship with an academic partner through co-location thereby facilitating access to world leading research and talent.

CASE EXAMPLE

- Interface worked closely with the team at Scottish Enterprise and Scottish Development International to introduce Celestia Technologies Group⁶ to capability and capacity from Scottish academic institutions. Crucial to attracting the company to Scotland was the country's growing space sector, which is a key market for the company alongside accessing the skills, talent and research within Scotland's Universities. After a successful five month residency at Heriot Watt University's Global Research Innovation and Discovery (GRID) facility, brokered by Interface, Celestia UK, specialists in the advancement of state-of-the-art antenna systems used for tracking satellites, has announced that Heriot-Watt University's Research Park will be its permanent base in Scotland. Following a £2.5 million R&D award from Scottish Enterprise earlier this year to develop a new electronic scanning antenna, Celestia UK will create 18 new jobs in Scotland, recruiting engineers across several different disciplines.

Learning from the Celestia case study, the forthcoming inward Investment plan for Scotland provides a real opportunity to do things differently. In particular

- Greater advocacy and promotion of the ease of access to the research, talent and skills of Colleges and Universities in promotional materials / investment brochures and action plans
- To build around new prospects an impartial Scotland "Welcome team" where SDI representatives work alongside representatives from Interface, Innovation Centres, Research Pools with clearly defined roles and responsibilities and shared communication
- Working with local businesses on the ground over the past three months have demonstrated the agility of Scottish companies to trade on a global platform through e-commerce. How can the international networks and connections of Scottish academics support greater global engagement for Scottish business sectors?
- Universities are very well connected internationally. Is there a role for universities in helping local businesses better connect with international collaborative opportunities? Is there a role to play by early stage career researchers in providing additional capacity and capability in the mobilisation of networks locally and globally?

d) What opportunities and threats does the post-pandemic environment hold for colleges, universities and specialist institutions? For institutional leaders, how are you planning to address these challenges and opportunities?

Interface can provide compelling evidence of the desire by a greater number of businesses both based in Scotland, UK and globally to seek out collaborative partnerships. The triaging and effective signposting to more suitable sources of business support means that only compelling propositions from businesses are shared with academia, significantly streamlining the responsiveness to industry led challenges at departmental and across institution level. The scale of this opportunity in delivery tangible benefits (jobs, productivity, economic and societal benefits) cannot be underestimated. However, managing this pipeline of opportunities are bringing real challenges to institutions including responsiveness, capacity, cost recovery and prioritisation.

The team at Interface have proactively gathered evidence of the real and tangible difference that Scotland's Colleges and Universities have made to support the health response and economic. This document currently runs to 20 pages (which can be shared on request) and provides a compelling commentary of **agile and effective responses**.

⁶ <https://interface-online.org.uk/news/celestia-lands-major-rd-investment-scotland>

e) What forms of collaboration within the tertiary education eco-system would best enable a coherent and effective response to these challenges and opportunities?

It is worth emphasising that innovation occurs in business and therefore the end result of all our collective efforts is demonstrated by **increased turnover, profits and higher productivity in the private sector**. This is not easily measured or monitored by Interface nor by HEIs but is the overriding expectation – to demonstrate impacts.

Businesses do not consider skills, innovation, entrepreneurship and knowledge exchange happen in isolation or in individual units. For a company underpinned by people who are collectively working towards a common aim, the complexity around terminology including employer engagement, internship hosting, knowledge exchange or commercialisation can be confusing.

Therefore, greater coherence and co-operation across the themes of talent, entrepreneurship, skills, knowledge exchange, access to specialist facilities etc. within the tertiary education eco-system would provide a step change in the current many and varied siloed approaches.

Increasing productivity in the economy through driving innovation by businesses is not akin to ‘pulling a policy lever’ but is more the overall result of laying out a common vision (akin to a destination) and then nudging a high number of control levers – like telling a ship’s crew of the destination and then continually adjusting controls from the revolutions of the main propeller shaft to the raising of the anchor to monitoring of the temperature of the galley kitchen ovens. All crew will know the destination but have to concentrate on their area of expertise. In this analogy Interface is the communications/ inspiration channel which allows the navigator to speak (clearly and efficiently) to the engine room.

Therefore, simplification of the “**common vision**” for all organisations, departments and services within the **tertiary education eco-system** that engage with businesses /organisations coupled with a relentless focus on reducing bureaucracy and agile approaches would deliver greater effectiveness and efficiencies.

f) How can SFC, alongside government and other enterprise, skills and education-focused agencies, best support colleges, universities and specialist institutions to make their full contribution to Scotland’s inclusive, green and education-led recovery?

In particular, you may wish to draw out:

- *How scarce public resources should be prioritised to drive recovery*
- *Particular areas of collaboration between agencies that would best support the sectors’ contributions*
- *Adaptations to SFC’s funding and accountability frameworks to promote agile and collaborative action by the sectors to build Scotland’s recovery*
- *How SFC’s funding and accountability frameworks should ensure that equality and wide access to educational opportunity are promoted as key elements of the recovery for younger people and adults*
- *What support SFC and government could give institutions to adapt to a changed environment*

We welcome the call for enhanced collaboration between agencies that would best support the University & College contributions and ensure that there is a swift and coordinated implementation of those actions to avoid the longer-term scarring effects which we have witnessed in past economic downturns. Scotland has all of the building blocks in place across the current ecosystem - the need is to advocate more vocally what is working well, enhance efficiencies, drive out overlap and operate at pace.

Building on the examples, case studies and long standing track record of Interface in translating over 5,000 industry led challenges we are fully aware of the huge potential contribution that Interface can make to catalysing a greater number of academic – business connections to deliver an inclusive, green and education-led recovery. The recent Enterprise and Skills Strategic Board sub- group report on measures to mitigate the labour market impacts from COVID 19 highlights “*given the size of the challenges facing the Scottish labour market, the scaling up of activity is likely to require additional resource*”. Our observations lead to the following recommendations: many of which could be implemented quickly for maximum return:

- Enable greater inspiration of “the art of the possible” by Interface to businesses building on the successful webinar series implemented to date.- For example the production every month of a ‘must see and attend’, virtual, TED talk equivalent with contributors from business, HEIs etc. This virtual **Innovation Showcase from Scotland** would illustrate a hotbed of ideas and innovation and could build practical insights, advocacy and pride in “recently invented in Scotland”. We have already instigated discussions with the consortium of Scottish University Business Schools on a series of “knowledge and research made useful” webinars that would provide a stimulus for practical business support through interactive action learning.
- Given the size of the challenges facing the Scottish economy, the scaling up of activity requires additional resource. How can the costs of collaborative projects that will support new innovations be they business to business or business to academia can be addressed? – many sectors which are hardest hit e.g. manufacturing, engineering, tourism businesses will not have internal funding to draw on to enable immediate diversification. For example, the Scottish Funding Council’s Innovation Voucher programme administered by Interface⁷ over the past 10 years provides an exemplar of a flexible, rapid response small fund that could be significantly scaled to support business led innovation. However, can we now **reimagine innovation vouchers** to offer greater flexibility , rapid commercialisation? Can SFC adapt its current accountability framework to enable the successful co-creation of proposals while minimising the internal contribution on their people resources?
- We recognise that Universities and Colleges also play a central role in encouraging business start-up in their students/ staff through commercialisation an exploitation of intellectual property through licensing which is out with the scope of the evidence submitted here. However, the long held **perceptions of many individuals** with respect to University and Colleges approaches to knowledge exchange are from a starting point of intellectual property negotiation and commercialisation. It is timely to advocate greater acceptance of the many different strands of how Universities and Colleges can support businesses, particularly through people and knowledge exchange.
- **People make connections.** Therefore, greater interchange between businesses, organisations, universities and colleges would bring a step change in adaptation and advocacy for innovation. - Internships, industry interchanges, secondments, industry fellowships and more flexible approaches to workforce and student placement innovation vouchers would all enable greater idea sharing, willingness to strike up conversations to solve “wicked problems” and trust leading to a mindset for change and intrapreneurship.
- Interface takes much pride in the 100% customer satisfaction rating for its annual feedback survey from businesses. Equally well, feedback from the Student Satisfaction Survey across Universities & Colleges enables continuous improvement. Would an **annual company satisfaction survey** build on the evidence of what is working well and what could be improved to enable new approaches?

⁷ <https://interface-online.org.uk/how-we-can-help/funding>

- From our support to thousands of businesses across Scotland and internationally , different industrial sectors require different approaches to supporting their innovation, knowledge exchange and talent acquisition. Can how the lessons learned from **one to many approaches** that Interface has piloted in the past for food and drink, tourism and creative industries be mainstreamed to offer greater economies of scale?
- More financial support for R&D will be required to help bring new products created over this period to market and to underpin those businesses whose research budgets are now significantly reduced. How can the new Scottish National Investment Bank rapidly deploy much needed investment via organisations like Interface to enable a multiplier effect in supporting small businesses to forge ahead? An investment of scale – say £1m in capital in a new Rapid Response Partnering for Recovery Fund (RRP) to support knowledge exchange in industries most decimated by COVID-19 would deliver significant benefits.
- Greater advocacy that any investment by Scottish National Investment bank (loan or equity) to be made conditional on an Innovation Review by Interface to maximise connectivity to Scottish Universities and Colleges. A similar approach could be adopted for the businesses receiving support under the Early Stage Growth Challenge Fund and Scottish Pivotal Enterprise Resilience Fund operated by the Enterprise Agencies.
- The economic response requires urgent ideas, solutions, and immediate interventions. The excellence of knowledge and skills within our Universities and Colleges can help drive recovery and be the foundation for future growth. It is imperative that thought is given to how to support the **whole system and its network of interactions that support business led diversification**. Collaboration will be more important than ever. One of the lessons learned for us in the immediate response to the health crisis was duplication of effort across many organisations who were not aware of the services of Interface. We must act as one in team Scotland (across the **enterprise, skills and education-focused agencies**) to ensure the best possible outcomes for the whole of the economy – how can this be advocated and enabled rapidly, beyond the current approach of a listing on the Find business support website?
- We would observe that “**success has many masters**”. Many of the companies that have scaled and grown to deliver considerable success for Scotland (Sunamp, Scotmas, Ecometricia, Clyde Space etc) have drawn on many services and funding products from across the enterprise and skills agencies both in Scotland, UK and Europe. In the current situation of rolling, short term public funding, currently each service or funding product has to individually demonstrate its additionality and impact. This has created considerable bureaucracy and resource implications for small organisations such as Interface alongside survey fatigue for businesses. How can common innovation measures be rapidly adopted by all organisations with devolved responsibility and trust to deliver against a Scotland wide mission?
- We would welcome agencies working collaboratively on establishing “**game changing**” challenge calls (E.g. across wellbeing, zero carbon, new business models) that could be addressed by academics where Interface can source expertise from across a range of University & college departments to enable a multi-disciplinary team deliver a rapid and disruptive solution.

In summary Interface as a publicly funded organisation supported by Scottish Funding Council, Scottish Enterprise and Highlands and Islands Enterprise is well placed to work across all industry sectors to reimagine and reconstruct within the challenges of the current environment. Responding to challenges, overcoming problems, finding a path to a better future is in our entrepreneurial DNA and impartial service. We have a critical role in place in enabling Scotland to be a vanguard in rebuilding our economy.

ENDS.

APPENDIX ONE

Impacts from Interface - Economic Impact report September 2017 –Biggar Economics Ltd

£64.2m

GVA/year generated by Interface supported businesses for Scottish Economy supporting **1060** Scottish jobs

3000+

Businesses introduced to academic partners across Scotland

100%



Satisfaction with Interface service

Supporting businesses through AY2019-2020 including the COVID-19 response

Interface Overview

AY2019/2020

- **1206 proactive outreach opportunities shared**
- **translated 509 industry led expertise searches for academic partners**
- **enabled 458 business-academic discussions**
- **329 collaborative R&D projects contracted**

Supporting local, regional and global businesses

