

introduction of the regional passport/pathways app develop through an ongoing collaboration between FE and HE <http://www.pathways.ac.uk/>

The further and higher education sectors work well together. At Edinburgh Napier we work effectively, closely and collaboratively with Colleges in our region; approximately a third of our students enter each year from the College sector through defined and well supported articulation pathway, and in excess of 70% enter with advanced standing. Flexibility in the pathways into higher education should be enhanced; increased flexibility will serve individuals, businesses well as we build a post-pandemic economy and will support widening access to higher level skills.

Higher education integrates research (the approaches, practices and outputs) into the curriculum which gives institutions distinctive curricular profiles and teaching pedagogies; the generic meta-skills and attributes that such approaches develop in students are important for employers and for driving innovation and productivity. This value-added activity is one of the distinguishing features of higher education. Articulation between college and University is vital and an efficient and successful pathway for many students, and should be further enhanced. Successful articulation takes considerable work to align curriculum and support students as they progress through higher levels of attainment.

There needs to be greater flexibility in the curriculum offered by universities and pathways for learning with an increase in the number of entry and exit points and flexibility in provision that allow students to return to learning and upskill when appropriate in their career. Funding for students that allows individuals to study at their own pace- part-time, longer/shorter duration, interim qualifications and transferable credit to enable students to select those short courses and skills that can stack together into a qualification is essential in facilitating this. Adoption of a universal framework for delivering and recognising micro-credentials (e.g. the European framework and QAA guidance) and consistency in the mechanism for Recognised Prior Learning that is robust and not overly rigid in its implementation or structure is required. Online learning, and student funding that allows students to study online should be supported.

The duplication of SCQF level 7 should be considered further to provide shorter learning routes for students to achieve higher level skills. This is an opportunity to redesign and reframe the focus on skills and lifelong learning. As courses and programmes become more flexible in mode of delivery and in portability, there needs to be a more nimble and more responsive process for assuring their quality, without compromising standards. With the increasing diversity of courses and providers and a proliferation of 'certificates' and 'micro-credentials', we need to ensure that our awards and

# SFC review of coherent and sustainable provision: Edinburgh Napier response

*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?*

The excellence of higher education in Scotland is one of its great strengths and asset, contributing directly to achieving the outcomes articulated in the National Performance Framework. It is a diverse sector that has an excellent reputation and brand internationally, known for high quality education, international reach and impactful research. Universities will play a key role in driving Scotland's recovery over the years ahead. Through education, universities will empower people to flex/adapt/retrain and develop new skills, and by harnessing the capacity and capability of our research and innovation infrastructure and the talent and expertise of our people, we will enable Scotland to address the most pressing health, environmental, economic and social challenges that we face

The Edinburgh Napier University mission, strategy and contribution are well aligned to the wider social and economic priorities of Scotland as articulated in the National Performance Framework. The University has a regional and civic mission while having significant international reach in the delivery of education, research and innovation to diverse communities, the public, private and third sectors.

Our portfolio is relevant, distinctive and applied; degree programmes are professionally oriented with high levels of accreditation and work-related learning firmly embedded. Almost half of our provision is in STEM with strong links to industry and skills demand within Scotland, and over one fifth of our provision is at postgraduate level. We have a flexible and diverse range of delivery modes in addition to our on-campus programmes, these include a high-quality global online platform, transnational education with international partners, work-based learning in partnership with employers, graduate apprenticeships, and upskilling short courses that can be accessed online. Our provision of flexible and professionally-focussed education enables the University to respond to national priorities and to attract a diverse range of students e.g. c. half of our students are mature; and we provide credit-bearing short courses to people in the workforce to upskill in the areas of computing, health, and

business. The University offers a distinctive education environment that is informed by research and professional practice. All of our Schools have external advisory boards of industry experts who are consulted on our programmes. Graduates are provided with relevant learning opportunities to develop the attributes and skills to be impactful within the workforce. We are a university that combines an international profile aligned to our strong regional roots, providing higher education for a significant proportion of the regional population tailored to employer needs. Our distinctive provision and pedagogy also underpin our international delivery and contribution to local communities and their economic priorities in for example, Hong Kong, Sri Lanka and Myanmar. We have a diverse and international workforce with a fifth of staff from outside the UK from 47 countries.

Edinburgh Napier University has excellence in research across disciplines – including health, artificial intelligence, engineering, biosciences, creative arts, hospitality, tourism and business, and this breadth is essential in linking with key sectors to aid economic and social recovery from Covid-19. We apply our skills and strengths to maximise Knowledge Exchange within Scotland, nationally and internationally. Our research environment is developing fast as is our research capacity, with investment over the last 5 years targeted to support challenge led approaches. We are connected through our partnerships and collaborations to deliver innovation and knowledge exchange that will positively impact on the country's response to Covid-19 and a green recovery going forwards.

It is important to consider the education system in a holistic manner – for post-16 education, student choice is- and must- remain a fundamental feature of the higher education system within Scotland. Students learn both from academic experts within the university and through our networks with the professions and business. Many of our academics join us from a professional, business or industrial background and they bring this expertise and external connections into our teaching programmes. Our students learn from practitioners both within the university and through our networks with the professions and with businesses. This includes opportunities for placements, for work-based learning and for gaining professional qualifications.

The further and higher education sector works well together. At Edinburgh Napier we work effectively, closely and collaboratively with Colleges in our region; approximately a third of our students enter each year from the College sector through defined and well supported articulation pathways, and in excess of 70% enter with advanced standing. We have demonstrated that this works successfully, and there is scope to further enhance flexibility of the pathways into higher education; increased flexibility will serve individuals, businesses well as we build a post-pandemic economy and will support widening access to higher level skills. An excellent recent example is the

qualifications are readily understood and recognised internationally, by adopting a consistent framework and terminology e.g. through SCQF and the quality framework.

Employment must be at the heart of our higher education strategy for the country which should be closely aligned to the provision of skills and a robust research and innovation infrastructure. Graduates should enter the workforce with relevant and higher order problem solving skills that make them employable, adaptable and resilient to changing labour market conditions and contribute to the social and economic priorities of Scotland. Education that enables students to accelerate their career through undergraduate and postgraduate study that demonstrates higher level skills or upskilling through short courses is essential. Work-based learning and graduate apprenticeships have been hugely successful both at Edinburgh Napier and other institutions; however the pandemic may curtail the investment by employers.

To preserve the features of the Scottish higher education system that we prize most, we must fund them sustainably. Teaching funding has reduced in real terms over the last 7 years with an increase in the outputs and deliverables from Universities. The timeframe of SFC funding is too short-term in focus, with only one year's funding confirmed. A longer-term funding framework of at least three years needs to be embedded to enable strategic change and effective financial and academic planning. Research funding is currently under-funded and much of the risk in achieving world leading outputs rests with institutions as the funding is output driven.

A new model of SFC funding for teaching and research could be developed that both fully funds the sectors activities and ambitions but also recognises and rewards areas of excellence. We need to demonstrate as a sector the value for money that Universities provide to the country. A redesigned funding model that comprises of full-cost funding (e.g 75%) and a smaller proportion (e.g. 25%) based on the achievement of quality outputs and the ability to deliver national priorities might be evaluated. SFC funding models must also use Knowledge Exchange as a driver and recognise the achievement of these as important to the social and economic impact in Scotland.

The diversity of Universities in Scotland is a feature we should recognise, and support should not be a 'one size fits all' model. There is a growing gap between the large research intensive Universities and the rest of the sector in Scotland. We need to have a funding model that optimises the performance of to each institution and recognises and rewards good academic outcomes and sound financial management and sustainability. At present Universities that manage finances responsibly are not incentivised to do so. The accountability framework used by SFC should integrate both academic measures of success together with mechanisms to incentivise robust financial planning and sustainability. Universities should retain their autonomy to deliver the education, research and

knowledge transfer activities that appropriate to their institutional strategy and alignment to government priorities.

*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.)*

There are no obvious activities within the higher education system that should be stopped; some areas may require more focus to optimise alignment with the outcomes within the National Performance Framework for Scotland. The diversity of the Scottish HE sector has arisen as autonomous institutions have developed their own profile and contributions to support the Scottish economy, social and cultural needs. While programme portfolios and research expertise can appear similar, institutions are increasingly distinctive through the nature and content of the curriculum and differentiated, approaches to teaching and learning. There needs to be strong alignment of the portfolio with the industry and skills priorities of Scotland. At Edinburgh Napier we have leveraged our connections and partnerships with industry to ensure that the academic portfolio is aligned with sector skills demand through advisory boards.

Scottish Government should consider an effective approach reduce the duplication of SCQF level 7 and provide alternative and shorter learning routes for students to study to achieve higher level skills. This is an opportunity to redesign and reframe the focus on skills, in particular high level skills and lifelong learning. There is an opportunity develop flexible academic programmes of study that provide an accumulation of skills, rather than simply programme-based outcomes.

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

Universities in Scotland are vital for the economy and engaging internationally and provide Scotland with a rich inter-cultural diversity. There are many opportunities to work collaboratively in an international context on areas of mutual interest such as climate change or health. Scotland's industry will be stronger and more competitive through more international collaborations.

Edinburgh Napier has an excellent reputation for delivering teaching and learning, research and knowledge exchange in a global context. We deliver higher education with our international partners and we collaborate with local businesses to support the global economy. Engaging on a global scale can be a challenge, particularly during and after a global pandemic, but the benefits are significant. Universities have a large network of graduates who live and work abroad who should be utilised more effectively to engage with their home region and promote working with businesses in Scotland.

Universities have a key role to play in leading international work in collaboration with industry and government in the UK and Internationally. The work that Edinburgh Napier University has done in international regions provides insight and knowledge of the regions and this could be used to leverage and broker new deals of businesses between countries. Universities are well placed to work with local councils and others in the UK to develop strategic partnerships with regions internationally and to lead, engage and link with businesses to benefit the economy globally.

It will be useful for the sector to consider adopting the following key principles in terms of international engagement:

1. **An international outlook at the forefront**—ensuring the sector maintains a strategic international outlook will ensure that that it is recognised as a key priority that will not only benefit their development but help support their local areas and the wider Scottish economy, as detailed below, and also importantly to cultural enrichment.
2. Building on existing expertise, **international engagement on global challenges** - such as climate change, healthy ageing and the United Nations Sustainability Goals - can raise Scotland's profile internationally. Maintaining and furthering Scotland's reputation for excellence will help support the objective to increase foreign direct investment into research and development and production opportunities in Scotland. It will also underpin Scotland's attractiveness to world class talent, further building our capacity to develop world leading solutions to global challenges.
3. **Scottish institutions providing 'global public service' through open access** – related to the above, given the existing local and international research collaborations within the Scottish sector, institutions have the opportunity to become international points of reference by providing a 'global public service' to further Scotland's reputation for

excellence. Scottish institutions may look to consider what global expertise they could provide collaboratively in open access to showcase their expertise, relevance and connectivity to the world.

4. **Focusing on delivering greater impact through private collaborations** – as showcased through existing initiatives and innovation centres (Interface, CENSIS, OGIC and so on), the Scottish FE & HE demonstrates that it is focused on delivering impact across society and partners of choice to build coalitions on international projects
5. **Exploiting existing international connections to help Scotland's businesses internationalise** – in tandem and in cooperation with economic development organisations (e.g. Business Gateway, Scottish Enterprise, Highlands & Islands Enterprise and Scottish Development International), Scottish institutions can leverage their links with overseas partners to promote, develop and lead on the creation of business opportunities .
6. **Developing and nurturing Scotland's connections with the world** – the Scottish FE & HE sector already benefits from a vibrant community of students and staff from around the world. The GlobalScot network is an example of the attachment that individuals can develop as a result of their time in Scotland and looking to maintain a link and help support Scotland's businesses. Thousands of international students graduate from Scottish institutions each year and may play a big role in promoting the FE & HE sector, and Scotland itself, in their home countries, opening up new opportunities.
7. **Providing a pipeline for a young and educated workforce** – In addition to the above, recognising the demographic challenges Scotland is facing and considering the upcoming introduction of the Graduate Immigration Route, many more students will be choosing to study in Scottish universities and opting to stay to contribute to our economy beyond their course of study.
8. **Nurturing links with European Union partners** – the challenges posed by Brexit have put in sharp relief the strong collaborations that the Scottish sector has established over many decades and its significant benefits such as world leading research and student mobility. While Brexit is likely to change the type and nature of partnerships that can be formed with

existing partners, Scottish institutions can deepen their partnerships to ensure that this connectivity is not lost but 'reinvested' into new types of partnerships. Edinburgh Napier's experience as part of the Urban Research and Education Knowledge Alliance (U!REKA) which includes 7 EU/EEA partners is that Brexit has not affected its partners' enthusiasm for Edinburgh Napier's membership and continued contributions to projects.

***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?***

The biggest risk to the higher education sector is its financial sustainability and ability to deliver on required outcomes. The full cost of teaching and research needs to be addressed with the full cost of funding provided by government along with articulation of required outcomes. The covid pandemic will negatively impact on institutions for at least three to five years, and the impact on mobility could have longer lasting impacts. .

For Edinburgh Napier, opportunities to grow our academic reputation and research and knowledge exchange activities remain a priority. We will leverage our existing partnerships to grow and develop new collaborations with industry, universities and government. It is essential that Universities and the sector work with the enterprise agencies Scotland Development International and Skills Development Scotland to maximise our joint networks and relationships with industry and other bodies. We are well connected internationally but we need to focus on developing opportunities between our Scottish industrial partners and internationally based institutions. We have skills and experience of markets, overseas and within the UK and we should and will use these to benefit industrial partners, especially SME's who do not have access to this breadth and depth of insight.

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

Scottish Universities have a strong culture of collaboration through the Enhancement Themes (Quality Assurance Agency for Scotland) , which involve all higher education institutions in Scotland working together on a range of topics over a 3 year programme. The new theme running from 2020 to 2023 on 'Resilient Learning Communities' "explores the changing needs and values of an increasingly diverse student community, and a rapidly changing external environment". This will be a significant cross-sector programme of work that will involve universities working together with external



stakeholders to enable us to prepare our students for the changing external environment and for employment

Collaboration must be a priority for the sectors as a way of leveraging greater impact in its teaching and learning, research and knowledge exchange activities.

There is a great opportunity for Universities to form peer-to-peer strategic, and potentially thematic, collaboration clusters. These clusters can be regional or national and focus on delivering on the stated strategic priorities of the Scottish Government and the overall Scotland's recovery. To achieve this, the clusters can strategically make use of joint-up academic capacity and capability towards delivering value for money innovation to key sectors of the business and industry.

This form of collaborative partnerships also has the potential to explore synergies and efficiencies at the level of infrastructure and professional services. An example here could be business incubators; instead of HE institutions and large businesses operating unilaterally building branded incubators across the city, there is an opportunity to pool such resources and collaboratively make use of them on a demand basis. The peer-to-peer nature of the clusters is essential to ensure that this resource sharing and access will be operating truly collaboratively. The efficiency gains made through reduction of operating costs and overheads can be used to invest back into relevant academic expertise and talent and, in this way, support a sustainable academic ecosystem focused upon Scotland's priorities.

Strategic partnerships between HE institutions can further be augmented through the inclusion of FE Colleges and industry to further extend the capability of these cluster to deliver important vocational training and challenge-driven innovation.

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?*

As mentioned before, there is an opportunity for the sector to be more joined up and collaborative – both between institutions and also working alongside business and regional/national government agencies. There are potential and opportunities to develop strategic and joined up collaborations that provide a greater impact on the economy in Scotland. A new approach to shared collaboration on infrastructure could leverage value-added activities that are currently performed in isolation, removing duplication of effort but also creating new, exciting joint ventures. An example of this shared infrastructure could come in the form of incubator space that is currently funded separately by institutions or businesses. Sharing the infrastructure would reduce costs but also maximise and

enhance new strategic collaborations in this space. However, this would require significant new approaches to collaboration. Other examples of a joined up approach come from working alongside local governments to provide shared facilities that benefit the local community and further and higher education sector.

There needs to be a shift away from a short-term focus of working with industry and ensuring that a longer-term, sustainable model is embedded. Working with enterprise agencies has not yielded significant impact in recent years and a move to expand on the work with Interface – a model that is well respected and regarded with Business and Universities could be a way of maximising engagement between universities and industry. To aid some of this work, a prioritisation of resources and focus should be clear and aligned with the long term investment in Scotland’s competitive advantage such as AI, fintech and the creative industries while also ensuring a commitment to green and environmental principles. The accountability framework for Universities at present does not represent the diversity of the sector and excellence across different institutions. The Outcome Agreement framework between Universities and the SFC needs to reflect the diversity and the impact that higher education makes in social and economic terms.

Finally, the overall funding approach at the moment does not recognise the individual nature and contributions of each institution. Going forward, if funding becomes more personalised to each institution, then universities can utilise this “asymmetric” funding to accelerate the development of their third income stream and achieve sustainability faster than in the current framework.