Universities Scotland briefing: Scottish Government debate on economic recovery

June 2021

As we emerge from the pandemic and begin to rebuild, universities will be key to Scotland's economic and social recovery. Our world-leading research and innovation, our development of highly-skilled graduates, our partnerships with businesses, and our work in our communities, will accelerate the recovery from the pandemic and provide opportunities across Scotland.

Based on a new report by the National Centre for Entrepreneurship in Education (NCEE), over the next five years, universities in Scotland are projected to[1]:

- Provide £1.2 billion of not-for-profit support to businesses and charities;
- Help establish 1,000 new businesses and charities;
- Provide over 1.3 million day's worth of training and upskilling – the equivalent of half a day for Scotland's entire workforce;
- Contribute to over £400 million of local regeneration and development funding; and
- Train 21,000 nurses, almost 10,000 medics, and over 22,000 teachers.

These projections are based on the contribution made by Scotland's universities in the recent past. However, with the right support, our ambition would be to scale-up this contribution beyond the numbers outlined above. As we enter a new parliamentary term, policy and funding decisions which are supportive of higher education's core functions of teaching and research will be key to universities' ability to make the fullest contribution to the nation's recovery and future success.

This brief is structured into four parts which reflects the different contributions that universities will make based on their:

- Research;
- Their role in meeting Scotland's skills needs;
- Business recovery; and
- Contribution to local communities.

1. Scotland's research excellence

Our world-class research and our ideas will be integral to the recovery – economically, socially and culturally. As well as prioritising research that addresses the immediate challenges of the pandemic, the broad range of Scottish universities' distinctive areas of research excellence will be important in creating the green and inclusive economy of the future.

The Forth Environmental Resilience Array, led by the **University of Stirling**, is a state-of-the-art monitoring system which uses sensors, satellite data and artificial intelligence to provide vital information on water quality and other critical factors, empowering businesses and regulators to

[1] **Universities UK (2021) Universities and the UK's economic recovery: an analysis of future impact**

adopt more sustainable practices. The living laboratory is being pioneered in partnership with BT and visualisation specialist 3DEO, using the latest connectivity and imaging solutions to develop a bespoke analytics platform, enabling the Forth Valley's diverse economic footprint to work towards cleaner, greener ways of operating.

Pre-pandemic, university research leveraged more than £750m of competitively-won research funding from UK and international sources directly into Scotland[2]. This supported more than 15,000 researchers and 13,000 research students, generating an immediate £3 of income to Scotland for every £1 of investment alongside broader leverage effects. As we look toward the future, universities are keen to build on our research success and leverage even more funding into Scotland.

Together with the NHS and local government, the **University of Edinburgh** has created DataLoch, a repository of all routine health and social care data for the Edinburgh and South East Scotland region. The project, which began in 2019, facilitates a data-driven approach to prevention, treatment, and health and care service provision, enabling high quality and efficient care within a world-leading learning healthcare system. The DataLoch team will engage with private, public and third sector health and social care organisations to drive research and innovation through the use of data. This will result in improved outcomes for people, and reduce health inequalities, across the Edinburgh and South East Scotland region.

2. Meeting Scotland's future skills needs

A pre-pandemic survey showed that 79% of employers predicted a growth in jobs requiring higher skills whilst two-thirds lacked confidence about being able to fill those vacancies.[3] That same survey also found that the value of graduates to business is clear, with university graduates having higher levels of employment, lower levels of economic inactivity, and higher levels of earnings on average compared to non-graduates.

Edinburgh Napier University is one of Scotland's leading providers of Graduate Apprenticeship learning, which allows students to develop industry skills in a paid job while studying for a degree. The University has entered into partnership with 152 Scotland-based employers of varying sizes, from micro-SMEs of less than five people to multi-national organisations. There is a strong emphasis on work-based learning, especially in the latter stages of the degree which means students are constantly developing and expanding their skill set. Given that Graduate Apprenticeships are designed around the needs of industry, employers will have confidence that what their staff are learning at college or university will directly contribute to the success of the business.

The highly disruptive nature of the pandemic has only underlined the need for individuals with adaptive, high-level skills which are responsive to the needs of industry. Employers now value the behavioural skills (also known as "meta" or "soft" skills) of their employees over subject-specialism or

[2] HESA *Finance record 2018/19*
[3] CBI (2018) *Educating for the Modern World*

specific knowledge base.[4] Indeed, McKinsey and Company found that 92% of talent professionals say that soft skills matter as much as or more than hard skills.[5]

As well as the core contribution of our undergraduate programmes, we are accelerating the development of other programmes to meet the high-level skills needs of the future economy. In doing so, we are informed by demand from students and businesses, as well as by intelligence from Skills Development Scotland. Aspects of this include:

- Expansion of postgraduate courses;
- Shorter/modular provision for upskilling and re-skilling;
- Work-based learning; and
- Pathways from college to university.

Heriot-Watt University has teamed up with the Scottish Government to create The Digital Champions Programme, aimed at public sector leaders. The programme is designed to build skills and awareness of the transformative effect of digital technology. It delivers increased knowledge and confidence to promote the digital agenda in their organisations. Participants come from all types of public sector agencies from all over the country. The Programme offers senior leaders in the public sector the opportunity for interactive discussion where they can exchange ideas, discuss solutions to shared challenges, and utilise opportunities for collaborative working. It also allows participants to develop the skills they need to drive transformation.

3. Business recovery and reinvention

Universities will continue to accelerate the translation of research into business-facing innovation, responding to the needs and circumstances of post-pandemic businesses with further simplification of engagement and leverage of support. Universities work with more than 20,000 Scottish businesses each year[6] in many cases leveraging funding from outside Scotland to deliver innovation projects. This is crucial at a time when businesses will have an urgent need to innovate and adapt but have never been so challenged in finding the capacity to invest.

The Michelin Scotland Innovation Parc's (MSIP) Skills Academy is delivered in partnership between the **University of Dundee**, the **University of St Andrews**, **Abertay University** and Dundee and Angus College. The Skills Academy offers a unique combination of practical hands-on skills development, training, and innovation, along with research and development expertise. The curriculum and delivery style of the Skills Academy builds on the strong legacy of Dundee and Michelin, inspiring new generations of engineers, technicians, and operators to design and manufacture for the decarbonisation, renewable energy and sustainable mobility sectors.

Before the pandemic struck, survey and outcomes data already pointed to universities working with a significant proportion of Scotland's company base.[7] However, we want to do even better so we're

[4] CBI/Pearson (2019) *Education and Learning for the Modern World: CBI/Pearson 2019 Education and Skills Survey report*
[5] McKinsey & Company (2020) *The Economic Case for Reskilling in the UK*
[6] Scottish Funding Council University Innovation Funding
[7] See: A Strategic Review of Innovation Support, IFF Research and Scottish Enterprise 2016.

working on enhancing our openness to business. In that vein, universities will support the post-pandemic reinvention and recovery of businesses in ways that include:

- Consultancy about the innovation and digitisation of business processes, as well as products;
- Incubation of new high-growth businesses in campus-based incubators;
- Scaling-up accredited entrepreneurship education; and
- Helping SMEs out of post-lockdown recession through strategic use of internships.

4. Building resilient communities

Universities have always been committed to the role they play in their wider communities. They have important statutory and values-based roles in reducing all forms of inequality in their staff and student population. More widely, they have a clear role in addressing the negative impact of poverty through their widening access work and creating more opportunities through education. This year universities reached a significant milestone in their commitment to widen access with data showing that 16.4% of students were from SIMD20 backgrounds[8]. That means the sector has met the interim target set by the Commission on Widening Access that 16% of students should be from SIMD20 backgrounds by 2021 with an overall aim to reach 20% by 2030.

The **University of Strathclyde** is leading an ambitious project to create a 100% renewable climate neutral and climate resilient area within Glasgow City Innovation District (GCID), in the heart of the city centre. The project aims to integrate heat, power, transport, climate adaptation and wellbeing solutions that will benefit everyone in the Innovation District. The district's streets will act as climate and energy corridors that will help the local community to benefit from low carbon heat, power, improved transport, cycling and walking options and the project will improve air quality in the centre of Glasgow. A focus on greening the space and nature being allowed to flourish is part of the work.

The pandemic has made universities' role as 'anchor institutions' even more important. The economic recession will have the hardest impact on the socioeconomically disadvantaged and the digitally excluded. Universities will provide stability in the current storm, engaging closely with communities to promote cultural, educational, and digital inclusion.

Universities will:

- Maintain a relentless commitment to widening access to higher education for people from disadvantaged backgrounds;
- Reach out to communities and schools with access to cultural opportunities;
- Promote digital inclusion and make more of our resources digitally accessible to communities; and
- Use City and Region deals as forces for social inclusion and to strengthen place-based collaboration.

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[8] HESA *Higher Education Student Statistics: UK, 2019/20*