

SFC review of coherent and sustainable provision: response from Universities Scotland

Introduction

Universities¹ welcome the SFC review of coherent provision and sustainability. The pandemic has profoundly changed circumstances for individuals, society and the economy. It is therefore right to take stock now of how further and higher education can best support the nation through the impending recession and into recovery.

Scotland benefits from a diverse range of excellent higher education institutions, and the review should consider how to build on the strength of this diversity in the interests of the Scottish people - the challenges and opportunities we face as a nation will require a wide range of responses, and a rich ecosystem of institutions with different strengths and specialisms will serve that well.

Universities are accelerating adaptation of their provision to meet these changed circumstances. The immediate focus is on planning for a safe start for the new academic year. Uncertainty about the depth and focus of the economic shock means that planning beyond 2020 is uncertain, but there is a clear imperative to support existing students, and those about to enter universities. Beyond this immediate perspective, universities want to be central to building the nation's recovery. This review comes at a helpful time to inform that work.

We can already see that universities are making an agile response. They are developing flexible new courses to help individuals and businesses to survive the recession and thrive in the recovery. Universities have quickly re-focussed research priorities to address the challenges of the pandemic and the recovery, and new collaborations are being developed to maximise higher education's impact and drive further efficiency. The review will help to set a direction for further change and adaptation.

In driving change forward, universities are also conscious that a wide range of their existing activities will be important to building a strong recovery. They are ensuring that what they offer across teaching, research and knowledge exchange will be highly relevant to the recovery.

While the review's focus is on Scotland, universities' strengths are founded on a wide range of partnerships across the UK and internationally, and our contributions to the common good are both national and international. The review needs to embrace that wider perspective.

We look forward to a deeper exploration with SFC of the issues raised in the call for evidence.

Universities Scotland
10 August 2020

¹ Throughout this submission, 'universities' should be understood as including Scotland's world-leading small specialist higher education institutions.

Structure and context of this submission

This submission responds to each of the questions in SFC's call for evidence.

The questions provide a very constructive framework for our initial contribution to the review. In answering the questions, we endeavour to set out:

- How the university sector will contribute to supporting the nation's recovery; and within that:
 - How we will support the development of skills and attributes for a changed economy
 - How we can support resilient communities and promote equality
 - How we can support business recovery and reinvention
 - How we can promote Scotland's international reputation and competitiveness
 - How we can ensure that the recovery is 'green' as well as education-led.
- How the outcomes from the review can support our contribution.

We support the answers to the questions with two annexes:

- [Annex A](#) provides data related to the quality and importance of universities in Scotland to contextualise our answers.
- [Annex B](#) provides examples of what institutions are doing to step up to the challenges and commitments set out in our answers.

We continue to be guided by the Scottish Government's National Performance Framework, and to be inspired by its purpose to create a more successful country with opportunities for all of Scotland's people to flourish through increased wellbeing, and sustainable and inclusive economic growth.

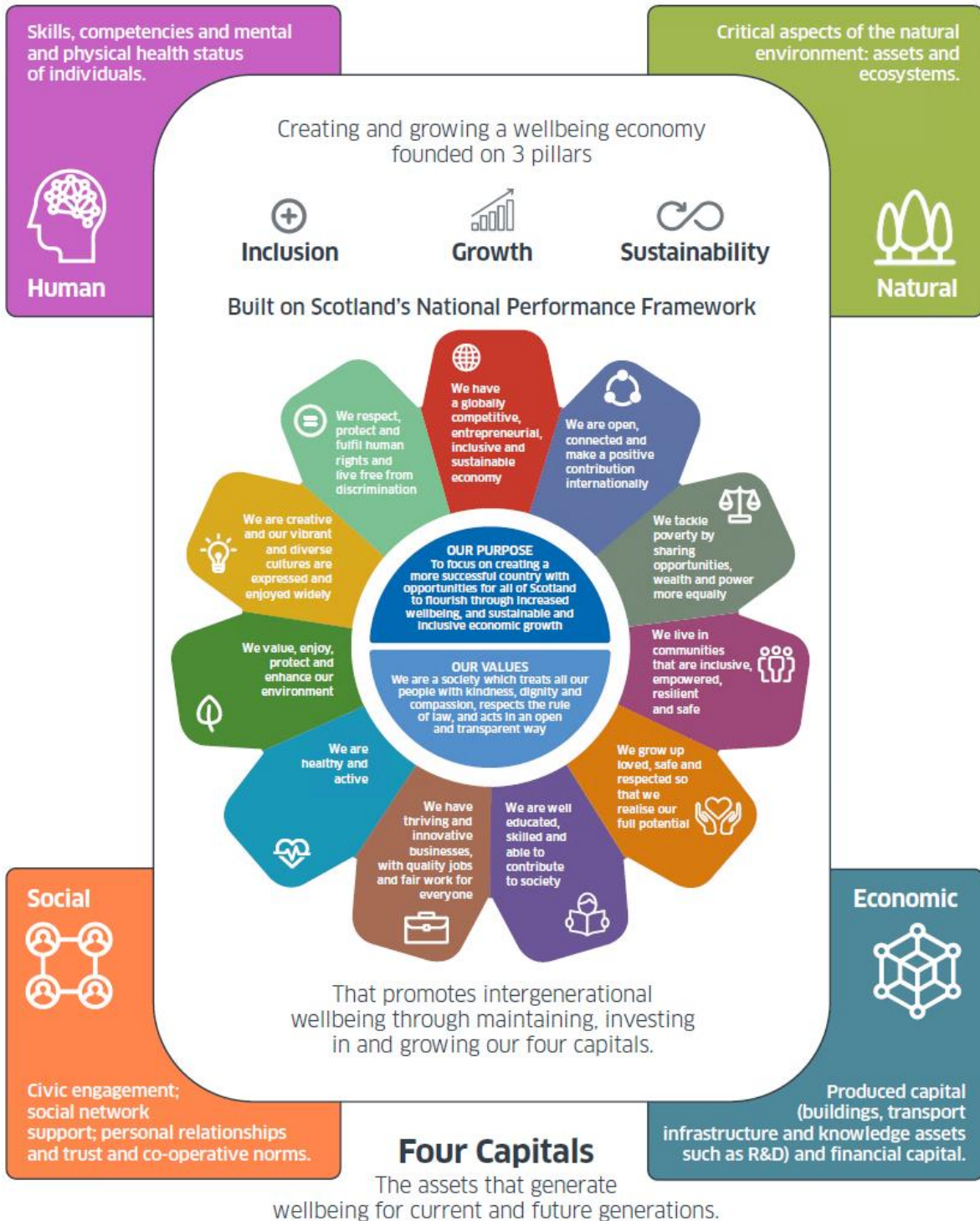
We strongly support the emphasis in the Scottish Government's Economic Recovery Implementation Plan on building a **Wellbeing Economy** and our evidence sets out how we aspire to do this in the post-pandemic recovery. Our contribution will be essential to each of the four principles of the Wellbeing Economy:

- Building **economic progress and prosperity** through our development of the people and ideas to drive productivity and growth (set out further in Biggar Economics' analysis paper: ['Universities in advanced economies'](#))
- Building **inclusion** through our deep engagement with our communities and our relentless work to open higher education to people from disadvantaged backgrounds
- Building **sustainability** through research, innovation, education, and the transformation of our own operations towards net-zero carbon
- Building **resilience** through the development of people with the ability to succeed in multiple careers and adapt to changed economic circumstances, and through the agility of our response to the crisis and recovery.

We will be essential co-creators of the **Four Capitals** that sustain the Wellbeing Economy, as key developers of high-level **human capital**; as anchor institutions building our communities' **social capital**; as a critical part of Scotland's **economic capital**; and through our research, innovation and environmental stewardship as custodians of our **natural capital**.

Scotland's recovery must be social and cultural as well as economic. We are ready to 'build back better' in partnership with government and its agencies, and with the wider community.

Diagram 1: Scottish Government National Performance Framework and the Four Capitals.



Response to SFC questions

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?

What works well?

Excellent universities are one of Scotland's top brand propositions and sources of **international competitiveness**.

Education that develops **adaptable, resilient graduates** with a wide range of attributes to succeed in diverse careers throughout their lifetime, values that reflect Scotland's inclusive society and the capacity to represent these on a world stage.

An increasingly mature blend of **digital and face-to-face learning**, building on Scotland's distinctive student-centred approach to enhancement of learning and teaching.

Progress in **widening access** to higher education for learners from disadvantaged backgrounds, and in supporting them to successful outcomes.

A **research ecosystem** that supports the full range of research activity from fundamental discovery to its application to social, economic and environmental challenges. Also, a research ecosystem that leverages major new resources into Scotland, creating high-quality employment and making Scotland stand out as a location for high-technology inward investment.

Collaborations that deepen Scotland's research and innovation impact e.g. research pools, Innovation Centres.

Knowledge exchange: research and consultancy that benefits tens of thousands of businesses a year.

Keeping Scotland open to **international talent**, and to the internationalisation of Scottish learners' perspectives.

Universities as **anchor institutions** bringing prosperity, employment and cultural engagement to their areas.

How to preserve and strengthen the features we most prize?

First of all, the review's findings should champion both change and continuity. It is right that higher education's contribution should adapt to meet the changed needs of individuals, society and the economy. In doing so, we need to reaffirm the ways in which universities' are already key contributors to society and will be critical to the capacity to build recovery nationally.

The review should ensure that the funding and accountability regime supports and incentivises the things that best promote higher education's contribution, and get rid of the rules and restrictions that inhibit agility and collaboration in delivering the best outcomes. Accountability is important, but the

international evidence is that to be successful in their research and teaching missions, and thereby provide greatest benefit to their nations, universities need to be able to take their own decisions².

While government will face difficult resource prioritisation challenges, we strongly believe it is essential that these choices enable higher education to be a core part of the education-led recovery, as emphasised by the Advisory Group on Economic Recovery. Even in times of restrictive public funding government has choices, and we believe a choice to fund Scottish higher education's teaching, research and knowledge exchange activities at a sustainable level is a necessary part of ensuring that Scotland has the capacity to help its citizens recover. A choice to fund higher education sustainably means we can make a full contribution to the recovery, and can pull our full weight in ensuring that we do not have a lost generation of economically inactive young people as a result of this pandemic.

We note and strongly endorse the recommendation of the Enterprise and Skills Strategic Board sub-group on measures to mitigate the labour market impacts from COVID 19 that *“given the size of the challenges facing the Scottish labour market, the scaling up of activity is likely to require additional resource”*. The current emergency is the time to use the powers of the state to see individuals, society and the economy through the crisis and into recovery: higher education will be vital to that.

Our answers at [section \(f\)](#) set out criteria by which resources can be prioritised to maximise their contribution to the recovery.

² European University Association, 2016, [University Autonomy](#)

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.)

Higher education institutions are making an agile response, so that they can make the strongest possible contribution to an inclusive and green social and economic recovery.

Universities Scotland's overall [recovery narrative](#) summarises our commitments to being a strong part of an inclusive recovery.

Within that, there are no broad categories of activity that universities should stop. However, as universities prioritise their resources towards the recovery and build new collaborations there will be specific things that they choose not to continue doing. This should be driven by institutions' strategies and their commitment to the common good, rather than by financial crisis.

Here are some highlights of what universities and specialist institutions are doing differently, and plan to do differently, to help drive an inclusive recovery. Examples to illustrate what is being done by institutions to give substance to these points are annexed.

Learners and skills

Universities will support individuals through the post-pandemic recession and ensure that they are equipped with the knowledge and attributes to drive Scotland's recovery as a high-skill, high-productivity economy.

Universities will continue to develop new flexible pathways into and through higher education to meet learners' changed needs.

Part of this is the design of **short, flexible courses** to meet people's up-skilling and re-skilling needs. Universities are accelerating this work. This can be informed by better and more frequent real-time information from SDS about what is happening in the employment market and what growth areas of employment are anticipated.

Universities will create **new and expanded postgraduate level courses** to meet increased demand. Some of these will be short courses to meet learners' immediate high-level skills development needs. Others will be full masters-level courses and apprenticeships targeted at growth areas in the economy, and there will also be a niche for professional doctorates.

Universities are developing additional **certificated exit points** that are not a full degree so that learners can take advantage of the specific courses that are relevant to their employment needs rather than having to sign on for a full degree at undergraduate or postgraduate level. The sector is discussing how attainment can be made "stackable" so that learners can accumulate credit over time to acquire a degree.

Pathways from college to university, and from modern apprenticeship into higher education, will be widened in accordance with the recommendations of the National Articulation Forum: the outcomes of this joint project by Colleges Scotland, Universities Scotland and SFC are about to be published. The

relevance of the Forum's recommendations is heightened in light of the recovery and the disproportionate impact the recession will have on young people. The Forum's recommendation that there should be a Scotland-wide awareness-raising campaign on articulation is particularly timely in the post-COVID post-16 education landscape and fits closely to the Scottish Government's Learner Journey agenda.

Universities are discussing with SDS how the **Graduate Apprenticeship** model can be developed further, to include a wider range of disciplines and to respond to changed circumstances in which some businesses will find it more difficult to offer work-based learning.

Universities and the planners of public service provision will work closely to design and adapt courses to meet the **changing needs of the public service workforce** e.g. in health and social care, building on existing strong collaborations.

Looking ahead, the evolution of learning and teaching methodology and technology should enable a **more tailored individual experience** to be developed, with learners progressing through higher education at a pace that meets their needs rather than necessarily progressing with a cohort of students who started at the same time.

We want the **jobs guarantee scheme** proposed in the Advisory Group on Economic Recovery report to include access to higher education up to postgraduate level. The scarring effect that Higgins worries about for this generation of young people may be felt by graduates among others as they emerge into a depressed jobs market. So a guarantee should, among other things, support people who are graduating during the post-COVID recession, e.g. by supporting them to undertake postgraduate study that will set them up for success as the jobs market recovers. There is a widening access element to this, as people who enter higher education with less social capital are likely to be hit hardest by the recession when they graduate – our work as a society to widen access to HE will lose its power if we're not also able to support people into good jobs when they graduate.

Widening access

There should be a fresh co-ordinated look by government and the school, college and university sectors at **how access challenges and opportunities have been changed in the post-pandemic environment**. The recession is likely to deepen existing patterns and create new patterns of disadvantage, e.g. for school-level learners whose teaching has been disrupted and who lack a supportive home environment and adequate IT for learning, and for learners in households that suddenly find themselves deprived of work and incomes. Challenges may require new responses e.g. to mobilise the resources of schools, colleges and universities to meet the needs of learners who have been adversely affected by pandemic. The Commissioner for Fair Access should be supported to undertake urgent cross-sectoral work with schools, colleges and universities to diagnose the new challenges and work with the sectors to develop effective responses.

Equalities

Scottish Government economic analysis suggests that the impact of the recession will be felt unequally by women, young people, the disabled, the socio-economically disadvantaged, and people from some minority ethnic backgrounds. Universities will give particular attention to ensuring that their courses and employment opportunities are open to people from backgrounds that have been disadvantaged in the recession: this needs also be designed into government support for the higher education sector's Interventions.

Research

Universities are already prioritising research that addresses the challenges of the pandemic. We are using our research capacity to build a social, economic and cultural recovery: this is a collaborative endeavour across the UK and international borders within which Scottish institutions' diverse research strengths give us a crucial role.

A broad range of Scottish universities' distinctive areas of research excellence will be important to driving a **green and inclusive recovery**. Areas where the leaders of Scotland's university research community see exceptional potential to further develop our collaborative capacity and distinctive strengths include:

- promoting health, wellbeing and resilience
- addressing the Climate Emergency
- developing the Blue Economy, based on a wide range of Scotland's strengths in marine science and energy
- developing the Natural Economy of sustainable economic activity based on Scotland's outstanding natural resources.

Beyond these specific areas, Scotland's universities will prioritise research that has a real impact on **rebuilding social and cultural capital** in the post-pandemic environment, and will work even more closely with policymakers.

Universities will increase their collaborative initiative in developing mission-driven research proposals to address these and other challenges and opportunities, and will welcome initiatives from the UK and Scottish Governments and their agencies to stimulate mission driven research.

Business recovery and reinvention

Universities will **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. 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.

Scotland's business schools and the wider academic community want to **increase their consultancy with business** about the reinvention and digitisation of products and processes, and the development of business leadership skills in the changed environment. Scottish Government and its agencies should

support this through incentives to universities and businesses to engage in this way, recognising that in the post-pandemic recession many businesses will not have cash to invest in consultancy that could transform their business prospects.

Universities will further develop their role as **incubation spaces for high-skill/high-technology** businesses, considering alongside government how to grow the important community of companies based in these spaces and how they can contribute to regional economic regeneration and to addressing strategic challenges.

There should be a scale-up of accredited **entrepreneurship education** in universities, and work is currently in hand on a model to achieve a step-change in the proportion of students benefiting from this.

As part of the jobs guarantee, government and agencies should support businesses and support graduates by developing an ambitious **internship scheme** through which businesses can benefit from graduate talent, and graduates can benefit from business experience at a time when jobs are scarce – this will help enterprises as well as addressing the scarring effect that graduates are at risk of as they emerge into the workforce when the recession is intense.

Estates

The post-pandemic environment provides a moment of opportunity for a step-change in progress towards net zero emissions.

Institutions are examining how changed ways of doing business could reduce the estate's footprint, and along with that enable the sector to make accelerated progress towards net zero emissions. In the short term the scope for efficiency is limited by the reduced capacity of learning and research spaces while social distancing remains in place, but there should be opportunities beyond that. This can be an area where 'spend to save' investment could accelerate this transformation - see [section \(f\)](#).

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 need to be championed as a critical **substantive and reputational advantage** for Scotland. This competitive advantage for Scotland is based on the excellence universities' teaching, research and innovation - which in turn depends on investment to keep this ahead of what our international competitors offer. The reputational importance of having four universities in the top 200 is high, but Scotland's international reputation is more widely based on international confidence that the full range of Scotland's higher education is being supported to be excellent.

Universities' ability to attract **international staff and student talent** will be essential to Scotland's openness to the world and its ideas, and to the internationalisation of the experience of our own students and staff.

Universities should be a core part of Scotland's **export and foreign direct investment** propositions. At an overall level, Scotland's high-level skills, our world-class research base and the responsiveness of Scottish universities to business needs should be a key part of a "Team Scotland" approach. Scotland's universities should also be championed as a key export industry in their own right, with international students alone bringing a £1.94bn net economic contribution³, and with universities offering world-leading educational, research and innovation exports.

Scottish Government/Scottish Enterprise should pull together teams including appropriate experts from diverse universities when putting together propositions to potential investors to Scotland.

Scottish Enterprise should work with universities pro-actively to identify markets where the strength of Scotland's universities and their international relationships give Scotland a competitive advantage in attracting investment and promoting exports. As part of this, work on how Scotland's alumni community can be a force for Scottish exports and soft power should be reviewed to ensure it is focussed on post-pandemic priority markets.

Universities should develop **new and deeper collaborations** to enhance Scotland's international impact. For instance, work is currently in hand on a proposal to develop a shared pathway from Scottish universities' overseas bases into higher education delivered in Scotland.

Universities should work closely with UK and Scottish Governments and British Council to promote Scotland as a **safe, green and welcoming destination** for students. In doing so we should make an honest appraisal of where the potential for recovery or growth of international student numbers now is, recognising for instance geopolitical considerations about whether growth can be expected from China and addressing uncertainties about demand from EU students when their fees status changes.

Internationalisation should become more "green". For instance, there should be an increasing emphasis on trans-national education where students benefit from Scottish higher education while remaining in their home countries, including through our leading-edge digitally-enabled education. For students who still travel to Scotland there should be ambitious measures to offset the climate impact of their travel.

We need to be as open as possible to our **European** neighbours, for the free movement of student and staff talent and to enable close partnerships for research and innovation. This remains an area of

³ Scottish Government, 2019, [A Trading Nation – a plan for growing Scotland's exports](#)

risk: our openness to Europe is a critical strength but at the time of writing the post-Brexit negotiations are at a very uncertain stage. The university sector's priorities remain attraction and retention of students and staff from the EU, and association with Horizon Europe and Erasmus Plus. Failing that, we want to be part of UK-wide schemes that support continued international research collaboration and the continued international mobility of students, including close partnership with our EU neighbours.

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?

Threats

The risks were set out well in the SFC's paper of 29 April about the challenges facing Scottish higher education, which made a mid-range assumption of losses facing the sector of £450-£500m in academic year 2020/21. This was based on risks including the anticipated loss of international student fee income, loss of income from accommodation and services provided to students and others (e.g. loss of conference and festival income), and loss of research income particularly from industrial and charitable funders. These risks were reinforced in [research published by the Scottish Parliament Information Centre](#) on 24 July. These risks are compounded by the high likelihood that universities will face further multi-million pound increases in pension contributions: in 2019 we estimated that increased contributions to the Universities Superannuation Scheme and the NHS pension scheme were likely to cost Scottish universities over £20m a year: this is now likely to be far exceeded as pension schemes' investments are hit by the recession, and as institutions' covenants weaken. The pandemic has exposed the sector's vulnerability to a funding model in which publicly-funded teaching and research are funded by government at well below their cost.

While these risks to income may partially be mitigated if student recruitment holds up better than initially feared, and through additional government support since 29 April (including the £75 million investment in research from Scottish Government and the qualified 80% underwrite of loss of international fee income from UK Government), severe risks remain that higher education institutions will face very damaging levels of lost income in 2020/21, continuing into subsequent years. This will compromise universities' contribution to Scotland's competitiveness and to universities' power to drive an education-led recovery.

Mitigations by institutions

Institutions have been intently focused on a range of mitigating actions to limit the financial impact of the pandemic on their staff and operations. They include:

- **Managing costs internally.** Steps taken in a range of institutions include, but are not limited to: pause on re-grading staff and pay increments to staff in salary bands over certain thresholds; separately, the cancellation of or pause on promotions, or promotions without associated pay increases; no new recruitment or recruitment in mission-critical posts only; a pause on construction projects (where possible); restrictions on staff research leave in early semester of 2020/21; and, salary deductions in the range of 20-25% for Principals and 10-20% reductions for some executive teams.

- **Job Retention Scheme.** Universities have made use of the Scheme but it was limited in its application in HE and as the scheme is now being phased out with an October end-date, it will not support finances in 2020/21 when universities will experience the greatest reduction in income.
- **Borrowing.** A range of institutions are increasing their borrowing to manage the crisis. Given the extensive pre-existing reliance on borrowing within Scottish HE because of the unsustainable funding situation, the SFC estimated this will take the sector's total borrowing to 45% of income by the end of 2020/21. Borrowing to get by carries heightened risk given the existing reliance on borrowing in the HE sector before COVID-19. Pre-COVID, the SFC's figures put total borrowing at £1.887 billion by the end of 2019/20. Many universities have highlighted the risk of breaching loan covenants in AY 2020-21.
- **Reserves.** Universities are exploring recourse to reserves: however reserves do not equate to cash and liquid assets. They are often invested in fixed assets meaning that they are illiquid and cannot therefore be drawn upon readily and doing so will diminish the capacity and operation of institutions. Audit Scotland's 2019 report was clear on this point: "*As reserves include some longer-term investments, they cannot necessarily be used to fund day-to-day running costs*".

Some universities have already had to announce redundancies to continue operations on a sustainable basis; others are likely to follow depending on the scale of losses sustained in 2020/21.

Opportunities

On the opportunity side, the crisis has already been a stimulus to fresh thinking and fresh initiatives, e.g. about the ways in which universities have stepped up with laboratories and equipment to help society to address the emergency, and how students have been supported to qualify early and help the health professions respond to the emergency. Looking forward, the initiatives described in this paper are a creative response to the changed circumstances universities are in.

The Scottish and UK Governments should also seize this opportunity to ensure that Scottish higher education is a core part of an education-led recovery, building on the ideas in this submission and in Universities Scotland's [recovery narrative](#).

This review is a necessary opportunity to build a sustainable funding model for Scottish higher education's contribution: the pandemic has harshly exposed the risks of a funding model where core activities are reliant on cross-subsidy of teaching and research from international fees. Scottish Government needs to ensure that university teaching and skills development is funded at a level that reflects its costs. UK Government needs to contribute, e.g. through ensuring that research is funded at full economic cost. A sustainable funding model will support higher education to meet the needs of Scotland's people at a time of crisis, while enhancing Scotland and the UK's competitive advantage in the recovery.

Within that, we support the prioritisation of resources where they will have the greatest impact, and we propose criteria for that in [section \(f\)](#).

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

Universities start from a strong tradition of collaboration, which is at the heart of the teaching and research effort, which has been an increasing feature of the innovation landscape, and which is hard-wired into the quality of learning and teaching through the enhancement themes. We are bound closely into a collaborative ecosystem that crosses national boundaries and promotes Scotland's openness.

Collaboration between universities, and between universities and other education providers, should increase where this is in learners' interests, in the interests of increasing the substantive impact of higher education on building a sustainable recovery for the nation, and in the interests of ensuring the efficient and effective use of resources for these purposes. Universities have already intensified investigations of how they can build new and closer collaborations to achieve these objectives. This builds on the capacity of their diverse areas of brilliance to complement each other.

Different forms of collaboration will be appropriate in different contexts, for instance:

- Collaboration on **mission-driven research** should be between the diverse institutions which have the most relevant contributions to make to any particular theme or project, and these collaborations are as likely to be cross-border and international as intra-Scottish.
- Collaborations for **internationalisation** will be between institutions with shared interests and relationships in different markets, or complementary expertise to offer to export/foreign direct investment opportunities. Again, partners will be UK and international as well as Scottish.
- There can be a more intra-Scottish and regional element to collaboration to provide **pathways for learners**, for instance to ensure that a particular subject is available to learners within a region, to put together a complementary set of proposals for college and university interventions to meet the needs of people who have lost employment in the region, or to further co-develop pathways from colleges to universities as recommended by the joint Universities Scotland/ Colleges Scotland/ SFC National Articulation Forum.
- Collaboration in regards to procurement and **shared services** - the sector has already established itself as a proactive collaborator in this space with the Advanced Procurement for Universities and Colleges (APUC) having established itself as a leader in collaborative procurement, accounting for 35% of relevant spend and delivering over £20 million of savings or avoided costs annually. Universities are accelerating their exploration of collaborative service provision, and the Scottish HE Improvement Network (SHEIN) is bringing together experts in the Lean transformation of processes.

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*

Prioritisation of resources

We would welcome prioritisation of resources within a long-term commitment that Scottish Government will support higher education as one of the pillars of recovery and a key part of Scotland's value system and international offering.

We recognise that public resources should be prioritised to where they can have the greatest impact in getting the nation through the recession and into a successful recovery.

We propose prioritisation of:

- **Investment that maximises Scotland's competitive advantage.** This can include investment to maintain higher education as one of Scotland's substantive and reputational advantages; investment to maintain Scotland's advantages as a high-skills economy; and investment in Scotland's distinctive advantage in having a diverse internationally-excellent research base.
- **Investment that reflects patterns of demand,** e.g. to enable universities on a financially sustainable basis to meet the greater part of the increasing demand from Scottish students for undergraduate and postgraduate higher education.
- **Investment to remedy market failure:** for instance, individuals and enterprises will have an increased need to develop new skills, products and processes during the recession but reduced resources for this, so Government and its agencies will need to step in to assist them, and stimulate demand for the ways in which universities can help with this.
- **Investment that leverages additional resources into Scotland,** for instance Scottish Government investments in research which will have the leverage effect of enabling Scottish institutions to attract additional UK-level and international resources into Scotland
- **Investment that promotes economic, social and cultural recovery.** For instance, investment in mission-driven research on key social, economic, cultural and environmental challenges; investment in interventions that help individuals and businesses to develop skills, aptitudes, products and processes that will help them to survive the recession and thrive in the recovery; and investment to address cultural deprivation.
- **Investment to promote equality** by enabling people from disadvantaged circumstances to access higher education, including responding to changed patterns of disadvantage.
- **Investment to secure the resilience of the sector:** the current emergency has shown that reliance on international student fees to compensate for underfunding of core activities is extremely vulnerable to external shock. Even if international student numbers hold up better than originally

projected, this vulnerability remains and there may well be further geopolitical shocks that bring it into renewed focus e.g. depending on the UK's future relationship with China. Sustainable funding of core activities is critical to the sector's resilience as a key asset for Scotland.

- **Investment in the green transformation** of higher education, and higher education's contribution to the nation's green recovery.
- **Investment in 'Spend to Save'** propositions that help higher education to adapt its business model and deliver high-quality outputs in new ways.
- **Investments that generate a return for the Scottish and UK Exchequers** through increased taxable economic activity and individual income.

It is unlikely any single investment can achieve all of these objectives, but a balanced programme of investment by government and its agencies should address all of them.

One specific and fundamental contribution will be for Scottish Government to make a commitment to retain in the university sector the resources potentially released by the change in EU students' fees status, to be re-purposed in ways that are consistent with the priorities outlined above.

Areas of collaboration between agencies that would best support the sectors' contributions

Some obvious areas of collaboration include the following:

- Collaboration between UK and Scottish Governments and their agencies to promote higher education's contribution, e.g. to promote Scotland and the UK as attractive and welcoming destinations for international talent, and intelligent co-design of complementary measures to promote universities' contribution to the UK's competitive research strength, to promote mission-driven research addressing key post-pandemic challenges, to deepen universities' contribution to the transformation of "place"; and to ensure complementary contributions to supporting business recovery and growth e.g. through the enterprise agencies and Innovate UK.
- Collaboration between SFC, the enterprise agencies and institutions to develop schemes to support individuals and enterprises to develop their skills and to develop new products and processes. This should include the development of incentives, evolved from the Innovation Vouchers scheme, for businesses to seek help from universities as they look to survive the recession and thrive in the recovery.
- Collaboration between SFC, the enterprise agencies and higher education institutions so that businesses are supported to access the right source of advice to help them develop new products and processes, whether that be from the enterprise agencies or from a university. This joined-upness should be well aligned with the mission of the Strategic Board.
- Collaboration between SFC and SDS to ensure that the Graduate Apprenticeship programme is sustainably funded without detriment to other key contributions by universities, and is expanded into a wider range of disciplines relevant to the economic recovery. Collaboration also to develop other and shorter models of work-based higher education to suit employer and learner needs.
- Collaboration between SFC, SDS and the enterprise agencies to avoid the scarring effect that unemployment could have on a generation and deliver a jobs guarantee, as recommended by the Benny Higgins review, that includes support for higher education's contribution to supporting individuals through the recession and into recovery, and that supports graduate internship opportunities for graduates emerging into the labour market during the depths of the recession.
- Collaboration between universities and public service providers about how to develop more efficient and person-centred public services.

Adaptations to SFC's funding and accountability frameworks to promote agile and collaborative action

In general, institutions would welcome a rationalised accountability framework that holds them to account for the use of public resources for the public good, but which has a much-reduced bureaucracy compared to the current Outcome Agreements approach, where universities are asked a series of detailed questions that do not add up to a coherent overall account of their contribution.

As a start, SFC should receive a much-abbreviated Ministerial letter of guidance setting out broad priorities and giving SFC and diverse institutions wider agency in how these should be carried out – and that recognises that different institutions will have different contributions. That should enable a lighter Outcome Agreement framework, driven principally by institutions' own articulation of how their strategies will deliver the public goods associated with these priorities.

More specifically:

- SFC should enable existing resources to be redeployed flexibly to meet new priorities, e.g. for institutions to have discretion to use SFC funding flexibly including for initiatives to support upskilling/reskilling and to help meet increased demand for postgraduate study.
- Scottish Government, SFC and SAAS should design new funding mechanisms to make it affordable for learners to undertake upskilling/reskilling through higher education, including postgraduate opportunities.
- To support the development of modular and 'bite-sized' provision, SFC funding should not be limited to accredited qualifications, and should be able to support short courses. SAAS postgraduate teaching student support should also be made available for individual modules.
- Funding for part-time students should be reviewed urgently, so that people who want to up-skill/ re-skill are able to do so affordably even if they exceed the current part-time fee grant threshold (e.g. because of their salary prior to redundancy), or if they already have a qualification at the same SCQF level.
- SFC and UKRI should design funding mechanisms that will support an increase in mission-driven research.
- SFC and the enterprise agencies should design new funding mechanisms to enable cash-poor businesses to benefit from university expertise.

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

This should be integral to SFC's public good expectations of institutions.

As discussed above, there should be a quick review exercise to ascertain how equalities issues are changed by the new patterns of disadvantage that will be apparent in the post-pandemic environment.

Measures to support access to higher education by learners from existing categories of disadvantage, and from newly-disadvantaged backgrounds, should be adapted in the light of this.

SFC should recognise the intersectionality of equalities issues, and expect institutions to take a holistic approach to addressing equalities issues rather than setting up a series of individual targets e.g. for disability, gender balance on courses and Black, Asian and Minority Ethnic characteristics.

What support SFC and government could give institutions to adapt to a changed environment

One critical support would be the earliest possible clarity about what sort of “change” SFC and the Scottish Government believe is desirable in the light of this review – and how this would strengthen diverse institutions’ ability to build the recovery. Then we can know whether we are planning for anything more general than the various changes that are being planned by institutions to adapt to a changed environment and the change needs of individuals and society.

SFC should create a strategic capacity to invest in institutions’ change initiatives which might have an up-front cost that is currently unaffordable to institutions but which would improve their efficiency or their effectiveness, or their ability to build new collaborations to achieve these results.

ENDS

Annex A: Supporting data

Graduate employability and success

High levels of student satisfaction with 85% of all students satisfied with the quality of teaching⁴ and 91% of international graduates satisfied with their learning experience⁵.

There is a high and strengthening demand for undergraduate and postgraduate study reflects the outcomes of that study:

- 78% of all leavers from Scottish institutions going straight into employment were in graduate level roles⁶;
- The 2019 Scottish Employer Perspectives Survey⁷ found that 78% of employers found university leavers to be 'well' or 'very well' prepared for work;
- Graduate aptitudes across all disciplines are important throughout careers and to employers. The vast majority of graduate vacancies do not specify subjects⁸ and graduate transferable skills - communication and collaboration; research and analysis; and attitudes and behaviours (including problem solving, independence, adaptability and creativity) - allow graduates to confidently enter a wide variety of jobs and support individuals to handle career changes and adapt to different industries over the course of their working lives⁹ and;
- Secures a net positive contribution to the Scottish public finances. The public investment in funding an undergraduate degree: has a rate of return of 7.2%; is repaid 19 years after a student's graduation; and generates over a graduate's lifetime a net benefit to public finances of £22,000¹⁰.

Growing demand for university study

We have seen a consistent demand from young people for university study with 32% of the 18 year old population applying through UCAS for study each year since 2016¹¹. Further we have seen increases in applications from Scottish domiciled mature students with a 34% increase in applications from 25-29 year olds; a 45% increase from 30-34 year olds; and a 49% increase from those over 35 years old¹².

As Figure 2 illustrates, 2020 marks the end of a demographic dip with a strong increase in the number of 18 year olds in the Scottish population over the coming years. Coupled with enhancements in

⁴ Data from [NSS 2019](#)

⁵ Universities UK International, 2019, [International Graduate Outcomes](#)

⁶ Higher Education Statistics Agency, 2018, [Figure 9 - Occupation of leavers entering employment in the UK by subject area of degree](#)

⁷ Scottish Government, 2019, [Scottish Employer Perspectives Survey 2019](#)

⁸ A 2015 AGCAS Scotland study of graduate vacancies found that over 80% of vacancies requiring a degree didn't require a specific discipline and 2017 [Institute of Student Employers manifesto](#) states that 82% of ISE members do not specify what degree an applicant must have. https://cdn.ymaws.com/ise.org.uk/resource/resmgr/files/ISE_Manifesto_2017.pdf

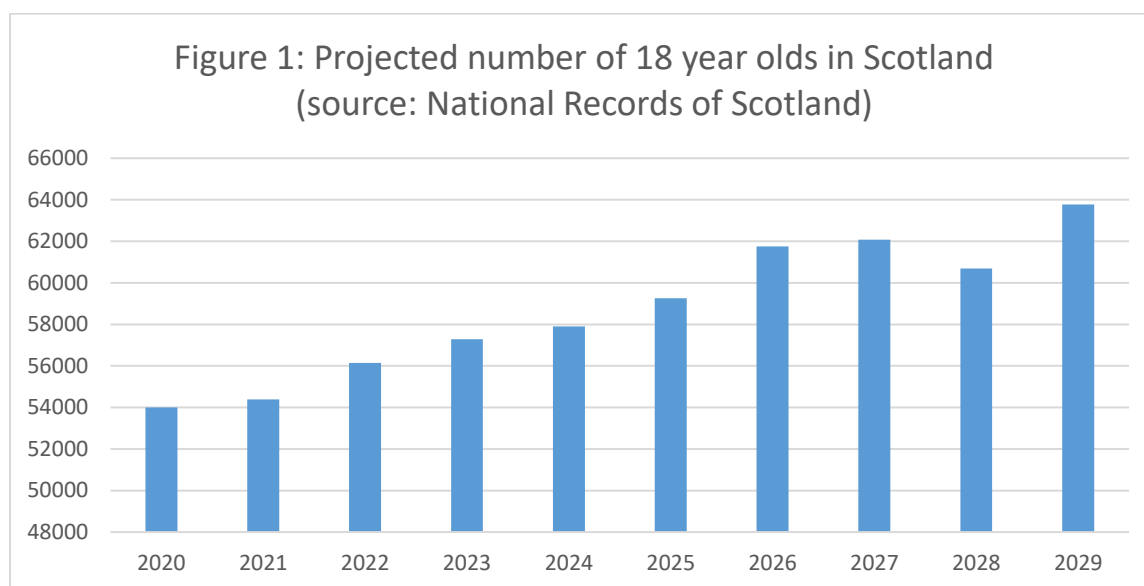
⁹ The British Academy, 2017, [The Right Skills: Celebrating Skills in the Arts, Humanities and Social Sciences](#)

¹⁰ Biggar Economics, 2020, "[Universities in Advanced Economies: Recovery and Transformation, Productivity Growth and Fiscal Returns](#)"

¹¹ Calculation comparing the [number of applications by 18 year olds from UCAS end of cycle reports](#) with [demographic data](#) from the National Records of Scotland.

¹² UCAS, 2019, [Undergraduate sector-level End of Cycle data resources](#)

attainment and a growing aspiration for university level study we can anticipate demand increasing sharply from this younger cohort alongside a continuation of strong demand from mature learners.



Source: [National Records of Scotland Council Area Profiles](#)

Similarly, demand is increasing from Scottish-domiciled learners for **taught postgraduate courses**, with a 15% increase between 2014/15 and 2018/19 in the number of students on these courses¹³. Universities report further steep increases in demand for courses starting in academic year 2020/21.

Progress in widening access

- Based on UCAS data from 4 August, SQA results day, there was a one percentage point increase in the number of placed applicants from SIMD20 data zone for 2020 entry and a two percentage point increase in the number of placed applicants from SIMD20-40 data zones.¹⁴
- 15.9% of all Scottish domiciled full time, first degree entrants to Scottish universities from the 20% most deprived areas in 2018/19. This is up from 15.6% in 2017/18 and just 0.1% away from the interim 2020 target of 16%¹⁵.
- A rise in the proportion of SIMD20 First Degree entrants articulating with Advanced Standing – up from 22.3% in 2016/17 to 24.8% in 2017/18¹⁶.
- A rise in full time, first degree care experienced entrants – up from 255 in 2017/18 to 320 in 2018/19 – a 25% increase in one year¹⁷.

¹³ HESA, 2020, [Table 1 - HE student enrolments by HE provider 2014/15 to 2018/19](#)

¹⁴ [UCAS Statistical Releases Daily Clearing Analysis](#)

¹⁵ Scottish Funding Council, 2020, [Report on Widening Access 2018-19](#)

¹⁶ *ibid*

¹⁷ *ibid*

Return on individual and public investment in higher education

An economic and fiscal analysis of the costs and benefits of HE investment¹⁸, finds that, on average someone deciding to undertake an undergraduate degree compared with somebody who did not attend university, will:

- Earn an additional lifetime £113,000 in net present value terms (NPV);
- Cover the costs of the foregone earning ten years after graduation; and
- Make an educational investment with a 12.6% rate of return.

Overall, by funding an undergraduate degree, the Exchequer will:

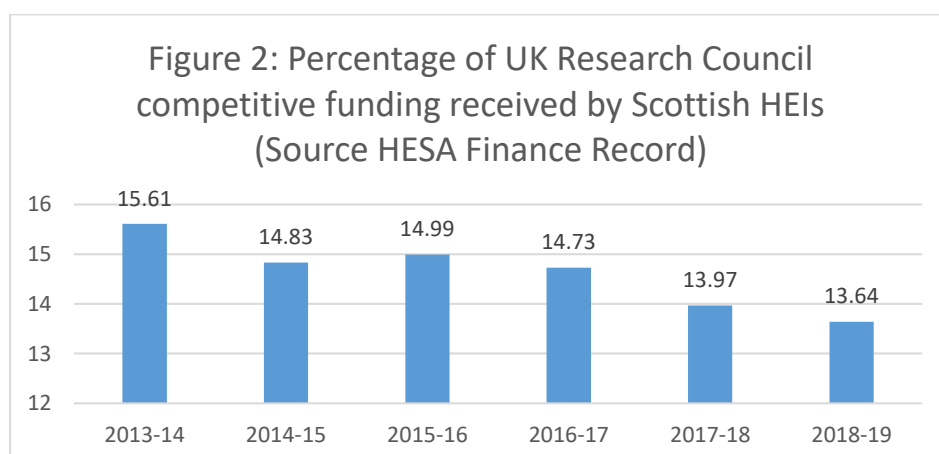
- Have a net fiscal benefit of £78,000 NPV over a graduate's lifetime;
- Repay the investment made eleven years after the student's graduation; and
- Make an investment with a rate of return of 12.7%.

A research ecosystem that is a significant economic entity in its own right; drives innovation, company creation and inward investment; and which secures a positive return on public investment

Investment in university research makes a positive fiscal contribution with modelling of additional public investment showing high rates of return with tax contribution exceeding public investment by year 6 of long term investment¹⁹.

Overall, Scottish institutions leverage over £750m of research funding into Scotland supporting many thousands of high quality jobs that would otherwise be located elsewhere in the UK or beyond. This is the foundation for a pipeline of high level skills and of company creation. It is a magnet for inward investment.

However, whilst Scottish institutions continue to perform well, there has been a concerning fall in the overall share of RCUK investment secured over recent years (see Figure 2 below).



¹⁸ Biggar Economics, 2020, [Universities in Advanced Economies: Recovery and Transformation, Productivity Growth and Fiscal Returns](#)

¹⁹ *ibid*

The 2% drop in share equates to around £80m per annum. Data at the individual Research Council level suggests negative trends in disciplines associated to key sectors for Scotland such as the Biotechnology and Biological Sciences Research Council, the Medical Research Council and the Engineering and Physical Sciences Research Council.

Collaborations that deepen Scotland’s research and innovation impact.

The SFC’s Review of the Research Pools initiative found that it had “built critical mass and research excellence in a number of disciplines important to Scotland’s research base and continued global science leadership”²⁰. The independent review of the Innovation Centre programme²¹ supported the continuing evolution and impact of these important collaborative initiatives.

Knowledge exchange benefitting tens of thousands of businesses a year

Alongside the thousands of informal links with the private, public and third sectors, the sector works with over 20,000 Scottish organisations each year through formal contracts for research, consultancy and CPD. Consultancy (16,000) and CPD (1,600) links offer a firm foundation to support organisations to adapt to a changed economy²². Scotland also hosts 20% of all UK Knowledge Transfer Partnerships, where high-talent graduates are placed in innovative businesses.

Cultural outreach to a wide community

Scotland’s specialist higher education institutions and universities have a broad cultural outreach to a wide range of communities. The Glasgow School of Art and the Royal Conservatoire of Scotland have special contributions to this, but each institution is active in enriching the cultural life of its community.

Over 4.25 million people attended free cultural events held by Scotland’s universities in 2017/18. Of that, 1.3 million people attended educational events at university museums, over 720,000 people attended concerts, plays and dance events, over 675,000 people attended art exhibitions and over 250,000 attended public lectures.²³

Attracting international talent and delivering an international experience for learners.

- Our institutions and Scotland benefit hugely from the more than 11,000 staff and 57,000 students from overseas²⁴.

²⁰ Scottish Funding Council, 2019, [Independent Review of the Scottish Funding Council’s Research Pooling Initiative](#)

²¹ Scottish Funding Council, 2015, [Independent Review of the Innovation Centres Programme](#)

²² Scottish Funding Council, 2019, [Knowledge Transfer Metrics 2017-18](#)

²³ HE-BCI (Business & Community Interaction) (2019) for 2017/18. Social, Community & Cultural Engagement.

²⁴ HESA, 2019, [Staff and student records 2018-19](#)

- Our links with institutions across the world support our students in pursuing study abroad as part of their course with more than 10% taking this opportunity each year²⁵.

Anchor institutions to their areas

Employing 50,000 staff directly²⁶ with the strong majority of those jobs located in the most deprived decile of local authority areas in Scotland²⁷.

Research by Biggar Economics identified the following contributions by higher education institutions to employment in their regions:

Region	GVA (£m)	Jobs supported	Total employment attributable to HEIs
Aberdeenshire	829.10	16,868	6.80%
Dundee City Region	886.50	18,572	12.50%
Edinburgh and South East Scotland	2,152.00	42,705	7.10%
Glasgow and Clyde Valley	2,314.80	47,316	5.80%
Highlands and Islands	314.00	5,779	2.60%
Mid Scotland	418.10	8,501	4.10%
South West Scotland	236.30	4,806	2.10%
Total	7,151.00	144,549	5.90%

²⁵ Universities UK International, 2019, *International facts and Figures 2019*. Total of UG students going abroad 2,245 out of 19,315 UG respondents - including Erasmus opportunities, work and volunteering placements.

²⁶ HESA, 2019, *Staff and student records 2018-19*. 49,515 FPE staff excluding atypical employment.

²⁷ Oxford Economics (2017) found that 69% of employment was in the poorest decile

Annex B: How institutions are stepping up to the challenges and commitments in this submission

Institutions' own responses to the call for evidence will set out the wide range of ways in which they are adapting their provision to meet Scotland's post-pandemic needs.

The examples here are simply an illustration of that breadth of work – they cannot represent the full diversity of what institutions are doing but should be useful to illustrate the points made in this submission.

Graduate Apprenticeships (GA)

Institutions underlined their commitment to Graduate Apprenticeships and highlighted some ways in which this scheme could be adapted or improved to the benefit of learners, employers and institutions, including:

- Adapting the **funding model** to allow for long-term planning and development, including building relationships with employers;
- **Expanding** the range of courses offered and size of cohorts, in particular in Social Work or other STEM areas;
- Allowing greater **flexibility**, including part-time offering which may be crucial for certain demographics, more exit points and the ability to pause study;
- A framework which supports and prepares Modern Apprentices to progress to GAs;
- Facilitating **transition** between GA and traditional modes of study where this is to the benefit of the learner; and
- Expanding into **SCQF Level 11**, in particular for Engineering programmes.

Short courses, micro-credentials and upskilling

Universities have demonstrated agility in moving to or maintaining priority delivery online and developing short courses that meet skills development needs.

Short courses already available include: **digital skills, upskilling for healthcare staff, digital business and transformational change; business management; entrepreneurial skills**. Universities are developing expansion of short courses aimed at those facing redundancy; CPD opportunities aimed at business leadership; and additional healthcare-related courses.

Many of these have had more demand than predicted as workers on furlough had more time to participate in courses and online delivery opened up courses to people who might not have been able to travel to campus to participate because of distance or other responsibilities.

Universities will be looking closely at the skills needs of the local, regional and national economy and their own courses and will start to offer more courses to assist the recovery of the economy from January 2021.

Universities are planning the development of **microcredentials** and how to make them more flexible. Plans included 'breaking up' and **modularising PGT programmes** and developing courses in key upskilling areas with industry accreditation. Thus, courses (and the knowledge and skills contained within them) that were previously only accessible in longer courses will be available for more people. While we expect our degree courses to remain our primary business, they are not always the right opportunity and we are excited to increase the range of learning opportunities we offer as a sector. Our Learning and Teaching Committee has established a working group to facilitate collaboration and development to make microcredentials 'portable' and 'stackable' to build up towards degree qualifications.

Many institutions report high demand for the short courses funded by SFC, and if more funding was available, could scale up this provision. It would also be useful to look at how funding rules in SFC (and SAAS) can best support delivery of short courses.

Some examples of good practice related to **short courses, micro-credentials and upskilling** are included below:

- **Partnership Action for Continuing Employment and The Open University:** Staff members who are in furlough or face redundancy due to COVID-19 are being encouraged to apply for a new selection of fully funded modules to support skills development by The Open University in Scotland. Supported by the **Scottish Funding Council's Upskilling Fund**, the modules have been selected by **The Open University and Partnership Action for Continuing Employment (PACE)** to address specific Scottish skills gaps in IT, business, maths and engineering and support workers to reskill. The Upskilling Modules will be delivered online through flexible distance learning from October 2020 and they are open to everyone with no previous qualifications required.
- **Upskilling at the University of Glasgow:** The University of Glasgow launched seven new online courses in 2020 tailored to provide vital new skills and that are particularly relevant to the current Coronavirus pandemic. The University's first micro-credential courses – five delivering **healthcare-related skills** and two courses in **business management** – are being delivered thanks to support from the Scottish Funding Council with the specific aim of enabling upskilling and reskilling within the Scottish workforce. These micro-credentials are accredited online courses designed to help learners build specialised skills relevant to their career. This initiative has provided an opportunity for the university to present something new and unique to the Scottish workforce and adopting this approach allows an **agile response to local and national economic changes and skills needs**. The University saw significant interest in these courses with applicant demand for the initial run being high. Midway through the applications cycle, **235 companies were represented, 12.7% of applicants were unemployed** and the university received applications from all of Scotland's 16 postcode areas illustrating the wide appeal of the initiative. Applicants were asked about what attracted them to the upskilling course, and comments ranged from increasing knowledge and learning skills needed in their current role to developing new skills in preparation for leadership roles. Ongoing engagement with

learners, employers and sector bodies such as Glasgow Chamber of Commerce and Project Lift for the NHS will enable **tailoring of provision** and ensure **close alignment with the skills needs of Scotland** in a post COVID economy.

- **Robert Gordon University** has experienced high demand for SFC-funded upskilling modules which started at the beginning of lockdown, which include 15-credit modules and non-credit bearing modules. Approximately 400 applications were received for 100 places, with a particular interest in non-credit bearing modules. The first run of students has completed the modules. Student feedback has been very positive and almost all saw the course through to assessment/completion.
- **Edinburgh Napier University – focus on micro-credentials:** Edinburgh Napier University are aiming to develop coherence between the provision of Upskilling, CPD and Global Online, with a view that students taking a fully funded ‘short course’ at SCQF Level 11 will then have **clear options for taking other short courses** and be **encouraged to move on to a full MSc**. For example, their three new marketing modules Digital Analytics Strategy, Digital Marketing Strategy & Social Media, and Content Marketing have been developed as 3 stand-alone 20 credit modules. Collectively they form the 60 credit PG Cert. Marketing with Digital Strategy as part of the new MSc Marketing with Digital Strategy.
- **The University of St Andrews – Supporting Scotland’s Digital Strategy with an Interdisciplinary and Flexible Distance-Learning Programme:** St Andrews has developed a programme, due to launch in January, which addresses a critical need for upskilling and reskilling into Data Science. The proposal combines distance learning training in data science with training which addresses some of the risks of digital expansion. They will also prepare distance learning students to **re-enter education** by providing training (and a digital resource) to smooth their **transition** into Higher Education and provide much needed **research and study skills** to ensure success. These can be taken as **standalone modules or be combined** to provide a Postgraduate Certificate in Data Science and a Postgraduate Certificate in Criminal Risk to the Digital Economy or a Postgraduate Diploma which combines the two topics.
- **Abertay University – Working in Partnership with Local Business:** Abertay University has a strong track record of working in partnership with local business and is a key part of the **local economic development landscape** for the city and the region. They work closely with Dundee City Council and local business, for example responding to the closure of Dundee’s Michelin factory by becoming a partner in the Michelin Scotland Innovation Parc with its focus on clean growth through sustainable mobility and low carbon energy. Abertay University noted significant demand for their upskilling activity relating to digital business and marketing which was targeted at furloughed staff. They are currently working closely with Dundee & Angus Chamber of Commerce and neighbouring local authorities to see how these and similar upskilling activities can support local businesses during the pandemic.

Supporting SMEs and local business

Universities are taking forward a range of initiatives including, but not limited to:

- Developing short courses and CPD opportunities to support business to respond to current economic challenges;
- Using the expertise of their Business Schools to deliver a series of tailored interventions;
- Engaging with employers and employer networks to tailor delivery to the benefit of SMEs; and
- Engaging students in challenge-based learning to the benefit of students and SMEs.

Some examples of good practice related to **supporting SMEs and local business** are included below:

- **Stirling University** has delivered online “live” placements during the pandemic, connecting student teams of 5 to companies to solve real-world business challenges. Stirling uses an online digital platform called Riipen which helps to assess the specific skills that companies hire for. Demand has far exceeded supply, with 80 companies expressing an interest;
- **The University of Edinburgh** is running a [Fresh Ideas Festival](#) online, from the Business School, from 3-31 August. Topics cover public leadership, entrepreneurship and one of the sessions looks at Portugal’s experience of [going remote to grow](#) companies particularly for rural companies; and
- **The University of Strathclyde Business School** is [launching a new hub](#) to help companies boost performance and productivity. The Productivity of Outcomes of Workplace Practice, Engagement & Learning (ProPEL) Hub, brings together leading academics from seven institutions across the UK and the Chartered Institute of Personnel & Development (CIPD) to explore workplace practices that deliver high-quality, engaging work and enhance business performance and productivity. Funded by the Economic & Social Research Council, the ProPEL website will provide a platform for sharing useful advice, ideas and practical lessons for organisations, all informed by the very latest research and evidence.

Employability support for students and graduates

Institutions have adapted existing support and created enhanced opportunities for graduates and students, including:

- Engaging students in challenge-based learning to address organisational challenges faced by local business (discussed above);
- Working in partnership to deliver large-scale online events such as a Graduate Jobs Fair open to all graduating students from Scotland’s universities; and
- Enhanced online delivery of MOOCs to support graduates seeking employment.

Some examples of good practice related to **employability for students and graduates** are included below:

- **The University of the Highlands and Islands - Co-creation with Industry:** The University of the Highlands and Islands has joined forces with IBM to launch a groundbreaking BSc (Hons) degree in Applied Software Development. Students will work in teams throughout the four-year programme, managing their time between practical work and tutorials delivered by video conference. The degree is designed to enable graduates to develop a **portfolio of projects and**

expertise which are attractive to employers. Alongside the online programme, students will also take part in an annual bootcamp to cultivate their **leadership and team working skills.** They will develop their individual expertise with the support of IBM subject experts who will provide mentorship, an industry perspective and networking opportunities. The development of the new degree is being funded by the European Social Fund and Scottish Funding Council as part of their Developing Scotland's Workforce programme.

- **Stirling University – The Business Sanctuary:** The Covid-19 crisis has had an impact on the graduate job market, with employers scaling down their recruitment of entry-level staff. The need to **develop employability and professional skills** in young people and **connecting them to the business community** is a high priority for the University and for the regional economy. This project will pilot a different model of experiential learning, aimed at developing life, professional and employability skills, through five interdisciplinary student-led teams, solving real business issues, supported by academics and coached by seasoned alumni mentors offering their expertise pro-bono. SMEs will benefit from these students helping them to create an action plan to respond to current circumstances, recover through building blocks to pivot the business, and thrive. There will be an injection of creative ideas and fresh thinking to solve new challenges. In the long term, the project will assist the creation and scale-up of SMEs, ensuring the University effectively connects with local employers.
- **Glasgow Caledonian University – Supporting the Class of 2020 into employment:** Recognising this challenge and the potential impact on future student retention and success, the University has with the support of Sir Alex Ferguson, CBE created and launched MINT (Mentoring, Internships, Networking and Talks), an enhanced package of support specifically aimed at helping our 2020 graduates and beyond have the best possible chance of securing employment at the earliest possible opportunity. Established by the Glasgow Caledonian University Foundation & Alumni Team in collaboration with the Careers Service, the Class of 2020 will be able to apply for the programme, with some elements also open to new final year students. The internship aspect of this offering is being developed to offer new graduates the opportunity to develop key employability skills by supporting them to work within an SME, voluntary organisation or a company where GCU alumni are employed. This opportunity will offer meaningful paid work experience.

Building a sustainable recovery: working with industry

Institutions' evidence will show a rich range of ways in which research and innovation will help to build a green, inclusive recovery: a few collective examples are shared here:

Green economic recovery

- **SRUC** is working with partners across the higher education sector to develop the [*natural economy*](#) as a mission led research area. Scotland's natural economy is recognised as an area of comparative advantage for Scotland and has the potential to be a driver of inclusive and sustained growth. This has particular relevance to a both green recovery and remote and rural parts of Scotland. In 2018, the natural economy contributed *£29.1 billion gross value added (GVA)* to the Scottish economy (more than a fifth of the total) and employed *290,100* people (equating to *11% of all employment across Scotland*). The natural economy has the potential

to be a critical aspect of the green economic recovery supported by Scotland's universities and research institutes.

Manufacturing

- **National Manufacturing Institute Scotland** (operated by **University of Strathclyde**) is working with Scottish Government and partners across higher education and industry to strengthen *links between industry, academic, and public sector*. This is in order to be able to respond to and address the business challenges and opportunities arising from COVID-19 and to be able to *drive economic resilience and regeneration* through the transformation of skills, productivity, and innovation.

Tourism and hospitality

- **Adopt a business campaign led by Interface on behalf of all Scottish Universities**
Collaboration between Interface, Visit Scotland, and the Scottish Tourism Alliance has provided tourism and hospitality businesses the opportunity to collaborate with academics and students with expertise in tourism, management sciences, business models, and marketing. Companies have been helped to produce practical action plans for *adaptation and diversification* in the face of the COVID-19 pandemic. 60 collaborative projects are now underway, after applications from over *80 organisations* were received in just two weeks. Academics from across *14 Universities* offered their time and expertise *pro bono*. The campaign, led by industry demand, demonstrates the significance of what can be achieved in a short timeframe with collaboration from a range of partners, including academic teams (who are contributing initial pro-bono work).