

Universities
Scotland



Higher Education's contribution to the National Performance Framework: economy, fair work and business.

Universities Scotland's submission to
the Scottish Government 2020/21 budget

Scotland's universities make a direct and easily quantifiable contribution to:

Economy outcome

6/10 indicators

- ▲ 2 Improving
- ↔ 2 Maintaining
- ↔ 2 Mixed performance

International outcome

3/6 indicators

- ▲ 2 Improving
- ↔ 1 Mixed performance

Human Rights outcome

2/4 indicators

- ▲ 2 Improving

Culture outcome

2/4 indicators

- ▲ 1 Improving
- ↔ 1 Maintaining

Environment outcome

2/8 indicators

- ▲ 1 Improving
- ▼ 1 Worsening

Health outcome

3/9 indicators

- ▲ 1 Improving
- ↔ 1 TBC
- ▼ 1 Worsening

Fair Work and Business outcome

4/9 indicators

- ▲ 4 Improving

Education outcome

6/8 indicators

- ▲ 5 Improving
- ↔ 1 Maintaining

Children and Young People outcome

1/7 indicators

- ▲ Improving

29 of the 81 national indicators across 9 of the 11 national outcomes



Higher education's broad role in delivering for learners, the economy, society and internationally means that universities make a significant contribution to the outcomes in the Scottish Government's National Performance Framework (NPF).

Universities directly contribute to 28 of the indicators, across nine of the outcomes in the Framework, that we believe we can easily demonstrate using data.

Where possible we demonstrate this alignment using exactly the same metrics used in the National Performance Framework (NPF). Often it is not possible for us to use the same data set as the NPF metric is specific to another sector or the data set tracks at a macro-level and does not pinpoint the contribution of higher education. Where it's not possible for higher education to use the exact NPF data metric, we have provided complementary indicators to show the sector's contribution to the outcome, using robust data from the higher education sector.

We are proud to contribute to Scotland's many great strengths. We're ambitious to keep doing so and want to ensure that our contribution is maintaining or improving in all indicators where we have a role. We set out what we'd like to achieve as a sector in the short and medium-term on pages 8 and 9.

It is important that overall performance does not lead people to the wrong conclusions. Higher education's contribution rests on the financial sustainability of the sector. Continued performance cannot be assured as budgets continue to tighten. Audit Scotland's 2019 report has found that **Universities have suffered cuts totalling 12% in real terms over the last seven years to 2017/18.**

Looking ahead, we also set out how we want to drive that contribution forward, with sustainable investment, to help Scotland to adapt and succeed in changing times.

We want the Scottish Government's 2019 budget to commit to:

1. **A 2% real terms increase in universities' teaching and research grants.** This would reverse the recent pattern of decline in public funding, and lay the foundation for future growth, which universities would look to fund from both public and other sources. This publicly funded increase would cost £39.4 million¹ in 2020/21.
2. **An additional investment of £12.5 million in university estates.** This would take HE capital investment to £50 million² which is half the level of investment made in 2009.

¹ £39.4 million is our estimate of a 2% real terms increase on SFC resource budget as set for 2019/20 using GDP deflators at the time of writing.

² Not including financial transactions.

Economy, Fair Work & Business



We have a globally competitive, entrepreneurial, inclusive and sustainable economy



We have thriving and innovative businesses, with quality jobs and fair work for everyone

Universities' contribution to the National Performance Framework over the last couple of years:

Economic growth

↔ Performance Maintaining

- 45% of innovation-active companies surveyed see universities as collaborative partners in delivering their innovation projects, higher than public agencies and commercial R&D partners.³
- The Gross Value Added of Scottish HE is estimated to be £8bn in 2019.

Productivity

↔ Performance Maintaining

- Skill level is one of four main elements of productivity and Scotland's skill level, based on the tertiary (HE & FE) attainment rate is in the top quartile.⁴
- Long-range economic modelling suggests that one third of the UK's productivity gains of 34% between 1994 and 2005 were due to the accumulation of graduate skills in the workforce.⁵

Spend on R&D

↔ Performance Maintaining

- Scottish HE research leverages over £750m of research and innovation funding into Scotland. This performance is broadly constant with recent years.
- SFC research funding has been cut by 12% in real terms since 2014/15.
- The share of RCUK research funding that Scottish universities win in competitive process has been declining from 15.6% in 2017/18 to 13.97% in 2013/14.

International exporting

↑ Performance Improving

- A £1.94bn net economic contribution through the export of education, research and commercialisation⁶ which equates to a 2.4% share of Scotland's exports, higher than tourism.⁷

↓ Performance Worsening

- 13 fewer R&D inward investments into Scotland in 2017/18 compared to the year before, which is a 59% decline. This is set against a 19% decline in all FDI projects in Scotland since 2017⁸ and the wider context of Scotland being the best part of the UK for R&D inward investment in 2018.⁹

Entrepreneurial activity

↑ Performance Improving

- 94% of Scottish universities provide entrepreneurship training to staff and graduate start-ups.
- 83% of all Scottish universities now have an on-campus incubator to support graduate & staff start-ups.
- 89% of Scottish universities have embedded enterprise and entrepreneurship within degree programmes.
- 78% of Scottish universities deliver entrepreneur-led events.
- 100% of Scottish universities organise work placements for students and 79% of institutions offer placements or internships with entrepreneurs and small businesses.



The number of (high growth and innovative) businesses

▲ Performance Improving

- Scotland is the most successful part of the UK for spin-out company formation in 2016/17.¹⁰
- 10% growth in HE-owned businesses between 2016/17 and 2017/18.
- A big step up in the number of spin-offs to come out of universities, without HE ownership from 55 to 95 between 2016/17 and 2017/18.
- A 15% increase in graduate start-ups in one year & a 53% increase over the last three years.¹¹

The gender balance in organisations

▲ Performance Improving

- Universities have achieved a gender balance (defined as 40:40:20) on their governing bodies.
- 16 of the 18 universities eligible are members of Athena Swan, which promotes the careers of women academics.
- Universities are working to tackle the gender imbalance amongst professor level staff. There was a 39% increase in the number of female professors over four years to 2015.¹²

Employee voice

▲ Performance Improving

- Staff unions now sit on governing bodies & staff elect Chair of Court. The first elections were held at Dundee and Aberdeen Universities in 2019.
- 28% of HE academic staff are a member of the UCU union and 13% of non-academic staff HE are a member of UNISON.¹³

Carbon footprint

▲ Performance Improving

- Universities' non-residential carbon emissions (scope 1 & 2) have decreased by 8% between 2016/17 and 2017/18 and are on a downward trend both in absolute terms (kg CO₂e) and per FTE staff/student.¹⁴

³ Scottish Enterprise (2016) *A Strategic Review of Innovation Support*. "Innovation-active" is defined as companies that have received innovation support from H&IE or SE at any point over the last decade.

⁴ David Hume Institute (2018) *Wealth of the Nation*.

⁵ BEIS (2013) *Research Paper 110. The Relationship between Graduates and Economic Growth*. p8.

⁶ Scottish Government (2019) *Trading Nation*.

⁷ *Ibid.* p45.

⁸ Ernst & Young (2019) *Attractiveness Survey for Scotland*.

⁹ Ernst & Young (2018) *Attractiveness Survey for Scotland*.

¹⁰ HEBCI 2016/17, figures for active formal spin outs.

¹¹ HESA, HE-BCI for all these data points.

¹² HESA Staff Record (2015). Data not available for 2016/2018.

¹³ Figures supplied by University & Colleges Employers Association. Other staff unions are recognised by universities.

¹⁴ HESA (2018) *Estates data set*.

Higher education's wider contributions to the economy, fair work and business

This section expands on a few areas not in the NPF and those not easily covered by metrics.

Universities are key to meeting Scotland's aims for enhanced productivity and inclusive growth. Indeed, the Sustainable Growth Commission noted that: "Scotland's university sector is a key comparative advantage for any growth strategy".¹⁵

This advantage is built both on the economic impact of our own operations and growth alongside our wide and significant impact in the economy as a whole.

Economic and fiscal benefits of higher education

Over recent months we have worked with Biggar Economics to examine the evidence for the economic and fiscal benefits from the investment in higher education and R&D made by advanced economies.

In advance of publication in the autumn, the findings, drawing on OECD and other data, show that there is clear evidence that a higher investment in higher education and in R&D delivers:

- higher economic output;
- higher growth;
- higher participation in the economy; and
- lower youth unemployment.

The study will further explore how these benefits deliver a significant fiscal benefit which should be considered in assessing the costs and economic and fiscal benefits of investment.



International students bring a **£1.94bn** net economic contribution to Scotland.

Source: A Trading Nation

The HE role in supporting economic growth of business

Survey and outcomes data already point to universities working with a significant proportion of Scotland's company base.¹⁶ However, more could be done by the public agencies to develop companies' appetite for partnership with universities and to make them aware of the many opportunities for projects funded by Scottish, UK and EU sources. In parallel, we will continue to enhance our openness to business.

With ambition, the number of companies accessing such support could be increased significantly. To this end we look forward to working closely with the new portal, *FindBusinessSupport.gov.scot*.

As we look to contribute to the Scottish Government's ambition to double business R&D, we want Scotland to benefit in full from the UK-wide commitment to invest 2.4% of GDP in research and development in order to boost productivity and create good jobs. The UK Industrial Strategy offers significant opportunity with an overall investment of £7bn. The Strategic Board for Enterprise and Skills has set an ambition to maximise leverage of these funds.¹⁷ As of April 2019 Scotland had secured £88m for projects under the Industrial Strategy Challenge Fund, which equates to 7% of the UK total. To meet the Board's ambition and leverage the maximum possible benefit for Scotland, we need co-ordinated action and investment.

Scotland's universities work with **20,000+** organisations each year on R&D, consultancy & bespoke professional development.

Source: SFC KTG Metrics

¹⁵ Sustainable Growth Commission page 108.

¹⁶ See: A Strategic Review of Innovation Support, IFF Research and Scottish Enterprise 2016.

¹⁷ Enterprise & Skills Board (2018) *Strategic Plan*.

¹⁸ Scottish Government (2019) *Trading Nation*.

Driving export growth and foreign direct investment

Our own exports are significant. The Scottish Government's export plan *A Trading Nation* notes that international students bring a £1.94bn net economic contribution to Scotland and that through a range of indirect contributions: "the education sector is key to our aims of delivering increased exports".

We face continuing challenges in attracting international students. One of the challenges is the limit in our ability to invest in the education and broader experience we offer, in ways that an increasing number of global competitors are able to do.

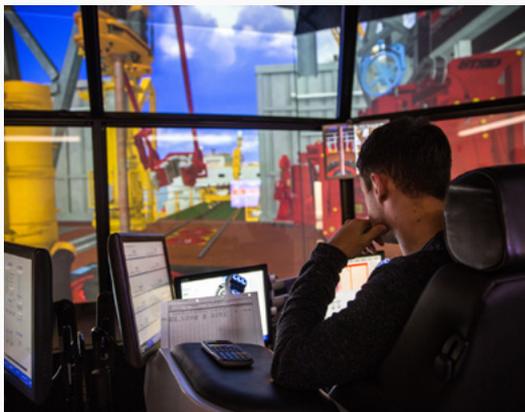
In *A Trading Nation* the Scottish Government sets out an intention to support universities: "to access international opportunities and support our universities to build strategic research collaborations with markets that are investing heavily in research". However, recent budgets

mean that there is now no capacity amongst the Scottish agencies to invest in such partnerships.

Our *Connected Scotland* approach, which began in 2014, to work more closely with public partners is an exemplar of the kinds of partnership sought as part of the Enterprise and Skills Review. We would like to equip it to deliver enhanced impact.

We are partners in *Scotland is Now* and have worked closely with the Scottish Government in the development of *A Trading Nation*,¹⁸ the Scottish Government's plan for growing exports. This plan notes the centrality of universities across both priority markets and sectors. It is a role that the sector wants to grow.

We are working with Ministers to give effect to the shared ambition of growing higher education exports, the exports of companies right across the economy, and to increase foreign direct investment. This includes new ideas as to how we can collectively engage the alumni community to mutual benefit.



Right across the country university facilities are supporting companies from every sector of our economy.

For instance, The DART (Dynamic Advanced Response Training) simulation suite is a joint venture between Robert Gordon University and KCA Deutag Ltd. It operates under Energy Transition Institute. It includes a drilling and wells simulator and a decommissioning simulator, providing realistic, real-time training within a virtual drilling environment with significant cost savings and efficiencies for the companies accessing the facilities.



Bright Red Triangle at Edinburgh Napier University offers a one-stop shop for extra-curricular innovation and enterprise activities. It is open to students, staff and graduates, as well as local businesses and community organisations. To date it has supported over 400 start-ups with free business advice, mentoring and facilities. Over 1,500 students have used the resources and there are currently over 180 student or graduate businesses trading as a result of the support of the Bright Red Triangle.

Looking ahead: the sector is ambitious to do more

The investment we seek from the budget would support more progress within the following national indicators. If Scotland faces exit from the EU, then the capacity of universities to fulfil their role as drivers of economic growth will be crucial.

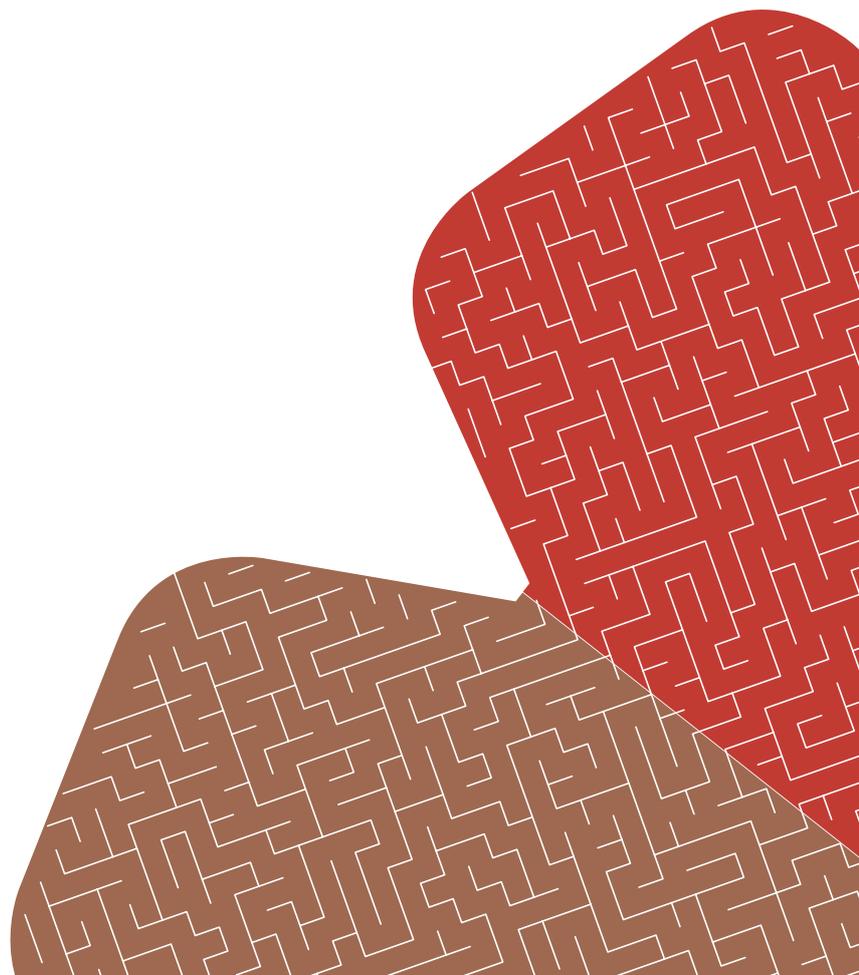
Specific contribution from universities	National indicator	National outcome
Increase in the leverage of investment into the Scottish economy from research contracts.	Spend on research & development International exporting	Economy
Sustained employment in high-quality research and teaching roles, and sustained tax contribution from these roles.	Economic growth	Economy
Development of clusters of innovative businesses around universities.	Innovative businesses	Fair work & business
Increased leverage of Industrial Strategy funding to Scotland, through university/business collaborative bids.	Innovative businesses High growth businesses	Fair work & business
Attraction of fresh talent to Scotland, helping to address our demographic and skills challenges.	Scotland's population	International
Increased university involvement in co-developing products, processes and people with business.	Innovative businesses	Fair work & business
Further growth in entrepreneurship across our student and staff communities.	Entrepreneurial activity	Economy
Support for start-up and spin-out companies and the further development of innovation park capacity across Scotland.	Entrepreneurial activity	Economy
Attraction of an increased level of external investment in Scotland's research and innovation base.	International exporting	Economy
From a strong base, enhance Scotland's FDI performance with universities playing their full part in enhancing the attraction and deployment of investment.	International exporting	Economy

Where we're aiming for by 2030

Our ambition is for universities to be at the heart of Scotland's economy, thriving over the course of a decade which will be characterised by disruption.

Enabled to pursue our diverse ambitions, we will play our part in:

- making Scotland the 'go-to' nation for businesses globally who seek talent and creativity.
- attracting more inward investment into Scotland. Scotland is already Europe's success story but we want to do more. Higher education's research, our graduate talent and the ease of doing business with us will be key pull factors.
- placing research excellence at the centre of new clusters of innovative businesses – both home-grown and inward investors – driving prosperity in our cities and regions.
- making universities the obvious choice for businesses looking for help to innovate; and
- ensuring that our business schools are deeply connected with SMEs to develop leadership and innovation capacity, and university facilities – our laboratories, our studios, our estates – are well utilised by business.



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