



Universities Scotland Response

Universities Scotland's response to the Scottish Government's Enterprise and Skills Review

Universities Scotland is the representative body of Scotland's 19 Higher Education Institutions (HEIs) and we welcome the opportunity to input to this review. All Scottish HEIs are committed to delivering impact in Scotland and the wider world and want to work as partners with government and public agencies to deliver inclusive and sustainable growth. In summary:

- The key outcome of this review would be a single vision with clear goals and measures, with shared ownership across key stakeholders
- We have identified areas for refreshed strategic focus and enhanced collaboration to drive economic development in Scotland which are:
 - Working in partnership to explore effective means of significantly increasing the opportunities for Scottish businesses to access talent in universities (our graduates, researchers or to upskill staff)
 - Better coordination schemes and investment to open up a broader range of innovation (including CPD and consultancy) services to a larger cohort of companies.
 - Placing the strengths of Scottish HEIs as central to winning major capital and inward investment
- We see there as being scope for work to 'de-clutter' this landscape to improve the functioning of the system
- There is a strong need for a non-departmental public body to fund Higher Education
- We must work together to identify the right measures of success, from strategy through to individual agencies

Response

1. Have you had direct interaction with enterprise or skills advice or support? Y/N

Our response to this consultation focuses on strategic issues. We have offered some specific examples as illustration however we encourage the Scottish Government to consider the responses from individual higher education institutions which will provide insights into the experience of the sector in working with the agencies.

2. Tell us briefly about your experience:

- what were you trying to access?
- through whom and when?
- what was your experience?
- what worked well and less well?
- how did you find the quality, ease and speed of service?
- what did you think of the cost or value of the service?

Universities Scotland is the representative body of Scotland's 19 Higher Education Institutions (HEIs). Our response should be viewed in the context of these key points:

- We welcome that this review is focussed on improving Scotland's productivity and wellbeing performance and have offered thoughts on how, working together, there are significant opportunities to deliver strengthened economic outcomes.
- There is an important role for HEIs to play in co-creating the future environment and delivering stronger outcomes because:
 - Scotland's universities are a key economic sector in their own right, a 'user' of the system, and make a major contribution across the four 'I's of the Economic Strategy.
 - HEIs are inherently 'user focussed' in engaging with industry to develop curriculum development, shape research, and guide our ongoing efforts to improve innovation performance. We work partnership with students in quality enhancement and have done so for more than a decade.
- Universities deliver a wide range of benefits to Scotland, and the wider world, and can demonstrate impact across economic, social, cultural, health, public policy, quality of life and the environmental outcomes.¹ Here we focus on economic impact but would reiterate these wider benefits generated by HEIs
- We see this review as an important opportunity for all partners to work together to articulate what we wish to achieve for Scotland and the appropriate measures to monitor progress.
- As a sector we work with the four agencies involved and believe there is a strong foundation from which to build
- Our member organisations have submitted individual responses which include reflections on the institutional experience as a 'user' and particularly valuable programmes and we would highlight this input

3. If you have not used such services can you outline why this is the case?

N/A

4. What do you see as the strengths and weaknesses of the current approach?

Due to Scotland's scale we have great potential to act in partnership, and with agility, to deliver real change. There are examples of good working across agencies, in partnership with HEIs, and we need to see this good practice replicated more often. The agencies involved need to work in this collaborative fashion to prevent 'hard' boundaries preventing joint working and investment, and to minimise the risk of silo-thinking or duplication.

Strengths: university research is one of Scotland's truly world-class assets delivering wide and profound impacts

A key strength of the current system is the world-class research base in Scotland, and the funding system that supports it. This is vital to delivering growth in the economy.² Excellent research should be supported wherever it is found – there is evidence that 'work of fundamental quality regularly leads to a wider range of benefits for wealth creation and the quality of life'.³

¹ <http://www.universities-scotland.ac.uk/publications/research-impact-in-the-year-of-innovation-architecture-and-design/>

² <http://www.universities-scotland.ac.uk/bite-size-briefings/research-excellence-framework-2014/>

³ <http://www.hefce.ac.uk/news/newsarchive/2016/Name,109126,en.html>

As highlighted in the recent National Centre for Universities and Business (NCUB) report⁴, which had strong industry engagement and leadership, ‘where Scotland stands out in innovation terms is the strength of its universities’. Innovation is fundamental to productivity growth in Scotland.⁵

A key contributor to this performance is the REG (research excellence grant), administered by the Scottish Funding Council. This is part of the broader UK dual support system. Briefly, the major components of this system are:

- Stable, relatively predictable funding awarded on the basis of peer-reviewed past performance (REG)
- Competitively awarded project funding whether through responsive mode (investigator led) or challenge-led (via Research Councils, charities or industry)

The UK-wide dual support system is a method that other countries are seeking to emulate⁶.

REG allows universities to invest in measures to support research excellence, and develop emerging fields of research. For every £1 of REG the sector generated, on average, an additional £3 of research funding⁷, even before counting the knock-on economic impact of that research.⁸ An example of this, is that the University of Dundee supports 1 in 12 jobs in the city, and started the project to bring the V&A Museum of Design to Dundee, the central piece of a £3bn waterfront redevelopment.⁹

While it is important to foster research impact, there is no simple distinction between ‘applied’ and ‘pure’ research: research sits on a continuum, with both ‘types’ being mutually reinforcing. Other nations (for example Norway¹⁰, Sweden¹¹ and New Zealand¹²) are looking to increase investment across this continuum. It is also useful to note here that the allocation of REG already takes into account the impact generated by universities so it is a joined up system.

In terms of the relationship between research and the economy it is important to note that:

- Businesses value research – the Scottish Council for Development and Industry (in ‘Fragile to Agile’) identified research as critical stating ‘sustained funding is needed to ensure Scotland remains at the frontier of basic research’¹³
- For every £1 of government spend on UK science and engineering research, private sector R&D output rises by 20p per year in perpetuity.¹⁴ Scotland has a particularly

⁴ <http://www.ncub.co.uk/reports/growing-value-scotland-final-report.html>

⁵ Goldman Sachs, Enterprise Research Centre, British Business Bank. ‘Unlocking UK Productivity: Internationalisation and Innovation of SMEs, 2015.

⁶ http://www.oecd-ilibrary.org/science-and-technology/oecd-science-technology-and-industry-outlook-2014_sti_outlook-2014-en

⁷ <http://www.audit-scotland.gov.uk/report/audit-of-higher-education-in-scottish-universities>

⁸ <http://www.universities-scotland.ac.uk/news/scotlands-universities-contribute-6-billion-gva-to-scotlands-economy/>

⁹ <http://www.dundee.ac.uk/media/dundeewebsite/main/news/Economic-and-Social-Impact-Study-Brochure.pdf>

¹⁰ <https://www.regjeringen.no/en/topics/research/innsiktsartikler/langtidsplan-for-forskning-og-hogare-utdanning/mal-og-prioriteringar/id235351/>

¹¹ http://www.scb.se/Statistik/UF/UF0306/2016A01/UF0306_2016A01_SM_UF17SM1601.pdf

¹² <http://www.mbie.govt.nz/info-services/science-innovation/pdf-library/NSSI%20Final%20Document%202015.pdf>

¹³ Scottish Council for Development and Industry (SCDI). Blueprint 2015 ‘From Fragile to Agile’, 2015

¹⁴ Campaign for Science and Engineering’s ‘The Economic Significance of the UK Science Base’, 2014

strong STEM base. There is a huge opportunity for Scotland to capitalise on this to attract further investment in Scotland¹⁵

- Government research spending signals government commitment to supporting the research base, which facilitates business investment.¹⁶ At 1.6% of GDP (2012) total R&D spending in Scotland is below the leading EU countries¹⁷
- In 2014 Scotland secured its third best year for Foreign Direct Investment with 'scientific research, financial services and manufacturing flying the flag'. Outside of London we were the most attractive UK region for investment and Scotland 'punches above its weight' in securing this investment.¹⁸ Scottish Government should aim for further success, and to be the most attractive region for investment
- The recent NCUB report advocated for increased research funding (REG) and the creation of a new innovation funding system.¹⁹

We see very immediate economic benefits from the research base. It should also be recognised that some crucial elements of our university research are long-term endeavours so must be viewed as a long-term investment. There is evidence that 15% of the economic slowdown in the 1970s could be traced back to the decline in 'knowledge stock' (i.e. research) caused by the Second World War.²⁰ It is therefore very important to think long-term, including Scottish research strengths in relation to emerging innovation trends²¹, and invest in research.

Strengths: the development of talent – highly talented individuals creating and growing Scotland's enterprises

Scotland's universities develop a remarkable talent pool that is an essential part of our economy now, and offers a range of opportunities for the agencies and businesses to drive stronger economic growth.

Universities are committed to delivering excellent learning and teaching. Student partnership is at the heart of Scotland's innovative and collaborative enhancement-led approach to quality, and graduate employability is embedded in institutional strategies at all of 19 Scotland's universities. Recent figures show that graduates from Scottish universities were more likely to be in employment or further study than those from institutions in the other home nations.²² Further, graduates from Scottish HEIs have better prospects for securing a graduate-level job than those in England and have a higher mean average starting salary than the UK average.²³ The importance attached to graduate attributes and employability is also clear in QAA's 2013-16 ELIR (enhancement-led institutional review) thematic report, showcasing work undertaken across Scotland's universities and facilitating best practice sharing.²⁴

The 2013 UKCES Employer Skills Survey asked Scottish employers who had recently recruited Scottish education leavers to assess their workplace readiness: 85% of employers reported

¹⁵ NCUB's 'Growing the Value of R&D in Scotland' 2015

¹⁶ Department for Business, Innovation and Skills' 'Leverage from public funding of science and research', 2013

¹⁷ NCUB's 'Growing the Value of R&D in Scotland' 2015

¹⁸ Ernest and Young. EY's attractiveness survey: Scotland 2015: Scotland on the world stage, 2015

¹⁹ <http://www.ncub.co.uk/reports/growing-value-scotland-final-report.html>

²⁰ <http://impact.cgiar.org/pdf/141.pdf>

²¹ <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/>

²² <http://www.universities-scotland.ac.uk/news/graduates-scotlands-universities-secure-best-levels-employment-uk/>

²³ <http://www.universities-scotland.ac.uk/news/great-news-graduates-scotlands-universities-prospects-graduate-level-jobs-outstrip-england/>

²⁴ <http://www.qaa.ac.uk/en/Publications/Documents/Thematic-Report-ELIR-Employability-and-Graduate-Attributes-15.pdf>

their graduates from Scottish higher education to be ‘very well prepared’ or ‘well prepared’ for work (compared to 65% for secondary school leavers and 78% for further education leavers).²⁵

Scottish HEIs work hard to engage with employers across various aspects of the provision including advisory input to the curriculum, embedding employability in the curriculum, accreditation (the HE Better Regulation Group estimated that Scotland’s universities work closely with over 100 different professional bodies in the design and accreditation of degree programmes)²⁶, work-based and work-related learning including use of work placements, and inviting industry staff into the lecture theatre.

HEIs also offer transformative opportunities for reskilling/retraining (including postgraduate study and CPD) providing opportunities for individuals at any age or career stage to develop. Given it is unlikely that an individual leaving education today will follow just one career for their entire working life, alongside longer working lives and an ageing population²⁷ providing such opportunities for all is an important contribution that HEIs make.

The link between research and teaching is important in this context. Educated in a culture of enquiry, scholarly work and research builds key graduate skills and attributes an ability to solve complex problems, think critically and develop ideas.²⁸ Employing graduates can increase the absorptive capacity of businesses to engage in, access and use research. It is therefore critically important that the HEI funding body has oversight of both research and teaching.

The world-class research reputation of our HEI system underpins the international attractiveness of our HEIs, and therefore Scotland as a destination for highly skilled, and highly geographically mobile, talent.

Strengths: HEIs are continuously looking to drive improvements

Universities perform well in knowledge exchange making sure that as organisations we are strong and effective partners with industry; civic partners; and government. Universities engage in continuous improvement. As recommended in the NCUB report, universities are working to improve the enterprise and entrepreneurial skills of our graduates via the sector-wide ‘Making it Happen’ action plan²⁹ and are delivering process improvement in innovation performance through the Universities Scotland Five-Point action plan³⁰, and Innovation Scotland Forum action plan.

Weaknesses: agencies are not sufficiently coordinated

There is evidence that the agencies are performing well and delivering a positive impact³¹ but we believe that this is a timely point to consider the breadth of the agencies’ roles and, importantly, the coherence and agility of their action.

²⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/327492/evidence-report-81-ukces-employer-skills-survey-13-full-report-final.pdf

²⁶ Higher Education Better Regulation Group – database of PSRBs

²⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/535187/gs-16-10-future-of-an-ageing-population.pdf

²⁸ <http://impact.cgiar.org/pdf/141.pdf>

²⁹ <http://www.universities-scotland.ac.uk/publications/making-it-happen/>

³⁰ <http://www.universities-scotland.ac.uk/campaigns/five-point-plan-for-innovation/>

³¹ <http://www.audit-scotland.gov.uk/news/enterprise-bodies-performing-well-but-governments-economic-strategy-needs-more-development>

Our response under section 6 suggests changes in approach. None of these necessitate a change in the overall architecture of the agencies in the review. Rather, they would require a re-consideration of strategy and a less rigid interpretation of role.

Weakness: low R&D investment and low demand

There are a number of well-recognised difficulties and challenges across Scotland including a low spend on R&D³², low absorptive capacity for research within businesses, concentration of public support on small proportion of the business base, a business base heavily dominated by SMEs³³ and a cluttered landscape. The recent NCUB report highlighted a need to stimulate business demand for innovation and some practical proposals to address some of these issues.³⁴

5. What needs to change in the current system of support to make it simple and clear, and help us deliver Scotland's vision?

The key outcome of this review would be a single vision with clear goals and measures, aligned to national outcomes, with shared ownership across key stakeholders. This would require better alignment in the system, as well as allowing prioritisation of resources. The review should generate improvements to ways of working to facilitate collaboration.

There is a need to understand the full system and total 'offer' available across enterprise and skills (particularly in the innovation space). While diversity can be a strength of provision there appears to be overlap, duplication and lack of awareness of provision across users (and therefore reduced accessibility). This may be achieved by: improving referral process around the various offerings (across agency boundaries), simpler progression to the 'next step' award to minimise the administrative burden and aligning organisations with overlapping roles and functions. Better coordination of resources could significantly enhance delivery to improve productivity and could be delivered through this review.³⁵ We consider this 'de-cluttering' to be a valuable exercise.

6. What are the right:

- roles;
 - services
 - skills
 - behaviours
- needed from our agencies to support this transformation?**

What are the right:

- roles;

We see a strong and continuing need for a university funding body and that it should:

- have NDPB status with HEI representation and a duty to consult the sector on strategy and policy;
- carry out the regulatory duties of the Scottish Funding Council and have a strategic role to publish analysis and to advise Ministers;
- provide for the coherent policy consideration of funding for teaching and research in HEIs and the links between them;

³² NCUB's 'Growing the Value of R&D in Scotland' 2015

³³ <http://www.gov.scot/Topics/Statistics/Browse/Business/Corporate/KeyFacts>

³⁴ <http://www.ncub.co.uk/reports/growing-value-scotland-final-report.html>

³⁵ <http://scienceprogress.org/2013/05/getting-innovative-with-regional-innovation-funding/>

- have a clear and effective involvement in consideration of reserved policy for higher education in the UK; and
- provide for consideration of cross sector issues but should not aggregate sectors / functions such that the necessary expertise and detailed consideration of policy options is undermined

As this response shows, HEIs make a crucial contribution to Scotland through a wide range of skills provision and economic impacts (as well as broader impacts), which are all intertwined through the key missions of universities: research, teaching and knowledge exchange. A specialist funding and regulatory body, with expert staff, is critical to enable the sector to meet its goals. The independence of such a body is vital in providing expert advice both to government and the sector, as well as challenge to both based on that expertise. In the global, UK and Scottish contexts in which HEIs work, it is important that a specialist body is able to represent the sector at each level. Given the wide range of benefits universities deliver to Scotland, this expert enabling role critically underpins outcomes.

Across the agencies with responsibility for economic development we see the need for a refreshed strategy, focusing on a broader vision of economic development that supports a broader range of companies, a stronger pursuit of inward investment and civic development and a focus on the role of talent across all sectors and throughout a career.

What are the right – services;

In reviewing the current system, and considering the aims of this review we highlight the areas for enhancement or development of services which should be prioritised to lead to a step-change in productivity.

Talent as a driver of economic growth

From both the recent NCUB report, and our own work with Industry Leadership Groups, we see talent as the most significant contribution HEIs can make to economic development across all sectors – whether through graduates, re-training individuals embarking on career change or upskilling, highly skilled research staff, or providing executive education to improve the management capacity within Scottish businesses.

This talent pool is crucial to attracting inward investment as a skilled workforce is the most important single factor in driving investment decisions.³⁶ Developing individuals is of course important to ensuring inclusivity of economic development, and relates to the HE sector's commitment to widening access to a students from diverse backgrounds. This is an important route to pursue as UK research shows that there will be an undersupply of graduates by 2022 and unmet demand for higher level skills.³⁷

We welcome the Scottish Government's consultation on the Apprenticeship Levy and see this as an important opportunity for graduate apprenticeships. We see a role for SFC, SDS and HEIs to collaborate in developing provision. Improved collaboration may allow for new models to be explored through 'earn as you learn' initiatives, and providing in-demand higher level skills. We see this as an area where we could make good progress, through enhanced collaboration, to deliver new provision.

³⁶ FDI data, FT Ltd

³⁷ <http://www.universitiesuk.ac.uk/policy-and-analysis/reports/Pages/supply-and-demand-for-higher-level-skills.aspx>

One particularly successful model of accessing talent is Knowledge Transfer Partnerships scheme for which every £1 of grant money has delivered a return of £7.50-8.00 to the economy with over 90% of KTP Associates agreeing that the KTP had a positive impact on their career and personal development.³⁸ There is scope to consider how we can implement such successful programmes more widely.

We would also note the importance of researcher development, which HEIs work on with SFC, to develop future leaders, whether in research or other fields. HEIs are working hard to provide the culture, training and incentives to enable our staff to deliver impact.^{39,40}

We want to work in partnership with the agencies to explore effective means of significantly increasing the opportunities for Scottish businesses to access and shape our talent and to deliver benefit to those individuals by contributing to their development.

A broader view of innovation

Scottish HEIs have over 18000 formal engagements with Scottish companies every year⁴¹ and, across the sector, work with a wide variety of companies in terms of industry and scale. This demonstrates the importance of diversity within the sector. We are confident of the impact of specific innovation activities undertaken in universities with, in 2013/14, the *minimum* value of economic impact estimated as £441m.⁴² Further, we would highlight the recent Interface evaluation of Follow-on Innovation Vouchers, which while a small survey, did show that 100% of companies were satisfied or extremely satisfied with the level of academic support they received and 89% reported a continued partnership with that HEI.⁴³

Much of our formal work with 18000 Scottish companies is in providing consultancy and high level training. Different sectors, and individual businesses, will have different innovation-related needs and not all are best addressed through technology-driven innovation. Many companies invest in training, design, and product and process change – all of which are valuable in growing those businesses.

There is a need to better co-ordinate schemes and investment to open up such innovation services to a larger cohort of companies.

Growing capital investment

Due to their research strengths, HEIs are a focus for significant capital investments to provide world-class facilities. This leverages in significant private investment and generates a strong economic impact.

Investment in higher education infrastructure delivers a significantly higher return than general infrastructure investment (at £5.50 per £1 invested, compared to £4 per £1 spent). Certain types of infrastructure investment have very significant economic impact with medical research facilities generating £11.45 for every £1 invested and STEM facilities generating over £7 for every £1 invested⁴⁴.

³⁸ <https://www.gov.uk/government/news/reports-highlight-economic-impact-of-business-innovation-funding>

³⁹ <http://www.universities-scotland.ac.uk/contribution/creating-entrepreneurial-culture-scottish-heis/>

⁴⁰ <http://www.universities-scotland.ac.uk/bite-size-briefings/uni-research-benefit-of-others/>

⁴¹ Universities Scotland's 'Research Impact in the Year of Innovation, Architecture and Design', 2016

⁴² <http://www.universities-scotland.ac.uk/publications/research-impact-in-the-year-of-innovation-architecture-and-design/>

⁴³ Personal communication

⁴⁴ <https://www.russellgroup.ac.uk/media/5256/economic-impact-of-the-capital-investment-plans-of-the-russell-group-universities.pdf>

Scottish universities are very successful at collaborating with industry, including through capital investment for example Scottish universities won 11% of the UK-wide Research Partnership Investment Fund which aims to encourage strategic partnerships between universities and other organisations, and strengthen the contribution of the research base to economic development⁴⁵.

Scottish HEIs have been working hard to ensure companies can access their facilities for example, HEIs and Interface collaborated to produce the Specialist Facilities Platform⁴⁶ which was launched in 2016 with accessibility for industry at the centre of the design with the Federation for Small Businesses commenting that the initiative could 'build bridges between entrepreneurs and academia'.⁴⁷ The ARCHER supercomputer facility and the FloWave ocean facility both at the University of Edinburgh and the Advanced Forming Research Centre at the University of Strathclyde are good examples of how such facilities have wide communities of industry partners, both local and global.

Such investments benefit Scottish companies by creating the conditions for the growth of SME clusters, opening up supply chain opportunities, and providing access to high-cost facilities.

Highly innovative SMEs operating in emerging niche sectors are in a strong position to benefit from global value chains, but require considerable support to do so,⁴⁸ achieving this may necessitate a broadening of available support from current high growth companies to growth potential companies.

Scottish HEIs have the research strengths to win major capital investments and securing such large scale investments should be a priority for collaboration between all agencies and HEIs.

Growing inward investment

Our research strength is one of Scotland's global assets with 77% of Scottish research judged to be internationally or world leading in the most recent UK-wide research assessment exercise.⁴⁹ This considerable strength, plus new initiatives such as the Innovation Centres, provide an opportunity to develop a unique research brand that can leverage significant inward investment.

We would welcome a discussion of:

- HEIs and agencies working together to generate more, larger, inward investment packages with university research at the centre of such an approach
- Leveraging our international partnerships and networks (including alumni) for the benefit of Scotland (e.g. helping to build world-wide industrial intelligence to access growth markets and inform skills development⁵⁰)
- Forming strategic partnerships to maximise the potential of the Innovation and Investment Hubs

⁴⁵ <https://www.nao.org.uk/wp-content/uploads/2016/03/Capital-investment-in-science-projects.pdf>

⁴⁶ <http://www.interface-online.org.uk/how-we-can-help/specialist-facilities>

⁴⁷ <http://www.interface-online.org.uk/news/launch-specialist-facilities-heralds-easy-access-business-partnerships>

⁴⁸

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/451755/150803_UKCES_Global_Value_Chains_final_PDF.pdf

⁴⁹ <http://www.universities-scotland.ac.uk/bite-size-briefings/research-excellence-framework-2014/>

⁵⁰

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/451755/150803_UKCES_Global_Value_Chains_final_PDF.pdf

In the context of the recent UK referendum vote to leave the European Union and subsequent economic uncertainty it is important to underscore the importance research and a highly skilled workforce in terms of inward investment. An immediate example, following Brexit, was an announcement from GSK committing to invest in manufacturing in the UK (including in Angus) with GSK's chief executive, Sir Andrew Witty, stating: 'it is a testament to our skilled UK workforce and the country's leading position in the life sciences that we are making these investments in advanced manufacturing here'.⁵¹

Universities should be at the centre of major inward investment propositions

What are the right

- skills; and**
- behaviours**

Across the whole system we would emphasise the need for connectivity and cohesion whether through individual links (i.e. between staff in agencies and universities) and in terms of how 'users' move through the system (e.g. a referral system that facilitates movement in and out of different providers as required by the individual or business involved).

It is important that all agencies are outward facing, linking with UK structures to maximise value to Scotland and engaged with reserved policy to represent Scottish interests. The approach must be one of team-working, and flexibility to provide sector-specific support, ensure communication across agencies and to respond to emerging opportunities.

It is important that HEIs are a strategic partner with well-connected agencies in order to deliver a step-change in productivity and wellbeing.

7. How might we ensure this step-change reaches and benefits all of Scotland, building on regional and local strengths?

In many cities universities have a unique ability to drive economic growth as they attract talent and investment and have international scale and connectedness. A thriving local economy is both a necessity for, and a result of, the attractiveness of universities.⁵² Universities are geographically rooted in their communities and the expertise and resources built up within an institution are less geographically mobile than large companies based in Scotland. Universities also provide broader localised benefits including cultural and social benefits and are at the heart of the Agenda for Cities.⁵³

A refreshed focus across agencies on this regional growth would drive economic benefit, building on work such as Science and Innovation Audits, and City Deals. There is increasing competition within the UK with enhanced structures for HEI-local authority working, and increasing coordination across regions brought about by English devolution. In the face of this strong competition, in the UK and on the world-stage, it is important that the role of HEIs as magnets for talent, investment and as regional hubs (at community through to international level) is leveraged by joint working with agencies to swiftly create partnerships and investment packages.

We also see a role for co-investment in, and hosting of, business support facilities with HEIs which could facilitate greater business engagement with HEIs, particularly by building the

⁵¹ <http://www.bbc.co.uk/news/business-36901027>

⁵² University Alliance's 'Growing the Future: universities leading, changing and creating the regional economy', 2011

⁵³ <http://www.gov.scot/Resource/0049/00495349.pdf>

networks, facilitating exchange of tacit knowledge and building strong personal relationships between businesses and academics.

Additionally the significant ongoing work in the sector to widen access will bring benefits across the whole of Scotland by providing students with the education to enable them to succeed.

8. How would we know if the system is working better?

It is crucial that any measures used to understand if the system are right in order to avoid inappropriate drivers in the system. Currently the measures used are not right to connect strategy and delivery and are insufficiently connected across agencies to ensure cohesion.⁵⁴ In future, the system-wide measures should be related to any agency-level metrics to ensure consistency. It may also be worthwhile to investigate how surveys and other types of qualitative input can be taken into account, especially to take into account a broader view of innovation.

Potential measures to consider include:

- Reaching the internationally recognised R&D intensity target (3% of GDP)
- Increasing inward investment performance to surpass London as the best performing UK region
- Closing the participation gap⁵⁵ to reflect such a step change reaching everyone in Scotland
- Measuring growth in key sectors of the Scottish economy
- Increasing in the number of companies securing innovation-based growth

9. How might public resources be deployed most effectively to match priorities, deliver value for money, and flow through the minimum number of levels and organisations to the user?

As indicated a jointly owned national vision would be valuable to enable prioritisation of investment, as well as making provision more visible thereby reducing the risk of overlap and duplication in the system.

We would also highlight that effective deployment would include combining funding streams across skills and enterprise (from the relevant agencies) within a strategic partnership to maximise return on investment without multiple points of contact and reporting lines. This could also facilitate working with other agencies and bodies within the landscape, as well as providing investments of scale. The clarity, partnership working and scale of City Deals could be used as exemplars of this approach.

We would highlight the importance of public funding of knowledge exchange within universities – this should be seen as an investment in innovation rather than ‘cost’. Research with industry only covers 69% of costs⁵⁶ and should the intention be to move towards a greater focus on economic impact (broadly defined) this will necessitate enhanced investment.

10. Is there any other published evidence, or good practice, which you would particularly highlight that you wish us to take into account during the review?

⁵⁴ <http://www.audit-scotland.gov.uk/news/enterprise-bodies-performing-well-but-governments-economic-strategy-needs-more-development>

⁵⁵ <http://www.gov.scot/About/Performance/scotPerforms/purposetargets/cohesion>

⁵⁶ http://www.sfc.ac.uk/web/FILES/Effective_Institutions/TRAC_2013-14.pdf

Of the evidence in this review, we would particularly highlight:

- Audit Scotland [report](#) of Higher Education in Scottish universities
- NCUB [report](#) – The Step Change: Business–University Collaboration Powering Scottish Innovation
- [Interface](#) as an example of good practice

Please provide any other relevant comments you may have

Member input has noted concern that this outcomes–focussed review does not consider the full range of agencies with a relevant role (including Student Awards Agency for Scotland, and Creative Scotland) and the need to ensure joining up across all relevant actors in the system.

Scotland’s creative industries contribute significantly to the economy, employing 68, 500 people and generating a GVA of £3.06bn, and thrive on high level skills with 59.9% of jobs in creative industries filled by people with at least a degree or equivalent (compared to 32.7% of all UK jobs).⁵⁷ The scale and Scottish HEI performance across the creative industries must be considered in this review. There are important cultural and social impacts delivered by the creative industries, as well as significant opportunities through design–led innovation. There is a strong positive correlation between the use of design and national competitiveness⁵⁸ and strong examples of this approach within universities such as the Glasgow School of Art’s Institute of Design Innovation⁵⁹ and University of Dundee’s Design in Action⁶⁰. Further this underscores the importance of arts and humanities tertiary education as we would note has particular importance in the knowledge economy as ‘ when STEM skills are combined with other fields of knowledge and technical skills they can be a source of dynamic capability that offers real competitive advantage’⁶¹

Finally, we would highlight that the tight turnaround time for input (particularly over the summer period) which is challenging to institutions in developing their thoughts and also for representative bodies such as ourselves to consult our membership (particularly if there were to be very radical ideas). We look forward to further opportunities to input to the review.

Further information

Ruth Meyer, Senior Policy Officer (Research and Innovation)
Universities Scotland
E: ruth@universities-scotland.ac.uk
T: 0131 225 0705

⁵⁷ <http://www.universities-scotland.ac.uk/wp-content/uploads/2016/07/HoC-Debate-on-Creative-Industries-7-Jul-16.pdf>

⁵⁸ [http://www.seeplatform.eu/docs/Design-Driven%20Innovation-Why%20it%20Matters%20for%20SME%20Competitiveness\(3\).pdf](http://www.seeplatform.eu/docs/Design-Driven%20Innovation-Why%20it%20Matters%20for%20SME%20Competitiveness(3).pdf)

⁵⁹ <http://www.gsa.ac.uk/research/research-centres/institute-of-design-innovation/about/>

⁶⁰ <http://www.designinaction.com/>

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https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/451755/150803_UKCES_Global_Value_Chains_final_PDF.pdf