

Universities Wales response to Welsh Government's consultation 'Regional Investment in Wales after Brexit'

1. About Universities Wales

- 1.1. Universities Wales represents the interests of universities in Wales and is a National Council of Universities UK (UUK). Universities Wales' Governing Council consists of the Vice-Chancellors of all the universities in Wales and the Director of the Open University in Wales.

2. Executive Summary

2.1. **Universities make a significant contribution to a prosperous, outward-facing and competitive Wales.**

- Universities in Wales are committed to working with Welsh Government and others to navigate the best course for Wales' future economic growth.
- Universities play a central role in driving inclusive economic growth locally, regionally and nationally; improving productivity and strengthening our trade relationships across the world.
- High quality research and collaboration are the bedrocks of a growth economy, and can be significant levers in balancing growth across the country.

2.2. European Structural and Investment Funds (ESIFs) have delivered great benefits for their regions by **driving innovation, improving competitiveness, creating direct and indirect jobs, and promoting employment and education opportunities.**

2.3. However, despite 20 years of ESIF, Wales productivity is lagging most regions of the UK. Therefore, **a significant step-change in approach is required to deliver the change Wales needs.**

2.4. It is imperative that the future strategy for regional investment is approached with **creativity and ambition**, and that this is not stifled by a focus on just making adaptations to the existing strategy and structures.

2.5. A **different attitude to project risk and risk profiling** is needed to make the investments that will see the step-change required for Wales. **Key to this are the right people and relationships.**

2.6. The overarching objective of future regional investment in Wales should be **to create transformational change in the Welsh economy.**

2.7. The first priority for future regional investment should be the **return on the investment for Wales.**

2.8. Secondly, real innovation will come from using prosperity funding to **leverage funding from other sources**, both at a UK level and from global opportunities.

2.9. Thirdly, **research, innovation, skills, training and education should be at the heart of future regional investment in Wales** after Brexit.

1. Introduction

- 1.1. As Welsh Government develop their strategy for regional investment in Wales after Brexit, the university sector must increase its contribution to a prosperous, outward-facing and competitive Wales. Universities in Wales are committed to working with Welsh Government and others to navigate the best course for Wales' future economic growth. We welcome this publication as a first and important step in consulting with key stakeholders, such as universities, on shaping regional investment in Wales after Brexit.
- 1.2. Universities in Wales are internationally competitive and a major economic asset, bringing widespread benefits to individuals, communities, the nation as a whole and government in Wales. The total combined impact of Welsh universities and their students on Wales' GVA came to £2.67 billion - equivalent to 4.8% of all Wales GVA in 2015. Welsh universities bring in a total of £544 million of export earningsⁱ and income to Wales through knowledge exchange between universities and the public, private and third sectors was £172 million in 2015/16ⁱⁱ.
- 1.3. Higher education is a growth-enhancing sector and Welsh universities are some of the best placed organisations to support the achievement of these aims; distributed across all areas of Wales, they are among the key drivers of innovation and skills growth, and are embedded in their local economies and communities.
- 1.4. Universities in Wales have a long history of collaboration with both Government and industry. We play a central role in driving inclusive economic growth locally, regionally and nationally; improving productivity and strengthening our trade relationships across the world.
- 1.5. The rest of this submission answers the consultation's specific engagement questions.

2. Q1: What are your views on the overall approach set out in the paper?

- 2.1. The approach set out in the paper is based on a principle that universities in Wales strongly support – that the UK Government should replace Structural Funds in Wales at the same level and without reducing powers to the Welsh Government.
- 2.2. European Structural Funds provide vital investment for projects and infrastructure that contributes towards economic and social growth in Wales. Targeted towards the poorest parts of the UK, which includes parts of Wales, they have enabled universities to be key players in projects crucial to regional development.
- 2.3. Universities in Wales have been one of the biggest users of Structural Funds, to the benefit of Wales:
 - Since 2000, Wales has received over £2bn in European Structural and Investment Funds (ESIF). The majority of this was via European Regional and Development Funds (ERDF), which includes a budget of £310m to support research and innovation (R&I).
 - In 2015 alone, almost £25 million of ERDF funding was approved for proposals

led by universities in Wales to enhance R&I infrastructure and build capacity. Examples of projects led by Welsh universities with multi-million-pound SF investment are included in Annex 1.

- ESIFs have funded Welsh universities, in partnership with others, to deliver great benefits for their regions by driving innovation, improving competitiveness, creating direct and indirect jobs, and promoting employment and education opportunities. They have established R&D centres to collaborate with industry, innovation centres and campuses to provide specialist facilities, support and funding to SMEs embarking on R&D and innovation projects. Further, these funds have been used to create collaborative PhD and Masters programmes to support research projects specified by SMEs and undertaken by a research student, as well as graduate placements, skills training, and innovation voucher schemes offering funding to businesses to support early-stage innovation.

- 2.4. However, a significant step-change in approach is required to deliver the change Wales needs. Future regional investment in Wales should focus on priorities that will make a transformational change to Wales' economy.
- 2.5. We agree that replacement funds should be managed in a very different way. There are lessons to be learned from EU regional policy and universities have vast experience in the pros and cons of the current system (these are covered in Q6, Q7 and Annex 2). However, we agree that future people- and place-based investment programmes must reflect future challenges, rather than assuming that past practices will always provide the best template for what is to come.
- 2.6. For the future strategy for regional investment to create transformative economic change in Wales, it is imperative that it is approached with creativity and ambition, and that this is not stifled by a focus on making adaptations to the existing strategy and structures. Welsh universities have great capacity to support Welsh Government to achieve this aim.
- 2.7. Finally, the design of a replacement regional investment fund for Wales cannot be done in isolation. It must both take into account the changes in continuing and future EU programmes as well as being flexible against future changes in funding from UK government.

3. Q2: What are your views on the principles identified in the paper?

- 3.1. We broadly agree with the principles identified in the paper. The following principles are of particular importance and/or we have comments to add:
 - We strongly agree that strengthening partnerships will be crucial to future regional investment in Wales. Universities should play a key role in these partnerships as their relationships range from local, as anchors in our communities across Wales, to global, as world-class institutions. However, partnership working should not be applied as a blanket approach and works best when partnerships are appropriately placed. For example, the implications of Brexit on universities and colleges will differ due to the competences laid out in the Lisbon Treaty relating to research, which is a shared competence, and

education which is a more limited competence to support and coordinate action. As universities in the UK are the main organisations for undertaking research, the of implications of post-Brexit policies are much more significant.

- We also agree that Wales' future regional investment needs to take greater risks to encourage innovation and attract private sector investment. A different attitude to project risk and risk profiling is needed. This can be addressed by increasing capacity in carrying out proper due diligence, where investment decisions are made based on an assessment of how well the structures put in place can mitigate against potential risks. Projects that are able to attract private sector investment will have good due diligence and so are also a signal of confidence that plans are in place to appropriately manage risk. Also key to encouraging innovation are the right people and relationships. A culture change is required to bring in an innovative system, and relationships and linkages are key. We recommend Welsh Government seeks to establish sufficient externality in its processes to achieve this.
- "A greater role for inclusive regional partnerships in planning and decision-making, facilitated by an associated alignment of resources" - Whilst we agree with this statement in principle, further consideration must be given to internal governance and capacity if we are to successfully embrace regional policy and investments in the future. Furthermore, Welsh Government should carefully consider, and provide clarity, on what needs to be delegated to a regional or local level and what does not.
- We strongly agree that a principle of future regional investment in Wales should be a strong focus on outcomes. The current programme has focussed too much on inputs, which often hinders achieving outputs. We would recommend that the focus is on return on investment for Wales (this is expanded on in Q3).

4. Q3: What are your views on the core priorities or objectives for investment that should be set by the Welsh Government?

4.1. The overarching objective of future regional investment in Wales should be **to create transformational change in the Welsh economy.**

4.2. This will be achieved by prioritising investment in what has been demonstrated globally as having a transformative effect on economies:

- Research and Innovation
- Higher Level Skills

4.3. If these investments are scaled properly, Wales can expect to see a strengthened economy, which will in turn will deliver the following **returns on investment** that are crucial to Wales' future prosperity:

- Increase in universities' contribution to Wales' GVA
- Increase in the number of high value jobs
- Increased attraction of inward investment
- Increased export earnings from international higher education services

4.4. Targeted investments should be made based on these priorities for investment and their returns for Wales. The following are targeted investments examples that Universities Wales recommend would provide the returns above, but is not a complete list:

- Investment in R&I and high-level skills has great potential to create a step change in new job creation in Wales. Investment should be targeted at growing graduate start-ups and supporting university spin-outs **with high-growth potential** from this activity, and universities are well placed to do this.
- To encourage transformative growth, investment should also be targeted towards building the eco-system around R&I investment, for example through investment in the research infrastructure that attracts businesses and activities that strengthen supply chains. Building on their current activities and expertise, universities can play a key role in building this eco-system.
- There is a large appetite for degree apprenticeships in Wales. Investing in degree apprenticeships is a key component to investing in higher-level skills. Investment should be made in a broad degree apprenticeship offer that includes a wide range of subject areas and includes Master's (level 7) provision and a funding model that best enables universities to respond to employer demand in Wales.
- One job is created in Wales for every 3 international students recruited to a Welsh university. International higher education services are a significant way to increase trade in Wales and as such, Welsh Government should prioritise targeted investment in international marketing and recruitment support, coordinated with all the outward facing elements of Welsh Government, in order to recruit international students.

4.5. Universities have already demonstrated their capacity to provide returns for Wales on investments in R&I and high-level skills. For example, the ASTUTE work created economic impact of well in excess of £200m in West Wales and the Valleys showing that for each £1 invested an outstanding return of over £8 of economic impact was achieved (see Annex 1 for further information on the ASTUTE project). This is consistent with HEFCE's findingsⁱⁱⁱ that public investment in universities' innovation activities in England, i.e. the Higher Education Innovation Fund (HEIF), produces a return of £6.30 per £1 spent – plus a further £3.36 in additional turnover from student start-ups and spin-offs.

4.6. Investments should only be targeted geographically where appropriate, with the overriding principle for prioritising investment being the return on the investment for Wales. This however should not just be based on evidence of what has worked in the past, but also on what has worked elsewhere. Welsh Government should not be afraid to look outside of Wales for people, collaborations and ideas for innovative solutions.

4.7. Secondly, real innovation will come from **using prosperity funding to leverage funding from other sources**, both at a UK level and from global opportunities.

4.8. Finally, **research, innovation, skills, training and education should be at the heart of future regional investment in Wales** after Brexit:

- Future policy should ensure sustained investment to support Welsh universities to collaborate with business, which will provide the innovation and jobs that Wales needs. Innovation funding in Wales creates business scale-up and growth.
- High quality research and collaboration are the bedrocks of a growth economy, and can be significant levers in balancing growth across the country. The translation of research into economic benefits is a key aspect and the absorptive capacity of industry in Wales to innovate needs to be fostered and supported, as a capillary conduit for sustained growth.
- Given that 45% of EU Cohesion Funding is currently directed to innovation-related investment, it will be essential to ensure at least a similar proportion of Wales' future regional investment is used to support innovation, including R&D and university-business collaboration. Additionally, it should be highlighted that in England, the Higher Education Innovation Fund (HEIF) has played a crucial role in enabling universities to develop their technology transfer capabilities. In Wales, HE-BCIS figures for 2014/15 showed a 24% decrease in total income from regeneration and development programmes: thus ESIFs have only been a partial substitution for funding streams such as HEIF and Welsh institutions are at a competitive disadvantage in comparison with their English counterparts.
- Wales punches above its weight in terms of entrepreneurship. The higher education sector in Wales represents around 5% of the UK sector but Wales had 12.4% of the UK's graduate start-ups and 14.6% of the UK's staff start-ups that have survived for three years or more.³ Additionally, through partnerships with employers, universities delivered nearly a quarter of a million learner days of CPD in Wales in 2015-16¹, enabling Welsh businesses to grow.
- ESF funded projects at universities in the UK have supported the development of a pipeline for skills progression. University-led ESF projects have promoted routes into higher level skills education for those least likely to access higher education and supported graduate retention rates in economic growth areas such as professional services, creative and digital industries, and life sciences.
- We agree that low productivity remains a particularly important problem requiring long-term investment in skills, connectivity and innovation in Wales. Universities and their graduates are key to increasing future productivity and economic prosperity for Wales. As highlighted by a recent Government Office for Science report, the skill levels of a country are directly linked to economic growth, productivity improvement, competitiveness, and innovation.^{iv} Estimates typically attribute 20% of the UK's economic growth in recent decades to improved workforce skill levels.^v It is also estimated that each 1% increase in the proportion of the UK workforce with a university degree increased productivity by up to 0.5% over a 20-year period (1994-2005), and that one third of the increase in labour productivity over that period can be attributed to increasing levels of graduates in the workforce.^{vi}

- The consultation document also notes the “adverse skills mix” in Wales, highlighting that a lower proportion of working age adults have an NVQ Level 4 or higher in Wales compared to England. This issue will be compounded by the changing workforce of the future. A recent PwC^{vii} report on automation found that for those educated to GCSE-level or below, the estimated potential risks of automation are as high as 46%. This falls to only around 12% for those with undergraduate degrees or higher. Work by the CBI found increasing numbers of firms are looking to recruit high-skilled workers, from 58% in 2011 to 74% in 2016. The same report found that geographic areas with more graduates are also significantly more productive than those with fewer.

5. Q4: In delivering a new approach to regional investment what do you think the most appropriate roles and responsibilities are for: (a) the Welsh Government; (b) regional partnerships; and (c) local partnerships? Q5: What are your ideas about ensuring the right mix of national (all Wales), regional (e.g. North Wales), and local (e.g. community-led) investments?

- 5.1. Wales’ eight universities are reasonably well distributed across its geography and they have been proven to impact on all regions of Wales, even where there is not a local university presence. All regions of Wales share in the economic impact of Welsh universities, with clear impacts on local employment, and with many local businesses dependent on the spending of the universities, their staff, and students across local authority boundaries and to areas which do not even host a university. In recent analysis^{viii}, nine centres of university activity were identified and used as the originating point of impact, which then spread across Wales in a ripple like effect. The results of the detailed analysis of impact across the 22 Local Authority areas of Wales show the economic impact was felt in some of the poorest regions in Wales:
- 5.2. Of the 49, 216 jobs generated by the universities in Wales:
- 11,024 (22%) were in parts of Wales that did not have a university presence.
 - 24,805 – over 52% - were in the EU classified ‘Convergence regions’ i.e. regions with a GDP/capita of less than 75% of the average of the average GDP/capita of EU-25.
- 5.3. Of the £2.67 billion of Welsh GVA generated across Wales by Welsh universities and their students:
- £561 million (21%) were in areas that did not have a university presence.
 - £1.42 billion – over 53% - were in the EU classified ‘Convergence regions’
- 5.4. Universities are already playing an active role in regional development strategies, for example through regional skills partnerships, economic ambition boards, the two southern city-regions and more recently, the North Wales Growth Deal. Universities Wales believes future regional policy should continue to support the progress of City and Regional Growth Deals for Wales (see Annex 3 for further information on the city and growth deals). They have the potential to improve productivity, drive innovation and support job growth throughout the region. Drawing on multiple funding streams, including ERDF, Cardiff University and IQE have formed a strategic partnership to

spearhead the creation of the world's first compound semiconductor cluster in a project that has already secured the first Catapult Centre in Wales. Swansea University has also used ERDF in its partnership with Tata Steel in the SPECIFIC project, where they are producing functional coatings for solar power systems that transform buildings into power stations.

- 5.5. The Welsh Government's strategy should encompass the regional elements of the City and Regional Growth Deals within a more comprehensive nation-wide approach. It is also vital that UK Government does not consider the City and Growth Deals replacement investment for any shortfall in funding through the loss of structural funding after Brexit.
- 5.6. However, for future regional investment at a level that matches current ESIFs to be led by regions, much more will need to be done to build resource and capacity in regional teams to effectively manage strategic partnerships and projects. For example, the current regional proofing process does not go far enough and regions would need decision making powers, but only if appropriately resourced, with greater capacity for rigorous test and challenge and with proper governance. Future regional governance models must be based on the principle of maximising impact. A key method for achieving this will be ensuring they allow for flexibility in investment, to allow decisions on projects and their funding to be moved if this would increase impact.
- 5.7. We anticipate that the majority of the decisions about regional investment in Wales after Brexit, such as R&D and skills, will be required at a national level for national benefit. In whatever way the balance of roles and responsibilities is distributed between national, regional and local levels, the overriding principle should be that how it is distributed does not create unnecessary levels of bureaucracy. Structures should not distract from delivery the focus should be on innovative solutions, rather than on ourselves.
- 5.8. It is right to want to see impact at national, regional and local level but consideration should be given to where decisions are best made to achieve this impact. Decisions made at a local level can have a national impact, for example a national project to support trade in international HE services will predominately have local impact through international spend. Conversely, the local decision on the planning application for the Swansea second campus will see regional, national and indeed global impact through its activities. The issue for governance will be deciding whether nationally, regionally or locally -led projects will have the most impact and at what level a project have the highest return.
- 5.9. We recommend that in developing a framework for regionally-focussed economic development in partnership with stakeholder across Wales, Welsh Government includes Welsh universities as key stakeholders in this. As universities are embedded in their regions they can provide valuable input to framework development. As Welsh universities also work on a national level, and in regions in which they are not situated, these frameworks must be flexible across regions and not create another layer of bureaucracy. For example, Swansea University is working with Coleg Cambria to provide a Foundation Degree in Aerospace Engineering for Airbus Higher Apprentices in North East Wales.

6. Q6: What are your views on the benefits that should be retained from our delivery of those programmes currently funded by the EU?

- 6.1. A key strength of ESIF that should be retained is that the funds are delivered over a longer period than traditional domestic programmes, providing stability and confidence through more informed criteria to secure local funding allocations.
- 6.2. ESIFs have also played a significant role in facilitating Welsh universities' ability to leverage private sector funding e.g. EU Framework Programme Funds. Particular consideration should be given to how future regional funding and policies can be used to build capability and capacity around existing centres of excellence to enhance international competitiveness in Wales. As we prepare to leave the EU, Welsh Government should consider domestic innovation and development policies that complement the future European Framework Programme (FP9).

7. Q7: What opportunities are there for us to do things differently and with greater impact?

- 7.1. As covered in Q1, important lessons can be learnt from the SF programmes, and these should be taken into account in the design of a replacement regional development policy for Wales. Below the improvements are covered in more detail, however we emphasise again that an adapted version of the current system with small amendments will not make the significant step-change that is really needed in Wales and that is Welsh Government's ambition:
- For future investment to have a transformational effect on the Welsh economy, projects need to be delivered at a greater scale. To do this requires a more ambitious approach, accompanied by a greater capacity for due diligence. Future investment decisions should build on areas that have demonstrated existing success and, crucially, that leverage private investment.
 - Creating an appropriate balance between rigorous accountability without being too risk averse will be key to success.
 - A future focus should be on reducing administrative barriers and burdens to the beneficiaries through **risk-based auditing** and **performance-based auditing**. The rules around control and audit have been particularly burdensome for universities' professional service staff. We recommend a shift towards risk-based auditing, reducing the audit burden on beneficiaries/systems with proven capacity and, where appropriate, a shift towards performance-based auditing, where the result of the project is of key importance in the audit trail and the process is of secondary importance.
 - Monitoring and evaluation should ensure that performance is managed effectively and impact is properly assessed and attributed, so that delivery institutions can be held to account. One of the key problems in monitoring and evaluation is balancing the need for accountability and compliance on the one hand, with experimentation and innovation on the other. The evidence from the ESIFs is that **creativity was stifled by a bureaucratic compliance culture**, an important lesson for future regional investment in Wales.

- Overall, Welsh Government should seek to **reduce complexity** wherever possible in future to, amongst many things, encourage more entrepreneurial behaviour and activity.

8. Q8: What ideas do you have which may help create an entirely new or innovative approach to regional investment?

- 8.1. See our response to Q3 regarding priorities for investment and their return for Wales.
- 8.2. Key to a new and innovative approach to regional investment will be an outward approach. This includes designing a clear and flexible system to avoid resources being consumed with internal processes, and bringing external experience into the system to identify opportunities and create the culture change required.
- 8.3. Furthermore, a new system should look outwards for collaboration across borders and to enhance our global economic effort. After Brexit, sustaining and developing new international opportunities and projecting Wales as a dynamic and outward-looking economy will be crucial. Universities are committed to protecting and growing the sector's export contribution through their international work (which includes the Global Wales partnership with British Council, HEFCW and Welsh Government). In 2015-16, Welsh universities generated £544 million of export earnings, equivalent to 4.1% of all Welsh exports. There is great potential to increase this through work with our universities to boost Wales' global profile in key overseas markets.
- 8.4. We agree that Welsh Government should not simply replace EU programmes by other means. Future regional investment needs to be part of a wider system of investment, and not just in Wales, but at a UK level and beyond. We agree that Wales would benefit from integrating related and cross-cutting policies in a closer way for even greater strategic benefit. An example of this would be considering how future regional investment could enhance, rather than complicate the current challenge for locally-engaged universities who have to calibrate a wide array of activities; from Research Council projects to the more developmental projects funded through ERDF, other EU projects, and new policies and opportunities from the UK Industrial Strategy, all combined with local investment.
- 8.5. In order to help facilitate this integration of cross-cutting policies, we agree that appropriate structures need to be in place between Welsh Government and UK Government.
- 8.6. Other future structures and policies that affect university research will also need to be considered in the design of future regional investment in research and innovation to ensure they are aligned to maximise Wales' research base and what it can leverage. The most significant of these are the Reid Review of government funded research and innovation and the new Research and Innovation body for Wales proposed in Welsh Government's post-compulsory education and training white paper.

9. Q9: What EU programmes should Wales seek to retain access to and how?

- 9.1. The consultation document highlights the benefits to Wales of continued participation in Erasmus+ and European research and innovation programmes,

including Horizon 2020. We agree full access to these should be retained.

10. Q10: How would you like to be engaged in our development and delivery of a future regional investment model for Wales?

- 10.1. We would recommend that Welsh Government develop tripartite models of Government/University/Industry collaboration to drive growth in Wales, whether through City and regional growth deals, national strategy or otherwise. Universities in Wales have a long history of collaboration with both Government and industry. The City Deals provide examples of innovative partnerships that place universities at their centre and will enable them to be key levers for regional development.
- 10.2. We agree that it is partners within the regions – working jointly with the Welsh Government – who are best placed to identify the specific challenges and opportunities in their areas. Universities in Wales are extremely well placed to do this as both local anchors in communities in all Wales’ regions and globally connected world-class institutions.
- 10.3. It will be very important that future regional bodies include universities as well as local businesses within their structures to ensure work on skills, research, innovation and infrastructure are properly joined up. University representation on any future regional and national decision-making bodies may need to be increased to reflect their vital role and contribution.

Annex 1 - Examples of projects, led by UK universities with SF investment

ASTUTE 2020 project

ASTUTE supports the stimulation of ideas in the Welsh manufacturing sector through provision of resources, facilities, advice and guidance exploiting the wealth of world class research in Welsh universities in close research collaborations with industry. It is a collaboration of four Welsh universities; Swansea University, Cardiff University, Aberystwyth University and the University of Wales Trinity Saint David (UWTSD). In the previous funding round (2010 - 2015), the project supported more than 250 Welsh enterprises in West Wales and the Valleys, supporting them towards long term sustainability and competitiveness, the most evident improvements experienced by companies were improved processes, accelerated research and development, improved growth prospects and new product developments. The final evaluation of ASTUTE concluded that ASTUTE's work created economic impact of well in excess of £200m in West Wales and the Valleys showing that for each £1 invested an outstanding return of over £8 of economic impact was achieved.

Cardiff University: Compound Semiconductor Technology Cluster (£13 million)

The world's first Compound Semiconductor Technology Cluster will be formed in South Wales as a result of work between Welsh Government, Cardiff University and IQE Plc. The institute has benefitted from several large-scale investments including £13 million from European Structural Funds as well as £17.3 million from the UK Research Partnership Investment Fund RPIF and £12 million from the Welsh Government.

Swansea University: Science and Innovation Campus (£40 million)

Swansea University's Science and Innovation campus was developed with extensive EU support. As well as EIB investment, £40 million was received in European Structural Funds. The development was amongst the top five knowledge economy projects in Europe and aims to generate around £3 billion of economic impact over a 10-year period through construction activity, research, and student and business investment.

FLEXIS (£24m)

The FLEXIS project, led by Cardiff University, brings together expertise from across Welsh universities to facilitate an affordable, sustainable, and socially acceptable transition to a low carbon future. The five-year EU-backed project will look to solve a diverse, complex and inter-dependent set of challenges, ranging from energy storage, to decarbonisation and fuel poverty. By 2020, over £20m of additional competitive research income is expected to be secured in Wales as a result of FLEXIS.

Bangor University: Knowledge Economy Skills Scholarship (KESS I £33m, KESS II £40m)

KESS is a major European Convergence programme led by Bangor University on behalf of the HE sector in Wales. Benefiting from European Social Funds, KESS supports collaborative research projects (Research Masters and PhD) with external partners based in the West Wales and the Valleys. It has an integrated higher-level skills training and development programme, leading to a Postgraduate Skills Development Award. The first

phase of KESS provided 453 PhD and Masters places (230 PhD / 223 Research Masters) with Welsh organisations, of which 61% were SMEs.

Annex 2 - Specific challenges of managing SF projects in the HE sector and suggested remedies:

- a. **Scrutiny of activities (inputs) rather than longer term outputs (outcomes and impact).** There is an embedded culture of close scrutiny and micro-management of activity and quarterly reporting on projects. Historically, delivery has focussed on short-term targets/indicators that have the potential to distort behaviour and activities, driving short-term activities, rather than embedding long-term and structural change in the regional economy.
- Remedies:
- Reporting and scrutiny should focus on progress towards longer-term outputs/impact
 - Create indicators that include 'impact measures' alongside appropriate short-term activity measures
 - Create indicators that assess quality (e.g. of research outcomes) not just quantity
 - Incentivise / take a risk on different behaviours that result in structural changes
 - Allow for more overlap of indicators across Objectives/Themes.
- b. **Excessive and unnecessary audit.** This is far in excess of other grant schemes operating in HE, including all other EU funding programmes, and counter to the EC desired 'simplification agenda'. It creates a huge additional administrative burden in both HEIs and the Managing Authority, requiring new posts dedicated to all aspects of financial management, compliance and reporting.
- Remedies:
- Move to annual financial expenditure and income statements/claims
 - Correspondingly, move to less frequent 'verification/audit' on claims (Horizon2020 funds are audited at 18-24 month intervals)
 - Follow simple 'rules-based' principles
 - Remove requirements for audit trails 'back-to-bank statement'
 - Give grant holders more autonomy on 'eligible' expenditure and income.
- c. **Unfair financial reporting.** HEIs invest very high-levels of their own resources into these projects that are not recognised in the underlying project budgets or financial reporting. 'Eligible costs' are not reported on a 'full economic costing' (FEC) basis.
- Remedies:
- Recognise the significant additional financial contribution made by HEIs over and above permitted 'eligible cost' budgets, including QR as part of the dual funding mechanism, and consider moving to a FEC basis (or in line with Innovate UK financing models) to reduce this burden.
 - Increase the grant rates available to above 50-60%, up to 80% in line with other UK funders.

d. **Implementation designed without proper consideration of the delivery sectors.**

Implementation design needs robust input from experienced professionals working in the relevant sector. 'Strategic fit' on its own is not sufficient; 'practicality of delivery' should be underpinned by an understanding of how a sector operates at an administrative level. This is particularly important where a government department designs, delivers and administers an activity which requires the participation of HE as a 'grant recipient'.

Remedies:

- Actively support cross-sector movement /secondments of staff
- Use qualified professionals (scientific officers for Research, experts in the area of Infrastructure capacity building, Experts in the area of Skills/Training etc.) for additional advice and assessment of feasibility of delivery in the business planning design stage
- Find mechanisms to resource the design and development of projects, not just the delivery of them
- The Regional Engagement Teams should have greater HE representation at all levels
- Scrap the distinction between ESF and ERDF and instead fund what works in the sector/partnership. If demand/need can be demonstrated for a combination of qualifications (ESF) and infrastructure (ERDF), support the vision.
- Look again at 'state aid' legislation and the extent to which this is constraining the design, implementation and administration of activities by HE.

Annex 3 – City and Growth Deals in Wales

1. Cardiff Capital Region and Swansea Bay City Deals

- 1.1. Cardiff City Deal (£1.2bn) - The UK Government announced that it will provide £50m to help develop the compound semiconductor technology of the future as part of the UK Government's City Deal investment. Cardiff university and Cardiff-based compound semiconductor specialist IQE will spearhead the UK national 'catapult'. However, the university's involvement is expected to go much further. The City Deal foresees the potential for investment in other areas in which the university is able to offer expertise, such as software development and cyber security, energy and resources and health and wellbeing. The deal also includes support for the region's infrastructure including the delivery of the South-East Wales Metro and the Valley Lines Electrification programme.
- 1.2. The Swansea Bay City Deal (£1.3bn) - The Internet Coast, the Swansea Bay City Deal, aims to turn the whole of the region into a digital super hub to transform the regional economy, the future of energy and transform the way health and social care will be delivered in future. It aims to create 10,000 new jobs and increase the value of goods and services produced in the region by £1.8bn. There is potential available for the area, and wider Wales, to be lead in new technologies such as wireless 5G connectivity.
- 1.3. Swansea University has been heavily involved in all 11 Internet Coast projects, with particular leadership in the projects focused on:
 - The Life Science and Well-being Campuses, and Life Science and Well-being Village projects, to support innovative growth of the life science sector
 - The unique ARCH (A Regional Collaboration for Health) project - already established to develop the region into a globally relevant ecosystem for integrated Open Innovation in Life Science and Well-Being
 - The Factory of the Future Initiative Growing Smart Manufacturing practice
 - The Steel Science Centre at Tata's Port Talbot Steel Works
 - Swansea University's SPECIFIC Innovation & Knowledge Centre

2. Growth Deal for North Wales

- 2.1. Bangor University is heavily involved in the development of a North Wales Growth Deal, working with the North Wales Economic Ambition Board, its members and partners across the region, which include Wrexham Glyndwr University, the North Wales Business Council, Mersey Dee Alliance, the six North Wales local authorities and Further Education providers, to put together a strong proposal which will drive growth across the region.
- 2.2. Given its considerable strengths in teaching, its research expertise in sectors such as Marine Science, Electronic Engineering including Computer Science and telecoms (5G), Biocomposites and Sustainable Energy, and its strong collaborative links to Ireland, Bangor University is a catalyst to ensure that investment under the Growth Deal delivers real growth in GVA not just in the north west but along the entire north

Wales region.

- 2.3. The north Wales economy is closely connected to the major developments planned in the Northern Powerhouse, and Bangor University's involvement will assist the region in leveraging the benefits of that investment. Post Brexit, the opportunities to capitalise on the region's connectivity with Ireland will also be key, and the university also has a substantial amount of expertise which will assist the region in that respect.
- 2.4. Bangor University's expertise in developing high-level skills, R&D, Knowledge Transfer, Innovation and Commercialisation will be central to the success of the Growth Deal in North Wales. Bangor University is also ensuring that valuable research and knowledge assets created by HEIs are translated into real economic gains: high value jobs, increased exports and successful growth patterns by North Wales firms in priority sectors such as Energy, Environment and Advanced Manufacturing.
- 2.5. The effect of the North Wales Growth Deal will be to create real growth and momentum in high value business sectors. The University's expertise and involvement in the energy sector is a good example of how Bangor University will be a focus for innovation and development in this area. It is heavily engaged in a number of low carbon energy projects in the region, including the estimated £12bn investment in the new BWR nuclear reactor at nearby Wylfa, as well as a new biomass power station, a number projects involving marine renewable energy and a number of other projects.
- 2.6. The newly completed £20m ERDF/Welsh Government funded Menai Science Parc (MSPARC) will be a key asset in terms of realising economic benefits as outlined above, along with planned developments of a Science and Technology Quarter on the Bangor Campus. Aligned with rapid prototyping / design capabilities in the £51m Pontio Arts and Innovation Centre there will be a pipeline established for generation of new products processes and services, from research laboratory through preincubation stages to establishment of new ventures at MSPARC or elsewhere.

3. Growth deal approach for Mid Wales

- 3.1. It is important to recognise that the above city and regional growth deals do not provide coverage of the entirety of Wales. Universities Wales would like to highlight successful regional partnerships for consideration in any future regional growth deals. There is scope to invest in ways which would connect these forms of Welsh infrastructure more effectively with institutions across the UK and internationally:
- 3.2. SPECIFIC, an academic and industrial consortium led by Swansea University with Cardiff University, BASF, Tata Steel, and NSG Pilkington as strategic partners. SPECIFIC develops functional coated steel and glass products that transforms the roofs and walls of buildings into surfaces that will generate, store and release energy.
- 3.3. ASTUTE 2020, which is designed to stimulate growth in West Wales & the Valleys by applying advanced engineering technologies to manufacturing challenges, driving

cutting-edge research, development, and innovation. At the core of ASTUTE 2020 are four Welsh HEIs, Swansea University, Cardiff University, Aberystwyth University, and the University of Wales Trinity Saint David.

ⁱ £218 million international revenue and £195 million off-campus expenditure of international students

ⁱⁱ Higher Education Business and Communities Interaction (HE-BCI) survey

ⁱⁱⁱ PACEC (2014) Knowledge exchange performance and the impact of HEIF in the English higher education sector, report for HEFCE by TC Ulrichsen

^{iv} “Future of Skills and Lifelong Learning”, Government Office for Science, 2017

^v “UK Skills and productivity in an international context”, BIS, December 2015

^{vi} “The relationship between graduates and economic growth across countries” Hooland, D., Liadze, i., Rienzo, C. and Wilkinson, D., Department for Business, Energy and Industrial Strategy, 2013

^{vii} “Will robots steal our jobs? The potential impact of automation on the UK and other major economies”, PWC Economics, 2017.

^{viii} <http://www.uniswales.ac.uk/wp/media/The-Economic-Impact-of-Higher-Education-in-Wales.pdf>