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24 May 2019

Dear Professor Sir Adrian Smith

Re: Future frameworks for international collaboration on research and innovation: Adrian Smith call for evidence

Universities Wales welcomes this call for evidence to inform the design of future UK funding schemes for international collaboration, innovation and research. Our parent body, Universities UK, will be responding in full to the call for evidence, which we support and wish to supplement with this letter to highlight Wales specific issues.

Universities Wales represents the interests of universities in Wales. Our membership encompasses the vice-chancellors of all the universities in Wales, and the Director of the Open University in Wales. Our mission is to support a university education system which transforms lives through the work Welsh universities do with the people and places of Wales and the wider world.

Current landscape

Universities Wales strongly believes that the UK's full association to the prestigious Horizon Europe programme would be the best way to continue to support excellence, as well as maintaining mobility and breadth of research and innovation.

As the rest of the UK, the Welsh university sector has been strengthened and enhanced through participation in Horizon 2020 and the previous EU Framework Programmes. Wales has benefited from the funding, prestige, mobility and rich networks that EU research and innovation programmes have offered to participants. Welsh universities have also received significant funding through the European Structural and Investment Funds which have enable us to build research and innovation capacity to enable future bids into the Framework Programmes.

Currently, over €75.5 million (70%) of all Welsh Horizon 2020 funding to date has been awarded to Welsh universities.1

Director: Amanda Wilkinson

¹ Welsh European Funding Office, Horizon 2020 funding, March 2019



Table 1: EU Horizon 2020 contribution

	H2020 Net EU Contribution
Aberystwyth University	€7,502,716
Bangor University	€9,932,746
Cardiff Metropolitan University	€536,408
Cardiff University	€40,715,472
Swansea University	€16,203,613
University of South Wales	€628,915
Other Welsh H2020 participation	€32,896,282
Total Horizon 2020 funding in Wales	€108,416,152

In relation to EU Structural Funds Welsh universities have received over £570 million from the EU Structural Funds programme since 2000.² Wales has significant access to Structural Funds and will receive €2.4 billion from the 2014-2020 programme: over 22% of the UK total of €10.9 billion goes to Wales. Welsh universities are the second biggest recipients of Structural Funds after the Welsh Government by a significant margin. Recent data available show that £262.5 million of 2014-2020 Structural Funds programme have been awarded to Welsh universities as lead partners and, a further £70 million in projects that Welsh universities are involved in but do not lead.³

An independent report by the Joseph Rowntree Foundation states that 'as a matter of priority, the Government should commit to match the current level of EU Structural Fund spending with resources that are additional to existing local growth budgets, with a multi-year commitment to enable longer-term planning' and that 'Government should allocate money across the UK based on need, outside of the Barnett formula⁴. The precise methodology for allocating resources between the administrations of the UK should be negotiated in an open and transparent forum between the UK Government and the devolved administrations.' The report also recommends that the new fund needs to be devolved by design.

Wales relies heavily on EU Structural Funds and this funding helps builds research and innovation capacity to enable future bids into Horizon 2020. Below are examples demonstrating how EU funding has worked so effectively in Wales.

- Knowledge Economy Skills Scholarships is a major European Convergence programme led by Bangor
 University which supports collaborative research projects with external partners based in the West
 Wales and the Valleys. The project received £73 million from European Social Fund to promote highlevel skills development by increasing the research capacity of SMEs by linking with a PhD or research
 master's project, it has supported over 450 postgraduate places to date.⁶
- Aberystwyth University's new £4.2 million state-of-the-art veterinary hub to drive forward research to protect both animal and human health will develop an innovation cluster. The project will provide a range of opportunities for businesses throughout the livestock supply chain, and associated industries, which will benefit from the new facility and collaborative research opportunities. It will provide a focus for businesses to develop new products and services, as well creating new high-quality jobs in the area.⁷

² Universities Wales and Welsh Higher Education Brussels joint <u>response to the Children, Young People and Education Committee</u> <u>Inquiry on the Impact of Brexit on Higher and Further Education</u>, June 2018

³ WEFO, Structural Funds, November 2018

⁴ Using the Barnett formula would significantly disadvantage Wales as it is primarily based on population, and not on an assessment of economic need.

⁵ R Tinker, *Designing a Shared Prosperity Fund,* Joseph Rowntree Foundation (October 2018)

⁶ Universities Wales case study, <u>Knowledge Economy Skills Scholarships: Developing and retaining research and development skills to strengthen the Welsh knowledge economy</u>, November 2018

⁷ Universities Wales case study, <u>Aberystwyth's new £4.2 million EU-backed veterinary facility and Centre of Innovation Excellence in Livestock hub</u>, November 2018



- Flexible Integrated Energy Systems (FLEXIS) is a £24.5 million research operation, led by Cardiff University, Swansea University and the University of South Wales, which brings together expertise from across these universities to facilitate an affordable, sustainable, and socially acceptable transition to a low carbon future. The five-year EU-backed project, supported by European Regional Development Fund, 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 £20 million of additional competitive research income is expected to be secured in Wales as a result of FLEXIS.⁸
- Advanced Sustainable Manufacturing Technologies (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 backed by the European Regional Development Fund and designed to stimulate growth in the manufacturing sector across Wales by driving cutting-edge RD&I. It is a collaboration of four Welsh universities; Swansea University, Cardiff University, Aberystwyth University and the University of Wales Trinity Saint David. The project supported more than 250 Welsh enterprises in West Wales and the Valleys in 2010-2015, with stage two running until 2020. It has created economic impact excess of £200 million in West Wales and the Valleys showing that for each £1 invested an outstanding return of over £8 of economic impact was achieved.⁹
- BEACON Biorefining Centre of Excellence Enhancing the 'green economy' and applying excellent science to stimulate new job creation – supported by the European Regional Development Fund enables Wales-based companies to develop renewable energy products and services, assisting in the transition to a low carbon economy and helping to mitigate the impact of climate change.¹⁰
- International Centre for Design and Research based at Cardiff Metropolitan University has used EU Structural Funds to boost capacity and lead to successful Horizon 2020 funding the Design Policy Group received two INTERREG grants, one in 2005 and a second in 2008 to develop European competitiveness. The team has grown capacity in international innovation projects and achieved successes in competitive Horizon 2020 calls.
- Sêr Cymru II was a competitive research award scheme, open to universities in Wales. Applications had to have match funding provided by the fellow's host institution but are driven by the fellows themselves. Sêr Cymru II was a £56 million programme, led by the Welsh Government, European Union (EU) and the Welsh Higher Education sector. It is a unique development, seeing the EU's Horizon 2020 funding working in synergy with EU Structural Funds.¹¹

Dual funding

The key to the success of higher education research funding in the UK has been the dual support system of funding.¹² Dual support comprises of core or un-hypothecated funding (such as quality-related research or QR funding, allocated by the funding councils to support fundamental and blue skies research) and competitive, project-based funding streams which universities compete for grants from a variety of public and non-public sources (such as the EU's Horizon 2020 framework programme, the UK's research councils, charities and industry).

⁸ Universities Wales case study, <u>Flexible Integrated Energy Systems: Building on the world-class capability that exists in Welsh universities</u>, November 2018

⁹ Universities Wales case study, <u>Advanced Sustainable Manufacturing Technologies: Embedding advanced and sustainable technologies into Welsh manufacturing</u>, November 2018

¹⁰ Universities Wales case study, <u>BEACON Biorefining Centre of Excellence Enhancing the 'green economy' and applying excellent science to stimulate new job creation</u>, November 2018

¹¹ Sêr Cymru II <u>website</u>

¹² Diamond, I (2016) The Review of Higher Education Funding and Student Finance in Wales: Final report, Wales: Welsh Government



It is critical that the balance between core and competitive funding remains. The dual support system of funding enables the core, un-hypothecated, funds to build the foundations of the research base ensuring it has the capacity to undertake high quality innovate research and supports the research infrastructure.¹³ These foundations enable universities to competitively bid for research grants and project-based funding.

In June 2018 the Welsh Government published Professor Graeme Reid's Review of Government-Funded Research and Innovation in Wales. ¹⁴ The review highlights the vital contributions of research and innovation to the economy and society of Wales.

Research, development and innovation will be vital post-Brexit and any loss in EU funding from Horizon 2020/Europe and Structural funds will need to be replaced at least at current levels.

Future landscape

Universities Wales recognises that the UK's full association to Horizon Europe is optimal but notes that planning for a replacement scheme is necessary to ensure the UK, including Wales, continues to

- Reward excellence;
- Be prestigious (have the international standing and regard of Horizon Europe);
- Facilitate international collaboration;
- Support mobility (inward and outward);
- Support long-term funding cycle; and
- Replicate ERC and Marie Skłodowska-Curie Action (MSCA) schemes

The UK government's focus and commitment to international research and innovation as outlined in its recently published International Research and Innovation Strategy¹⁵ is timely. The drive towards 2.4% of GDP invested in R&D by 2027 and 3% of GDP in the longer term will need substantial additional investment. It is important that this drive is not focussed solely on those areas already performing well but is focussed equally across regions, including Wales which will need significant further investment in order to meet the 2.4% target.

If there is any further information that would be helpful, please do not hesitate to contact us.

Yours sincerely

Amanda Wilkinson

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¹³ Research England (2018) <u>Guide to knowledge exchange funding 2018/19: How Research England allocates its funds</u>, UK Research and Innovation

¹⁴ Reid, G (2018) Review of Government Funded Research and Innovation in Wales, Wales: Welsh Government

¹⁵ UK Government, *International Research and Innovation Strategy*, May 2019