

# Research and innovation in Wales

## Page 1: Response form

Question 1. How can future support for Government-led investment and support for research and innovation in Wales be aligned with the requirements of the Well-being of the Future Generations Act (2015)? What link should there be between the WFG Act (2015) requirements and the economic and industrial strategy of the Welsh and UK Governments?

The LSW welcomes the Well Being and Future Generations Act [WBFGA] and recognises that current WG policies in relation to higher education, skills, innovation and research as well as meeting the essential interests of the sector, need also to be aligned with the requirements of the act. Areas such as new technologies and health needs are changing at an accelerating pace and in future our decision makers and workforce will need to be more highly skilled, more adaptable and more fleet-footed. This means that now and in the future we need to retain our brightest and best in Wales, we need to attract top quality people to Wales and we need to ensure appropriate learning and developing opportunities for them to lead in areas such as technological innovation, the changing needs of health support, the environment, culture and the quality of life of our people. Welsh Government policy should more effectively encourage more of our best young people to work in Wales. The lack of funding for research and innovation is ensuring that Wales cannot compete with the rest of the UK and funding cuts mean we cannot adequately support the teaching of our doctors, health professionals, scientists and engineers. This lack of investment disadvantages the future for the people of Wales and the policies being followed are the opposite of those needed to support the WBFGA. The Diamond report provides a partial way forward but only if WG accelerates the pace of response and ensures that the Diamond dividend is used in the way indicated in the Diamond Report

Question 2. What can be done by the Welsh Government, Welsh universities and the private sector to increase the competitiveness of the research and innovation landscape in Wales, thereby increasing the attractiveness of Wales as a place to undertake research and innovation and attract inward investment and investors from outside Wales, both in academia and in industry?

WG must ensure that Welsh Institutions can compete with the rest of the UK in terms of research and innovation. In setting budgets, for example, it seems to compare the funding of HE in Wales to that for FE sector, rather than to the funding of the competition outside Wales. Welsh Universities have a shortage of STEM researchers which means the capacity to earn external grants and contracts is reduced. Programmes such as the very successful Ser Cymru 1 and 2 have helped. Opportunities also are evident in the creative industries where investment in staff and technical facilities would enable a significant growth in innovation. Cutting the expensive subject premiums in Universities, however, means a reduction of STEM staff. WG must adopt the Diamond proposals as a minimum. Continuation of the Ser Cymru programme will also bring significant benefits, particularly in developing new strengths which will be important in the future post Brexit.

Question 3. What can be done by the Welsh Government, business and universities to increase research and innovation income in Wales in the light of the implications of BREXIT and the increased funding announced in the 2016 Autumn Statement and UK Government's 2017 Budget, the Global Challenge Fund and other, opportunistic Government funding opportunities?

Most research and innovation income in the UK and Europe relates to STEM and WG needs to continue to address the STEM deficit of staff in Wales. Wales's income from Horizon 2020 has been modest and suffers by the absence of a coordinated Welsh strategy. EU Structural funds have provided some benefits, particularly infrastructure, but the bureaucracy and emphasis on outputs rather than outcomes has hindered progress. In dealing with any new funding streams such as the Industrial Challenge Fund, WG needs to learn the lessons of the past. It needs to have a vision and a clear strategy. It needs to fight for funding for regional capacity development and it needs to ensure that appropriate people and structures are in place to drive the programmes. WG also has the means to ensure that innovation and research in Wales plays in the international arena. It is this that will bring in top quality people, investment and ultimately wealth. Activity in Compound Semiconductors provides one model whereby Welsh Government investment, including via Ser Cymru, has leveraged considerable external funding directed, crucially, at carrying forward research through to commercialisation and hence job creation. Strategic initiatives in other areas such as creative industries, health and energy could similarly benefit from such a model. However, an agile approach should be adopted which enables advantage to be taken of emergent opportunities – so-called 'strategic serendipity'.

Question 4. What is the optimum balance between (a) geographically focused use of funding and (b) focus of funding on existing research and innovation excellence and capability, bearing in mind the Cabinet Secretary for Economy and Infrastructure's new regional approach to economic development?

There is a need to fight for a specific and significant part of the funding released by the UK Government for research and innovation to be allocated directly to Wales. An example is the Industrial Capacity Development Fund which, in Wales, could support capacity building via the City Deals and equivalent. Some kind of regional approach across the UK is essential for Wales. Regional distribution of support within Wales could be associated with the City Deals and the North Wales links with the Northern Powerhouse. The development of nuclear engineering research in Bangor and the links with Horizon are examples of exciting possibilities which could benefit a large geographical region. A key feature of research in Wales is its interdisciplinary collaborative nature. Promoting such activity offers a recognised means for delivering expertise into regions which otherwise would be without the critical mass to develop their potential. Developing a visionary rural policy for Wales should also be a priority and could have exciting opportunities for innovation in line with the WBFGA.

## Page 2: Submit your response

You are about to submit your response. Please ensure you are satisfied with the answers you have provided before sending.

**Name** Prof Peter Halligan  
**Organisation (if applicable)** Learned Society of Wales

If you want to receive a receipt of your response, please provide an email address. Email address

Halliganpw@lsw.wales.ac.uk