



20 April 2017

Dear Colleague,

Invitation to provide written evidence to the Reid Review of Government funded Research and Innovation in Wales.

I am leading a review of research and innovation in Wales on behalf of the Welsh Government. I am seeking written evidence and would greatly value your contribution to the review through that route; therefore, I should be most grateful if you would respond to the questions which are given in Appendix 1. Further information about the review is provided in that appendix. It would be helpful if you would confine your response to 500 words per question but you are welcome to provide additional supporting material if you wish. Your written evidence, but not the supporting material, will be published in full when the review is complete and may be cited in my report. If you are unfamiliar with aspects of the Well-being of the Future Generations Act (2015), please respond to the other questions.

Please provide your written evidence by midnight of 30 June 2017 to Dr Robert Hoyle (Robert.hoyle@wales.gsi.gov.uk)

This Review has been commissioned for the Welsh Government by the Cabinet Secretary for Education, Kirsty Williams AM, the Cabinet Secretary for Economy and Infrastructure, Ken Skates AM, and the Minister for Skills and Science, Julie James AM. The Review was announced in the Senedd by the Education Secretary on 31 January 2017.

The findings of the review will be mine alone but I plan to draw heavily on advice and guidance from this written evidence and a series of oral evidence hearings, details of which will be published separately.

This review has been commissioned to identify current research and innovation strengths in Wales and to outline how these strengths can be developed to enable them to continue to support business, communities and Government effectively in the future, not least in the context of Brexit and the potential loss of significant research and innovation funding. The Welsh Government's aim is to position Wales as a small smart nation which can achieve the scale and quality of research and innovation which compare favourably with other OECD members within 10 years.

Yours sincerely,

A handwritten signature in blue ink that reads "Graeme Reid". The signature is written in a cursive, flowing style.

Professor Graeme Reid

Appendix 1. Questions for written evidence

- a. 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?
- b. 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?
- c. 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?
- d. 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?

Please answer questions using no more than 500 words per question. You are welcome to provide additional prior published evidence should you feel it relevant and appropriate.

Additional Information.

Professor Graeme Reid's Review of Government funded Research and Innovation in Wales

Professor Graeme Reid (University College London and former head of research funding at the Department of Business Innovation and Skills) has been asked by the Cabinet Secretary for Economy and Infrastructure (Ken Skates AM), Cabinet Secretary for Education (Kirsty Williams AM) and Minister for Science and Skills (Julie James AM) to undertake a review of strengths, gaps and future potential to sustain and grow strong research and innovation activity in Wales. This review builds on work undertaken in recent reviews of student finance and funding by Professor Sir Ian Diamond and the review of the oversight of post-compulsory education by Professor Ellen Hazelkorn. The last of these reviews recommended a review of research and innovation strategy and policy.

Professor Graeme Reid's review will identify research and innovation strengths in Wales and outline how these assets can be used more effectively by business, communities and Government. The Welsh Government's aim is to position Wales as a small smart nation which can achieve the scale and quality of research and innovation which compare favourably with OECD member states within 10 years.

Professor Reid's review will:-

1. Collate the results of recent analyses of research and innovation activity in Wales. This collation will be used to generate a map of research excellence and innovation strengths in Wales. Recent analyses include the results of the Research Excellence Framework in 2014, the analysis of innovation and business support arrangements in Wales completed by the REAP panel in 2016, the Science and Innovation Audits of South West England and South East Wales submitted by the GW4 network of universities in 2016, the Science and Innovation Audit for the rest of Wales led by Swansea University in 2017, the Innovation Advisory Council's recent review of innovation activity and the analysis of research impact in Wales completed by staff from Kings College London in 2017, as well as the report on research in Wales by Halligan and Bright and the Elsevier Report on Science in Wales (Halligan and Bright, 2015; Elsevier, 2016).
2. Seek to identify patterns and themes in the development of business and public services in Wales which draw on research and innovation strengths in Wales and further afield. This analysis to be undertaken with staff in the Welsh Government's economy and infrastructure department drawing on expertise and support from the office of the Chief Scientific Advisor for Wales, Innovation Division and representatives of the academic, business and public services communities at national and regional levels. This national and regional analysis will draw on work undertaken as part of the Cardiff City Deal, Swansea City Deal and North Wales local growth deal bid processes, as well as reports from the Regional Employment and Skills Partnerships, Innovation Advisory Council for Wales, Science Advisory Council for Wales and other groups. These analyses will consider how firms, public services and research groups in universities connect locally and globally to support the needs of Welsh communities, business and the economy. It will also consider how the connections and interactions between these groups can be improved to enable Wales to become a more entrepreneurial state (Mazzucato, 2013).
3. To consider how future Government-led investment and support for research and innovation in Wales can be aligned with the requirements of the Well-Being of the Future Generations Act (2015). The seven well-being goals are as follows:
 - a prosperous Wales;
 - a resilient Wales;
 - a healthier Wales;
 - a more equal Wales;
 - a Wales of cohesive communities;
 - a Wales of vibrant culture and thriving Welsh language; and
 - a globally responsible Wales.

To also consider the implications of Brexit for Government funded research and innovation in Wales.

4. Work with people from the business, higher education, public service and research communities in Wales, the U.K. and further afield to consider how current activities and future plans can be aligned with the five principles of the Well-Being of Future Generations Act. The five principles are as follows: -
 - look to the long term;
 - focus on prevention;
 - deliver an integrated approach to achieving the 7 well-being goals;
 - work in collaboration with others to find shared sustainable solutions; and
 - involve diverse populations in decisions that affect them.
5. Make recommendations for the development of a research and innovation strategy for Wales and guiding principles to inform future investment and funding decisions by the Welsh Government. These recommendations to be informed by analyses of what works in other parts of the UK and further afield as revealed by systematic studies and evaluations of

science and innovation policy of the sort completed by the Manchester Institute of Innovation Research (MIOIR), National Centre for Universities and Business (NCUB), National Endowment for Science Technology and the Arts (NESTA), Organisation for Economic Cooperation and Development (OECD), Science Policy Research Unit (SPRU) and the ESRC What Works Centre for Local Economic Growth (e.g. Elder et al, 2013 and Martin, 2015) and by Professor Reid himself (Reid 2014). To also consider these proposals in the light of related recommendations for innovation, knowledge exchange and research contained in the Diamond Review Report 2016.

Professor Reid will be supported in his work by staff from the Welsh Government and by a small panel of advisors with experience in the following fields: -

- research and innovation in business;
- research and innovation in health and social care;
- research and innovation policy and funding in an international context; and
- research and innovation in universities
- research and innovation in Wales

Professor Reid's advisory panel will receive written and oral evidence over the spring and summer months to help inform the development of the report and recommendations. The panel will balance science and innovation expertise.

References

- Elder, J.; Cunningham, P.; Gok, A. and Shapira, P. (2013). Impacts of Innovation Policy: Synthesis and Conclusions, Manchester Institute of Innovation Research, University of Manchester. Available at: http://www.innovation-policy.org.uk/share/20_Impacts%20of%20Innovation%20Policy%20Synthesis%20and%20Conclusion_linked.pdf. Last accessed 17th January 2017.
- Elsevier (2016). *International Comparative Performance of the Welsh Research Base 2010-2014, 2016 update*. Available at: https://www.elsevier.com/__data/assets/pdf_file/0010/221410/HEFCW-Report-final-adjustment-02112016.pdf. Last accessed 5th February 2017.
- Halligan, P. and Bright, L. (2015). *The Case for Growing STEMM Research Capacity in Wales*, Stimulus Paper, Leadership Foundation for Higher Education.
- Martin, B. (2015). 'Twenty Challenges for Innovation Studies,' Science Policy Research Unit, University of Sussex and Judge Business School, University of Cambridge. Available at: <https://m.sussex.ac.uk/webteam/gateway/file.php?name=2015-30-martin.pdf&site=25> Last accessed 19th January 2017.
- Mazzucato, M. (2013). *The Entrepreneurial State: De-bunking Public vs Private Sector Myths*, Anthem, London.
- Reid G (2014) Why should the taxpayer fund science and research?, National Centre for Universities and Business <http://www.ncub.co.uk/reports/why-science.html>